HellermannTyton

		Page

Cable Scout⁺

Cable Scout⁺ has been specifically designed to be a time saving device to assist with many types of cable installation applications. Cable Scout⁺ can tackle some of the most difficult tasks users will encounter, routing, pulling and retrieving cables in the fastest and most economical way possible.

Deluxe Set CS-SD:

The most comprehensive set for carrying out larger installations.

Contents:	2 x 4mm x 1000mm (white)
	6 x 5mm x 1000mm (red)
	2 x 6mm x 1000mm (blue)
Rod Capacity (m):	10
Contents:	150mm white flexi lead, split ring, gender changer, tuff hook, mini eye, domed bullet, flat bullet, beam, single magnet.

Includes a light-weight carry bag with shoulder strap.

Deluxe Set	
Product	**Reference**
Deluxe Set	CS-SD

Standard Set CS-SB:

Designed to perform standard cable installation:

Contents:	10 x 4mm x 1000mm (white)
Rod Capacity (m):	10
Contents:	150mm white flexi lead, gender changer, tuff hook, mini eye.

Includes a light-weight easy access carry bag.

Standard Set	
Product	**Reference**
Standard Set	CS-SB

Handy Set CS-SH:

Suitable for tool box storage:

Contents:	1 x 4mm x 400mm (white)
	2 x 5mm x 400mm (red)
	1 x 6mm x 400mm (blue)
Rod Capacity (m):	1.6
Contents:	400mm white flexi lead, domed bullet, mini hook, mini eye

Includes a light-weight easy access carry bag.

Handy Set	
Product	**Reference**
Handy Set	CS-SH

Rod Pairs CS-P4, CS-P5, CS-P6, CS-PN:

Type:	CS-P4, CS-P5, CS-P6, CS-PN
Contents:	4mm x 1000mm White Rods x 2
	5mm x 1000mm Red Rods x 2
	6mm x 1000mm Blue Rods x 2
	5mm x 1000mm Nylon Rods x 2
Flexibility:	Flexible, medium, strong, fully flexible

Rod Pairs	
Product	**Reference**
Rod Pairs	CS-P4, CS-P5, CS-P6, CS-PN

HellermannTyton   www.hellermanntyton.co.uk

Attachments:

Whisk

Enables cables to glide over rough and uneven surfaces, and is particularly useful routing cable over ceiling insulation and joists.

Whisk	
Product	**Reference**
Whisk	CS-AW

Beam

Useful for inspection purposes in dark surroundings, fits onto any of the rod sets. Includes AAA battery.

Beam	
Product	**Reference**
Beam	CS-AB

Cable Grips

Provides a quick and secure method of attaching cables to your rod sets. Grips reference CS-AXG0415 contains 3 cable grips suitable for a range of cable diameters from 4mm to 15mm. CS-ACG1630 contains 2 cable grips suitable for a range of cable diameters from 16mm to 30mm.

Cable Grips	
Product	**Reference**
Cable Grips	CS-ACG0415, CS-ACG1630

Strong Magnet

A helpful tool to lift metal objects up to 2.5kg in weight and can be used in conjunction with the chain to aid location.

Strong Magnet	
Product	**Reference**
Strong Magnet	CS-AMG2

Attachment Kit

Includes a 150mm long flexi lead, gender changer, mini hook, tuff hook, mini eye, split ring, round bullet, flat bullet, single magnet and chain.

Attachment Kit	
Product	**Reference**
Attachment Kit	CS-SA

Technical Information

Technical Table		
Colour	Flexibility	OD (mm)
Blue (BU)	Strong	6
Red (RD)	Medium	5
White (WH)	Flexible	4
Semi-transparent white	Fully Flexible	5

Performance Criteria:

The Rods are available in a number of different colours. Each colour signifies the external diameter of the Rod. Difference diameters of Rod have a different flexibility and consequently differing bending radius.

The maximum recommended bending radius for each of the Rods is shown in the diagram on the left.

Rods made of glass reinforced plastic (GRP) are able to pull a cable weight of up to 200kg.

r = 450 mm
r = 250 mm
r = 220 mm
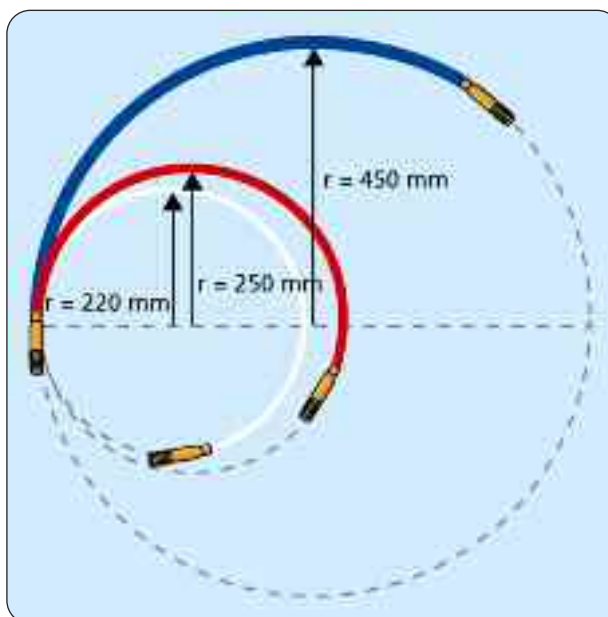
Many merchandising solutions are available!

Rack-A-Tiers ®

The Dependable Multi-Purpose Premium Wire Dispensing Tool

With RACK-A-TIERS you'll experience unmatched versatility!
- Ease of transport and storage
- Lightweight
- Durable one piece construction
- Waterproof, easy-clean
- Won't rust or rot
- Won't mark surfaces
- Made of recycled material
- Made in Canada

The ONE TOOL that does it all!
- Wire dispenser
- Pipe vise
- Saw horse
- Work bench
- Wall shelf
- Table

Cable Pulling Stands
- Unmatched ease & speed of set up
- Excellent versatility of use
- Accommodates wide range in cable sizes
- Loads of up to 150Kg (330lbs)
- Has 5* 1¾" (44.5mm) holes, 3* carry handles, & 2* V notches to hold larger cable bars
- Easy to store & transport
- Contractor to supply the conduit/bars for the mounting on the Rack-A Tier

Rack-A-Tiers		
Description	Order Code	Quantity
Rack-A-Tier	RT1	1

Starrett

HellermannTyton, aware of the needs of the professional user, presents a range of Starrett hole saws. Starrett bi-metal hole saws are constructed of hardened, heat and abrasion resisting high-speed steel teeth with a tough alloy body and cap in high visibility yellow. This gives them exceptional strength, durability and shatter resistance for user safety. They will cut any wood, metal or plastic in either a handheld drill or drill press. These can be used in a wide variety of applications from production and maintenance to the electrical and building trades.

Starrett Hole Saws			
Boxed Reference	Saw Dia	Arbor	Quantity
SH0096 *FCH0096-E	14MM	A1, A4	1
SH0058 *FCH0058-E	16MM	A1, A4	1
SH1016 *FCH1016-E	17MM	A1, A4	1
SH0034 *FCH0034-E	19MM	A1, A4	1
SH2532 *FCH2532-E	20MM	A1, A4	1
SH1036 *FCH1036-E	21MM	A1, A4	1
SH0078 *FCH0078-E	22MM	A1, A4	1
SH1056 *FCH1056-E	24MM	A1, A4	1
SH0100 *FCH0100-E	25MM	A1, A4	1
SH0116 *FCH0116-E	27MM	A1, A4	1
SH0118 *FCH0118-E	29MM	A1, A4	1
SH0136 *FCH0136-E	30MM	A1, A4	1
SH0114 *FCH0114-E	32MM	A2, A10	1
SH0156 *FCH0156-E	33MM	A2, A10	1
SH0138 *FCH0138-E	35MM	A2, A10	1
SH0176 *FCH0176-E	37MM	A2, A10	1
SH0112 *FCH0112-E	38MM	A2, A10	1
SH0196 *FCH0196-E	40MM	A2, A10	1
SH0158 *FCH0158-E	41MM	A2, A10	1
SH1116 *FCH1116-E	43MM	A2, A10	1
SH0134 *FCH0134-E	44MM	A2, A10	1
SH1136 *FCH1136-E	46MM	A2, A10	1
SH0178 *FCH0178-E	48MM	A2, A10	1
SH0200 *FCH0200-E	51MM	A2, A10	1
SH0216 *FCH0216-E	52MM	A2, A10	1
SH0218 *FCH0218-E	54MM	A2, A10	1
SH56MM *FCH56MM-E	56MM	A2, A10	1
SH0214 *FCH0214-E	57MM	A2, A10	1
SH0256 *FCH0256-E	59MM	A2, A10	1
SH0238 *FCH0238-E	60MM	A2, A10	1
SH0212 *FCH0212-E	64MM	A2, A10	1
SH0296 *FCH0296-E	65MM	A2, A10	1
SH0258 *FCH0258-E	67MM	A2, A10	1
SH68MM *FCH68MM-E	68MM	A2, A10	1
SH0234 *FCH0234-E	70MM	A2, A10	1
SH0278 *FCH0278-E	73MM	A2, A10	1
SH0300 *FCH0300-E	76MM	A2, A10	1
SH0318 *FCH0318-E	79MM	A2, A10	1
SH0314 *FCH0314-E	83MM	A2, A10	1
SH0338 *FCH0338-E	86MM	A2, A10	1
SH0312 *FCH0312-E	89MM	A2, A10	1
SH0358 *FCH0358-E	92MM	A2, A10	1
SH0334 *FCH0334-E	95MM	A2, A10	1
SH0378 *FCH0378-E	98MM	A2, A10	1
SH0400 *FCH0400-E	102MM	A2, A10	1
SH0418 *FCH0418-E	105MM	A2, A10	1
SH0414 *FCH0414-E	108MM	A2, A10	1
SH0438 *FCH0438-E	111MM	A2, A10	1
SH0412 *FCH0412-E	114MM	A2, A10	1
SH0434 *FCH0434-E	121MM	A2, A10	1
SH0500 *FCH0500-E	127MM	A2, A10	1
SH0514 *FCH0514-E	133MM	A2, A10	1

* code to be used from June 2014

Advantages:

* Exceptional strength and durability
* Smooth cut on thinner gauge materials.
* Less tendency to bite or snag on thinner gauge materials.
* Cutting depth 41mm (1 5/8").
* Shatter Resistant

The Hidden Edge Knife

The hidden edge keeps the blade safely tucked away when not in use, yet instantly available by simple releasing the safety lock and squeezing the lever.

* Supplied with 3 blades
* Quick release blade change
* Adjustable cutting depth
* Storage for up to 10 blades.

The Hidden Edge Knife		
Reference	Description	Quantity
SO11	The hidden edge Knife	1

Merchandising Packages

HellermannTyton can offer a range of merchandising options with eye catching displays which significantly increase sales and profits of the Starrett range of products.

• Merchandiser supplied free of charge with stock package
• Attention grabbing signage
• Increase sales of products
• Increase awareness of products stocked
• Take advantage of impulse buying

Call our customer service department for further details on 01922 458151.

Trade Counter
Option

Floor Standing Options
2 versions 665mm wide and 1000mm wide

Reference	Description	Quantity
LSO1-CTU	Table Top Merchandiser	1
FSD004	Floor Standing Merchandiser 665mm wide	1
FSD003	Floor Standing Merchandiser 1000mm wide	1

Starrett®

NEW

DEBRIS COLLECTOR – HTDB2

No clean up, no drill damage, no debris spread!

Pass the shank of the arbor through the hole at the bottom of the HTDB2 and attach to the drill in the normal way. Always ensure that the Debris Collector spins freely prior to use.

Pass the shank of the arbor through the hole at the bottom of the HTDB2 and attach to the drill in the normal way. Always ensure that the Debris Collector spins freely prior to use.

Drill the hole!

All the dirt and debris from the cut hole is collected inside the Debris Collector!

Debris Collector		
Reference	Description	Quantity
HTDB2	Debris Collector	1

**Works with Starrett
Bi Metal
and Multi Purpose
Hole Saws**

NO CLEAN UP!

No need for time consuming masking of areas prior to drilling or clean up after drilling!

NO DRILL DAMAGE!

No dust or other debris in the drill motor!

NO DEBRIS SPREAD!

No spread of dust in the air

Bi Metal Cordless Smooth Cutting Hole Saw

- Thin wall hole saw for cordless drills
- Each saw supplied complete with arbor, Pilot drill and ejector
- 8 TPI smooth cutting hole saw
- Integral safety stop collar makes this hole saw ideal for use in cutting through electrical panels
- Suitable for cutting thin sheet metal such as Stainless Steel, Mild Steel, Copper, Zinc Plated Steel and Plasterboard
- Cutting depth 13mm
- Range 16mm to 38mm

Bi Metal Hole Saw		
Ref	Saw Dia	Quantity
CSC16	16mm	1
CSC20	20mm	1
CSC22	22mm	1
CSC25	25mm	1
CSC27	27mm	1
CSC29	29mm	1
CSC32	32mm	1
CSC35	35mm	1
CSC38	38mm	1

Arbors

Four standard models are available, each one furnished with a 6.35mm (1/4") high speed steel pilot drills. The set-screw in the body allows for easy replacement of the pilot drill.

A4 type arbors are suitable for use with the AQC14 Quick Change Connector, A1 and A10 type arbors are suitable for use with the AQC38 Quick Change Connector.

Arbors		
Boxed Reference	Description	Quantity
A1	9.5mm Chuck	1
A10	9.5mm Quik-Hitch	1
A2	13.0mm Quik-Hitch	1
A4	6.35mm Round Shank	1
A5	Extension For A2, A17-12 & XA2	
A15	Extension For A1, A10, A17-38, XA1, XA10 & XA17-38	1
A014C	Pilot Drill All Types Except A4	1
A7	Ejector Spring	1
A1-1	For Holesaws 14-30mm - Use with SDS Chuck & Shank	1
A2-1	For Holesaws 32-152mm - Use with SDS Chuck & Shank	1

'Oops' Arbor

The A19 'Oops' arbor is for use in conjunction with either the A1, A2 or A10 hole saw arbors. Replacing the pilot drill, the A19 allows diameters to be enlarged by attaching a saw of the same size to that of the existing hole, therby acting as a pilot for the larger diameter saw. Minimum hole enlargement is 4.7mm (3/16") between the pilot and the cutting saw diameter.

'Oops Arbor		
Boxed	Description	Quantity
OOPS Arbor (A19)	Fits A1, A2 or A10 type Arbors	1

Hole Saw Kits

A range of Starrett hole saws in a durable, hard wearing carry case.

Starret Hole Saw Kits			
Reference	Description	Contents	Quantity
KS2000G	General Purpose Kit	22, 29, 35, 44, 51 & 64mm A1 & A10, A7 Ejector Spring	1
KS2000E	Electricians Kit	16, 20 ,25, 29, 44, & 51mm A1 & A10, A7 Ejector Spring	1
KS2000DE	Deluxe Electricians Kit	16, 20 ,22, 25, 29, 35, 44, 51 64, 68 & 76mm, A1 & A2, A7 Ejector Spring	1
KS2000PE	Plumber & Electricians Kit	16, 20, 22, 29, 35, 38, 40, 44, 51,57, 65, 68mm, A1 & A2, A7 Ejector Spring	1
KCSC2000G	General Purpose Kit	16, 20, 25, 29, 30, 32, 38 & AQCDH Quick Change Connector	1

ULTI-MATE
Rapid Release Arbor System

The **ULTI-MATE** from Starrett offers super fast tool free changes between different diameters of hole saw without adjustment of the drill chuck. Removal of cores from a hole saw after a cut is also much improved by the rapid release of the hole saw from the arbor.

Using the ULTI-MATE!

ATTACHING A HOLE SAW

Screw the adapter onto the hole saw and push down **(1)**. Then turn the hole saw and the collar will click on **(2)**.

LOCKING A HOLE SAW

To lock it turn the collar on the arbor so that the arrow on the base of the arbour and the arrow on the collar are not aligned **(1).**

RELEASING A HOLE SAW

To release it align the arrow on the collar and the arrow on the base of the arbor **(1)** and pull the collar back **(2)**.

Ref No	Desc	Qty
A3	Ulti-Mate Hole Saw Arbor with Pilot Drill (Hole Saw Adapters not included)	1
A3-6	ULTI-MATE hole saw arbor with pilot drill and one of each of the standard holesaw adapters (A3-3 and A3-4)	1
A3-3	Pack of three Ulti-Mate Hole Saw Adapters suitable for Hole Saws 14-30mm / 9/16 - 1.3/16"	1
A3-4	Pack of three Ulti-Mate Hole Saw Adapters suitable for Hole Saws 32-102mm / 1.1/4 - 4"	1
A3-5	Ulti-Mate Hole Saw Adapter, suitable for heavy duty cutting on large diameter saws (102mm/4" and greater)	1
A014M	Replacement Drill for Ulti-Mate Arbor	1
A3-7	Ulti-Mate Hole Saw Arbor with Pilot Drill, 20mm / 25/32" and 25mm / 1" Constant Pitch Hole Saws and Adapters	1
A3-8	Ulti-Mate Hole Saw Arbor with Pilot Drill, 20mm / 25/32" and 25mm / 1" Dual Pitch Hole Saws and Adapters	1

ULTI-MATE
Rapid Release Arbor System

Starrett®

NEW

Now in a kit!

The ULTI-MATE from Starrett offers super
fast tool free changes between different diameters
of hole saw without adjustment of the drill chuck.
Removal of cores from a hole saw after a cut is
also much improved by the rapid release of the hole
saw from the arbour.

Contents of kit		
SH0058	*FCH0058E -	16mm fitted with Ulti-mate Adapter
SH2532	*FCH2532E -	16mm fitted with Ulti-mate Adapter
SH0100	*FCH0100E -	16mm fitted with Ulti-mate Adapter
SH0114	*FCH0114E -	16mm fitted with Ulti-mate Adapter
SH0196	*FCH0196E -	16mm fitted with Ulti-mate Adapter
SH0200	*FCH0200E -	16mm fitted with Ulti-mate Adapter
A3 Ulti Mate arbor with pilot drill.		

* code to be used from June 2014

Using the ULTI-MATE!

ATTACHING A HOLE SAW

Screw the adapter onto the hole
saw and push down **(1)**. Then
turn the hole saw and the collar
will click on **(2)**.

LOCKING A HOLE SAW

To lock it turn the collar on the
arbor so that the arrow on the
base of the arbour and the arrow
on the collar are not aligned **(1)**.

RELEASING A HOLE SAW

To release it align
the arrow on the collar and the
arrow on the base of the arbor
(1) and pull the collar back **(2)**.

Reference	Description
KS2000E1 (A3)	Hole Saw Kit

Exclusive to
HellermannTyton

BI-METAL CORDLESS SMOOTH CUTTING HOLE SAW KIT KCSC2000E1

A handy kit comprising of three
bi-metal cordless smooth cutting hole saws.

Kit contents:

1 x CSC20 (20mm)

1 x CSC25 (25mm)

1 x CSC32 (32mm)

- Thin wall hole saw for cordless drills
- Saw comes complete with arbor, pilot drill and ejector
- 8 TPI smooth cutting hole saw
- Integral safety stop collar makes this hole saw ideal for use in cutting through electrical panels

  Suitable for cutting thin sheet metal such as stainless steel, mild steel, copper, zinc plated steel and plasterboard

  Cutting depth 13mm

Smooth Cutting Hole Saw Kit		
Reference	Description	Quantity
KCSC2000E1	Smooth Cutting Hole Saw Kit	1

Downlight Hole Saw Kit

Tungsten Carbide Tipped Fast Cut Multi Purpose Hole Saws are perfect for plasterboard, wood, ceramics and anything which is wood based. The new kit contains all the most popular hole saw sizes for cutting downlight apertures.

Kit Contents:

1x35mm	1x73mm
1x40mm	1x76mm
1x44mm	1x83mm
1x51mm	1x86mm
1x60mm	1x92mm
1x65mm	1xXA17-38 Arbor
1x70mm	

Down Light Hole Saw Kit		
Reference	Description	Qty
KMPH2000DL	Downlight Kit	1

Tungsten Carbide Tipped Fast Cut Multi Purpose Hole Saws

Starrett Tungsten Carbide Tipped Fast Cut Multi Purpose Hole Saws (MPH Hole Saws) are the perfect tool for users from construction and installation engineers to the DIY enthusiast. Offering very fast cutting times, and outstanding life, the MPH saws will power through wood, MDF, plastics and ceramic wall tiles.
For installers our range of kits provide the perfect solution to all your cutting needs.

- Carbide tipped teeth for outstanding cutting performance and product durability
- Smooth cut, with minimal heat build up
- Cutting depth 54mm (2.1/8”). This allows use for cutting through strapping and joists, removing the need for ship auger drill bits.
- Suitable for use in mains and battery powered tools.
- Multiple uses - cutting wood, mdf, plastics, ceramic wall tiles and building bricks
- A range of general purpose and specialist Locksmith's Kit are available, featuring the most popular sizes of saw and appropriate arbors.

Diameter		Cat No	Arbor Ref No
mm	Inch		
20	25/32	MPH2532	1/2
22	7/8	MPH0078	1/2
25	1	MPH0100	1/2
30	1.3/16	MPH0136	1/2
32	1.1/4	MPH0114	3/4/5
38	1.1/2	MPH0112	3/4/5
41	1.5/8	MPH0158	3/4/5
51	2	MPH0200	3/4/5
54	2.1/8	MPH0218	3/4/5
64	2.1/2	MPH0212	3/4/5

Recommended Arbors					
Arbor Ref	Cat No	Fits Hole Saws		Fits Chuck Size	Additional Information
		mm	Inch		
1	A1E or XA1	14-30	9/16-1.3/16	9.5mm/3/8”	Fits AQC 38 Quick Change Connector
2	A4E or XA4C	14-30	9/16-1.3/16	6.5mm/1/4”	Fits AQC 14 Quick Change Connector
3	A17-38Eor XA17-38	32-159	1.1/4-6.1/4	9.5mm/3/8”	Locking Arbor, fits AQC38 Quick Change Connector
4	A2E or XA2	32-159	1.1/4-6.1/4	13mm/1/2”	Quick Hitch Arbor

Hole Saw Kits			
Description	Cat No	Hole Saw Sizes	Arbors
General Purpose Kit 1	KM PH2000GP1	19mm, 22mm, 29mm, 35mm 44mm and 51mm	A1E & A17-38E

NOTE: (1) For hole saws greater than 30mm (1.3/16”) dia the Locking Arbor is the recommended arbor as it will provide the best results and maximise the life of the saw, although the A2E and A10E will also be suitable.(2) When cutting ceramics a carbide tipped pilot drill is recommended. Please order XA arbors.

Jig Saw Blades

Starrett offers industrial quality high speed steel edge bi-metal blades.

These blades have a high speed steel cutting edge welded to a tough, flexible back. This combination provides long life and makes them virtually unbreakable. These Jigsaw blades have the pitch printed on the shank end so that it will not easily wear off - no more guessing the pitch of a used blade.

Features & Benefits

• One shank fits all jig saw machines

• Only 17 blades to meet all cutting requirements

• 170% greater resistance to tooth breakage and fracture

• 25% more tool life

• Smoother, faster, straighter cuts

• Shatterproof design, unbreakable during normal use

• Lower cost per cut

• Merchandisable

For use on	Reference	Cutting Length	Width	No. Of Blades Per Pack
Wood	BU36T-5	75mm	7.5mm	5
Wood	BU36-5	75mm	7.5mm	5
Wood	BU46-5	100mm	9.5mm	5
Wood	BU56-5	125mm	9.5mm	5
Wood	BU38-5	75mm	7.5mm	5
Wood	BU310T-5	75mm	7.5mm	5
Wood	BU310DT-5	75mm	7.5mm	5
Multi purpose	BU41014-5	100mm	9.5mm	5
Multi purpose	BU214-5	50mm	7.5mm	5
Multi purpose	BU214S-5	50mm	4.5mm	5
Multi purpose	BU218-5	50mm	7.5mm	5
Multi purpose	BU418-5	100mm	9.5mm	5
Abrasive Materials	BU230X-5	50mm	7.5mm	5
Metal	BU224-5	50mm	7.5mm	5
Metal	BU224S-5	50mm	4.5mm	5
Metal	BU424-5	100mm	9.5mm	5
Metal	BU232-5	50mm	7.5mm	5

STARRETT JIGSAW BLADE WALLET

A 14 blade wallet of assortment Starrett jigsaw blades for cutting wood and wood based materials, plastics, acrylic and metal.

• Mixture of fine finish blades and some blades for high speed cutting
• Wallet includes dual cut, the Starrett patented blade for a top quality finish on both sides of wood and coated boards
• Starrett unified shank fits virtually all jigsaw blades.

Smooth Cutting Hole Saw Kit		
Reference	Description	Quantity
BU6	14 Blade Jigsaw Wallet	1

Hacksaw Frames

A range of heavy duty hacksaw frames and Junior Hacksaw frames.

Hacksaw Frames		
Reference	Description	Quantity
140G	Starrett Heavy Duty Tension Hacksaw Frame	1

- High tension frame
- Suitable for 300mm/12" blade
- Supplied with one bi-metal Safe-flex Frame

Hacksaw Frames		
Reference	Description	Quantity
145	Starrett Heavy Duty Hacksaw Frame	1

- Professional quality high tension hacksaw frame providing an easy to use adjustment handle, comfortable rugger handle and an ergonomic grip.
- 6 turns of the adjustment handle will tension the blade up to 2000kgs/cm sq.
- High tension keeps the blade from twisting and binding even in the most aggressive applications.
- Mounting pins keep the blade secure even when the tension is released.
- Supplied complete with one Bi-metal Unique Safe-flex blade.

Ref - 140

Ref - 145

Hacksaw Blades

A range of bi-metal hacksaw blades, 24 and 32 TPI (teeth per inch).

Hacksaw Blades		
Ref	Description	Quantity
BS1224	Starrett Blue Stripe – High Speed Steel 24PTI	100
BS1232	Starrett Blue Stripe – High Speed Steel 32TPI	100
GS1224	Starrett Grey Flex 24 TPI	100
GS1232	Starrett Grey Flex 32 TPI	100
KBS1218-10	Starrett 300 x 13 x .65mm hacksaw blades 18 TPI	10
KBS1224-10	Starrett 300 x 13 x .65mm hacksaw blades 24 TPI	10
KBS1232-10	Starrett 300 x 13 x .65mm hacksaw blades 32 TPI	10
DJH632	Disston Junior Hacksaw Blades	10

Hole Cutters

All cutting tools are ground using cubic Crystalline Boron Nitride (CBN). This gives a perfect cutting edge that lasts considerably longer and is more precise than other forms of grinding. All products are CBN ground from fully hardened material making further heat treatment which can distort the cutting edges and precision of the tool unnecessary.

Step Drills

The CBN ground and spiral flutes ensure quiet operation and high performance. The tapered, chamfered end of the cone makes it easier to withdraw the tool from the material.
Non slip point; needs no centre punch
- Enlarges existing holes
- Round shank
- Each step laser marked with hole size
- Can be used on non ferrous metal, special steel, thermoplastics and duoplastics

| Step Drills		
Reference	Size	Cut out
101050-5	0/5	4-12mm - 5 steps
101051	1	4-20mm - 9 steps
101052	2	4-30mm - 14 steps
101095	11	6-25mm - 9 steps

Tube and Sheet Drills

The CBN ground and spiral flutes ensure quiet operation and high performance. The tapered, chamfered end of the cone makes it easier to withdraw the tool from the material.
Non slip point; needs no centre punch
- Enlarges existing holes
- Round shank
- Can be used on non ferrous metal, special steel, thermoplastics and duoplastics

Tube Sheet Drills		
Reference	Size	Cut out
101001	1	3-14mm
101002	2	5-20mm
101022	9	5-22.5mm
101003	3	16-30.5mm
101004	4	24-40mm
101005	5	36-50mm
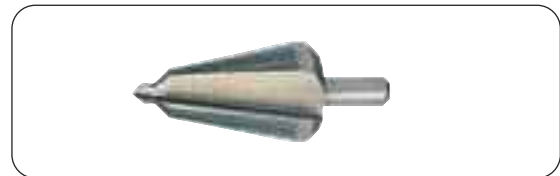
Switch and Socket Box Rethreaders

HSS taps fitted with moulded handle. Designed for cleaning the threads in fixings holes of sockets or switch boxes with malformed threads or are blocked with plaster or cement.

Switch & Socket Rethreaders		
Reference	Size	Cut out
230350	3.5mm	Rethreader (No.1 selling size used)
230040	4.0mm	Rethreader

Guide and Dies

Guide & Dies	
Reference	Description
180/0020	20mm Die
180/0030	25mm Die
180/0050	20mm Guide
180/0060	25mm Guide
180/120	20 & 25mm Guide and Die Set
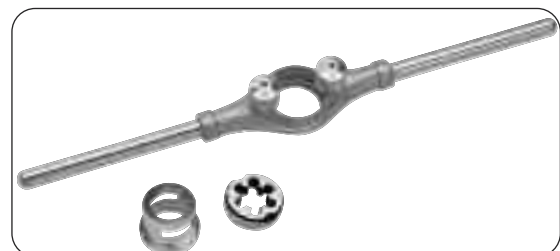
Eye Protection

Plano Eyewear

HellermannTyton, aware of the needs of the professional user, presents a new range of Plano security eyewear that offers comfort and a modern design in the most complete respect of European EN166 Standards specification.

G13

• Extremely sporting and lightweight frameless glasses
• Wraparound lenses offer total protection and unrestricted side view
• Polycarbonate, antiscratch and ultraviolet protection
• Cannot be used for welding

Recommended for

• Every mechanics processing: grinding, drilling and cutting
• Building

G13			
Reference	Frame Colour	Lens Colour	Pack Qty
PLG13	Silver	Transparent	1

G14

• Extremely sporting and lightweight frameless glasses
• Wraparound lenses offer total protection and unrestricted side view
• Polycarbonate, sun and ultraviolet protection
• Cannot be used for welding

Recommended for

• Every mechanics processing: grinding, drilling and cutting
• Building
• Outdoor applications where sunlight and glare
  cause eyestrain and fatigue

G14			
Reference	Frame Colour	Lens Colour	Pack Qty
PLG14	Blue	Blue mirror	1

G15

• Extremely sporting and lightweight frameless glasses
• Wraparound lenses offer total protection and unrestricted side view
• Polycarbonate, antiscratch, ultraviolet protection and high visibility
• Cannot be used for welding

Recommended for

• Every mechanics processing: grinding, drilling and cutting
• Building
• Low visibility situations

G15			
Reference	Frame Colour	Lens Colour	Pack Qty
PLG15	Gold	Yellow	1

G33

- Anti-scratch and give UV protection.
- Wraparound polycarbonate lenses
- Lightweight frames
- Anti-fog/mist
- Removable ventilation strip designed to prevent misting on the inside and also absorbs perspiration.
- Rubber nose grip provides extra comfort & reduces slipping when the head is lowered.
- Come with an easily attachable lanyard

G33			
Reference	Frame Colour	Lens Colour	Pack Qty
PLG33	Blue	Clear	1

G34

- Sun protective (protect from both UVA & UVB rays) & mirrored finish
- Wraparound polycarbonate lenses
- Lightweight frames
- Anti-fog/mist
- Removable ventilation strip designed to prevent misting on the inside and also absorbs perspiration.
- Rubber nose grip provides extra comfort & reduces slipping when the head is lowered.
- Come with an easily attachable lanyard

G34			
Reference	Frame Colour	Lens Colour	Pack Qty
PLG34	Grey	Silver	1

PL528

- Glasses case to protect all safety glasses featured

Glasses Case	
Reference	Description
PL528TX-3	Glasses Case

Head Torch

- Energy saving, high power long life time ultra bright 1W LED bulb
- ABS/Aluminium alloy body making it light weight 77gm inc. batteries
- 3 function settings
- Uses 3 AAA batteries (included)
- Fully adjustable head strap
- Pivoting lamp
- Bulb life 50,000 hours
- Blister packed

Head Torch		
Reference	Description	Pack Qty
HT105	1W LED Head Torch	1

Knee Protection

Nailers Protective Knee Pads

- New generation of effective knee pad joint protectors
- Comfortable, retain shape better, last longer and absorb shock effectively
- Quick fix and release adjustable straps - for all day comfort
- Fully certified - EN1621/1 - abrasion and impact tested

Protective Knee Pads		
Reference	Size	Qty
60200-G1	Gel swivel knee protector	1

NWS High Quality VDE Tested Electricians Safety Pliers/Side Cutters

NWS safety pliers are designed to protect personnel working on or around live equipment up to 1000AC and 1500DC. Made in Germany NWS tools are manufactured from top quality raw materials and rigorously tested to ensure compliance with the latest international standards.

NWS "Soft-Gripp" handle *patented*

Anti-reflective finish

Optimised slip guards according to EN 60900

Coloured grip marking for indicating the minimum safety distance

NWS 2-component-technology with soft inlay

5 YEAR GUARANTEE

Impact protection by safety cushion *patented*

Signal-colour: red-yellow

Features & Benefits

- Superior design quality pliers
- Patented bi-component red/yellow handles
- Ergonomic design improves handling
- Soft grip inlay indicates safety distance from working head
- Impact resistant safety cushion - protects handles when dropped
- Optimised grip guards in accordance with EN60900

- Optimised grip guards in accordance with EN60900
- Hot drop-forged from special alloy tool steel to NWS specification
- Matt chrome finish for maximum corrosion protection
- Precision cutting edges induction hardened, better cutting, longer life
- Joint and rivet machined and hardened for smooth operation and long life

VDE Safety Tools
6-in-1 VDE Cutter

- Shear M3.5 pattress screws
- Precision cutting edges
- Strip 1.5mm cable
- Strip 2.5mm cable
- Bend wire
- Crimp terminals and end sleeves
- Individually tested to 10,000V
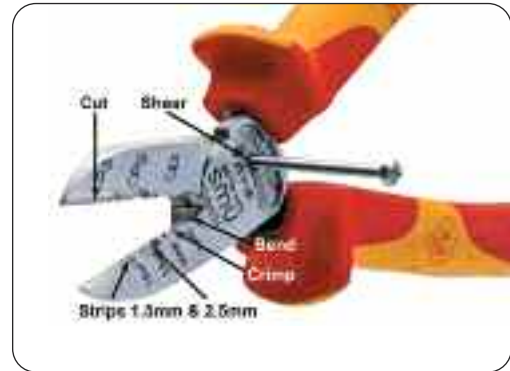
6-in-1 VDE Cutter		
Reference	Description	Qty
N1351-49-VDE-190C	6-in-1 VDE Cutter	1

5-in-1 CombiMax Pliers

- Shear M3.5 pattress screws
- Precision cutting edges
- Grip nuts and bolts
- Grip flats and pipes
- Grip nails and pins
- Individually tested to 10,000V

5-in-1 CombiMax Pliers		
Reference	Description	Qty
N1093-49-VDE-180C	5-in-1 VDE CombiMax Pliers	1

2-in-1 VDE Side Cutters

- Shear M3.5 pattress screws
- Induction hardened precision cutting edges
- Improved leverage for better power transmission
- Individually tested to 10,000V

2-in-1 VDE Side Cutters		
Reference	Description	Qty
N1343-49-VDE-160C	2-in-1 VDE Cutter	1

1000V EN/IEC 60900

5 YEAR GUARANTEE
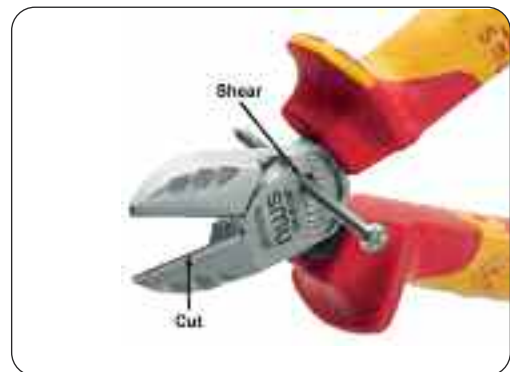
VDE Pliers and Cutters

Combination Pliers

Reference	Size	Qty
N111-49-VDE-180C	180mm	1
N111-49-VDE-205C	205mm	1

Side Cutters

Reference	Size	Qty
N134-49-VDE-160C	160mm	1
N134-49-VDE-180C	180mm	1

Heavy Duty Side Cutter

Reference	Size	Qty
N137-49-VDE-200C	200mm	1

Long Nose Pliers

Reference	Size	Qty
N140-49-VDE-170C	170mm	1
N140-49-VDE-205C	205mm	1

Wire Stripper

Reference	Size	Qty
N145-49-VDE-160C	160mm	1

Cable Cutters

Reference	Size	Qty
N043-49-VDE-160C	160mm	1
N043-49-VDE-210C	210mm	1

Waterpump Plier

Reference	Size	Qty
N165-49-VDE-240C	240mm	1

EN 60900

5 YEAR
GUARANTEE

VDE ErgoCombi & ErgoMulti Pliers Bi-Component Soft-grip handle

Reference	Size	Qty
N509609	7.3/4"/200mm VDE Ergo Combi pliers cuts 2.5mm hard wire – 13mm cable	1
N540626	7.3/4"/200mm VDE Ergo Multi pliers strips 1.5mm cable – 2.5mm cable	1

5 YEAR
GUARANTEE

5 YEAR
GUARANTEE

Nylon Fish Tape

Fish Tape		
Reference	Description	Quantity
DTN10	NYLON 10M	1
DTN20	NYLON 20M	1
DTN30	NYLON 30M	1
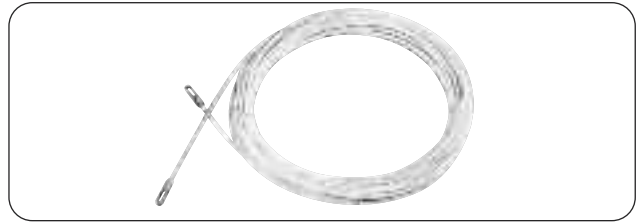
Pro Grabit – Damaged Screw & Bolt Remover

- Removes free spinning screws
- Winslow tip for self centring.
- Double ended 2 piece set.
- removes screw from wood, metal or plastic.
- Screw sizes no6-14.
- Bolt sizes M4-8

Prograbit		
Reference	Description	Qty
PROGRAB	Pro Grabit	1

Yellow Handled Cable Cutters

HTWC200
Cutter for Hardened Steel Stranded Cable

- Cuts hardened steel cable such as catenary wire up to 6mm diameter
- Provides very clean cut without splaying cable strands

Part ref	Description
HTWC200	Cable Cutter

HTCA26F
Cable Cutter Suitable for Twin & Earth Cable

- Provides very clean cut of Twin and Earth Cable as well as single cables

Part ref	Description
HTCA26F	Cable Cutter

HTCA450-AL
Cable Cutter

- Suitable for cutting Steel Wire Armour Cable up to 17mm diameter or cable of cross sectional area 227mm^2
- Will also cut copper and Aluminium cable.

Part ref	Description
HTCA450-AL	Cable Cutter

TTC8 & TTC10

- TTC8 - Cable cutting up to 35mm^2
- TTC10 – Cable cutting up to 50mm^2

Part ref	Description
TTC8	Cable Cutters cuts up to 35mm^2
TTC10	Cable Cutters cuts up to 50mm^2

HT63915

- Cutting tool for removal of cable ties without damaging the cable.
- Jaw width 20mm, length 150mm

Part ref	Description
HT63915	Cable Tie Cutter

HellermannTyton   www.hellermanntyton.co.uk

Drill Bit Sets

- Selection of drill bit sets to meet the electricians requirements
- Drill bits to European standards
- Packed in re-usable cases

Drill Bit Sets		
Reference	Description	Qty
205200	170 piece rolled twist drill set. Metal carry case 10 pieces of each 1-8mm, 5 pieces of each 8.5-19mm in increments of 0.5mm	1
D16165	16mm 4 flute drill	1
D120165	20mm 4 flute drill	1
D22165	22mm 4 flute drill	1
D25165	25mm 4 flute drill	1
D32165	32mm 4 flute drill	1
D00165	5 piece set (all above sizes)	1
RU205202	Ruko 13 pce twist drill set	1
A205210	Ruko 19 pce twist drill set	1

Quick Change Adaptor

- Fits ¼" and 3/8" power tool accessories without power groove
- Time saving – no need to change adaptors
- Quick change – push in shank and pull back collar to release
- Safety lock – secures shank in place
- Ideal for arbors, drill bits, hex screwdriver bits, flat bits and auger bits

Quick Change Adapter		
Reference	Description	Qty
D6567	Quick change Universal Adaptor 10mm (3/8") hexagonal shank	1

Plano Technic Line

- Latest ideas from Plano USA
- New concept in soft storage and work wear
- Smart colour co-ordinated red & grey
- Practical way to store tools
- Easily wiped clean
- Light weight but very durable
- Tools not included

Plano Toolbelts - Matt Black Collection

- Highly water resistant - water repellent, functional toolbelts
- Light weight and padded
- Quick release buckle
- Extremely durable - easily wiped clean
- Waist size 90-120cm
- Tools not included

Plano Toolbelts	
Reference	Size
PL52170	23 pocket belt - 2 x pouches, tape holder (up to 8m), hammer loop
PL52180	15 pocket belt - 1 x pouch, tape holder, cordless drill holster

* Tools not included

Plano Electricians Tool Case

- Pro-bag workstation
- Fit for electronic tools
- Opening on both sides
- Big outer pocket for documents

Plano Electricians Tool Case	
Reference	Description
PL552TX	Electricians Tool Case

* Tools not included

Plano Padded Tool Briefcase

- Large front pocket designed to hold laptop/files/documents, this also features 9 internal pockets and is fastened with 2 clips.
- The rear pocket is padded and ideal for holding tools, features and various sized elasticated tool holders.
- Complete with carry handle and shoulder strap.

Plano Padded Tool Briefcase	
Reference	Description
PL559T	Plano padded tool briefcase

* Tools not included

Plano Back Pocket Pouch

- Fits into back pocket
- Keeps contents safe 'n' secure – at all times
- 1 large tool pocket
- 2 small tool pockets
- Clip for tape rolls, gloves and keys
- Made from hard wearing re-inforced 600 x 600 polyester

Plano Back Pocket Pouch		
Reference	Description	Quantity
PL527RS/MB	Back Pocket Pouch	1

*Tools not included

Double Pocket Tool Holster

- 2 pockets for small tools
- 2 elastic holders for pens, terminal screwdrivers etc
- Universal metal clip to fit onto belts and trousers
- Loop for securing to belts
- Compact design provides useful storage
- Made from hard wearing re-inforced 600 x 600 polyester

Plano Double Pocket Tool Holster		
Reference	Description	Quantity
PL524RS/MB	Double Pocket Tool Holster	1

*Tools not included

NEW Formula Fospro PX
- Industrial Strength Protective Lubricant

Fospro is the complete maintenance treatment for protection against corrosion, water displacement, lubrication and light surface rust removal. One simple application – by spray, swab or dip – stops the spread of existing corrosion, gives lasting protection against further attack and removes and repels ambient moisture. Fitted with a 360º Spray System for all angle use, even upside down.

Application

Fospro PX is specifically used for preservation and corrosive inhibition after operation of certain gas turbine engines and as a de-watering and protective fluid.

Forpro PX is ideal for use on all mechanical and electrical equipment being suitable for use on low voltage equipment up to 250V.

As a penetrant, it will quickly free seized nuts, bolts and bearings, whilst the highly effective water displacing properties make the perfect 'damp-start' solution for ignition systems and other electrical equipment.

The protective, lubricating film is non-conductive and remains operational even at severe sub-zero temperatures. It will not affect paints or plastics and is lastingly effective on all metals, including aluminium. Freshly machined surfaces resist 'finger-marking' and will stay clean and bright, even in highly corrosive conditions.

Reference	Description	QTY
Fospro PX	Fospro - Industrial Strength Protective Lubricant	12 x 400ml

Electrical Maintenance		
Product Name / Reference	Carton Qty	Features
Contact Cleaner FG 1/400	1 x 400ml	CONTACT CLEANER FG is a highly effective precision cleaning solvent blend which does not contain chlorinated solvents, alcohols or Glycol ethers. Contact Cleaner FG improves the performance and reliability of electrical/electronic equipment in the food industry by preventing contact failures or malfunctions by dissolving and rinsing away contaminants which may hold moisture and cause corrosion or arcing.
Amberclens 1/400	1 x 400ml	AMBERCLENS is a unique anti-static foaming cleaner based on a blend of surfactants, solvents, inhibitors and water. Unrivalled in performance, it quickly and easily removes all types of dirt, grease, stains, soiling and other contamination from hard surfaces and fabrics.
40+ Protective Lube 1/400	1 x 400ml	AMBERSIL 40+ is the complete maintenance treatment for protection against corrosion, water displacement, lubrication and light surface rust removal. One simple application - by spray, swab or dip - stops the spread of existing corrosion, gives lasting protection against further attack and removes and repels ambient moisture.
AGL1 1/400	1 x 400ml	AGL 1 is a multi purpose, greaseless lubricant preventing electrical and electronic malfunction caused by water penetration, humidity, condensation or corrosion. The stable, low surface tension, high capillary action formula provides great penetrating and wetting power.
SV100 Electrical Varnish 1/400	1 x 400ml	Provides a tough, impervious insulating seal - ideal for components subjected to 'difficult' environments and high humidity. It is particularly suitable for improving leakage characteristics of terminal assemblies and also seals electrical leakage paths. It has excellent resistance to transformer oils and moisture with good noise reduction characteristics. Dries rapidly to form a hard red coloured film.
Amberklene FE10 1/400	1 x 400ml	AMBERKLENE FE10 is a fast evaporating solvent blend which contains no CFCs or other chlorinated solvents. It is an ideal alternative to 1,1,1 Trichloroethane.
CCL100 1/400	1 x 400ml	CCL 100 is a fast drying cleaner for all electrical and electronic components. Ideal for all types of contacts and switches where a light residue of lubrication is required after cleaning. CCL has the following benefits: · Clear, low odour, fast evaporating cleaner, Speedily cleans grease and dirt from metal electrical and electronic components. Low toxicity, Can be used on most plastics, Directional nozzle with separate extension tube.
NF Precision Cleaner 1/400	1 x 400ml	A unique non-flammable precision cleaner for electrical and electronic equipment. Chlorinated hydrocarbons (1,1,1-trichloroethane), chlorofluorocarbons (CFC's) and hydrochlorofluorocarbons (HCFC's) are extremely effective solvents.
IPA 1/400	1 x 400ml	IPA is an internationally approved general purpose, cost effective electronic cleaning solvent. Ideal for cleaning, degreasing and defluxing delicate electronic assemblies.IPA has many advantages including Forming an azeotrope with water to assist removal of moisture, Leaves no residue and is a highly versatile cleaning solvent.
Air Duster 1/400	1 x 400ml	AIR DUSTER is a liquified gas which provides a dry, powerful blast for easy removal of dust and other loose contamination. This product has been formulated without the use of any CFCs or HCFCs.
Anti-Static Spray 1/400	1 x 400ml	ANTI-STATIC SPRAY is a specialist formulation for the temporary reduction of electrostatic charges generated by friction and atmospheric conditions. Anti-Static Spray reduces airborne dust accumulation and is safe to use on most substrates. Particularly useful in the textile and paper making industries or for use in dust laden atmospheres.
AMS4 Silicone Grease 1/400	1 x 400ml	AMS4 SILICONE GREASE provides a smooth, non-melting coating with a broad spectrum of applications. Broad operating temperature range (-50°C to + 200°C), Heat resistant (up to 200°C), Insulates, lubricates, seals, preserves and waterproofs.
Greasil 400	1 x 100ml	High quality, pure silicone grease which is water repellent and non-melting. As an anti-tracking, anti-arcing coating, it will protect electrical systems.

Application	Type
Safe to use on all plastic and rubber surfaces, the rapid evaporation of Contact Cleaner FG ensures that no residues are left on the treated equipment.	Cleaner / Degreaser
Safe to use on all plastic and rubber surfaces, the rapid evaporation of Contact Cleaner FG ensures that no residues are left on the treated equipment.	Cleaner / Degreaser
Ambersil 40+ is ideal for use on all mechanical and electrical equipment. As a penetrant, it will quickly free seized nuts, bolts and bearings, whilst the highly effective water displacing properties make 40+ the perfect 'damp-start' solution for ignition systems and other electrical equipment.	Dewatering Lubricant
Helps to protect, lubricate and restore: Electrical connectors, Motors, Relays, Communication, Assemblies, Generators, Electronics, Circuit breakers, Controls, Alarm systems, Transformers, Instruments, Starters, Switch gears	Greaseless Lubricant
Protecting circuit boards, transformers and other coils,Protecting repaired or reworked jobs, Insulating against humidity and other 'difficult' environments, Improving leakage characteristics of terminal assemblies, Noise reduction in small transformers, Moisture protection, Finishing varnish to stop tracking, Tropicalisation on all types of electrical equipment.	Anti Corrosion / Anti Tracking
A highly effective degreasing agent for all hydrocarbon soiling, including oil, grease, tar and bitumen. For use in numerous industries including; where a fast and effective cleaning solvent is required. Efficiently cleans plastics, ferrous and non-ferrous metals, evaporating quickly to leave a clean, dry surface. Also recommended for spot removal in the textiles and associated industries.	Degreaser
CCL100 is typically used within the following areas: Automotive, Mechanical engineering, Workshops, Dock yards, Agricultural machinery, General maintenance	Contact Cleaner / Lubricant
NF Precision Clean is the first alternative on the market that meets the highest performance characteristics: Chlorinated Hydrocarbon Free, CFC and HCFC Free, Solvent Based, Non-flammable Blend, Fast Evaporation Rate.	Non Flammable Contact Cleaner
IPA is a universally recognised electronic cleaning solvent which conforms to BS 1595, ASTM D770 and DIN 53245.	Cleaner / Degreaser
Suitable for instant cleaning of inaccessible areas or where the use of solvents is not desirable. Can be used safely and efficiently on: Photocopiers, Fax Machines, Typewriters, Computers, Microscopes, Oscilloscopes, Cameras, Lenses, Watches, Precision Instruments & Laboratory Equipment	Cleaner
Plastic components, Screens and monitors, Paper mills, General static discharge	Static Charge Removal
Electronics and Telecommunicatios, Transport, Aviation, Mechanical Engineering and Production.	Silicone Grease
Food, Automotive, Mechanical engineering, Workshops, Civil engineering, Mining, Iron and steel, Dock yards, Agricultural machinery, Heavy engineering, Offshore	Pure Silicone Grease

General Maintenance		
Product Name / Reference	Carton Qty	Features
Label Remover 1/200	1 x 200ml	LABEL REMOVER is a unique blend of citrus and hydrocarbon oils which quickly releases self-adhesive labels and stickers. It neutralises the adhesive, thereby facilitating clean and easy removal.
Cold Gavanise 1/400	1 x 400ml	Cold Galvanising Spray is a unique combination of zinc powders and resins, formulated to form a high performance zinc-rich coating that actively fights rust and corrosion by its galvanic properties. Ferrous metals are protected by the sacrificial action, even when scratched or damaged. Zinc becomes the anode which is attacked by corrosion and the base metal the cathode. A film of water insoluble zinc oxide is formed, which stops rust and corrosion.
Corrosion Inhibitor 1/400	1 x 400ml	Corrosion Inhibitor is a protective coating that provides long lasting protection against rust and corrosion.
Penetrating Oil 1/400	1 x 400ml	PENETRATING OIL is a high-grade lubricating agent based on a mixture of oils and penetrants in a blend of solvents. It has been formulated to offer quick and easy removal of seized and rusted components.
Copper Anti-seize 1/400	1 x 400ml	COPPER PASTE is a high temperature anti-seize lubricant. A soft, copper-coloured paste, based on micronised copper powder and synergistic anti-oxidant, anti-corrosion and anti-wear additives suspended in a premium grade stable oil. It is an effective anti-seize formulation, preventing metal-to-metal contact, seizing, galling, and fretting corrosion.
Silicone Lubricant 1/500	1 x 500ml	SILICONE LUBRICANT is a general purpose, medium duty silicone lubricant, which exhibits excellent anti-stick and slip properties.
Bright Cold Galvanise - 400ml	1 x 400ml	A single component, zinc-aluminium coating combining corrosion protection properties with the lustre look of recently galvanized parts. Bright Cold Galvanising Spray is a combination of zinc and aluminium powders, resins and additives, formulated to form a flexible protective film with a bright, glossy appearance.
Leak Detector 1/400	1 x 400ml	LEAK DETECTOR is a unique water based formulation. It has been developed, without the use of harmful solvents, silicones or oils, to allow the safe and easy detection of all gas and air leaks.
5005a Silicone Sealant 1/75	1 x 75ml	Ambersil Silicone Adhesive Sealant 5005A is a high modulus, one part acetoxy curing sealant conforming to ISO 11600. In its uncured state, the sealant is a thixotropic paste which can be applied over a wide range of temperatures with no risk of slumping from normal joint widths. The product cures rapidly on exposure to moist air to provide a resilient rubber seal capable of repeated extension and compression during service with excellent resistance to aging, shrinkage, cracking and discolouration.
5-minute Epoxy 1/24	1 x 24ml	5-MINUTE EPOXY is a fast setting epoxy in a handy syringe - ideal for keeping in tool box or drawer. Will mend a wide variety of materials including metal, wood, ceramic, porcelain and glass.

Application	Type
Ideal for use on many different non-absorbent surfaces, including: Photocopiers, Fax Machines, Computers, Printers, Typewriters , Platens, Rollers, Cabinets, Shelving, Amusement Machines.	Label Remover
For general use in all situations where clean and degreased metal surfaces need to be protected against corrosion. Suitable for use as a renovation media for repairs to hot dip galvanising, as specified in BS EN ISO 1461:1999.	Galvanising Spray
Corrosion Inhibitor is designed to provide good short to medium term protection of metallic parts and components. Principally designed for indoor use, corrosion inhibitor will also provide a degree of short-term protection to components stored outdoors.	Corrosion Inhibitor
Ideal for freeing nuts, bolts, screws, studs, pins, valves, machine parts, pipe couplings and pulleys. Can also be used for cleaning rusted surfaces of moulds, dies and heavy tools and for softening or removing carbon deposits.	Lubricant
An effective anti-seize lubricant for bolts, nuts, pins etc. Anti-seize to 110°C, Lubricants to 300°C.	Lubricant
Ideal for use where a clean, colourless lubricant is required. Safe to use on wood, glass, fabrics, metals, most plastics, rubbers and hard surfaces. WRAS approved for use in water industry.	Lubricant
Bright, glossy coating for newly galvanised parts.	Anti Corrosion
Highlights all leaks even under low pressure and proves invaluable in the gas, plumbing, heating, automotive, offshore, engineering and welding industries. Ideal for QC tests, maintenance and safety checks meets DIN 30657 and BS EN ISO 14291:2004.	Leak Detector
Ambersil Silicone Adhesive Sealant 5005A offers good adhesion to various non-porous substrates such as glass, glazed ceramic tiles and Aluminium and is therefore recommended for producing formed-in-place gaskets, draught proofing of windows and doors, on-site and factory-channel glazing of flat or profiled glass, patent glazing, curtain wall sealing and for ceramic and plastic joints in sanitary ware, laboratories and hospitals where ease of cleaning and a high standard of hygiene are essential.	Silicone Sealant
Rapid, small scale repairs, Filling small holes and cracks, Repairing worn parts, including shafts, housings, keyways and flanges.	Adhesive

Cutting Compounds

Product Name / Reference	Carton Qty	Features
Tufcut Compound 1/500 Tufcut Spray 1/400	500g 1 x 400ml	The TUFCUT range is comprised of specialist metal cutting lubricants based on a mixture of extreme pressure additives and anti-oxidants. They have been formulated as instant, ready to use metal machining lubricants with high film-strength and resistance to extreme pressures.

Wipes

Product Name / Reference	Carton Qty	Features
Toughwipes 100's Tub	100	Tough wipes are impregnated with an effective cleaning and conditioning solution designed to be gentle on hands but tough on contamination, therefore Ambersil Tough Wipes can assist in the prevention of skin disorders such as occupational dermatitis. Hands are clean and dry in one application, all without the use of water.
Toughwipes 30's Pouch	30	

Electrical Maintenance

Product Name / Reference	Carton Qty	Features
Lec-Klene 1/400 Lec-Klene 1/5 Lec-Klene 1/25	1 x 400ml 1 x 5 ltr 1 x 25 ltr	LEC-KLENE is a highly refined, low aromatic solvent cleaner, which meets DEF STAN 68-148 issue 2, for the safe and effective cleaning of Electrical and Aerospace equipment. The high flash point and low aromatic content enable it to be safely used in confined areas where fire or health risks are to be minimised.

Application	Type
TUFCUT FOAM is a foaming lubricant specifically formulated to enable cutting applications to be performed on vertical surfaces without excessive loss of lubricant from the work piece. Tufcut Foam can also be used where close tolerance machining is to take place as the foam allows a longer contact time, and increased lubricant Cutting Compound	Metal Cutting

Application	Type
Effective on a wide range of soiling types - grease, oil, petrochemicals, paints, adhesives, tar, bitumen, resins and silicone sealants. Contains bactericide effect against Leptospira (Wells Disease).	Hand Wipes

Application	Type
LEC-KLENE is ideal for removing oils, greases, waxes, tar, bitumen, brake block dust, carbon and other general soiling. It has no detrimental effect on painted surfaces, ferrous and non-ferrous metals, composite materials, rubbers and plastics. It totally evaporates to leave surfaces clean and dry, ready for any post cleaning treatments.	Cleaner / Degreaser

DIN Rail

A range of Top Hat and G-Type rail,
zinc coated, plain or slotted.
Available in 1 or 2 metre length.

DIN Rail

Reference	Description	Type	Rail Depth	Rail Width	Rail Length	Pack Quantity
TS15 TS15/F	Mini Top Hat	Standard Slotted	5.5 x 10.5	15mm 15mm	2m 2m	20 x 2 20 x 2
TS32 TS32/F	G Type	Standard Slotted		32mm 32mm	2m 2m	20 x 2 20 x 2
TS35 TS35/F TS35/S	Top Hat	Standard Slotted Standard	7.5 x 27 10 x 27	35mm 35mm 35mm	2m 2m 2m	20 x 2 20 x 2 20 x 2
TS35/C TS35/CF	Deep Top Hat	Standard Slotted	15 x 27 15 x 27	35mm 35mm	2m 2m	20 x 2 20 x 2
TS15/F.10	Top Hat	Slotted	5.5 x 10.5	15mm	1m	10 x 1
TS32.10 TS32/F.10	G Type G Type	Standard Standard		32mm 32mm	1m 1m	10 x 1 10 x 1
TS35.10 TS35/FP.10	Top Hat Top Hat	Standard Slotted	7.5 x 27 7.5 x 27	35mm 35mm	1m 1m	10 x 1 10 x 1
TS350.5 TS35F60.5	Top Hat Top Hat	Standard Slotted	7.5 x 27 7.5 x 27	35mm 35mm	0.5m 0.5m	10 x 1 10 x 1

Galvanised and aluminium available on request.

Mounting Brackets

Reference	Type	Height	Fixing	Pack Quantity
BK0425 TS-SM6 BK0805	Angled Angled Angled	42mm 48mm 82mm	M6 M6 M6	2 1 2
BK0201 BK0441 BK0706 BK0904	Straight Straight Straight Straight	20mm 41mm 70mm 90mm	M6 M6 M6 M6	2 2 2 2
CSK6.3	Screws to Suit		M6	10
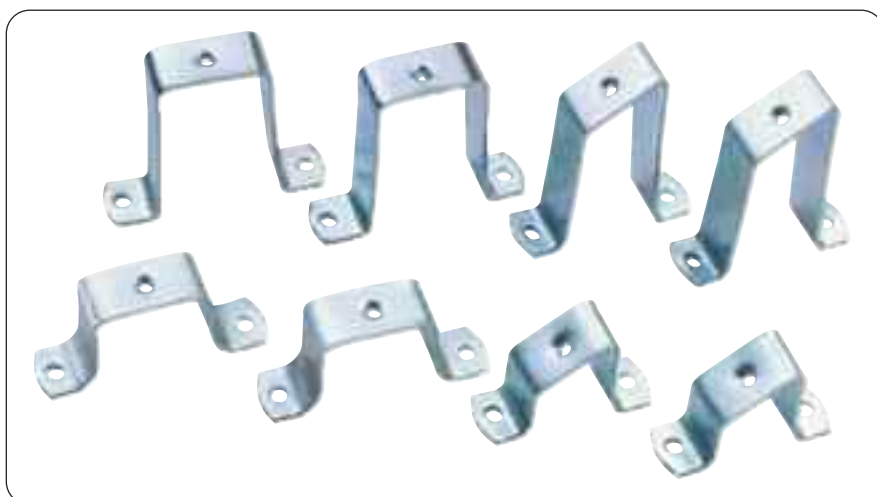
TS 35
Symmetrical 'Top Hat' style steel rail.
Standards: DIN 46277 CENELEC EN 50.022
Pack quantity: 40m (or 10 x 1m)
Weight: 0.35 kg/m Also available in galvanised ref TS 35 G

TS 35 F
Slotted version of TS 35.
Standards: DIN 46277 CENELEC EN 50.022
Pack quantity: 40m (or 10 x 1m)
Weight: 0.30 kg/m

TS 35 C
15mm deep version of TS 35.
Standards: CENELEC EN 50.022
Pack quantity: 40m
Weight: 0.67 kg/m

TS 35 CF
Slotted version of TS 35 C.
Standards: CENELEC EN 50.022
Pack quantity: 40m
Weight: 0.615 kg/m

TS 35 S
10mm deep version of Type TS 35.
Standards: DIN 46277 CENELEC EN 50.022
Pack quantity: 40m
Weight: 0.39 kg/m

TS 15
Plain symmetrical rail for terminal block mounting.
Standards: DIN 46277
Pack quantity: 40m
Weight: 0.165 kg/m

TS 15 F
Slotted version of TS 15.
Standards: DIN 46277
Pack quantity: 40m
Weight: 0.14 kg/m

TS 32
Plain assymetric steel rail punched for drilling.
Standards: DIN 46277 CENELEC EN 50.035
Pack quantity: 40m (or 10 x 1m)
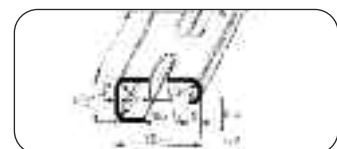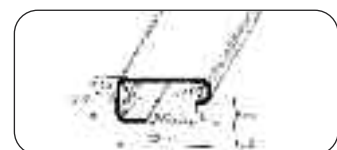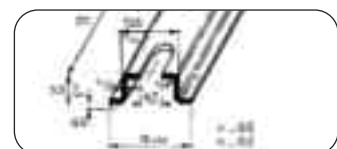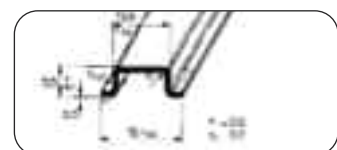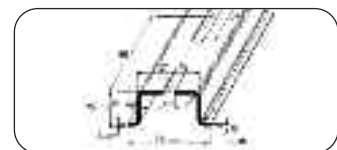Weight: 0.73 kg/m Also available in galvanised ref TS 32 G
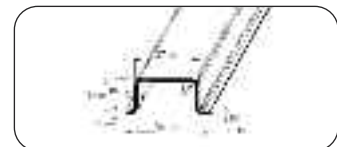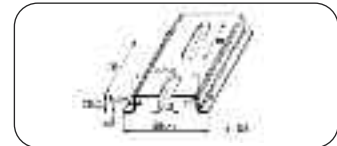

TS 32 F
Slotted version of TS 32.
Standards: DIN 46277 CENELEC EN 50.035
Pack quantity: 40m (or 10 x 1m)
Weight: 0.69 kg/m
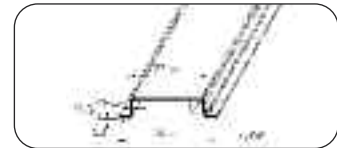
BRASS CABLE GLANDS

Gland Selection Chart For PVC SWA PVC Cables															
Cable Cond. Size		Number of Cores													
Area mm²	Neutral	1	2	3	3½	4	5	7	10	12	19	27	37	48
1.5	-	-	20S	20S	-	20S	20S	20S	20	20	25	25	32	32
2.5	-	-	20S	20S	-	20S	20S	20	25	25	25	32	32	40
4	-	-	20S	20S	-	20	20	25	25	25	32	40	40	50
6	-	-	20S	20	-	20								
10	-	-	25	25	-	25								
16	-	-	25	25	-	25								
25	16	-	25	25	32	32								
35	16	-	25	32	32	32								
50	25	25	32	32	32	40								
70	35	25	32	40	40	40								
95	50	25	40	40	50	50								
120	70	25	40	50	50	50								
150	70	32	40	50	50	50								
185	95	32	50	50	63	63								
240	120	40	50	63	63	63								
300	150	40	63	63	75	75								
300	185	-	-	-	75	-								
400	185	50	63	75	75	75								
500	-	50												
630	-	50												
800	-	63												
1000	-	63												

Glands manufactured as per
BS 6121 PT1: 1989
For use with PVC SWA PVC 600/1000V Cables

This selection chart is given for guidance only.
Actual cable dimension must be considered
before making final selection.

◇ **GLAND KIT**

Type BW Indoor Gland

- For use with all types of SWA cables to BS6346
- For use indoors in dry locations
- Simple two part design with low resistance armour locking
  and no sealing

Type BW Indoor Gland		
Reference	Description	Quantity
BW20S	20mm Small	2
BW20	20mm Standard	2
BW25	25mm Standard	2
BW32	32mm Standard	2
BW40	40mm Standard	1
BW50	50mm Standard	1
BW63	63mm Standard	1
BW75	75mm Standard	1

Type CW Industrial Gland

- For use with all types of SWA cables to BS6346
- For use indoors and outdoors whenever it is required to provide
  a sealing on the cable outer sheath
- CW glands are weatherproof and can be used in corrosive
  conditions when protected with a shroud
- Positive armour locking, effective earth continuity, increased
  mechanical strength

Type CW Industrial Gland		
Reference	Description	Quantity
CW20S	20mm Small	2
CW20	20mm Standard	2
CW25	25mm Standard	2
CW32	32mm Standard	2
CW40	40mm Standard	1
CW50	50mm Standard	1
CW63	63mm Standard	1
CW75	75mm Standard	1

Type BW Indoor Gland – LSF

- BW LSF Gland for use on LSF cables and applications.
- For use with all types of BW cables
- For use in indoors in dry locations
- Simple two part design with low resistance armour locking and no sealing
- BW Gland LSF compliant as per BS 6724: 1990

Type BW Indoor Gland LSF		
Reference	Description	Qty
LSFBW20S	20mm Small LSF	2
LSFBW20	20mm Standard LSF	2
LSFBW25	25mm Standard LSF	2
LSFBW32	32mm Standard LSF	2
LSFBW40	40mm Standard LSF	1
LSFBW50	50mm Standard LSF	1
LSFBW63	63mm Standard LSF	1
LSFBW75	75mm Standard LSF	1

Type CW Industrial Gland – LSF

- CWLSF Gland for use with LSF cables
- For use indoors and outdoors whenever it is required to provide a sealing on the cable outer sheath
- CWLSF glands are weatherproof and can be used in corrosive conditions when protected with a shroud
- Positive armour locking, effective earth continuity, increased mechanical strength
- CWLSF gland is compliant as per BS 6724: 1990

Type CW Industrial Gland LSF		
Reference	Description	Qty
LSFCW20S	20mm Small LSF	2
LSFCW20	20mm Standard LSF	2
LSFCW25	25mm Standard LSF	2
LSFCW32	32mm Standard LSF	2
LSFCW40	40mm Standard LSF	1
LSFCW50	50mm Standard LSF	1
LSFCW63	63mm Standard LSF	1
LSFCW75	75mm Standard LSF	1

Type BWR Three Part Gland

- For use with all types of SWA cables to BS6346
- For use indoors in dry locations
- Positive armour locking, effective earth continuity, increased mechanical strength

Type BWR Three Part Gland		
Reference	Description	Quantity
BWR20S	20mm Small	2
BWR20	20mm Standard	2
BWR25	25mm Standard	2
BWR32	32mm Standard	2
BWR40	40mm Standard	1
BWR50	50mm Standard	1
BWR63	63mm Standard	1
BWR75	75mm Standard	1

Type E1W Industrial Gland

- For use with all types of SWA cables to BS6346
- Application indoor and outdoor whenever it is required to provide sealing on cable outer sheath as well as inner sheath
- E1W glands are weatherproof and can be used in corrosive conditions when protected with a shroud

Type E1W Industrial Gland		
Reference	Description	Quantity
E1W20S	20mm Small	2
E1W20	20mm Standard	2
E1W25	25mm Standard	2
E1W32	32mm Standard	2
E1W40	40mm Standard	1
E1W50	50mm Standard	1
E1W63	63mm Standard	1
E1W75	75mm Standard	1

Type LXT Light Duty Industrial Gland

- For use with flexible wire braided cable e.g. SY/CY cable

Type LXT Industrial Gland		
Ref	Description	Quantity
LXT20S	20mm Small	2
LXT20	20mm Standard	2
LXT25	25mm Standard	2
LXT32	32mm Standard	2
LXT40	40mm Standard	1
LXT50	50mm Standard	1

NYLON CABLE GLANDS

HellermannTyton nylon dome headed cable glands are quick and easy to install and cater for a wide range of cable sizes.

A range of quality nylon cable glands, that can be used on a wide range of applications when connecting cable to electrical equipment, (but not steel wire armoured cable).

Testing to IP68 provides protection against the ingress of dust and water. No need to dismantle the gland, just insert the cable and tighten.

- Material Nylon 66
- IP Rating IP68
- Metric thread
- Available in red, black, white and grey
- Euro slot packaging

Stock Code	Size	Colour	Cable Clamp Range	Pack Quantity
NGM12-RED	M12	RED	3-6.5 mm	10
NGM16-RED	M16	RED	5-10 mm	10
NGM20S-RED	M20	RED	6-12 mm	10
NGM20-RED	M20	RED	10-14 mm	10
NGM25-RED	M25	RED	13-18 mm	10
NGM32-RED	M32	RED	18-25 mm	5
NGM12-WHT	M12	WHITE	3-6.5 mm	10
NGM16-WHT	M16	WHITE	5-10 mm	10
NGM20S-WHT	M20	WHITE	6-12 mm	10
NGM20-WHT	M20	WHITE	10-14 mm	10
NGM25-WHT	M25	WHITE	13-18 mm	10
NGM32-WHT	M32	WHITE	18-25 mm	5
NGM12-GRY	M12	GREY	3-6.5 mm	10
NGM16-GRY	M16	GREY	5-10 mm	10
NGM20S-GRY	M20	GREY	6-12 mm	10
NGM20-GRY	M20	GREY	10-14 mm	10
NGM25-GRY	M25	GREY	13-18 mm	10
NGM32-GRY	M32	GREY	18-25 mm	5
NGM12-BLK	M12	BLACK	3-6.5 mm	10
NGM16-BLK	M16	BLACK	5-10 mm	10
NGM20S-BLK	M20	BLACK	6-12 mm	10
NGM20-BLK	M20	BLACK	10-14 mm	10
NGM25-BLK	M25	BLACK	13-18 mm	10
NGM32-BLK	M32	BLACK	18-25 mm	5
NGM40-BLK	M40	BLACK	22-32 mm	5
NGM50-BLK	M50	BLACK	30-38mm	2
NGM63-BLK	M63	BLACK	34-44mm	2

Plaster Board Fixing - Self Tapping

Plasterboard Screws

• Self drilling anchor for plasterboard

• Anchors complete with screws

• Zinc alloy

Twister Plaster Board Fixing - Self Tapping		
Reference	Material	Pack Qty
43000350/V63225	Zinc Alloy	100

HelaCon Plus Series Wire Connectors

The HelaCon range of push-in wire connectors are used for fast, easy reliable connection and distribution of cable and conductors in electrical housing applications.

They are used within a typical voltage up to 450 volts. A huge variety of input poles allow a high flexibility in application depending on the number of conductors and available space.

Diameters of up to 2.5mm^2 can conveniently be processed and allow the use of thicker conductors when a voltage drop occurs. The flexible fixing of the double spring of HelaCon Plus allows different conductor diameters in each entry without influencing the adjacent ones. The connectors can be used in all kinds of junction boxes either on-wall or flush mounted.

The HelaCon connectors are used for fast, easy and reliable connection and distribution of cable and conductors in the field of electrical housing installations within junction boxes and control panels.

HelaCon Plus used in a wall mounted junction box.

Working with clear visibility

Screwless connectors in the field of house installations are used countless times every day. Although this is routine work it requires a lot of diligence in installing the connectors. A tight and secure fitting is indispensable for a failure-free long life operation. Less care may otherwise result in damage and overheating, worst case causing a very hazardous situation like a fire.

The transparent housing of the HelaCon Plus connector series allows a fast and easy optical control whether the conductor fits to the catch. This is a non negligible factor for safety and will expedite acceptance test of the complete electrical installation.

Newly developed double spring technology

The more connectors that are used for wiring a connection the more important it is to handle and process them very easily and conveniently.

Along with a secured fitting this was the utmost aim of the development of the double spring technology. Both springs have major roles to play. The first one allows very low push-in forces that is especially helpful when using soft conductors. The second spring secures the fixing very tightly. This results in a comfortable use of the connectors and maximum safety at the same time.

Different wire types and cross-section

The low push-in force due to the latest double spring technology enables the use of single and multicore conductors.

The free fixing of each double spring allows the concurrent use of various conductor cross-section between 0.5 and 2.5mm^2 within one connector without impact on the adjacent connection. Please note that HelaCon Plus is not designed for fine-stranded wires.

Easy push-in, safe fitting and optical check due to newly developed double spring technology.
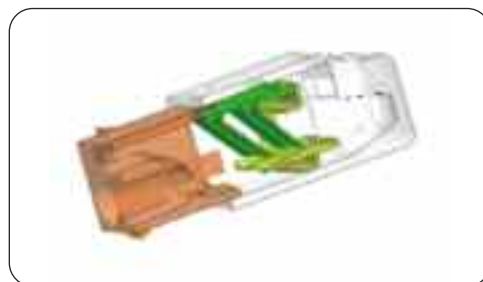
Sectional drawing of HelaCon Plus.

View through the housing shows the double spring.

Any cross-section between 0.5 and 2.5mm^2 can be used concurrently.

HelaCon Plus

Features and Benefits:

HelaCon Plus is a sophisticated push-in wire connector for professional cable connections in electrical housing applications.

The newly developed double spring allows easy processing and will support installers especially in tricky situations like overhead work. This ensures proper fixing that can optically be checked through the transparent housings.

Different colour codes provide a comfortable identification of the different connectors. A separate voltage test entry on the front guarantees safety during application, installation and maintenance.

Application

The HelaCon connectors are used for fast, easy and reliable connection and distribution of cable and conductors in the field of electrical housing applications.

Application Method

- Make sure that power is turned off before installation
- Solid and stranded copper conductors can be used
- Strip them off approximately 11mm
- Insert them completely into the connector
- Use voltage tester via separate test entry
- To change or connect a wire, hold and twist it alternatively left and right while pulling the connector.

A huge variety of connectors from 2 to 8 poles is available according to the application. The transparent housing allows a quick and easy check of the conductor fitting.
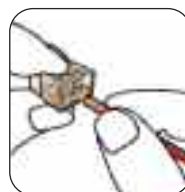
The double spring allows easy push-in of the connector.

HelaCon Plus - newly developed double spring technology.
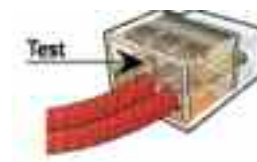
A separate test entry on the front allos the use of a voltage meter

Solid 0.5-2.5mm

Fine stranded

HECP-3

HECP-2

HECP-3

HECP-4

HECP-5

HECP-5

HECP-6

HECP-8

Material Data Table	
Material Housing	Polycarbonate (PC)
Material Plated Brass	Brass tinned
Material Spring Plate	Stainless Steel
Max Current	24 A
Max Voltage	450 V (VDE), 600 V (culus)
Wire Range (cULus)	AWG 12 to 22 solid/stranded
Wire Range (VDE)	0.5 to 2.5mm² solid/stranded (max 7 cores)
Stripping Length	11mm
Flammability	UL94 VO
Operating Temperature	-30ºC to +110ºC (VDE), -30ºC to +105ºC (cULus)
Specification	VDE, NEMKO, SEMKO, FIMKO, DEMKO, KEMA-KEUR, cULus.

RoHS

HelaCon Plus						
Reference	Colour	No. of Conductors	Width (W) mm	Height (H) mm	Depth (D) mm	Pack Cont.
HECP-2	Transparent (CL), Yellow (YE)	2	11.75	10.45	19.00	100
HECP-3	Transparent (CL), Orange (OG)	3	15.90	10.45	19.00	100
HECP-4	Transparent (CL)	4	20.05	10.45	19.00	75
HECP-5	Transparent (CL), Blue (BU)	5	24.20	10.45	19.00	50
HECP-6	Transparent (CL), Violet (VT)	6	28.35	10.45	19.00	50
HECP-8	Transparent (CL), Grey (GY)	8	36.65	10.45	19.00	40

HelaCon Plus 32AMP Push-In Wire Connectors Releasable

A 32Amp 450V releasable push in wire connector used for fast, easy and reliable
Connection of lighting and power circuits.

*   Suitable for 0.5mm² to 4mm² solid/stranded cable and also flexible cable to 2.5mm²

*   Can be released using special tool (supplied in carton)

*   3 poles
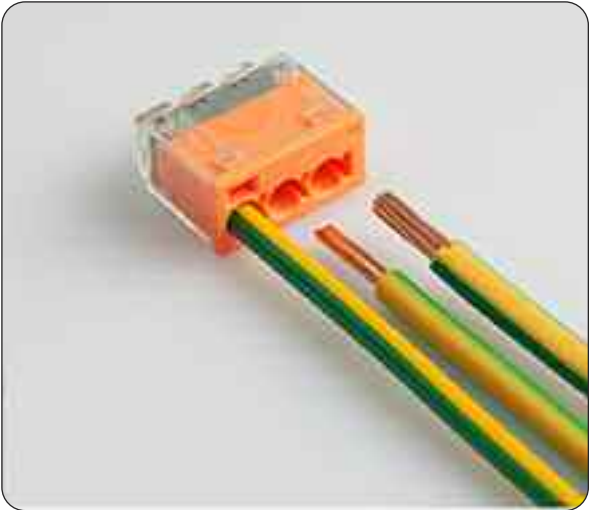
Material Data Table	
Material Housing	Polycarbonate (PC)
Insert	Copper plate, tin-plated, stainless spring steel
Steel Frame	Tin Plated
Flammability	UL94V-2
Operating Temps	T100ºC (IEC) 105ºC/221ºC (UL)
Rated	600v Max. for bundling/wiring and 1000v max. for lighting/fixtures/luminaries and signs

Reference	Poles	Colour	Qty
HECP3-32A	3	Orange (OG)	75

Tool for HelaCon 32AMP Push-in Wire Connectors

Reference	Description	Qty
HECP3-32A - TOOL	Tool	1

HellermannTyton   www.hellermanntyton.co.uk

HelaCon Lux

Features and Benefits:
HelaCon Lux is best suitable to connect solid and flexible wire.
It combines the push-in connector technology that is well known
from HelaCon Plus with a lock/unlock spring mechanism to connect
fine-stranded conductors. They may be used within a typical housing
range of 450 V / 24 A.

The two available variants showing either one or two inputs for
solid conductor on the installation side offer high flexibility in
application.

Instead of using screwed terminal blocks the tool-free application
of the lighting connectors results in an easy, time-saving and safe
connection of conductors. The user benefits from this especially in
overhead work and when wires are difficult to access

Application
A typical application is lighting installation, where the solid
conductor from concealed cabling has to be connected to a
flexible conductor for lightings. The 2/1 variant allows the looping
through of the supply lines for additional devices.

The conductor on the output/lighting side can easily be inserted by
pressing the locking mechanism and can be released in the same
way at any time. The lighting side can carry any kind of conductor
and makes HelaCon Lux connectors also useful to connect devices
that carry flexible connecting cables like control devices e.g. for
blinds, fans and other drives.

Application Method
- Do not work under load
- Strip off the conductors 9 - 11 mm
- Push in the solid conductor into the round input on the
  installation side
- Unlock the lighting side by pressing the connector's rectangular
  input
- Insert the lighting conductor and release the connector
- To remove, simply press the connector again and withdraw the
  conductor
- The installation side can easily be removed by twisting and
  pulling the conductor
- The test entry can be used to check the voltage with a meter
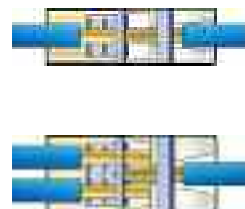
Tool free connection of lightings.

Installation side 0.75 – 2.5mm^2
solid.
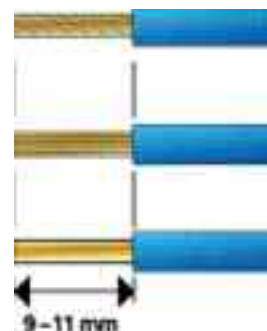
Lighting side 0.5 – 2.5mm^2
solid, stranded, fine
stranded.

HelaCon Lux 1/1

HelaCon Lux 2/1

Material Data Table	
Material Housing	Polyamide 6.6 (PA66)
Max Currents	24 A
Max Voltage	450 V
Wire Range (VDE)	0.5 (0.75) – 2.5mm^2
Stripping Length	11mm
Flammability	UL94 V2
Wire Range (VDE)	0.5 to 2.5mm2 solid/stranded (max 7 cores)
Stripping Length	11mm
Flammability	UL94 VO
Operating Temperature	-5°C to +100°C
Certification	VDE, FMKO, cULus, KEMA-KEUR, CEBEC, ENEC.

HelaCon Lux						
Reference	Colour	No. of Conductors	Width (W)	Height (H)	Depth (D)	Pack Cont.
HECL-1/1	Grey (GY)	2	8.1	15.8	20.8	100
HECL-2/1	White (WH)	3	9.5	15.8	20.8	100

HellermannTyton now offer two types of **HelaCon Kit**, the **BIG ONE** or the **LITTLE ONE!** Each comes in it's own handy top quality case which can be refilled over and over again.

'THE **BIG ONE**'
NEW HelaCon Kit

The HelaCon range of plastic wire connectors are used for fast, easy and reliable connection and distribution of cable and conductors in electrical housing applications.

This new kit contains 740 pieces and comes in a top quality case which can be refilled over and over again.

Kit contents are:

200	HECP-2
200	HECP-3
150	HECP-4
100	HECP-5
50	HECP-6
40	HECP-8

Type	Desc
148-00107	Helacon Kit

'THE **LITTLE ONE**'
HelaCon Kit

The smaller kit contains 100 pieces of connectors and comes in a top quality carrying case, which again can be refilled over and over again.

Kit contents are:

15	HECP-2
40	HECP-3
8	HECP-4
25	HECP-5
6	HECP-6
8	HECP-8

Type	Desc
148-00077	Helacon Kit

Connector Box

Connector Box +

HTCB+
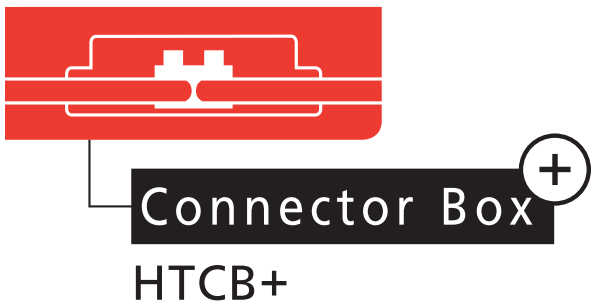
HellermannTyton has manufactured its own enclosure to house terminal strips. A thermo plastic (polypropylene) enclosure, which can be used as a junction box for fixed wiring and when used in conjunction with the cable restraints (supplied) can also be used as an in-line connector for such applications as terminating solid/stranded cable to flexible cable. Its tapered pin allows ease when locating the connector strip within the housing.

Contents include:

*   1 x connector box enclosure
*   2 x cable restraints
*   4 screws 12.5mm x 3mm (for cable restraints)
*   2 x screws 19.5mm x 3mm (for box lid)
*   Screws and cable restraints are packed separately to save contractors assembly time
*   Supplied in a trade counter merchandiser in quantities of 50

Dimensions: 109mm x 52mm x 28mm

Voltage: 250 V AC

The HTCB+ is designed to take up to 4 pole 15/16A terminal strips across its width enabling wiring of typical lighting circuit with cabling loop in, loop out, switch and light, for example.

Reference	Description
HTCB+	Connector Box

PE Terminal Strip Connectors

New range of terminal strips:

- 3, 5, 15, 30 & 60 amp
- Polyethylene (80°C)
- Packed 10 strips of 12 poles
- colours natural (NT) or black (BK)

Material	Type	Specification
PE	CS3NT	3A-4mm
PE	CS5NT	5A-6mm
PE	CS15NT	15A-12mm
PE	CS30NT	30A-16mm
PE	CS60NT	60A-25mm

Material	Type	Specification
PE	CS3BK	3A-4mm
PE	CS5BK	5A-6mm
PE	CS15BK	15A-12mm
PE	CS30BK	30A-16mm
PE	CS60BK	60A-25mm

PP Terminal Strip Connectors

3, 5,15, 30 & 60 Amp

Polypropylene (-20°C +90°C)

Colour : White

Packed 10 strips of 12 poles

Material	Type	Specification
PP	CS3WT-PP	3A-4mm
PP	CS5WT-PP	5A-6mm
PP	CS15WT-PP	15A-12mm
PP	CS30WT-PP	30A-16mm
PP	CS60WT-PP	60A-25mm

Sigma terminals

Terminals made of self-extinguishing Polyamide-6. Black base, terminal made of MS-58 brass (DIN-17660), ring made of tempered, galvanised and bichromated steel and cap made of self-extinguishing orange polypropylene.

- Clipping proof. The connection is done through a tightening device that presses evenly all of the contact surface, avoiding frictions and strains that could damage the conductors.
- Loosening proof. The ring that surrounds the brass body guarantees that the pressure exerted by the conductors will not open the terminal and loosen the connection.
- Total insulation. All SIGMA "S" terminals are supplied with a cap, which avoids any accidental contacts with live parts.
  All sizes can be joined together. Nominal current: 500 V.

Sigma Modular Line Taps			
Reference	Cross Section & Ampage	Amps	Pack Qty
NSYS04	4mm² Cable	25A	20
NSYS06	6mm² Cable	32A	20
NSYS10	10mm² Cable	50A	20
NSYS16	16mm² Cable	63A	20
NSYS25/35	25-35mm² Cable	100A	20
NSYS50	50mm² Cable	125A	20
NSYS70	70mm² Cable	160A	20
NSYS95/100	95-100mm² Cable	200A	20

Pre-Insulated Light Duty Terminals

Sizes:

- Red Insulation 0.5-1.5mm^2
- Blue Insulation 1.5-2.5mm^2
- Yellow Insulation 4.0-6.0mm^2
- Material: Copper Tin Plated. Sleeve PVC
- Retail packaging
- RoHS
- UL

Light Duty Terminals	TYPE	MM	Red Pre-insulated Part No	Pack Size	Blue Pre-insulated Part No	Pack Size	Yellow Pre-insulated Part No	Pack Size
Ring	RING	3	HFP1.5-003	100	HFP2.5-003	100	–	–
		3.5	HFP1.5-003.5	100	HFP2.5-003.5	100	HFP4.0-003.5	100
		4	HFP1.5-004	100	HFP2.5-004	100	HFP4.0-004	100
Fork		5	HFP1.5-005	100	HFP2.5-005	100	HFP4.0-005	100
		6	HFP1.5-006	100	HFP2.5-006	100	HFP4.0-006	100
		8	HFP1.5-008	100	HFP2.5-008	100	HFP4.0-008	100
		10	–	–	HFP2.5-010	100	HFP4.0-010	100
Pin	FORK	3	HFP1.5-S3	100	–	–	–	–
		3.5	HFP1.5-S3.5	100	HFP2.5-S3.5	100	HFP4.0-S3.5	100
		4	HFP1.5-S4	100	HFP2.5-S4	100		
Flat Blade		5	HFP1.5-S5	100	HFP2.5-S5	100	HFP4.0-S5	100
		6	HFP1.5-S6	100	HFP2.5-S6	100	HFP4.0-S6	100
		Pin Length 12	HFP1.5-WP12	100	HFP2.5-WP12	100	HFP4.0-WP14	100
Hook Blade	FLAT BLADE	Blade Size 9.0 x 2.8	–	–	HFP2.5-FB9	100	–	–
		18.0 x 2.3	HFP1.5-FB18	100	HFP2.5-FB18	100	–	–
Butt		10.0 x 2.3	HFP1.5-FB10	100	–	–	–	–
	HOOK BLADE	Blade Width 3.0	HFP1.5-HB	100	HFP2.5-HB	100	–	–
	BUTT	–	HFP1.5-BC	100	HFP2.5-BC	100	HFP4.0-BC	100
Female Push On	FEMALE PUSH ON	To fit Tab 2.8 x 0.5	HFP1.5-F110-5	100	–	–	–	–
		2.8 x 0.8	HFP1.5-F110-8	100	–	–	–	–
		4.7 x 0.5	HFP1.5-F187-5	100	HFP2.5-F187-5	100	–	–
		4.7 x 0.8	HFP1.5-F187-8	100	HFP2.5-F187-8	100	–	–
Male Push On		6.3 x 0.8	HFP1.5-F250-8	100	HFP2.5-F250-8	100	HFP4.0-F250-8	100
		9.5 x 1.0	–	–	–	–	HFP4.0-F375-8	100
	MALE PUSH ON	6.3 x 0.8	HFP1.5-M250-8	100	HFP2.5-M250-8	100	HFP4.0-M250-8	100
Female fully insulated	FEMALE FULLY INSULATED	To fit Tab 6.3 x 0.8	HFP1.5-FS250-8	100	HFPT2.5FS250-8	100	–	–
					HFP2.5-F250-8	100	HFP4.0-FS250-8	100
Push On Adaptor	PUSH ON ADAPTOR	6.3 x 0.8	HFP1.5-MF250-8	100	HFP2.5-MF250-8	100	–	–
Male Bullet Connector	MALE BUTT CONNECTOR	4	HFP1.5-MB	100	HFP2.5-MB	100	–	–
Female Bullet Connector	FEMALE BULLET CONNECTOR	4	HFP1.5-FB	100	HFP2.5-FB	100	–	–

630 Piece Terminal Kit

- 0.5-6mm cable diameter
- Colour coded pre-insulated
- Quality steel carry box
- Cutting tool
- Ratchet crimper
- Cable Ties included

630 Piece Terminal Kits
Reference
A801632T

Pre-Insulated End Sleeve Terminals

A comprehensive range of pre-insulated end sleeve terminals available in both French and German standard colour codings.

Pre-Insulated End Sleeve Terminals

Type	Reference	Cable Size	Colour	Pack Qty
Pre-Insulated End Sleeve French Colour	CE005008	0.50mm x 8F	White	500
	CE075008	0.75mm x 8F	Blue	500
	CE010008	1.0mm x 8F	Red	500
	CE015008	1.5mm x 8F	Black	500
	CE025008	2.5mm x 8F	Grey	500
	CE040010	4.0mm x 10F	Orange	500
	CE060012	6.0mm x 12F	Green	100
	CE100012	10mm x 12F	Brown	100
	CE160012	16mm x 12F	Ivory	100
	CE250016	25mm x 16F	Black	100
	CE350016	35mm x 16F	Red	50
	CE500020	50mm x 20F	Blue	50
German Colour	CE005008W	0.50mm x 8G	Orange	500
	CE075008W	0.75mm x 8G	White	500
	CE010008W	1.0mm x 8G	Yellow	500
	CE015008W	1.5mm x 8G	Red	500
	CE25008W	2.5mm x 8G	Blue	500
	CE040010W	4.0mm x 10G	Grey	500
	CE0060012W	6.0mm x 12G	Black	100

Sizes 10mm - 50mm in German Colour Codes available to special order.

Pre-Insulated Twin End Sleeve Terminals

Pre-Insulated End Sleeve Terminals

Type	Reference	Cable Size	Colour	Pin Length	Pack Qty
Pre-Insulated Twin End Sleeve	CT205008	2 x 0.5	White	8mm	1000
	CT207508	2 x 0.75	Grey	8mm	1000
	CT207510	2 x 0.75	Grey	10mm	1000
	CT210008	2 x 1.0	Red	8mm	1000
	CT210010	2 x 1.0	Red	10mm	1000
	CT215008	2 x 1.5	Black	8mm	1000
	CT225013	2 x 2.5	Blue	13mm	1000
	CT225010	2 x 2.5	Grey	10mm	1000
	CT225013	2 x 2.5	Grey	13mm	1000
	CT240013	2 x 4.0	Grey	13mm	1000
	CT260014	2 x 6.0	Yellow	14mm	1000

Copper Tube Terminals & Copper Tube Splices
• HCT/HCBS Series

Suitable for the termination of cables and stud connectors and splices for joining cable together.

• Material: High conductivity copper BS EN12449

• Purity: >99.9%

• Coating: Electro Tin Plating to BS1872

• Terminals have flared (bell mouth) entry for ease of cable insertion

• Terminals have inspection holes to check that the cable is inserted properly before terminal is crimped

• Range covers cable sizes from 6mm^2 to 300mm^2

• Packed in polythene (PE) bags with Euro slot

HCT SERIES

Copper Tube Terminal

Reference	To fit Cable Size mm²	Stud Dia	Pack Qty
HCT 6-4	6	4mm	100
HCT 6-6	6	6mm	100
HCT 6-8	6	8mm	100
HCT 6-10	6	10mm	100
HCT 10-6	10	6mm	100
HCT 10-8	10	8mm	100
HCT 10-10	10	10mm	100
HCT 10-12	10	12mm	100
HCT 16-6	16	6mm	100
HCT 16-8	16	8mm	100
HCT 16-10	16	10mm	100
HCT 16-12	16	12mm	100
HCT 25-6	25	6mm	100
HCT 25-8	25	8mm	100
HCT 25-10	25	10mm	100
HCT 25-12	25	12mm	100
HCT 35-6	35	6mm	100
HCT 35-8	35	8mm	100
HCT 35-10	35	10mm	100
HCT 35-12	35	12mm	100
HCT50-6	50	6mm	50
HCT 50-8	50	8mm	50
HCT 50-10	50	10mm	50
HCT 50-12	50	12mm	50
HCT 70-6	70	6mm	50
HCT 70-8	70	8mm	50
HCT 70-10	70	10mm	50
HCT 70-12	70	12mm	50
HCT 70-14	70	14mm	50
HCT 70-16	70	16mm	50
HCT 95-8	95	8mm	5
HCT 95-10	95	10mm	5
HCT 95-12	95	12mm	5
HCT 95-14	95	14mm	5
HCT 95-16	95	16mm	5
HCT120-8	120	8mm	5
HCT 120-10	120	10mm	5
HCT 120-12	120	12mm	5
HCT120-14	120	14mm	5
HCT 120-16	120	16mm	5

HCBS SERIES

Copper Tube Terminal

Reference	To fit Cable Size mm²	Stud Dia	Pack Qty
HCT 150-10	150	10mm	5
HCT 150-12	150	12mm	5
HCT150-14	150	14mm	5
HCT150-16	150	16mm	5
HCT 185-10	185	10mm	5
HCT 185-12	185	12mm	5
HCT 185-14	184	14mm	5
HCT 185-16	185	16mm	5
HCT240-10	240	10mm	5
HCT240-12	240	12mm	5
HCT 300-10	300	10mm	5
HCT 300-12	300	12mm	5
HCT 300-16	300	16mm	5

Copper Tube Butt Splice

Reference	Cable Cross section (mm²)	Pack Qty
HCBS-6	6	50
HCBS10	10	25
HCBS-16	16	25
HCBS-25	25	25
HCBS-35	35	25
HCBS-50	50	10
HCBS-70	70	10
HCBS-95	95	10
HCBS-120	120	5
HCBS-150	150	5
HCBS-185	185	5
HCBS-240	240	5
HCBS-300	300	5

Rachet Crimp Tools for Pre-insulated Terminals

7700 - Ratchet

- Size - 8³/₅", 220mm
- Crimp range - 0.5 - 6.0mm

Ratchet		
Reference	Crimp Type	Crimp Range
7700	Pre Insulated L/Duty	0.5 - 6.0mm

7700

7702 - Ratchet

- Size - 8³/₅", 220mm
- Crimp range - 0.5 - 4.0mm

Ratchet		
Reference	Crimp Type	Crimp Range
7702	Pre Insulated End Sleeve	0.5 - 4.0mm
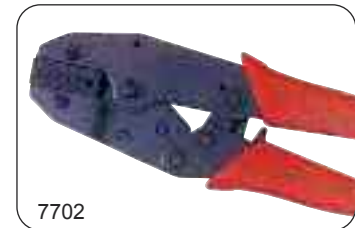
7702

7703 – Ratchet for End Sleeves

- Size - 8³/₅", 220mm
- Crimp range - 6, 10, 16mm

Ratchet		
Reference	Crimp Type	Crimp Range
7703	Pre-insulated End Sleeves	6, 10 & - 16mm

7703

Ratchet Tools for Non Insulated Copper Tube Terminals

Ref	CrimpType	Crimp Range
6095	Heavy duty indent	10mm-95mm^2
60150	Heavy duty indent	10mm-150mm^2
7701516	Medium duty indent	0.5mm-16mm^2
7800	Medium duty indent	1.5mm-16mm^2
7725	Mediumy duty indent	10mm-25mm^2
8038	Mediumy duty indent	6mm-35mm^2
60050H	Mediumy duty hexagonal	6mm-50mm^2
60120H	Mediumy duty hexagonal	10mm-120mm^2
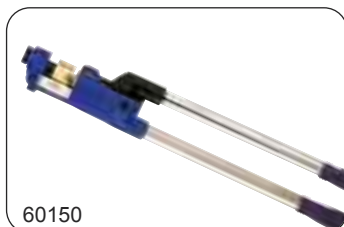
60150

6095
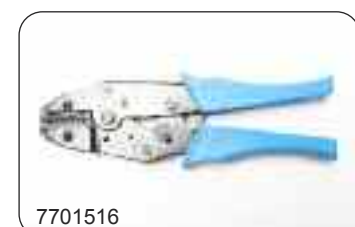
7701516

60050H + 60120H

7725, 7800 + 8038

Feed Through Rail Mount Terminal Blocks

- Conforms to all major international standards including UL, cUL, CSA, KEMA and LR
- Ex-e Certified
- Self extinguishing UL94V-0 material
- Polyamide material for use between -30ºC to +110ºC
- Full range of accessories available
- Current ratings up to 192 Amps (to IEC standards)
- Top Hat / G Rail
- Blue EXI version available on request
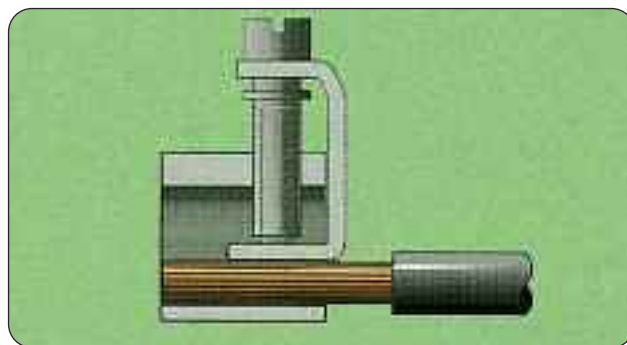
Feed Through Rail Mount Terminal Blocks				
Reference	Rated Wire (flexible)	Current Rating	Terminal Width	Pack Qty
CBD.2	0.5-4mm2	24A	5.5	10
CBD.4	0.5-6mm2	32A	6.5	10
CBD.6	0.5-10mm2	41A	8	10
CBD.10	0.5-16mm2	57A	10	10
CBD.16	0.5-25mm2	76A	12	5
CBD.35	0.5-35mm2	101A	16	5
CBD.50	1.5-50mm2	125A	18	5
CBD.70	1.5-95mm2	192A	20.5	5
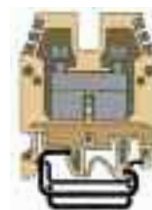
CBD2   CBD4   CBD6   CBD10
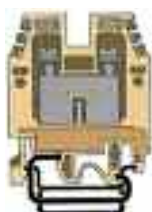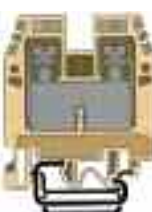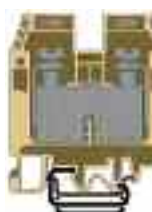
CBD16   CBD35   CBD50   CBD70

End Sections for Above Terminals		
Reference	Description	Pack Qty
CB.2/PT	End Section For CBD.2	10
CB.4/6/PT	End Section For CBD.4 & CBD.6	10
CB.10/PT	End Section For CBD.10	10
CB.16/PT	End Section For CBD.16	5
CB.35/PT	End Section For CBD.35	5
CB.50/PT	End Section For CBD.50	5
CB.70/PT	End Section For CBD.70	5

CBC SERIES RAIL MOUNTED TERMINAL BLOCKS

- These new terminal blocks offer reduced overall dimension, resulting in high compactness.
- Same overall dimensions from 2.5mm to 10mm2
- Patented 'easy bridge' system: doubles the possibility to insert PTC multi cross-connections, without the need of insulating protection.
- High conductivity with 3 products able to cover the needs normally satisfied by 6 terminals.
- UL94V-0 polyamide insulating body
- Suited for photovoltaic plants with rated voltage up to 100 vdc
- KEMA, UL, R.I.NA, ATEX and IEC Ex Certified

Ratings

CBC SERIES	CBC.2/GR	CBC.4/GR	CBC.6/GR	CBC.10/GR	TEO.4/0	TEC.6/0	TEC.10/0
Electrical function	Feed through	Feed through	Feed through	Feed through	Earth	Earth	Earth
Rated cross-section (mm2)	2.5	4	6	10	4	6	10
Rated voltage (V)	1000	1000	1000	1000	-	-	-
Rated current (A)	32	41	57	76	-	-	-

Terminal Blocks	MOQ Pack
CBC.2/GR Feed Through Terminal Block	120
CBC.4/GR Feed Through Terminal Block	100
CBC.6/GR Feed Through Terminal Block	100
CBC.10/GR Feed Through Terminal Block	100
TEO.4/0 Earth Terminal Block	1
TEC.6/0 Earth Terminal Block	1
TEC.10/0 Earth Terminal Block	1

Accessories	MOQ Pack
CBC.2-10/PT/GR End Section	50
PTC/2/10 10 pole plug in jumper	25
PTC/4/10 pole plug in jumper	25
PTC/6/10 pole plug in jumper	25
PTC/10/10 pole plug in jumper	10
PTC/SP jumper marking strip	10
DFM900 jumper barrier	50
CNU8 marking tags	500
BTO end bracket	25

Earth Terminals

- Polyamide insulator
- Available as 35mm Top Hat and 32mm G Rail types in screw clamp fixing form
- TEO.2 earth terminal, suitable for 35mm Top Hat rail mounting through blade connect system to rail
- Copper/zinc alloy, high percentage of copper conductor
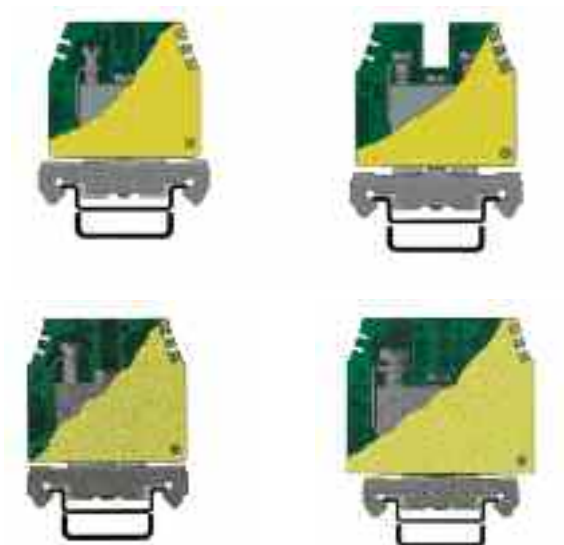
Earth Terminals			
Reference	Rated Wire	Description	Pack Qty
TEO.2	Earth Terminal 2.5mm^2	35mm Rail	1
TEO.4	Earth Terminal 4mm^2	35mm Rail	1
TE.6/0	Earth Terminal 6mm^2	35mm Rail	1
TE.10/0	Earth Terminal 10mm^2	35mm Rail	1
TE.16/0	Earth Terminal 16mm^2	35mm Rail	1
TE. 50/0	Earth Terminal 50mm^2	35mm Rail	1
TE.4/D	Earth Terminal 4mm^2	G Rail	1
TE.6/D	Earth Terminal 6mm^2	G Rail	1
TE.10/D	Earth Terminal 10mm^2	G Rail	1
TE.16/D	Earth Terminal 16mm^2	G Rail	1
TE.50/D	Earth Terminal 50mm^2	G Rail	1
CBC2/4PT	End section for TEO.4 terminal		50

Cross Connections

For connecting 2 or more terminals via link.
Screw and distance sleeve included with 2 way kit,
to be ordered separately for multipole commoning bar.

Cross Connections			
Reference	Description	For Terminal Type	Pack Qty
PMP01	45 Way Multiple Connecting Bar	CBD.2	2M (8x250mm)
PMP/42	38 Way Multiple Connecting Bar	CBD.4	2M (8x250mm)
PMP/13	31 Way Multiple Connecting Bar	CBD.6	2M (8x250mm)
PMP/04	25 Way Multiple Connecting Bar	CBD.10	2M (8x250mm)
PMP/05	21 Way Multiple Connecting Bar	CBD.16	2M (8x250mm)
PMP/06	16 Way Multiple Connecting Bar	CBD.35	2M (8x250mm)
PMP/07	14 Way Multiple Connecting Bar	CBD.50	2M (8x250mm)
PMP/08	12 Way Multiple Connecting Bar	CBD.70	2M (8x250mm)
CPM/21	Screw And Distance Sleeve For PMP/01	CBD.2	25
CPM/12	Screw And Distance Sleeve For PMP/42	CBD.4	25
CPM/83	Screw And Distance Sleeve For PMP/13	CBD.6	25
CPM/03	Screw And Distance Sleeve For PMP/04	CBD.10	25
CPM/44	Screw And Distance Sleeve For PMP/05	CBD.16	25
CPM/06	Screw And Distance Sleeve For PMP/06	CBD.35	10
CPM/07	Screw And Distance Sleeve For PMP/07	CBD.50	10
CPM/08	Screw And Distance Sleeve For PMP/08	CBD.70	15
POF/44	2 Way Link Including Distance Sleeve/Screws	CBD.16	25
POF/06	2 Way Link Including Distance Sleeve/Screws	CBD.35	15
POF/07	2 Way Link Including Distance Sleeve/Screws	CBD.50	15
POF/08	2 Way Link Including Distance Sleeve/Screws	CBD.70	15

End Brackets

- Top hat or G Rail end brackets

End Brackets		
Reference	Description	Pack Quantity
BT/3	End Bracket For 35mm Top Hat Rail	25
BT/DIN/PO	End Bracket For 32mm G Type Rail	25
BT/U	Universal End Bracket 32/35mm Top Hat/G-Type Rail	25

Coloured Partitions For Rail Mount Terminals

Manufactured in polyamide and available in red only. Used for the separation of elements on the terminal board, in order to make certain circuits easy to locate or to increase the insulation distances between terminal blocks.

Coloured Partitions

Reference	To Fit Screw Clamp Terminal	Pack Qty
DFU/1	CBD.2,	50
DFU/4	CBD.4, CBD.6, CBD.10, CBD.16	50
DFU/5	CBD.25, CBD.35	25
DFU/6	CBD.70	25

Quick Attaching Clip-on Marker
Quick attaching clip-on marker tags allowing the composition of identification markings, also alphanumerical for circuits.

Type CSC/

Reference	Composition	Minimum Order
CSC/09	Blank	500 Tags
For other identical numbers/letters the reference is CSC/(state number or letter required)		

Marking Systems
Marking tags ideal for marking all terminals, the black on white marker is attached directly into position either before or after composition of the terminal board.

Type CNU/8/

Reference	Description	Marking	Minimum Order Qty
CNU/8/001		1 to 50	500
CNU/8/051		51 to 100	500
CNU/8/301		301 to 350	500
For other progressive series of 50 digits the reference is CNU/8/state the initial number			
CNU/8/510		1 to 10	500
CNU/8/600		91 to 100	500
CNU/8/030	Blank Marker Card	Blank	500
CB/CTL/BLACK	Black Marker Pen		1

HellermannTyton www.hellermanntyton.co.uk

HellermannTyton   www.hellermanntyton.co.uk

XS Series Steel Enclosures

XS1000

WALL MOUNTED STEEL

NSYCRN   HT   HT ATEX   NSYS3X

XS2000 — STEEL FLOOR STANDING

SM   SF

XS3000 — STEEL TERMINAL

TECNO   NSYSBM

XS4000 — STEEL JUNCTION

NSYDAN/DBN   NSYDANX/DBNX

XS5000 — 19" RACK & DATA SYSTEMS

ENCLOSURE SPECIAL REQUIREMENTS   CABINET TECHNOLOGY   DATACENTRE SOLUTIONS   ELECTRONIC PACKAGING   PANAL INSTRUMENT CASES
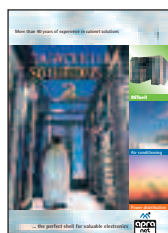
XP Series GRP/Plastic Enclosures

XP1000 **GRP WALL**

BRES   **NSYPLM**
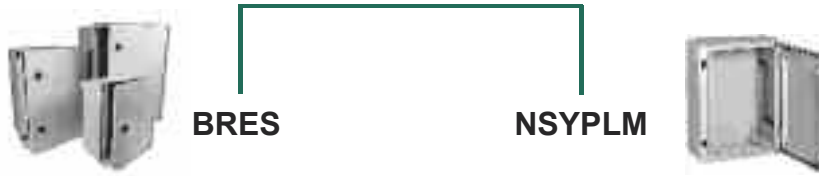
XP2000 **GRP FLOOR STANDING**

NSYPLA   **ART**

XP3000 **GRP/POLYCARB TERMINAL BOXES**

CA   **NSYPLS**

XP4000 **PLASTIC JUNCTION BOXES**

NSYTBS/TBP   **LIGHT**   **A RANGE**
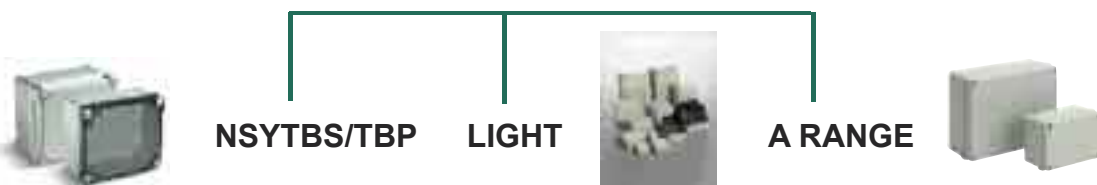
XP5000 **DISTRIBUTION BOXES**

NEW ECOLOGY   **C RANGE**   **CK RANGE**   **PRYMA**

XTSERIES **THERMAL MANAGEMENT**

HT FANS & FILTERS   **HEATERS & ACCESSORIES**   **NSYCVF**   **ZERUST**

HellermannTyton markets a comprehensive range of enclosures for the general installation, contracting and panel building industry.

The enclosure range accounts for all aspects of specific materials and IP ratings. Materials include Steel, Stainless Steel, GRP and PVC in wall and floor mounting enclosures.

IP ratings range from IP44 for indoor applications up to IP66 for outdoor applications.

To help choose the right enclosure for the right application is therefore essential, and to assist in this HellermannTyton are committed to supplying the best solution for their customers needs.

Factors to consider when selecting an enclosure:

- Where it will be installed
- What will it be used for
- How will it be mounted
- The type of environment
- The degree of ingress protection required
- The weight of internal equipment
- Aesthetics
- The risk of physical damage
- Internal accessibility
- Which standards apply
- The maintenance requirements
- EMC or protection
- Controlling the operating temperature
- Accessories
- Security requirements
- Safety requirements

Standard general-purpose enclosures normally range in size from 50mm square up to a maximum height of around 2400mm. Therefore it should not be difficult to find an enclosure to fit even the most awkward site, or to house the required equipment with maximum economy of space, avoiding the expense of unnecessarily large enclosure.

A variety of different materials are used in the manufacture of enclosures. Those in common use are listed below, together with their advantages and limitations. Choice of material clearly has a major bearing on the degree of protection afforded by the enclosure.

Mild Steel:
Mild steel is the most widely used material for general-purpose indoor and outdoor applications. Standard enclosures are manufactured from steel up to 2mm thick.

Mild steel sheet is an ideal medium for fabrications, hole punching and forming into shape. It is easily welded to form a permanent bond and component parts are easily joined together.

Different gauges (thicknesses) are available from 0.75mm, however, it is not always the thickness of the material that determines the strength of the enclosure but rather the construction and how the material is formed.

Stainless Steel:
Stainless steel is commonly used in areas where hygiene, cleanliness or corrosion resistance are important. Grades 304 and 316 are the most common and a thickness of 0.75mm to 2mm is suitable for most enclosure applications. Stainless steel enclosures are an effective protection against more aggressive environment. Care must be taken to ensure the correct grade of material is selected.

Grade 304 is used for standard stock enclosures covering the majority of industrial beverage and dairy industries. Grade 316 is a more expensive option, covering those applications where the enclosure is to be sited in a highly corrosive environment, in particular, salt laden atmospheres.

Advantages:
• May be used in many aggressive environments
• Provides excellent corrosion resistance
• May be less expensive than surface treated mild steel
• Does not deteriorate when subject to exposure to sun light (ultra violet radiation)
• Alternate grades and finishes to enhance appearance and corrosion resistance
• Low maintenance

Disadvantages:
• More expensive than mild steel
• More difficult to work

Plastic Materials:
Plastics are capable of providing a tough durable product of excellent appearance. The properties of a number of materials may be varied by means of additives. The following descriptions relate to standard materials.

Polycarbonate:
Many different types are used for producing enclosures and with the correct choice, it may be used in a variety of locations.

This material has good impact resistance. In the long term it should not be exposed to temperatures higher than 80°C. Outdoor exposure may cause some loss of mechanical strength and yellowing in appearance. Exposed to flame it is self-extinguishing. Polycarbonate releases no toxic gases on burning. Contact with methyl alcohol, alkaline solutions, amines, gaseous ammonia and its solution should be avoided.

ABS (Acrylonitrile Butadiene Styrene)
Usually produced in the same design as polycarbonate enclosures, ABS is a cheaper material with characteristics similar to polycarbonate but not suitable for such extremes of temperatures and having a lower impact strength. ABS and polycarbonate may be combined offering an enclosure with an ABS base and a polycarbonate lid. When exposed to flame, it is not necessarily self-extinguishing.

GRP (Glass Reinforced Polyester)
The good mechanical properties of this material include insulation, strength, hardness and stability over the temperature range –50°C to +150°C. Its self-finishing quality and durability have widened its range of applications.

The electrical advantage of GRP is that it is an excellent insulator and can offer protection from electric shock. Where busbars are being fitted, use of GRP enclosures may allow reduction of the clearance between the bars and the enclosure, offering benefits of size reduction.

It should be noted that when any work is carried out on the enclosure, cut or exposes surfaces, holes or edges should be treated to avoid moisture ingress. Damage to the surface may also result in moisture ingress into the material through the exposed glass fibres.

In its unfilled state – without its glass fibres polyester is brittle but offers crystal clear transparency, making it suitable for windows or clear fronted enclosures. It may be wiped clean with soap and water. If a detergent is used, it should be rinsed well with clean water. Solvents and abrasives should not be used. Deep scratches are not easily removed and should be filled.

GRP is resistant to mineral acids, many organic acids, oxidants and reducing agents, neutral and acid salt solutions, greases and oils, and some alcohols. Resistant does not mean that it is entirely impervious – over a period of time for example some machine tool oils can affect its integrity.

PVC (Poly Vinyl Chloride)
PVC is used for moulding small plastic boxes. It has excellent resistance to mineral acids (both dilute and concentrated), alkalis and detergents. Resistance to alcohol-based solvents is good but poor to ketones, aromatic based and hydrocarbons. Although it is a self-extinguishing material, PVC does give off toxic and corrosive gases when burned. PVC has a low UV resistance and can be brittle.

Nylon
Nylon is used for moulding small boxes and can become brittle in dry atmospheres. It can be affected by moisture and has poor resistance to acids although good resistance to alkalis.

Outdoors:
When an enclosure is used outdoors consideration must be given to the prevailing weather conditions and extremes of temperature.

These conditions will determine choice of material e.g. GRP, stainless steel, aluminium, the design of the enclosure e.g. requirements for improvements sealing, venting, rainhoods, the addition of extra equipment e.g. heaters, vents, thermal management systems; and special finishes e.g. anti-condensation paint.

Standard steel enclosures generally are designed to meet the demands of industrial environments. Failure to take account of other conditions can result in damage to the enclosure and contents.

The Cooling Effect:
A standard enclosure will probably allow rainfall to run around the outside of various gasketed area. If the internal temperature is reduced rapidly the pressure inside a high IP rating enclosure may be significantly lower than the ambient pressure outside, thereby inducing a suction effect through the gasketed areas. This could result in moisture around the gaskets being drawn into the enclosure.

This effect may be avoided by reducing the number of gasketed areas in contact with the rain by choosing an enclosure with gutters and/or fitting a rain hood. Alternatively to equalise quickly by allowing the enclosure to breath (through controlled ventilation) although this may reduce the IP rating.

Condensation:
Condensation is often mistaken for water ingress. It is caused by a difference in temperature between the inner and outer surfaces of an enclosure and normally forms on the same side as the prevailing wind. The most common solutions are to fit anti-condensation heaters, controlled ventilation or use of anti-condensation paint.

Apart from water lying in the bottom of the enclosure, moisture may condense on the components causing electrical 'leakage' and 'tracking' as well as component corrosion and degradation of insulation.

Remember the temperature effect. Water vapour is always present in the air and when air is cooled the 'dew point' is reached, the air is then saturated and further cooling results in condensation. Looking for the cause of moisture in an enclosure on a 'warm' day may mean that the obvious is missed and the condensation has evaporated, only to return when the temperature drops again.

Corrosive Environments:
In certain applications enclosures will need protection from chemicals and selection of the right material is determined by the chemical involved. The most likely choice is stainless steel but even then care must be taken to ensure the correct grade is selected.

Some non-metallic materials have excellent resistance to certain chemicals and poor resistance to others. Advice should be obtained when selecting a suitable material and construction as, for example, the components within the enclosure may need protecting from harmful gases.

Marine, Coastal and Off-shore:
Coastal, external applications can usually be covered by referring to the previous 'outdoors' element of this section and then paying particular attention to the treatments or materials chosen to address the extra corrosion likely from the salt laden atmosphere.

Off-shore specifications depend on the intended location of the enclosure e.g. a relatively low IP rating enclosure in an accommodation area through to a vary high rating on a ship's deck.
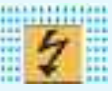
Hose-down areas:
Enclosures in these areas are usually in processing plants when the environment is subject to special regulations. The enclosures chosen are usually free of surface treatment to avoid contamination, for example, by paint flakes entering the production process.

In practice most users choose stainless steel design, which have few external features, for ease of cleaning. Various non-metallic products offer the same benefits but a stainless steel enclosure will maintain the best appearance.

UV Protection:
UV stabilizers are added to polycarbonate to help protect the material from the effects of exposure to the sun. Radiation from the sun, especially in the UV portion of the spectrum, degrades the properties of polycarbonate which could cause warping or discolouration. The addition of UV stabilizers allows the material to sustain exposure to the sun for a longer period of time.

First numeral
Protection against solid bodies

IP

0		No protection
1		Protected against solid bodies greater than 50 mm (e.g. involuntary hand contact)
2		Protected against solid bodies greater than 12 mm (e.g. fingers)
3		Protected against solid bodies greater than 2.5 mm (e.g. tools, cables...)
4		Protected against solid bodies greater than 1 mm (e.g.: small tools, fine cables...)
5		Protected against dust (no harmful deposits)
6		Fully protected against dust

Second numeral
Protection against liquids

IP

0		No protection
1		Protected against dripping water (condensation)
2		Protected against falling water up to 15º from the vertical
3		Protected against rain water up to 60º from the vertical
4		Protected against water splashing in all directions.
5		Protected against water jets from all directions
6		Protected against wave-like water jets from all directions
7		Protected against immersion
8		Protected against the effects of prolonged immersion under water

Third numeral
Mechanical protection

IK

0		No protection
01		Impact energy 0.150 J.
02		Impact energy 0.200 J.
03		Impact energy 0.350 J.
04		Impact energy 0.500 J.
05		Impact energy 0.700 J.
06		Impact energy 1.00 J.
07		Impact energy 2.00 J.
08		Impact energy 5.00 J.
09		Impact energy 10.00 J.
10		Impact energy 20.00 J.

NSYCRN IP66

Steel enclosures made from a continuous length of sheet steel, double folded at the front, with back welding to the frame. Both, externally and internally protected with polyester epoxy resin grey paint RAL7035 texturized.

- IP66 for one door enclosures
- IP55 for two door enclosures
- Series NSYCRN…NSYCRN/T with transparent security glass door.
- Welded studs on the back for direct fixing of mounting plate or other accessories.
- Perforated door reinforcement profiles allowing fixing of equipment.
- Concealed and easily removable hinges allowing over 120° door opening.
- Foamed-in polyurethane gasket and front rain gutter ensures high degree of protection.
- Accessories not included as standard supply.

Enclosures					
Height (A)	Width (B)	Depth (C)	Reference	Weight (Kg)*	Reference with Transparent Door
200	200	150	NSYCRN22150	2.5	-
200	300	150	NSYCRN23150	3.9	-
250	200	150	NSYCRN252150D	2.9	-
300	250	150	NSYCRN325150	4.2	NSYCRN325150T
300	250	200	NSYCRN325200	4.3	NSYCRN325200T
300	450	150	NSYCRN345150	6.7	-
300	300	150	NSYCRN33150	4.2	NSYCRN33150T
300	300	200	NSYCRN33200	4.9	NSYCRN33200T
300	400	200	NSYCRN34200	6	NSYCRN34200T
400	300	150	NSYCRN43150	5.6	NSYCRN43150T
400	300	200	NSYCRN43200	5.8	NSYCRN43200T
400	400	200	NSYCRN44200	8	NSYCRN44200T
400	600	250	NSYCRN46250	10	NSYCRN46250T
400	600	300	NSYCRN46300	11.5	-
500	400	150	NSYCRN54150	7.5	NSYCRN54150T
500	400	200	NSYCRN54200	8.6	NSYCRN54200T
500	400	250	NSYCRN54250	9.5	NSYCRN54250T
500	500	250	NSYCRN55250	11	NSYCRN55250T
600	400	150	NSYCRN64150	8.5	NSYCRN64150T
600	400	200	NSYCRN64200	9.8	NSYCRN64200T
600	400	250	NSYCRN64250	10.8	NSYCRN64250T
600	500	150	NSYCRN65150	10.2	NSYCRN65150T
600	500	200	NSYCRN65200	12	NSYCRN65200T
600	600	250	NSYCRN66250	12.3	NSYCRN66250T
600	600	200	NSYCRN66200	14	-
600	600	250	NSYCRN66250	15	NSYCRN66250T
600	600	300	NSYCRN66300	16.3	NSYCRN66300T
600	800	300	NSYCRN68300	22	NSYCRN68300T
700	500	200	NSYCRN75200	14.3	NSYCRN75200T
700	500	250	NSYCRN75250	15.5	NSYCRN75250T
800	600	200	NSYCRN86200	18.7	NSYCRN86200T
800	600	250	NSYCRN86250	20	NSYCRN86250T
800	600	300	NSYCRN86300	21.5	NSYCRN86300T
800	600	400	NSYCRN86400	27	NSYCRN86400T
800	800	200	NSYCRN88200	26	NSYCRN88200T
800	800	300	NSYCRN88300	30	NSYCRN88300T
800	1000	300	NSYCRN810300 **	33	-
800	1200	300	NSYCRNG812300D	40	-
1000	600	250	NSYCRN106250	27	NSYCRN106250T
1000	600	300	NSYCRN106300	28	NSYCRN106300T
1000	600	400	NSYCRNG106400	36	NSYCRNG106400T
1000	800	250	NSYCRN108250	34.5	NSYCRN108250T
1000	800	300	NSYCRN108300	35	NSYCRN108300T
1000	800	400	NSYCRN108400	43	NSYCRN108400T
1000	1000	300	NSYCRN1010300 **	46.7	NSYCRN1010300T
1000	1200	300	NSYCRN1012300 **	54	NSYCRN1012300T
1000	1200	400	NSYCRNG1012400D	60	-
1200	600	300	NSYCRNG126300	37	NSYCRNG126300T
1200	600	400	NSYCRNG126400	42	NSYCRNG126400T
1200	800	300	NSYCRN128300 **	44.8	NSYCRN128300T
1200	800	400	NSYCRN128400	50	NSYCRN128400T
1200	1000	300	NSYCRN1210300 **	53.4	-
1200	1000	400	NSYCRN1210400 **	60	-
1200	1200	300	NSYCRNG1212300D	64	-
1200	1200	400	NSYCRNG1212400D	90	-
1400	1000	300	NSYCRNG1410300D	80	-

** Enclosure with 3 point lock
** IP55 Rated

Mounting Plates for NSYCRN

A complete range of mounting plates comprising of 4 versions able to provide all the mountings needed for this installation system.

- Galvanized steel plates with drill holes for fitting accessories and an earth connection.
- Insulating plates in Bakelite.
- Perforated plates in galvanized steel, drilled with 3.6 mm Ø holes, 12.5 mm apart. 2 Ø self-tapping or M4 three-lobe screws can be used.
- Universal plates for rapid cabling, manufactured in zinc dichromate steel.
- The arrangement of the drill holes combined with the positioning of the nuts cover all the fixing point distances.
- The NSYMM version available from stock

Mounting Plates		Galvanised Steel		
Height (A)	Width (B)	Reference	Thickness (mm)	Weight (Kg)
200	200	NSYMM22	2	0.3
250	200	NSYMM2520	2	0.4
300	450	NSYMM3045	2	1.8
300	250	NSYMM3025	2	0.6
300	200	NSYMM32	2	0.8
300	300	NSYMM33	2	1.2
300	400	NSYMM43	2	1.6
400	300	NSYMM43	2	1.6
400	400	NSYMM44	2	2.2
400	600	NSYMM64	2	3.1
500	400	NSYMM54	2	2.5
500	500	NSYMM55	2	3.7
600	400	NSYMM64	2	3.1
600	500	NSYMM65	2	4
600	600	NSYMM66	2	5.5
600	800	NSYMM86	2.5	9.9
700	500	NSYMM75	2	4.6
800	600	NSYMM86	2.5	9.9
800	800	NSYMM88	2.5	13.6
800	1000	NSYMM108	2.5	16.9
1000	600	NSYMM106	2.5	12.6
1000	800	NSYMM108	2.5	16.9
1000	1000	NSYMM1010	2.5	18.6
1000	1200	NSYMM1210	2.5	21.7
1200	600	NSYMM126	2.5	13.4
1200	800	NSYMM128	2.5	17.8
1200	1000	NSYMM1210	2.5	21.7
1200	1200	NSYMM1212	2.5	26.8
1400	1000	NSYMM1410	2.5	26.1

Depth Adjustable Supports

For 200, 250, 300 and 400mm depth enclosures. The different positions allow the adjusting of mounting plates and accessories every 12.5mm. Front with drilling for 5.5mm Ø self-tapping screws for fixing of general equipment.

Depth Adjustable Support		
Reference	Enclosure Depth	Qty
NSYSDCR200	200	Set of 4
NSYSDCR250	250	Set of 4
NSYSDCR300	300	Set of 4
NSYSDCR400	400	Set of 4

Wall Fixing Kit

Manufactured in passivated galvanised steel. Fitted from the outside. Can be mounted vertically or horizontally.
Not included in the standard order.

Wall Fixing Kit	
Reference	Description
NSYPFCR	Standard Fixing Kit

Louvre Plates

To be fitted on any surface of the enclosure for internal ventilation. Colour RAL7035 texturised.

Louvre Plates		
Reference	A	B
NSYCAG110x46M	144	62
NSYCAG180x62M	208	90
NSYCAG216x62M	244	90
NSYCAG317x91M	345	118
NSYCAG317x120M	345	148
NSYCAG417x120M	445	148
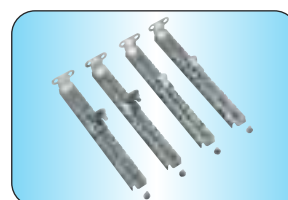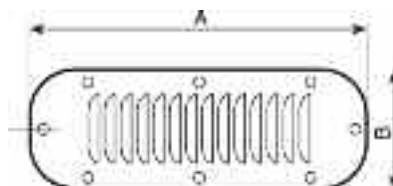
Locks for NSYCRN

Characteristics	Key Operated Product Ref	Reference
Full Key Operated Lock with Key 405		NSYCL405CRN
6 mm Square Key Lock	LC-7	NSYTC6CRN
7 mm Square Key Lock	LC-7	NSYTC7CRN
8 mm Square Key Lock	LC-8	NSYTC8CRN
6 mm Triangular Key Lock	LT-6,5	NSYTT6CRN
7 mm Triangular Key Lock	LT-8	NSYTT7CRN
8 mm Triangular Key Lock	LT-8	NSYTT8CRN
Stainless Steel Padlock Bracket		NSYKPLM
Padlock Transformation		NSYCBCCRN

* Various lock configurations are available for the NSYCRNG enclosure. Please ask our customer service department for further details.

Spare Keys

Characteristics	Reference
Manual handle with key	405 - NSYCL40SCRN
Wing	NSYLDBS

Canopies

Metal canopies, protected internally and externally with textured light grey polyester epoxy resin, to RAL7035.

Reference	Width	Depth
NSYTJ2015	200	150
NSYTJ2515	250	150
NSYTJ2520	250	200
NSYTJ3015	300	150
NSYTJ3020	300	200
NSYTJ4015	400	150
NSYTJ4020	400	200
NSYTJ4025	400	250
NSYTJ5015	500	150
NSYTJ5020	500	200
NSYTJ5025	500	250
NSYTJ6020	600	200
NSYTJ6025	600	250
NSYTJ6040	600	400
NSYTJ8020	800	200
NSYTJ8025	800	250
NSYTJ8030	800	300
NSYTJ8040	800	400
NSYTJ10030	1000	300
NSYTJ10040	1000	400

Internal Door

Set of internal doors designed to attach directly to the enclosure or to the adjustable SDCR supports. Enter positioning of the mounting plate by making it depth adjustable. Finished in textured polyester epoxy paint, colour RAL7035.

Reference	Height	Width
NSYPIN43	400	300
NSYPIN54	500	400
NSYPIN64	600	400
NSYPIN75	700	500
NSYPIN86	800	600
NSYPIN106	1000	600
NSYPIN108	1000	800
NSYPIN128	1200	800

HT IP66

Steel enclosures used to house electrical or electronic switchgear, control gear and equipment.

Mainly used for industrial electrical installations as enclosures for measurement, transmission, signposting and control equipment or as enclosures for all the equipment necessary to co-ordinate the different electrical currents.

The design and manufacture of this product line is sufficiently flexible so as to adapt to special executions that require specific dimensions in agreement with user and installation requirements.

Manufactured from high quality materials in cold-rolled plate of up to 2mm thick and coated with RAL7035 hardened epoxy polyester paint.

* Comes complete with Mounting Plate

- Degree of protection is IP66
- Resistance to impact is IK10
- Range of temperature under normal conditions -25°C/+40°C
- Maximum operation voltage (Ue) 1000V
- RAL7035 epoxy-polyester paint
- Range of accessories available

Steel Enclosures		Dimensions (mm)		
HT Product Code	Description	Height	Width	Depth
HT252015	IP66 Mild Steel Enclosure c/w mtg plate	250	200	150
HT302515	IP66 Mild Steel Enclosure c/w mtg plate	300	250	150
HT302520	IP66 Mild Steel Enclosure c/w mtg plate	300	250	200
HT303015	IP66 Mild Steel Enclosure c/w mtg plate	300	300	150
HT303020	IP66 Mild Steel Enclosure c/w mtg plate	300	300	200
HT403015	IP66 Mild Steel Enclosure c/w mtg plate	400	300	150
HT403020	IP66 Mild Steel Enclosure c/w mtg plate	400	300	200
HT404020	IP66 Mild Steel Enclosure c/w mtg plate	400	400	200
HT504015	IP66 Mild Steel Enclosure c/w mtg plate	500	400	150
HT504020	IP66 Mild Steel Enclosure c/w mtg plate	500	400	200
HT504025	IP66 Mild Steel Enclosure c/w mtg plate	500	400	250
HT505025	IP66 Mild Steel Enclosure c/w mtg plate	500	500	250
HT604015	IP66 Mild Steel Enclosure c/w mtg plate	600	400	150
HT604020	IP66 Mild Steel Enclosure c/w mtg plate	600	400	200
HT605020	IP66 Mild Steel Enclosure c/w mtg plate	600	500	200
HT605025	IP66 Mild Steel Enclosure c/w mtg plate	600	500	250
HT606020	IP66 Mild Steel Enclosure c/w mtg plate	600	600	200
HT606025	IP66 Mild Steel Enclosure c/w mtg plate	600	600	250
HT606030	IP66 Mild Steel Enclosure c/w mtg plate	600	600	300
HT705020	IP66 Mild Steel Enclosure c/w mtg plate	700	500	200
HT705025	IP66 Mild Steel Enclosure c/w mtg plate	700	500	250
HT806020	IP66 Mild Steel Enclosure c/w mtg plate	800	600	200
HT806025	IP66 Mild Steel Enclosure c/w mtg plate	800	600	250
HT806030	IP66 Mild Steel Enclosure c/w mtg plate	800	600	300
HT808030	IP66 Mild Steel Enclosure c/w mtg plate	800	800	300
HT1008030	IP66 Mild Steel Enclosure c/w mtg plate	1000	800	300
HT1206030	IP66 Mild Steel Enclosure c/w mtg plate	1200	600	300
HT1010300	IP66 Mild Steel Enclosure c/w mtg plate	1000	1000	300
HT12080300	IP66 Mild Steel Enclosure c/w mtg plate	1200	800	300
HT12080400	IP66 Mild Steel Enclosure c/w mtg plate	1200	800	400

Reference	Description
HTWB	Wall Mounting Brackets
HTFOK	Fully Operated Key Lock
HTTL	8mm Triangular Lock
* S4002	Standard Replacement Double Bar Lock
* S1180	Wing Lock

Accessories available:

- Wall Brackets

- Locks

* other accessories available on request

A range of Metal Industrial Enclosures with glazed door to IP66.

Steel enclosures used to house electrical or electronic switchgear, control gear and equipment.

• IP66

• IK10 resistant to impact

• RAL7035 epoxy-polyester paint

• Comes complete with mounting plate

• All items are available to special order

Steel Enclosures	Description	Dimensions		
HT Product Code		Height	Width	Depth
HT-T303015	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	300	300	150
HT-T403015	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	400	300	150
HT-T403020	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	400	300	200
HT-T404020	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	400	400	200
HT-T504015	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	500	400	150
HT-T504020	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	500	400	200
HT-T504025	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	500	400	250
HT-T505025	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	500	500	250
HT-T604015	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	600	400	150
HT-T604020	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	600	400	200
HT-T606020	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	600	600	200
HT-T606025	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	600	600	250
HT-T705020	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	700	500	200
HT-T705025	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	700	500	250
HT-T806020	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	800	600	200
HT-T806025	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	800	600	250
HT-T806030	IP66 Mild Steel Enclosure c/w mtg plate and glazed door	800	600	300

HT Product Code	Description
HT48423	Wall Mounting Supports

Other accessories are available.

Ask our customer service department.

• Inner attachment support
• Cabinet lifting eye bolts
• Mast attachment pack
• Door assembly profiles
• Plinth
• Plinth cable support
• Height adjustment elements
• RAL7035 touch up paint
• NSYEX range of hexagonal spacers
• A4/A5 document pockets

HT IP66 ATEX Mild Steel Enclosures
Plain Plate included

A range of Atmospheric Classified Mild Steel Industrial Enclosures to IP66.

Mild Steel Enclosures classified into groups and zones

under Directive 99/92/CE

• Includes plain mounting plate and 4 wall brackets

• IP66 / EMA 1,12,4

ATEX Explained:

ATEX is a term commonly used in potentially explosive atmospheres.
An explosive atmosphere is defined as a mixture of flammable substances
in the form of gas, vapour or dust. When in the air under normal atmospheric
conditions can or partly catch fire in the form of an explosion to a source of ignition.

Since 2003 the European directive makes compulsory to use ATEX certified
enclosures & equipment in potentially explosive areas

ATEX Atmosphere Classification

Application	Hazardous area category	Zones	Atmosphere
GROUP I MINING	M1 and M2	Gas & Dust (G and D)	G
		Zone 1: Gas, vapour and mist	D
GROUP II INDUSTRIAL (Non-Mining) MINING	1. Continuous for long periods 2. Occassional 3. Short periods only	Zone 20: Dusts	G
		Zone 1: Gas, vapour and mist	D
		Zone 2: Gas, vapour and mist	G
		Zone 22: Dusts	D

Labelling:

0163: Organisation ref number
Atex symbol according to directive
II: Equipment for differing mining facilities and hazardous areas
2: Product category
GD: Gas and dust
EX: Product is ATEX compliant
IIE: Gas type: Hydrogen and similar.
Gb/Db: Protection against dust and gas for non-electrical equipment 'Control of ignition sources'
Tb: Type of protection 'Enclosure'
IIC: Powder type 'Conducting'

HT-ATX604025 — Reference number

0163   II 2 GD   -   Ex e IIC Gb
Ex tb IIIC Db

LOM 12ATEX 3060U — EC type certification no

600X400X250   -20°C to +60°C — Usage Temp
IP66   ARGENTA ATEX

O.F.N° 111110959-06/11 — Manufacturing number

Degree of protection
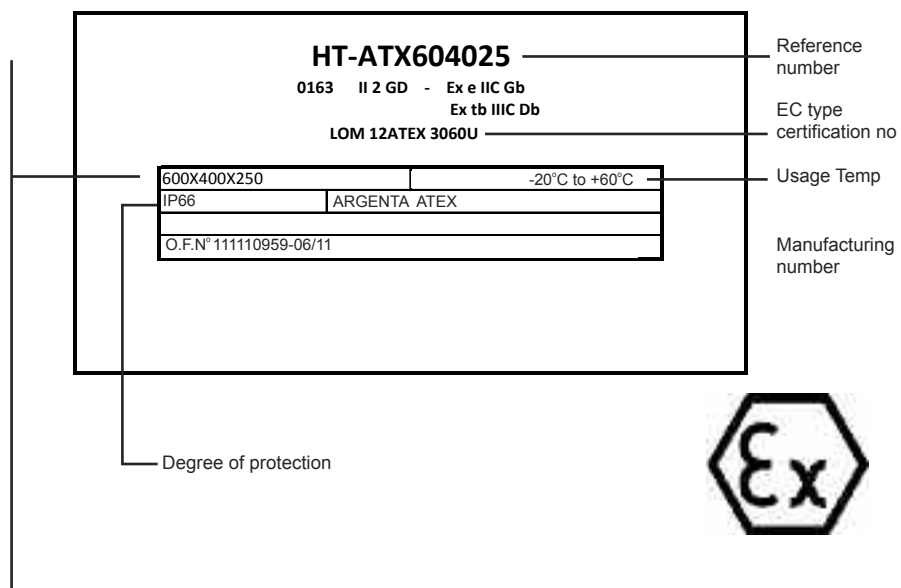
Technical Features

M6 earth connection bolts on door and body

M8 rivet nuts for attaching the 4 wall hangers included in the unit

M8 rivet nut for earthing

Optimized opening and closing

Steel Enclosures	Description	Dimensions			Cable Enties	Locks	Hinges
HT Product Code		Height	Width	Depth			
HT-ATX302015	Mild Steel Enclosure IP66 c/w mtg plate and 4 wall brackets	300	250	150	1	1	2
HT-ATX303020	Mild Steel Enclosure IP66 c/w mtg plate and 4 wall brackets	300	300	200	1	1	2
HT-ATX403020	Mild Steel Enclosure IP66 c/w mtg plate and 4 wall brackets	400	300	200	1	1	2
HT-ATX404020	Mild Steel Enclosure IP66 c/w mtg plate and 4 wall brackets	400	400	200	1	1	2
HT-ATX504020	Mild Steel Enclosure IP66 c/w mtg plate and 4 wall brackets	500	400	200	2	2	2

NSYS3X IP66

Stainless steel enclosures are particularly suitable for corrosive environments and installations requiring strict hygiene. They are ideal for the chemical, petrochemical and agro food industries etc.

• Monobloc IP66 enclosures manufactured in AISI304 stainless steel. On request, these enclosures can be manufactured in AISI304L stainless steel (resistant to highly corrosive organic agents) or AISI316 stainless steel (resistant to concentrated acids and halides) for particularly hostile environments

• AST brush finish, giving an excellent surface and anti-corrosion properties

• Range of sizes comprising 14 different models. Wide range of accessories compatible with the NSYCRN range

NSYS3X IP-66 Stainless Steel Wall Mounted Enclosure

External Dimensions			Reference	No.	No.	Weight
Height	Width	Depth		Locks	Hinges	(Kg)
300	200	150	NSYS3X3215	1	2	3.9
300	250	150	NSYS3X302515	1	2	4.8
300	300	150	NSYS3X3315	1	2	5
400	300	150	NSYS3X4315	2	2	5.7
400	300	200	NSYS3X4320	2	2	6.7
400	400	200	NSYS3X4420	2	2	7
500	400	200	NSYS3X5420	2	2	9.2
600	400	200	NSYS3X6420	2	2	10.7
600	600	250	NSYS3X6625	2	2	14
700	500	250	NSYS3X7525	2	2	18.5
800	600	250	NSYS3X8625	2	2	23.5
800	800	300	NSYS3X8830	2	2	31
1000	800	300	NSYS3X10830	2	3	38.5
1200	800	300	NSYS3X12830	2	3	44

Mounting Plates — Galvanised Steel (mm)

Height (A)	Height (B)	Reference	Thickness (mm)	Weight (Kg)
300	250	NSYMM3025	2	0.6
300	200	NSYMM32	2	0.8
300	300	NSYMM33	2	1.2
300	400	NSYMM43	2	1.6
400	400	NSYMM44	2	2.2
400	600	NSYMM64	2	3.1
500	400	NSYMM54	2	2.5
600	600	NSYMM66	2	5.5
700	500	NSYMM75	2	4.6
800	800	NSYMM88	2.5	13.6
800	1000	NSYMM108	2.5	16.9
1200	800	NSYMM128	2.5	17.8

Wall Fixing Kit

Set of four stainless steel pieces not included as standard.

Wall Fixing Kit

Reference	Description
NSYPFCX	Standard Fixing Kit

Locks For NSYS3X Enclosures

Converting The Standard To A Standardised Variant

Characteristics	Key	Reference
Stainless steel 6 mm square key lock	LC-7	NSYTC6CSX
Stainless steel 7 mm square key lock	LC-7	NSYTC7CSX
Stainless steel 8 mm triangular key lock	LT-8	NSYTT8CSX
405 key lock	405	NSYCL405CSX

Customised Solutions – A different design to suit all types of needs

HellermannTyton offer the possibility of customising metallic cabinets to adapt to each installation. Its versatile manufacturing process permits the production of any type of cabinet at very competitive prices and with very short lead times.

Sizes, shapes, dies, colours can all be manufactured with high quality materials that satisfy the technical and quality parameters demanded by the market.

- **DIES**

Moulds in body, door, assembly plate or cable gland lid according to the needs of the installation, or the possibility of making any size and shape of mould: round, square, hexagonal etc.

- **COLOURS**

Cabinets can be painted in any colour of the RAL chart subject to minimum quantities and delivery times.

* Note: the above solutions are available in quantities of 50 or more.

HellermannTyton

SM
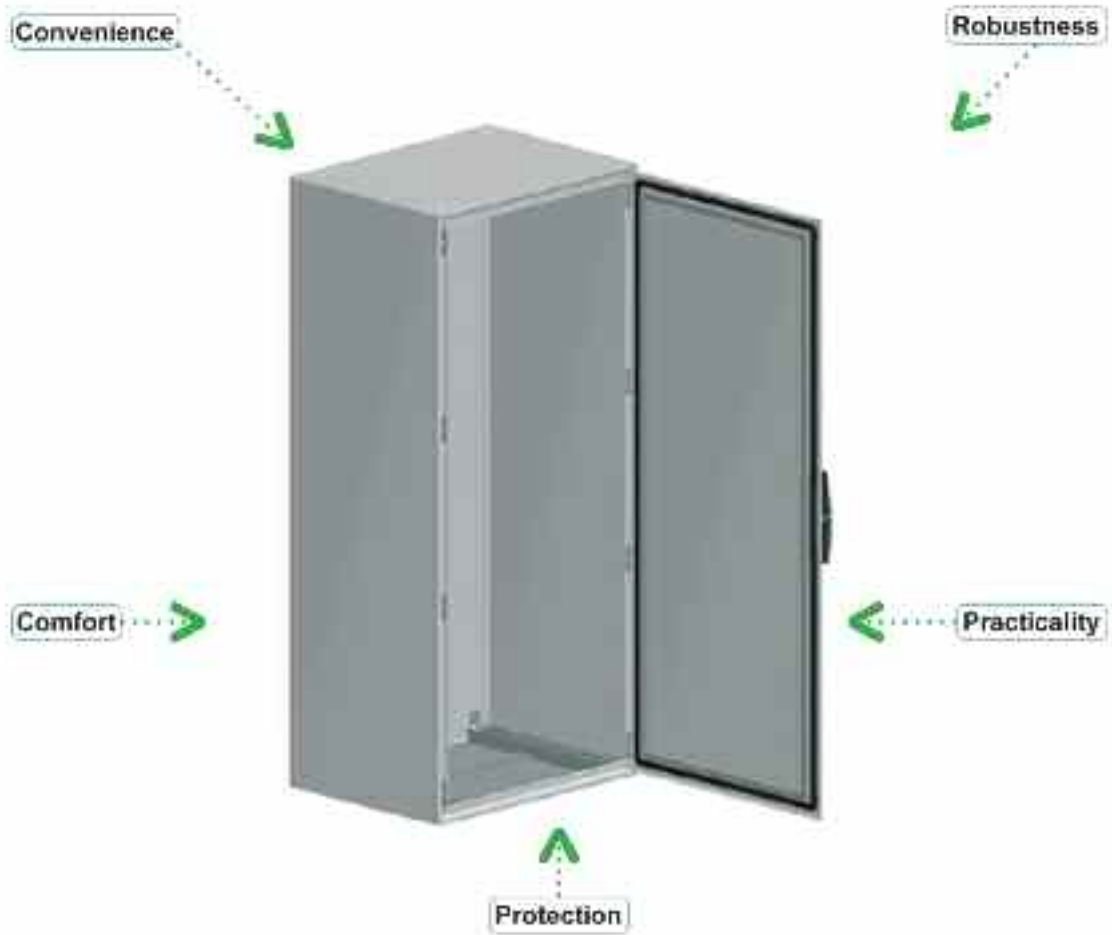
Robustness:
Body made as a single piece with welded rear panel.
Front part forming a rigid frame with welded corners

Spacial SM - Floor Standing Monobloc

SPACIAL SM: Monobloc body made of 1.5mm sheet steel thickness. Plain door made from sheet steel with a thickness of 1.8mm and vertical reinforcements drilled every 25mm. Conforms to general rules for Empty Enclosures defined by IEC62208 standard.

- Water tightness   IP 55 for single-door (Nema type 1, 2, 3, 3R, 4, 5, 12, 12k and 13)

   conforming IEC60529   IP 55 for double-door (Nema type 1, 12 and 12k)

- Robustness   IK 10 (plain-door)

   conforming IEC62262   IK 08 (glazed-door)

- Paint Method: Electrostatic powder
- Element: Polyester 70%, Epoxy 30%
- Colour: RAL7035 textured
- Thickness: Ø 65 ± 15 % ≒ m

Main Functionalities

• Modularity: Possibility of assembling compact enclosures.Thanks to the compact design of the front frame of the enclosure body, the doors can be opened without interfering with adjacent enclosures
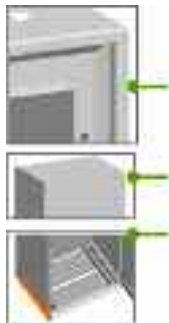
• Construction technology

Body comprised of only two parts

Only one weld line

Front edges welded

• Robustness

- The most resistant body on the market
- Permissible load plate: 600 Kgs/m2
- Permissible load door: 60 Kgs/m2

• Lock with handle as standard (smoother door opening)

Change of key insert with a simple "click" – screwless in all versions

Customised with customer's logotype

• FRAME: Perforated rails 25 mm pitch, allows regulating mounting plate supports and uprights

• FRAME: Perforated frame at the front of the enclosure allows the installation of accessories. The compact enclosure has the same possibilities for installing accessories as the combinable one.

SF

Aesthetics

Robustness

Simplicity

Rapidity

Convenience

Practicality

Comfort

Reliability

Accessibility

Robustness:

Structure formed from a single 1.5-mm galvanised-steel section, with a high moment of inertia. Vertical uprights joined with top and bottom frames, screwed together with connections of sintered steel. Panels built into the structure.

Spacial SF - Floor Standing Extendable

SPACIAL SF:Structure made from profiled and laser-welded galvanised steel, with vertical and horizontal cut-outs with a pitch of 25mm. Doors made from folded and welded steel, 120º opening, hinges and captive pin and handle lock with 5mm double-bar insert. To guarantee the continuity of the protection circuit, (according IEC 62208)a protection conductor must be installed. Conforms to IEC62208 standard.

• Water tightness (Nema type 1,	Conforming IEC60529 - IP 55 for double-door 12 and 12k)
• Robustness conforming IEC62262	IK 10 (plain-door) IK 08 (glazed-door)
• Paint Method:	Electrostatic powder
• Element:	Polyester 70%, Epoxy 30%
• Colour:	RAL7035 textured
• Thickness:	Ø 65 ± 15 % ⬚ m
• Vibration Class	DNV certified as Class 'A'

Main Functionalities

• Kit Version: Enclosure can be supplied unassembled saving space and optimizing stocks. Parts needed: 1 Uprights, 2 Top & bottom, 3 Rear panel, 4 Door & 5 side panels

• Profile: The section (profile) makes the enclosure the most robust on the market, for the most demanding uses. Its 18 folds construction, gives the profile with the highest inertia momentum of the market. 7,70mm4.

Framework admits loads up to 1.000 Kgs

• Length of assemblies
The total length of the assembly is the sum of the individual enclosures in it. No surprises when installing.

• Lock with handle as standard (smoother door opening) Change of key insert with a simple "click" – screwless in all versions. Customised with customer's logotype

• Versatility: Possibility of making assemblies in a line, "L" , "T", "H" or "U" with Standard catalogue product in any size.

SF/SM

Nominal dimensions (mm)			No. of doors	Special SF						
				Plain door		Transparent door	Side panels (hung from the outside)	Cable-gland plate		
				With mounting plate	Without mounting plate	Without mounting plate		Plain	1 entry	2 entries
Height	Width	Depth								
1200	600	400	1	NSYSF12640P	NSYSF12640	-	NSY2SP124	NSYEC64	NSYEC641	-
1200	600	600	1	NSYSF12660P	NSYSF12660	-	NSY2SP126	NSYEC66	NSYEC661	NSYEC662
1200	800	300	1	-	-	-	-	-	-	-
1200	800	400	1	NSYSF12840P	NSYSF12840	-	NSY2SP124	NSYEC84	NSYEC841	-
1200	800	600	1	NSYSF12860P	NSYSF12860	-	NSY2SP126	NSYEC86	NSYEC861	NSYEC862
1200	1000	300	2	-	-	-	-	-	-	-
1200	1200	400	2	-	-	-	-	-	-	-
1400	600	300	1	-	-	-	-	-	-	-
1400	600	400	1	NSYSF14640P	NSYSF14640	-	NSY2SP144	NSYEC64	NSYEC641	-
1400	800	300	1	-	-	-	-	-	-	-
1400	800	400	1	NSYSF14840P	NSYSF14840	-	NSY2SP144	NSYEC84	NSYEC841	-
1400	1000	400	2	-	-	-	-	-	-	-
1400	1200	400	2	-	-	-	-	-	-	-
1600	600	300	1	-	-	-	-	-	-	-
1600	600	400	1	-	-	-	-	-	-	-
1600	600	600	1	NSYSF16660P	NSYSF16660	-	NSY2SP166	NSYEC66	NSYEC661	NSYEC662
1600	600	800	1	NSYSF16680P	NSYSF16680	-	NSY2SP168	NSYEC68	NSYEC681	NSYEC682
1600	800	300	1	-	-	-	-	-	-	-
1600	800	400	1	-	-	-	-	-	-	-
1600	800	600	1	NSYSF16860P	NSYSF16860	-	NSY2SP166	NSYEC86	NSYEC861	NSYEC862
1600	800	800	1	NSYSF16880P	NSYSF16880	-	NSY2SP168	NSYEC88	NSYEC881	NSYEC882
1600	1000	300	2	-	-	-	-	-	-	-
1600	1000	400	2	-	-	-	-	-	-	-
1600	1200	300	2	-	-	-	-	-	-	-
1600	1200	400	2	-	-	-	-	-	-	-
1800	400	400	1	-	NSYSF18440	-	NSY2SP184	NSYEC44	NSYEC441	-
1800	400	500	1	-	NSYSF18450	-	NSY2SP185	NSYEC45	NSYEC451	-
1800	400	600	1	-	NSYSF18460	-	NSY2SP186	NSYEC46	NSYEC461	NSYEC462
1800	600	300	1	-	-	-	-	-	-	-
1800	600	400	1	NSYSF18640P	NSYSF18640	NSYSF18640T	NSY2SP184	NSYEC64	NSYEC641	-
1800	600	500	1	NSYSF18650P	NSYSF18650	NSYSF18650T	NSY2SP185	NSYEC65	NSYEC651	-
1800	600	600	1	NSYSF18660P	NSYSF18660	-	NSY2SP186	NSYEC66	NSYEC661	NSYEC662
1800	600	800	1	-	-	NSYSF18680T	NSY2SP188	NSYEC68	NSYEC681	NSYEC682
1800	800	300	1	-	-	-	-	-	-	-
1800	800	400	1	NSYSF18840P	NSYSF18840	NSYSF18840T	NSY2SP184	NSYEC84	NSYEC841	-
1800	800	500	1	NSYSF18850P	NSYSF18850	NSYSF18850T	NSY2SP185	NSYEC85	NSYEC851	-
1800	800	600	1	NSYSF18860P	NSYSF18860	NSYSF18860T	NSY2SP186	NSYEC86	NSYEC861	NSYEC862
1800	800	600	2	NSYSF188602DP	NSYSF188602D	-	NSY2SP186	NSYEC86	NSYEC861	NSYEC862
1800	1000	400	1	NSYSF181040P	NSYSF181040	-	NSY2SP184	NSYEC104	NSYEC1041	-
1800	1000	400	2	NSYSF181040 2DP	NSYSF181040 2D	-	NSY2SP184	NSYEC104	NSYEC1041	-
1800	1000	500	1	NSYSF181050P	NSYSF181050	-	NSY2SP185	NSYEC105	NSYEC1051	-
1800	1000	500	2	-	-	-	-	-	-	-
1800	1000	600	1	NSYSF181060P	NSYSF181060	-	NSY2SP186	NSYEC106	NSYEC1061	NSYEC1062
1800	1000	600	2	NSYSF181060 2DP	NSYSF181060 2D	-	NSY2SP186	NSYEC106	NSYEC1061	NSYEC1062
1800	1200	400	2	NSYSF181240 2DP	NSYSF181240 2D	-	NSY2SP184	NSYEC124	NSYEC1241	-
1800	1200	500	2	NSYSF181250 2DP	NSYSF181250 2D	-	NSY2SP185	NSYEC125	NSYEC1251	-
1800	1200	600	2	NSYSF181260 2DP	NSYSF181260 2D	-	NSY2SP186	NSYEC126	NSYEC1261	NSYEC1262
1800	1600	400	2	-	-	-	-	-	-	-
1800	1600	500	2	-	-	-	-	-	-	-
2000	300	600	1	-	NSYSF20360	-	NSY2SP206	NSYEC36	NSYEC361	-
2000	300	800	1	-	NSYSF20380	-	NSY2SP208	NSYEC38	NSYEC381	-
2000	400	400	1	-	NSYSF20440	-	NSY2SP204	NSYEC44	NSYEC441	-
2000	400	500	1	-	NSYSF20450	-	NSY2SP205	NSYEC45	NSYEC451	-
2000	400	600	1	-	NSYSF20460	-	NSY2SP206	NSYEC46	NSYEC461	NSYEC462
2000	400	800	1	-	NSYSF20480	-	NSY2SP208	NSYEC48	NSYEC481	NSYEC482
2000	600	300	1	-	-	-	-	-	-	-
2000	600	400	1	NSYSF20640P	NSYSF20640	NSYSF20640T	NSY2SP204	NSYEC64	NSYEC641	-
2000	600	500	1	NSYSF20650P	NSYSF20650	NSYSF20650T	NSY2SP205	NSYEC65	NSYEC651	-
2000	600	600	1	NSYSF20660P	NSYSF20660	-	NSY2SP206	NSYEC66	NSYEC661	NSYEC662
2000	600	800	1	NSYSF20680P	NSYSF20680	-	NSY2SP208	NSYEC68	NSYEC681	NSYEC682
2000	800	300	1	-	-	-	-	-	-	-
2000	800	400	1	NSYSF20840P	NSYSF20840	NSYSF20840T	NSY2SP204	NSYEC84	NSYEC841	-
2000	800	500	1	NSYSF20850P	NSYSF20850	NSYSF20850T	NSY2SP205	NSYEC85	NSYEC851	-
2000	800	600	1	NSYSF20860P	NSYSF20860	NSYSF20860T	NSY2SP206	NSYEC86	NSYEC861	NSYEC862
2000	800	600	2	NSYSF208602DP	NSYSF208602D	-	NSY2SP206	NSYEC86	NSYEC861	NSYEC862
2000	800	800	1	NSYSF20880P	NSYSF20880	NSYSF20880T	NSY2SP208	NSYEC88	NSYEC881	NSYEC882
2000	1000	400	1	NSYSF201040P	NSYSF201040	NSYSF201040T	NSY2SP204	NSYEC104	NSYEC1041	-
2000	1000	400	2	NSYSF201040 2DP	NSYSF201040 2D	-	NSY2SP204	NSYEC104	NSYEC1041	-
2000	1000	500	1	NSYSF201050P	NSYSF201050	NSYSF201050T	NSY2SP205	NSYEC105	NSYEC1051	-
2000	1000	500	2	NSYSF201050 2DP	NSYSF201050 2D	-	NSY2SP205	NSYEC105	NSYEC1051	-
2000	1000	600	1	NSYSF201060P	NSYSF201060	NSYSF201060T	NSY2SP206	NSYEC106	NSYEC1061	NSYEC1062
2000	1000	600	2	NSYSF201060 2DP	NSYSF201060 2D	-	NSY2SP206	NSYEC106	NSYEC1061	NSYEC1062
2000	1000	800	1	NSYSF201080P	NSYSF201080	-	NSY2SP208	NSYEC108	NSYEC1081	NSYEC1082
2000	1200	400	2	NSYSF201240 2DP	NSYSF201240 2D	-	NSY2SP204	NSYEC124	NSYEC1241	-
2000	1200	500	2	NSYSF201250 2DP	NSYSF201250 2D	-	NSY2SP205	NSYEC125	NSYEC1251	-
2000	1200	600	2	NSYSF201260 2DP	NSYSF201260 2D	-	NSY2SP206	NSYEC126	NSYEC1261	NSYEC1262
2000	1200	800	2	NSYSF201280 2DP	NSYSF201280 2D	-	NSY2SP208	NSYEC128	NSYEC1281	NSYEC1282
2000	1600	400	2	NSYSF201640 2DP	NSYSF201640 2D	-	NSY2SP204	NSYEC164	NSYEC1641	-
2000	1600	500	2	NSYSF201650 2DP	NSYSF201650 2D	-	NSY2SP205	NSYEC165	NSYEC1651	-
2000	1600	600	2	NSYSF201660 2DP	NSYSF201660 2D	-	NSY2SP206	NSYEC166	NSYEC1661	NSYEC1662
2200	400	600	1	-	NSYSF22460	-	NSY2SP226	NSYEC46	NSYEC461	NSYEC462
2200	600	600	1	NSYSF22660P	NSYSF22660	-	NSY2SP226	NSYEC66	NSYEC661	NSYEC662
2200	600	800	1	NSYSF22680P	NSYSF22680	-	NSY2SP228	NSYEC68	NSYEC681	NSYEC682
2200	800	600	1	NSYSF22860P	NSYSF22860	-	NSY2SP226	NSYEC86	NSYEC861	NSYEC862
2200	800	800	1	NSYSF22880P	NSYSF22880	NSYSF22880T	NSY2SP228	NSYEC88	NSYEC881	NSYEC882
2200	1000	600	1	NSYSF221060P	NSYSF221060	-	NSY2SP226	NSYEC106	NSYEC1061	NSYEC1062
2200	1200	600	2	NSYSF221260 2DP	NSYSF221260 2D	-	NSY2SP228	NSYEC126	NSYEC1261	NSYEC1262
2200	1200	800	2	NSYSF221280 2DP	NSYSF221280 2D	-	NSY2SP228	NSYEC128	NSYEC1281	NSYEC1282

SF/SM

Special SM					Accessories SF/SM				
Plain door		Transparent door	Vertical adaptation profiles	Horizontal adaptation profiles	Mounting plate	Plinth height 100 mm		Plinth height 200 mm	
With mounting plate	Without mounting plate	Without mounting plate				Front kit	Side panels	Front kit	Side panels
-	-	-	-	-	NSYMP126	NSYSPF6100	NSYSPS4100	NSYSPF6200	NSYSPS4200
-	-	-	-	-	NSYMP126	NSYSPF6100	NSYSPS6100	NSYSPF6200	NSYSPS6200
NSYSM12830P	NSYSM12830	-	NSYMSVR12	NSYSMHR8	NSYMP128	NSYSPF8100	NSYSPS3100	NSYSPF8200	NSYSPS3200
-	-	-	-	-	NSYMP128	NSYSPF8100	NSYSPS4100	NSYSPF8200	NSYSPS4200
-	-	-	-	-	NSYMP128	NSYSPF8100	NSYSPS6100	NSYSPF8200	NSYSPS6200
NSYSM1210302DP	NSYSM1210302D	-	NSYSMVR12	NSYSMHR10	NSYMP1210	NSYSPF10100	NSYSPS3100	NSYSPF10200	NSYSPS3200
NSYSM1212402DP	NSYSM1212402D	-	NSYSMVR12	NSYSMHR12	NSYMP1212	NSYSPF12100	NSYSPS4100	NSYSPF12200	NSYSPS4200
NSYSM14630P	NSYSM14630	-	NSYSMVR14	NSYSMHR6	NSYMP146	NSYSPF6100	NSYSPS3100	NSYSPF6200	NSYSPS3200
NSYSM14640P	NSYSM14640	-	NSYSMVR14	NSYSMHR6	NSYMP146	NSYSPF6100	NSYSPS4100	NSYSPF6200	NSYSPS4200
NSYSM14830P	NSYSM14830	-	NSYSMVR14	NSYSMHR8	NSYMP148	NSYSPF8100	NSYSPS3100	NSYSPF8200	NSYSPS3200
NSYSM14840P	NSYSM14840	NSYSM14840T	NSYSMVR14	NSYSMHR8	NSYMP148	NSYSPF8100	NSYSPS4100	NSYSPF8200	NSYSPS4200
NSYSM1410402DP	NSYSM1410402D	-	NSYSMVR14	NSYSMHR10	NSYMP1410	NSYSPF10100	NSYSPS4100	NSYSPF10200	NSYSPS4200
NSYSM1412402DP	NSYSM1412402D	-	NSYSMVR14	NSYSMHR12	NSYMP1412	NSYSPF12100	NSYSPS4100	NSYSPF12200	NSYSPS4200
NSYSM16630P	NSYSM16630	-	NSYSMVR16	NSYSMHR6	NSYMP166	NSYSPF6100	NSYSPS3100	NSYSPF6200	NSYSPS3200
NSYSM16640P	NSYSM16640	NSYSM16640T	NSYSMVR16	NSYSMHR6	NSYMP166	NSYSPF6100	NSYSPS4100	NSYSPF6200	NSYSPS4200
-	-	-	-	-	NSYMP166	NSYSPF6100	NSYSPS6100	NSYSPF6200	NSYSPS6200
-	-	-	-	-	NSYMP166	NSYSPF6100	NSYSPS8100	NSYSPF6200	NSYSPS8200
NSYSM16830P	NSYSM16830	NSYSM16830T	NSYSMVR16	NSYSMHR8	NSYMP168	NSYSPF8100	NSYSPS3100	NSYSPF8200	NSYSPS3200
NSYSM16840P	NSYSM16840	NSYSM16840T	NSYSMVR16	NSYSMHR8	NSYMP168	NSYSPF8100	NSYSPS4100	NSYSPF8200	NSYSPS4200
-	-	-	-	-	NSYMP168	NSYSPF8100	NSYSPS6100	NSYSPF8200	NSYSPS6200
-	-	-	-	-	NSYMP168	NSYSPF8100	NSYSPS8100	NSYSPF8200	NSYSPS8200
NSYSM1610302DP	NSYSM1610302D	-	NSYSMVR16	NSYSMHR10	NSYMP1610	NSYSPF10100	NSYSPS3100	-	-
NSYSM1610402DP	NSYSM1610402D	-	NSYSMVR16	NSYSMHR10	NSYMP1610	NSYSPF10100	NSYSPS4100	NSYSPF10200	NSYSPS4200
NSYSM1612302DP	NSYSM1612302D	-	NSYSMVR16	NSYSMHR12	NSYMP1612	NSYSPF12100	NSYSPS3100	NSYSPF12200	NSYSPS3200
NSYSM1612402DP	NSYSM1612402D	-	NSYSMVR16	NSYSMHR12	NSYMP1612	NSYSPF12100	NSYSPS4100	NSYSPF12200	NSYSPS4200
-	-	-	-	-	-	NSYSPF4100	NSYSPS4100	NSYSPF4200	NSYSPS4200
-	-	-	-	-	-	NSYSPF4100	NSYSPS5100	NSYSPF4200	NSYSPS5200
-	-	-	-	-	-	NSYSPF4100	NSYSPS6100	NSYSPF4200	NSYSPS6200
NSYSM18630P	NSYSM18630	-	NSYSMVR18	NSYSMHR6	NSYMP186	NSYSPF6100	NSYSPS3100	NSYSPF6200	NSYSPS3200
NSYSM18640P	NSYSM18640	NSYSM18640T	NSYSMVR18	NSYSMHR6	NSYMP186	NSYSPF6100	NSYSPS4100	NSYSPF6200	NSYSPS4200
NSYSM18650P	NSYSM18650	-	NSYSMVR18	NSYSMHR6	NSYMP186	NSYSPF6100	NSYSPS5100	NSYSPF6200	NSYSPS5200
-	-	-	-	-	NSYMP186	NSYSPF6100	NSYSPS6100	NSYSPF6200	NSYSPS6200
-	-	-	-	-	NSYMP186	NSYSPF6100	NSYSPS8100	NSYSPF6200	NSYSPS8200
NSYSM18830P	NSYSM18830	NSYSM18830T	NSYSMVR18	NSYSMHR8	NSYMP188	NSYSPF8100	NSYSPS3100	NSYSPF8200	NSYSPS3200
NSYSM18840P	NSYSM18840	NSYSM18840T	NSYSMVR18	NSYSMHR8	NSYMP188	NSYSPF8100	NSYSPS4100	NSYSPF8200	NSYSPS4200
NSYSM18850P	NSYSM18850	NSYSM18850T	NSYSMVR18	NSYSMHR8	NSYMP188	NSYSPF8100	NSYSPS5100	NSYSPF8200	NSYSPS5200
NSYSM18860P	NSYSM18860	-	NSYSMVR18	NSYSMHR8	NSYMP188	NSYSPF8100	NSYSPS6100	NSYSPF8200	NSYSPS6200
-	-	-	-	-	NSYMP188	NSYSPF8100	NSYSPS8100	NSYSPF8200	NSYSPS8200
NSYSM181040P	NSYSM181040	-	NSYSMVR18	NSYSMHR10	NSYMP1810	NSYSPF10100	NSYSPS4100	NSYSPF10200	NSYSPS4200
NSYSM1810402DP	NSYSM1810402D	-	NSYSMVR18	NSYSMHR10	NSYMP1810	NSYSPF10100	NSYSPS4100	NSYSPF10200	NSYSPS4200
-	-	-	-	-	NSYMP1810	NSYSPF10100	NSYSPS5100	NSYSPF10200	NSYSPS5200
NSYSM1810502DP	NSYSM1810502D	-	NSYSMVR18	NSYSMHR10	NSYMP1810	NSYSPF10100	NSYSPS5100	NSYSPF10200	NSYSPS5200
-	-	-	-	-	NSYMP1810	NSYSPF10100	NSYSPS6100	NSYSPF10200	NSYSPS6200
-	-	-	-	-	NSYMP1810	NSYSPF10100	NSYSPS8100	NSYSPF10200	NSYSPS8200
NSYSM1812402DP	NSYSM1812402D	-	NSYSMVR18	NSYSMHR12	NSYMP1812	NSYSPF12100	NSYSPS4100	NSYSPF12200	NSYSPS4200
NSYSM1812502DP	NSYSM1812502D	-	NSYSMVR18	NSYSMHR12	NSYMP1812	NSYSPF12100	NSYSPS5100	NSYSPF12200	NSYSPS5200
-	-	-	-	-	NSYMP1812	NSYSPF12100	NSYSPS6100	NSYSPF12200	NSYSPS6200
NSYSM1816402DP	NSYSM1816402D	-	NSYSMVR18	NSYSMHR16	NSYMP1816	NSYSPF16100	NSYSPS4100	NSYSPF16200	NSYSPS4200
NSYSM1816502DP	NSYSM1816502D	-	NSYSMVR18	NSYSMHR16	NSYMP1816	NSYSPF16100	NSYSPS5100	NSYSPF16200	NSYSPS5200
-	-	-	-	-	-	NSYSPF3100	NSYSPS5100	NSYSPF3200	NSYSPS5200
-	-	-	-	-	-	NSYSPF3100	NSYSPS6100	NSYSPF3200	NSYSPS6200
-	-	-	-	-	-	NSYSPF4100	NSYSPS4100	NSYSPF4200	NSYSPS4200
-	-	-	-	-	-	NSYSPF4100	NSYSPS5100	NSYSPF4200	NSYSPS5200
-	-	-	-	-	-	NSYSPF4100	NSYSPS6100	NSYSPF4200	NSYSPS6200
-	-	-	-	-	-	NSYSPF4100	NSYSPS8100	NSYSPF4200	NSYSPS8200
NSYSM20630P	NSYSM20630	-	NSYSMVR20	NSYSMHR6	NSYMP206	NSYSPF6100	NSYSPS3100	NSYSPF6200	NSYSPS3200
NSYSM20640P	NSYSM20640	NSYSM20640T	NSYSMVR20	NSYSMHR6	NSYMP206	NSYSPF6100	NSYSPS4100	NSYSPF6200	NSYSPS4200
NSYSM20650P	NSYSM20650	-	NSYSMVR20	NSYSMHR6	NSYMP206	NSYSPF6100	NSYSPS5100	NSYSPF6200	NSYSPS5200
-	-	-	-	-	NSYMP206	NSYSPF6100	NSYSPS6100	NSYSPF6200	NSYSPS6200
-	-	-	-	-	NSYMP206	NSYSPF6100	NSYSPS8100	NSYSPF6200	NSYSPS8200
NSYSM20830P	NSYSM20830	NSYSM20830T	NSYSMVR20	NSYSMHR8	NSYMP208	NSYSPF8100	NSYSPS3100	NSYSPF8200	NSYSPS3200
NSYSM20840P	NSYSM20840	NSYSM20840T	NSYSMVR20	NSYSMHR8	NSYMP208	NSYSPF8100	NSYSPS4100	NSYSPF8200	NSYSPS4200
NSYSM20850P	NSYSM20850	NSYSM20850T	NSYSMVR20	NSYSMHR8	NSYMP208	NSYSPF8100	NSYSPS5100	NSYSPF8200	NSYSPS5200
NSYSM20860P	NSYSM20860	NSYSM20860T	NSYSMVR20	NSYSMHR8	NSYMP208	NSYSPF8100	NSYSPS6100	NSYSPF8200	NSYSPS6200
-	-	-	-	-	NSYMP208	NSYSPF8100	NSYSPS6100	NSYSPF8200	NSYSPS6200
-	-	-	-	-	NSYMP208	NSYSPF8100	NSYSPS8100	NSYSPF8200	NSYSPS8200
-	-	-	-	-	NSYMP2010	NSYSPF10100	NSYSPS4100	NSYSPF10200	NSYSPS4200
NSYSM2010402DP	NSYSM2010402D	-	NSYSMVR20	NSYSMHR10	NSYMP2010	NSYSPF10100	NSYSPS4100	NSYSPF10200	NSYSPS4200
-	-	-	-	-	NSYMP2010	NSYSPF10100	NSYSPS5100	NSYSPF10200	NSYSPS5200
NSYSM2010502DP	NSYSM2010502D	-	NSYSMVR20	NSYSMHR10	NSYMP2010	NSYSPF10100	NSYSPS5100	NSYSPF10200	NSYSPS5200
-	-	-	-	-	NSYMP2010	NSYSPF10100	NSYSPS6100	NSYSPF10200	NSYSPS6200
-	-	-	-	-	NSYMP2010	NSYSPF10100	NSYSPS6100	NSYSPF10200	NSYSPS6200
-	-	-	-	-	NSYMP2010	NSYSPF10100	NSYSPS8100	NSYSPF10200	NSYSPS8200
NSYSM2012402DP	NSYSM2012402D	-	NSYSMVR20	NSYSMHR12	NSYMP2012	NSYSPF12100	NSYSPS4100	NSYSPF12200	NSYSPS4200
NSYSM2012502DP	NSYSM2012502D	-	NSYSMVR20	NSYSMHR12	NSYMP2012	NSYSPF12100	NSYSPS5100	NSYSPF12200	NSYSPS5200
NSYSM2012602DP	NSYSM2012602D	-	NSYSMVR20	NSYSMHR12	NSYMP2012	NSYSPF12100	NSYSPS6100	NSYSPF12200	NSYSPS6200
-	-	-	-	-	NSYMP2012	NSYSPF12100	NSYSPS8100	NSYSPF12200	NSYSPS8200
NSYSM2016402DP	NSYSM2016402D	-	NSYSMVR20	NSYSMHR16	NSYMP2016	NSYSPF16100	NSYSPS4100	NSYSPF16200	NSYSPS4200
NSYSM2016502DP	NSYSM2016502D	-	NSYSMVR20	NSYSMHR16	NSYMP2016	NSYSPF16100	NSYSPS5100	NSYSPF16200	NSYSPS5200
NSYSM2016602DP	NSYSM2016602D	-	NSYSMVR20	NSYSMHR16	NSYMP2016	NSYSPF16100	NSYSPS6100	NSYSPF16200	NSYSPS6200
-	-	-	-	-	-	NSYSPF4100	NSYSPS8100	NSYSPF4200	NSYSPS8200
-	-	-	-	-	NSYMP226	NSYSPF6100	NSYSPS6100	NSYSPF6200	NSYSPS6200
-	-	-	-	-	NSYMP226	NSYSPF6100	NSYSPS8100	NSYSPF6200	NSYSPS8200
-	-	-	-	-	NSYMP228	NSYSPF8100	NSYSPS6100	NSYSPF8200	NSYSPS6200
-	-	-	-	-	NSYMP228	NSYSPF8100	NSYSPS8100	NSYSPF8200	NSYSPS8200
-	-	-	-	-	NSYMP2210	NSYSPF10100	NSYSPS6100	NSYSPF10200	NSYSPS6200
-	-	-	-	-	NSYMP2212	NSYSPF12100	NSYSPS6100	NSYSPF12200	NSYSPS6200
-	-	-	-	-	NSYMP2212	NSYSPF12100	NSYSPS8100	NSYSPF12200	NSYSPS8200

SF/SM

Cross rails

Nominal dimensions (mm)	Universal	Quick-fixing	Universal	Quick-fixing	Universal	Quick-fixing
	40 mm (1 row)		65 mm (2 rows)		90 mm (3 rows)	
300	NSYSUCR4030	–	NSYSUCR6530	–	NSYSUCR9030	–
400	NSYSUCR4040	NSYSQCR4040	NSYSUCR6540	NSYSQCR6540	NSYSUCR9040	NSYSQCR9040
500	NSYSUCR4050	NSYSQCR4050	NSYSUCR6550	NSYSQCR6550	NSYSUCR9050	NSYSQCR9050
600	NSYSUCR4060	NSYSQCR4060	NSYSUCR6560	NSYSQCR6560	NSYSUCR9060	NSYSQCR9060
800	NSYSUCR4080	NSYSQCR4080	NSYSUCR6580	NSYSQCR6580	NSYSUCR9080	NSYSQCR9080
1000	NSYSUCR40100	NSYSQCR40100	NSYSUCR65100	NSYSQCR65100	NSYSUCR90100	NSYSQCR90100
1200	NSYSUCR40120	NSYSQCR40120	NSYSUCR65120	NSYSQCR65120	NSYSUCR90120	NSYSQCR90120
1400	NSYSUCR40140	–	NSYSUCR65140	–	NSYSUCR90140	–
1600	NSYSUCR40160	–	NSYSUCR65160	–	NSYSUCR90160	–
1800	NSYSUCR40180	–	NSYSUCR65180	–	NSYSUCR90180	–
2000	NSYSUCR40200	–	NSYSUCR65200	–	NSYSUCR90200	–
2200	NSYSUCR40220	–	NSYSUCR65220	–	NSYSUCR90220	–

Nominal dimensions (mm)	Reference
400	NSYSLCR40
500	NSYSLCR50
600	NSYSLCR60
800	NSYSLCR80
–	–
–	–
–	–
–	–
–	–
–	–

> Other dimensions du traverses universelles disponibles.

DIN rails

Nominal dimensions (mm)		Symmetrical		Asymmetrical		Double profile	
Width	Type	Reference	Supply	Reference	Supply	Reference	Supply
600	A	NSYSDR60	20	NSYADR60	20	NSYDPR60	20
800	A	NSYSDR80	20	NSYADR80	20	NSYDPR80	20
1000	A	NSYSDR100	20	NSYADR100	20	NSYDPR100	20
1200	A	NSYSDR120	20	NSYADR120	20	NSYDPR120	20

> Width of 2000 mm available in the 3 versions.

Standard and technical uprights

Nominal dimensions (mm)	Standard uprights	Technical uprights
Height		
1200	–	NSYTVR12
1400	–	NSYTVR14
1600	–	NSYTVR16
1800	NSYVR18	NSYTVR18
2000	NSYVR20	NSYTVR20
2200	NSYVR22	NSYTVR22

Fixing elements

Fixing element	Supply	Reference
M5 caged nut	50	NSYCMFM5
M6 caged nut	50	NSYCMFM6
M5 removable nut	50	NSYCMM5
M6 removable nut	50	NSYCNM6
M5 + 12 mm screw	100	NSYS12M6H
M6 + 16 mm screw	100	NSYS16M6H
M5 + 16 mm screw	100	NSYS16M6H
M6 + 16 mm screw	100	NSYS16M6H
M5 + 20 mm screw	100	NSYS20M6H
Torx T30 M6 + 16 mm screw¹	100	NSYST30M6
Torx T40 M6 + 16 mm screw¹	100	NSYST40M6
Torx T30 M6 + 12 mm self-tapping screw¹	100	NSYST30M6S

① Screw without washer

Coupling kit

Reference SF: **NSYSFBK** (standard)
Reference SM: **NSYSMBK**

"L"-rail for fixing cables

Nominal dimensions (mm)	Reference
Width	
600	NSYFCG60
800	NSYFCG80
1000	NSYFCG100
1200	NSYFCG120
1600	NSYFCG160

> Adjustable in depth with a pitch of 20 mm.

Rails for heavy loads

Nominal dimensions (mm)	Reference
Depth	
400	NSYHLCR40
500	NSYHLCR50
600	NSYHLCR60
800	NSYHLCR80

> Adjustable on the sides with a pitch of 20 mm.

Lower cable-guide cross rail

Nominal dimensions (mm)	Reference
Width	
600	NSYCFP60
800	NSYCFP80
1000	NSYCFP100
1200	2 × NSYCFP60
1600	2 × NSYCFP80

> Adjustable in depth with a pitch of 20 mm.

SF/SM

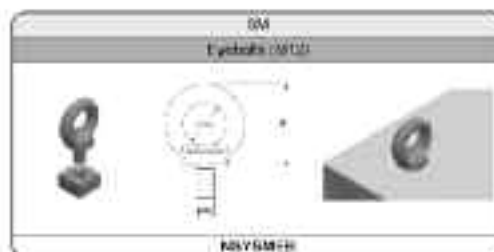| Handle for shape inserts and cylindrical barrels[1]	Handle for DIN K68A, A88A insert types	Double-insert handle[3]	Padlock keeping	CNOMO kit[2]
NSYSFH91	NSYSFHD2	NSYSFHD3	NSYBLKH123	NSYCNOH123

[1] Handle supplied with all the Special SF and Special SM enclosures. Does not include the insert when it is ordered as an accessory.

[2] To assemble shape inserts or cylindrical barrels, the adapter ref. NSYLADP must be added.

[3] Locking system. Prevents the handle from closing while the door is open.

Flat escutcheon lock

Models	Reference
2 mm groove screwdriver slot	NSYSFLOCK20
Triangular insert 9 mm	NSYSFLOCKT9
Triangular insert 7 mm	NSYSFLOCKT7
Triangular insert 6.5 mm	NSYSFLOCKT6
8 mm female square insert	NSYSFLOCKSQ8
8 mm square insert	NSYSFLOCKS8
7 mm square insert	NSYSFLOCKS7
6 mm square insert	NSYSFLOCKS6
3 mm double bar insert	NSYSFLOCKDB3

Lifting elements

SF				SM	
Eyebolts (M12)	Lifting brackets	Lifting bar (length mm)			Eyebolts (M12)
NSYSFEB	NSYSFELB	NSYSFTB16	1600		NSYSMEB
		NSYSFTB18	1800		
		NSYSFTB24	2400		
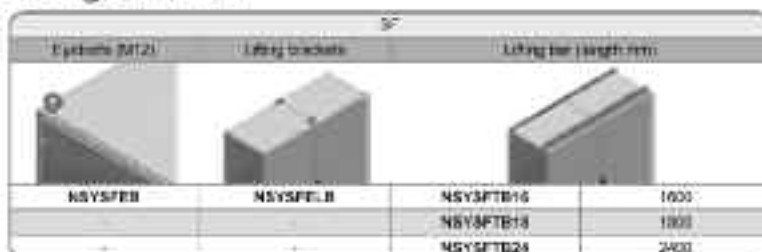
> **Advantage:**
The eyebolts screwed directly into the vertical axis of the upright contribute greatly to robustness during transport.

Internal door

Nominal dimensions (mm)		Reference
Height	Width	
1600	600	NSYID168
	800	NSYID168
1800	800	NSYID188
	800	NSYID188
	1000	NSYID1810
2000	800	NSYID208
	900	NSYID208
	1000	NSYID2010
2200	600	NSYID228
	800	NSYID228

Side door

Nominal dimensions (mm)		Reference
Height	Width	
1200	600	NSYSFD126
	800	NSYSFD128
1400	600	NSYSFD146
	800	NSYSFD148
1600	600	NSYSFD166
	800	NSYSFD168
1800	400	NSYSFD184
	500	NSYSFD185
	600	NSYSFD186
	800	NSYSFD188
2000	400	NSYSFD204
	500	NSYSFD205
	600	NSYSFD206
	800	NSYSFD208
2200	400	NSYSFD224
	500	NSYSFD225
	600	NSYSFD226
	800	NSYSFD228

Door accessories

180° hinge

Reference: NSYSH180

Door-centering caster

Reference: NSYSDRC

Door switch

Reference SF: NSYDCM20
Reference SM: NSYMDCM20

> M20 cable entry adapted for cable-gland seal
> Open + closed contact: 10 A/500 V

Door rails

Nominal dimensions width (mm)	Door rail	Door-centre guide cross rail
400	NSYSDCR4	-
500	NSYSDCR5	NSYSDGCR5
600	NSYSDCR6	NSYSDGCR6
800	NSYSDCR8	NSYSDGCR8
1000	NSYSDCR10	NSYSDGCR10

Door stops

	SF	SM
Mechanical stop: 105° opening	NSYSFMDK	NSYSMDK
Pneumatic stop: 120° opening	NSYSFNDK	NSYSMNDK

Plinth in kit form

Front and rear kit

Side panels

Complete plinth

Plinth height: 100 mm
Also available in 200mm height.
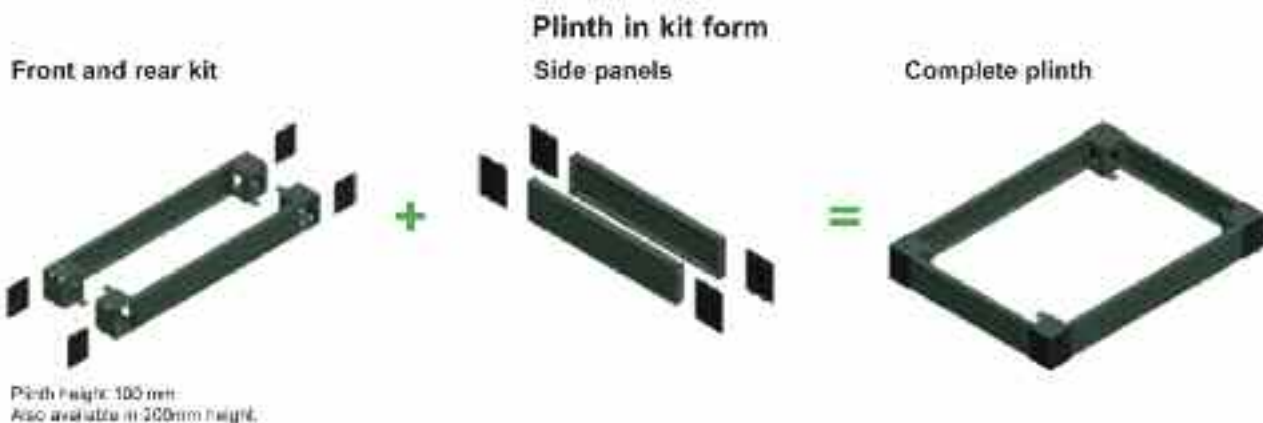
The complete plinth consists of two elements, one is the front and rear kit, determined by the length of the enclosure, and the other consists of the side panels, which determine the depth of the enclosure.
The number of side panels required is decided according to the desired plinth combination.

> **Advantage:**
  – Robust design.
  – The modular plinth system makes it possible to reduce the number of references in stock.

Possibility of joining plinths

❶ **The surfaces between corners are always in contact.**
They are joined by an M8 screw and nut, not included in the standard supply.

> **Advantage:**
Longitudinally free space for passing cables.
Greater rigidity of the resultant assembly unit.
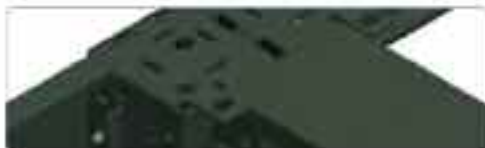
❷ By side panels, the M6 screws and caged nuts, not included in the standard supply, reference **NSYSPM6** and reference **NSYCN9M625**, which can be mounted above and/or below.

> **Advantage:**
Improves rigidity in the depthwise direction during transport.

❸ **Vertical plinth assembly** by means of M12 screws and nuts, not included in the standard supply.

> **Advantage:**
The two heights of corners can be combined.

Tecno Steel Terminal Boxes

A new range of mild steel terminal boxes. This range includes a set of metal terminal boxes which can be used to house electrical or electronic equipment for control, and distribution processes in industrial equipment and automation systems.

The boxes offer protection to IP65 level, and are made from high-quality materials: plating made from cold-laminated steel and coated with RAL 7035 hardened epoxy-polyester paint

The design and manufacture of this range is perfectly in line with the requirements of special installations that require specific sizes, available in 2 depths 95mm and 135mm.

All versions have screw-on lid via fast-locking screw with hermetic cap, totally flat cover permitting the placement of Pilot lights Push Buttons or other Devices. The inside of the cover lid has a continuous PU Seal that guarantees the watertight integrity of the unit to IP65.
M6x10 bolts for earth connection.

Assembly plates supplied as Accessories for all box sizes
The plates are manufactured in 2 mm thick Galvanized sheet metal. The boxes are supplied with side and centre supports to secure the assembly plates and rails, these are secured with M6x10 bolts.

BOXES WITH PLAIN SIDES		SIZES
Reference	**Type**	
26000	ELA151595	150 x 150 x 95
26001	ELA201595	200 x 150 x 95
26003	ELA202095	200 x 200 x 95
26004	ELA301595	300 x 150 x 95
26005	ELA302095	300 x 200 x 95
26000	ELA1515135	150 x 150 x 135
26101	ELA2015135	200 x 150 x 135
26103	ELA2020135	200 x 200 x 135
26104	ELA3015135	300 x 150 x 135
26105	ELA3020135	300 x 200 x 135
26106	ELA3030135	300 x 300 x 135
METAL BACK PLATES		
26300	PLATE	150 x 150
26301	PLATE	200 x 150
26303	PLATE	200 x 200
26304	PLATE	300 x 150
26305	PLATE	300 x 200
26306	PLATE	300 x 300

NSYSBM – Metal Industrial Boxes Plain Door

A range of Metal Industrial Boxes

with plain door to IP66

• IP66 IEC 60529, IK10 conforming to IEC 62262

• RAL 7035

• Plain door

• Material sheet steel

• Surface finish polyester powder

• Single piece body folded and welded

• Comprises of 1 x body, 1 x cover & 4 x cover screws

• Operating temperature -35°C to +80°C

• Standards IEC62208

• Product certifications: BV, DNV, GL, LR & UL

• Mounting plates and accessories also available

NSYD Series IP-55 Junction Boxes

Steel boxes made of sheet steel protected internally and externally
with polyester-epoxy paint to light grey RAL7035 texturised.

• Without knock-outs:

  NSYDBN with low lid and NSYDAN with high lid.

• PVC sealing gasket on models up to 20/15 and rubber type

  for 25/20, 30/25 and 35/30

• There are four M4 threaded holes, blanked with removable

  bungs for direct fixing of mounting plate

• Direct wall fixing by means of blanked holes to keep the IP rating

• Base-lid safety seals available optionally

NSYD Series IP-55 Junction Boxes					
External Dimensions (mm)			Models Without Knock-Outs Reference†	Mounting Plates Reference††	Weight (Kg)
Height (A)	Width (B)	Depth (C)			
85	85	49	NSYDBN88	-	0,18
105	105	49	NSYDBN1010	-	0,25
155	105	61	NSYDBN1510	NSYPMD1510	0,38
206	156	83	NSYDBN2015	NSYPMD2015	1
256	206	93	NSYDBN2520	NSYPMD2520	1,5
307	257	116	NSYDBN3025	NSYPMD3025	3,3
357	307	136	NSYDBN3530	NSYPMD3530	4,8
155	105	88	NSYDAN1510	NSYPMD1510	0,45
206	156	122	NSYDAN2015	NSYPMD2015	1,2
256	206	140	NSYDAN2520	NSYPMD2520	1,9
307	257	174	NSYDAN3025	NSYPMD3025	4
357	307	210	NSYDAN3530	NSYPMD3530	5,8

(Low-Lid Models: rows 85/85/49 through 357/307/136; High-Lid Models: rows 155/105/88 through 357/307/210)
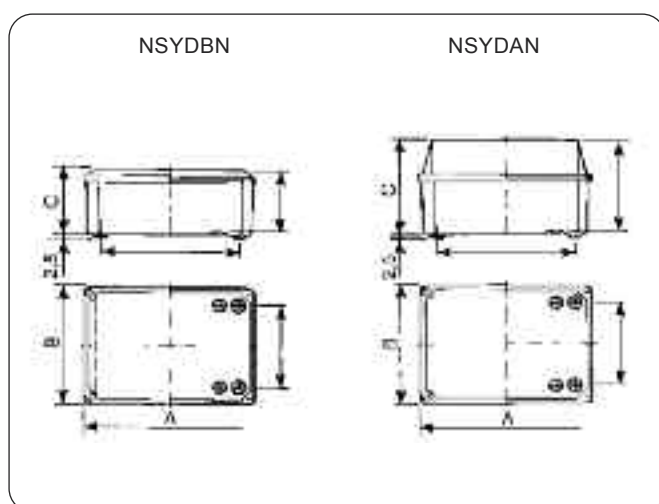
NSYDBN   NSYDAN

* Dimensions (mm)

NSYDX Series IP-55 Junction Boxes

Steel hinged boxes made of sheet steel protected internally and externally with polyester-epoxy paint to light grey RAL-7035 texturised.

• Without knock-outs:
  NSYDBNX with low lid and NSYDANX with high lid.
• Boxes fitted with sealing gasket and M4 threaded holes blanked with removable bungs for fixing of mounting plate and or general equipment.
• Standard double bar sealable lock operated with wing key (standard supply). Affixing this key to the lock will transform it to handle lock. See other lock transformations available.

NSYDX Series IP-55 Junction Boxes						
	External Dimensions (mm)			Models Without Knock-Outs Reference[†]	Mounting Plates Reference[††]	Weight (Kg)
	Height (A)	Width (B)	Depth (C)			
Low-Lid Models	206	156	83	NSYDBN2015D	NSYPMD2015	1
	256	206	93	NSYDBN2520D	NSYPMD2520	1,5
	307	257	116	NSYDBN3025D	NSYPMD3025	3,3
	357	307	136	NSYDBN3530D	NSYPMD3530	4,8
High-Lid Models	206	156	122	NSYDAN2015D	NSYPMD2015	1,2
	256	206	140	NSYDAN2520D	NSYPMD2520	1,9
	307	257	174	NSYDAN3025D	NSYPMD3025	4
	357	307	210	NSYDAN3530D	NSYPMD3530	5,8

NSYDBND   NSYDAND
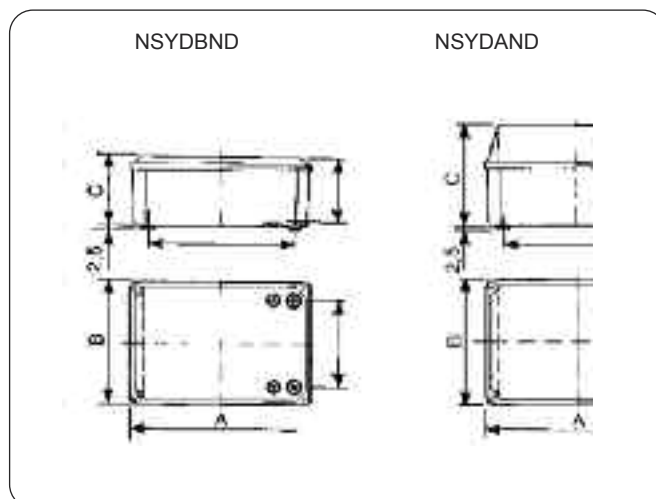
* Dimensions (mm)

Vitaro

• Universal enclosure system
  - 19" enclosure
  - universal enclosure
  - desktop enclosure 95 HP
  - wall mounting enclosure
• Extremely short assembly time
• Special fixing system, no screws
  required for assembly
  Protection system IP 20

Zenith

• Striking design
• Invisible ventilation
• Integrated handle section
• 1/2 19" version available
• Protection system IP 42/20

Berlin

• Light construction
• Integrated handle bar
• Protection system IP 30/20

ApraTek

• Solded welded construction for high
  mechanical requirements
• Integrated handle
• Protection system IP 20

ApraLITE

• Quickly dismountable
• Light construction
• 1/2 19" version available
• 1/2 19" version available
• Protection system IP 30/20

19" Protection Case

• Protection System IP54
• Robust Construction
• A desk top or wall mounting enclosure

Apraline

• Removable cover parts
• Integrated handle
• Also available as a desktop enclosure
• Protection system IP 30/20

Tamago

• Stylish design
• Protected apra-lock locking system
• Also available as desktop enclosure
• Protection system IP 40/20

Customised 19" Enclosures

• We develop the optimal 19" Enclosure
  based on your specific demands
• Or we produce according to your
  drawings

Wall-Mounting Enclosure 'Flex 310'

• Quickly dismountable
• Light construction
• 1/2 19" version available
• 1/2 19" version available
• Protection system IP 30/20

For further information on any of the Enclosures from this range please contact our customer services team on -

UK +44(0) 1922 458 151 **Belfast** +44(0) 2890 775 005 **Dublin** +353(0) 1626 8267

BRES Range of Wall Mounting Glass Fibre Polyester Enclosures to IP66 IK10

Features:

A range of enclosures made from reinforced polyester with 30% glass fibre which gives high resistance against impact together with being lighter than steel enclosures but giving the same mechanical resistance. Particularly suitable for mounting electrical or electronic equipment in aggressive environments where polyester offers the best quality and a longer life span.

Benefits:

• Heat moulded polyester enclosures to RAL7035
• Self-extinguishing material as per ASTM D635
• Maximum working temperature ranges from
  –30°C to +120°C
• Resistant against rusting and corrosion by chemical
  or atmospheric agents
• Its light weight makes them easier to
  move around and install
• High mechanical resistance against impact
• Door hinges allow more than a 180° opening
• Designed to be used both indoors and outdoors

BRES Wall Mounting Accessories			
External Dimensions (mm)			
Ref	H	W	Description
PBP325	300	250	Polyester Back Plate
PBP43	400	300	Polyester Back Plate
PBP44	400	400	Polyester Back Plate
PBP54	500	400	Polyester Back Plate
PBP64	600	400	Polyester Back Plate
PBP65	600	500	Polyester Back Plate
PBP86	800	600	Polyester Back Plate
PBM325	300	250	Metal Back Plate
PBM43	400	300	Metal Back Plate
PBM44	400	400	Metal Back Plate
PBM54	500	400	Metal Back Plate
PBM64	600	400	Metal Back Plate
PBM65	600	500	Metal Back Plate
PBM86	800	600	Metal Back Plate
PIU43	400	300	Internal Door*
PIU44	400	400	Internal Door*
PIU54	500	400	Internal Door*
PIU64	600	400	Internal Door*
PIU65	600	500	Internal Door*
PIU86	800	600	Internal Door*
UA-230x100	Connecting flange for BRES325/BRES43		
UA-350x150	Connecting flange for BRES43/BRES86		
OFM14	Wall Mounting Kit		
CML12	HTBRES Key and Lock		
SDP200	Adjustable bracket back plate for 200mm		
SDP230	Adjustable bracket back plate for 230mm		
SDP300	Adjustable bracket back plate for 300mm		
DVMP	Vent Device		
CBC-13	Padlock Device (chrome)		
CBC13INOX	St St Padlock device		

* Internal door available fitted on request

BRES Plain Door Wall Mounting Enclosures to IP66			
External Dimensions (mm)			
Ref	H	W	D
BRES325	300	250	140
BRES43	400	300	200
BRES44	400	400	200
BRES54	500	400	200
BRES64	600	400	230
BRES65	600	500	230
BRES83	800	300	230
BRES86	800	600	300
BRES108*	1000	800	300

* available mid 2014

BRES Glazed Door Wall Mounting Enclosures to IP66			
External Dimensions (mm)			
Ref	H	W	D
BRES325P	300	250	140
BRES43P	400	300	200
BRES44P	400	400	200
BRES54P	500	400	200
BRES64P	600	400	230
BRES65P	600	500	230
BRES86P	800	600	300

Internal Door

Connecting Flange

Mounting Plate

ST Padlock Device

HellermannTyton

BRES Range of Wall Mounting Glass Fibre Polyester Enclosures with 3 point locking system to IP66

Features:

A range of enclosures made from reinforced polyester with 30% glass fibre and a 3 point locking system. Also available with a glazed door.

The 3 point locking system offers greater security and the facility to use a padlock to secure the door.

BRES Plain Door Wall Mounting Enclosure to IP66 with 3 Point Locking System				
Plain Door	Glazed Door	H	W	D
BRES43-3L	BRES43P-3L	400	300	200
BRES44-3L	BRES44P-3L	400	400	200
BRES54-3L	BRES54P-3L	500	400	200
BRES64-3L	BRES64P-3L	600	400	230
BRES65-3L	BRES65P-3L	600	500	230
BRES83-3L	BRES83P-3L	800	300	230
BRES86-3L	BRES86P-3L	800	600	300

BRES Plinths - Suitable for all BRES Enclosures		
Ref	H x W x D	Use with
F0-44	500x360x170	For use with Bres44
F1-44	750x365x170	For use with Bres45
F2-44	1000x365x170	For use with Bres46
F0-54	500x360x170	For use with Bres54
F1-54	750x365x170	For use with Bres54
F2-54	1000x365x170	For use with Bres54
F0-64	500x360x200	For use with Bres64
F1-64	750x365x200	For use with Bres64
F2-64	1000x365x200	For use with Bres64
F0-65	500x360x200	For use with Bres65
F1-65	750x365x200	For use with Bres65
F2-65	1000x365x200	For use with Bres65
F0-86	500x360x300	For use with Bres86
F1-86	750x365x300	For use with Bres86
F2-86	1000x365x300	For use with Bres86

Customised BRES Enclosures

We can adapt the BRES range of enclosures fully customised to meet your requirements.

So if its cut-outs for glands, push buttons or even viewing windows for metering applications we can customize the BRES Enclosure for you.

It might be a fully or partly populated solution you are looking for, if so for more information or technical questions please contact our sales office.

NSYPLM IP-66

Glass-fibre reinforced polyester cabinets.
• One-piece monoblock body
• Colour grey, RAL7032
• Completely reversible
• Designed for use both indoors and outdoors.
• Wide range of accessories allowing for their use in distribution,
   control and measurement panels for industrial
   and recreational installations
• Inserts located at the front of the cabinet for fixing of
   distribution chassis and internal door
• Self-extinguishing
• Maximum working temperature ranges from –50ºC to 150ºC
• Resistant to principal chemical and atmospheric agents
• Corrosion resistant
• Stable to ultra-violet rays
• Prepared for double insulated boards in accordance with
   ICE 439-1 (EN 60.439.1) standard
• High resistance to mechanical impacts IK-10 (20 J)
   in accordance with EN 50.102
• UL approval in accordance with UL 50, grades Nema 4X and 12
• NSYMM Mounting Plates (see page 85)

NSYPLM IP66 Wall Mounted Enclosures				
External Dimensions				
Height	Width	Depth	Plain Door	Transparent Door
310	215	160	NSYPLM32 *	NSYPLM32T *
308	255	160	NSYPLM3025	NSYPLM3025T
430	330	200	NSYPLM43	NSYPLM43T
530	430	200	NSYPLM54	NSYPLM54T
647	436	250	NSYPLM64	NSYPLM64T
747	536	300	NSYPLM75	NSYPLM75T
847	636	300	NSYPLM86	NSYPLM86T
1056	852	350	NSYPLM108 **	NSYPLM108T **

*Model NSYPLM32 in polycarbonate.
**4-point locking system enclosure.

Wall mounting set

Assembly for fixing the cabinet to the wall. It is attached from the outside to the rear of the cabinet using inserts and M8 screws (included in the standard supply). The PLM-32 model is fixed by self-tapping screws. The fixing pieces can be located either vertically or horizontally. The assembly is not included in the standard supply.

PLM IP-66 Wall Mounting Set						
		Dimensions PF/PLM				
To Fit Enclosures	Reference Insulation	Horizontal Position		Vertical Position		
		Height (H1)	Width (H2)	Height (V1)	Width (V2)	
NSYPLM-32	PFPLM32/NSYPFPLM32	247	239	334	152	
NSYPLM-3025	PFPLM/NSYPFPLM	250	332	385	197	
NSYPLM-43	PFPLM/NSYPFPLM	355	360	490	225	
NSYPLM-54	PFPLM/NSYPFPLM	455	460	590	325	
NSYPLM-64	PFPLM/NSYPFPLM	555	465	690	330	
NSYPLM-75	PFPLM/NSYPFPLM	655	565	790	430	
NSYPLM-86	PFPLM/NSYPFPLM	755	665	890	530	
NSYPLM-108	PFPLM/NSYPFPLM	995	885	1090	750	

Locks for PLM
Double bar standard lock, with stainless zinc alloy inserts
Operated by:
• LDB 5 key   (according to DIN 43668)

Optional Lock Inserts To Transform The Standard Lock		
Characteristics	Key Operated Product Ref	Reference
6 mm square lock	LC-7	NSYTC6CRN
7 mm square lock	LC-7	NSYTC7CRN
8 mm square lock	LC-8	NSYTC8CRN
6,5 mm triangular lock	LT-6,5	NSYTT7CRN
8 mm triangular lock	LT-8	NSYTT8CRN
wing key lock		NSYTL405PLM
stainless steel padlock		NSYKPLM
double back wing key		NSYCDBPLM

NSYPLA Hot-moulded Reinforced Polyester Cabinets

• Grey to RAL 7032.
• Conforms to general rules for empty enclosures established
  by standard EN 50.298
• IP-65 according to IEC (EN 60.529)
• High degree of resistance to mechanical impacts IK10(20J)
  according to EN 50.102
• Self-extinguishing according to IEC 695-2-1(960º)
• Wide range of operating temperatures -50ºC to 150ºC
• Resistance to main chemical agents and corrosive
  environments.
• Resistant to UV rays
• Suitable for double insulation assemblies according to standard
  IEC 439-1(EN 60.439.1)
• Reversible door with 120º opening. Max. load 30 Kg/m2
• Lock outside the gasketed area with 2-point locking system on
  cabinets up to 750 mm high and 4-point as from 1000 mm
• Bosses for M8 inserts inside of the cabinet for direct fixing of
  mounting plates, accessories, etc.

Configuration
• Cabinet with closed top and bottom, fitted with watertight gasket
• Reversible plain door with two hinges in cabinets
  up to 750 high and 4 in cabinets as from 1000 mm
• Double bar lock operated by means of NSYLDBS,
  other transformations and handle locks available
• Two-door cabinets include upright for support

Reference	Nominal Dimensions (mm)			No of Doors	Reference	Nominal Dimensions (mm)			No of Doors
	Height	Width	Depth			Height	Width	Depth	
NSYPLA553	500	500	320	1	NSYPLA10103	1000	1000	320	2
NSYPLA554	500	500	420	1	NSYPLA10104	1000	1000	420	2
NSYPLA573	500	750	320	1	NSYPLA10123	1000	1250	320	2
NSYPLA574	500	750	420	1	NSYPLA10124	1000	1250	420	2
NSYPLA5103	500	1000	320	2	NSYPLA1253	1250	500	320	1
NSYPLA5104	500	1000	420	2	NSYPLA1254	1250	500	420	1
NSYPLA5123	500	1250	320	2	NSYPLA1273	1250	750	320	1
NSYPLA5124	500	1250	420	2	NSYPLA1274	1250	750	420	1
NSYPLA753	750	500	320	1	NSYPLA12103	1250	1000	320	2
NSYPLA754	750	500	420	1	NSYPLA12104	1250	1000	420	2
NSYPLA773	750	750	320	1	NSYPLA12123	1250	1250	320	2
NSYPLA774	750	750	420	1	NSYPLA12124	1250	1250	420	2
NSYPLA7103	750	1000	320	2	NSYPLA1553	1500	500	320	1
NSYPLA7104	750	1000	420	2	NSYPLA1554	1500	500	420	1
NSYPLA7123	750	1250	320	2	NSYPLA1573	1500	750	320	1
NSYPLA7124	750	1250	420	2	NSYPLA1574	1500	750	420	1
NSYPLA1053	1000	500	320	1	NSYPLA15103	1500	1000	320	2
NSYPLA1054	1000	500	420	1	NSYPLA15104	1500	1000	420	2
NSYPLA1073	1000	750	320	1	NSYPLA15123	1500	1250	320	2
NSYPLA1074	1000	750	420	1	NSYPLA15124	1500	1250	420	2

Mounting Plates for NSYPLA

A complete range of mounting plates comprising 3 versions, able to provide all the mountings needed for this installation system.

- Standard zinc coated steel plates
- Insulating plates in bakelite
- Universal plates for rapid fitting of switch gear, manufactured in dichromated zinc coated steel
- NSYPMM stocked
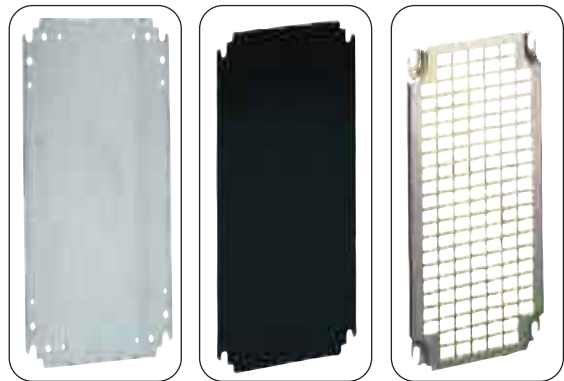
Mounting Plates				
External Dimen (mm)				
Height	Width	Metal Mounting Plate	Insulating Perforated Mounting Plate	Perforated Mounting Plate
500	500	NSYPMM55	NSYPMB55	NSYPMR55
	750	-	-	NSYPMR57
	1000	NSYPMM510	NSYPMB510	NSYPMR55+NSYPMR55
	1250	NSYPMM55+NSYPMM75	NSYPMB55+NSYPMB75	NSYPMR55+NSYPMR57
750	500	NSYPMM75	NSYPMB75	NSYPMR75
	750	NSYPMM77	NSYPMB77	NSYPMR77
	1000	NSYPMM710	NSYPMB710	NSYPMR75+NSYPMR75
	1250	NSYPMM712	NSYPMB712	NSYPMR75+NSYPMR77
1000	500	NSYPMM105	NSYPMB105	NSYPMR105
	750	NSYPMM107	NSYPMB107	NSYPMR107
	1000	NSYPMM1010	NSYPMB1010	NSYPMR105+NSYPMR105
	1250	NSYPMM1012	NSYPMB1012	NSYPMR105+NSYPMR107
1250	500	NSYPMM125	NSYPMB125	NSYPMR125
	750	NSYPMM127	NSYPMB127	NSYPMR127
	1000	NSYPMM1210	NSYPMB1210	NSYPMR125+NSYPMR125
	1250	NSYPMM1212	NSYPMB1212	NSYPMR125+NSYPMR127
1500	500	NSYPMM155	NSYPMB155	NSYPMR155
	750	NSYPMM157+NSYPMM157	NSYPMB157	NSYPMR157
	1000	NSYPMM1510	NSYPMB1510	NSYPMR155+NSYPMR155
	1250	NSYPMM1512	NSYPMB1512	NSYPMR155+NSYPMR157

**Standard Lock Options for
Closed Top NSYPLA Enclosures**

Converting the Standard To A Standardised Variant		
Characteristics	Key Operated Product Ref	Reference
6 mm Square Key Lock	LC-7	NSYTC6CRN
7 mm Square Key Lock	LC-7	NSYTC7CRN
8 mm Square Key Lock	LC-8	NSYTC8CRN
6 mm Triangular Key Lock	LT-6,5	NSYTT6CRN
7 mm Triangular Key Lock	LT-8	NSYTT8CRN
8 mm Triangular Key Lock	LT-8	NSYTL405PLM
Stainless Steel Padlock		NSYBCPLA
Double Bar Lock		NSYTDBPLA

ART range of Fibreglass Reinforced Polyester Enclosures to RAL7035 - IP56

Features & Benefits

- Manufactured from fibreglass reinforced Polyester to RAL7035, light grey colour
- Resistant to corrosion
- Self extinguishing material in accordance to UNE20-672-83/2-1
- Non hygroscopic material with minimum water absorption
- Maximum working temperatures –20°C to +120°C
- Excellent resistance to corrosion and chemical atmospheres, impacts and ultraviolet rays.
- Door hinges allows more than 180o opening
- Natural ventilation, thus preventing condensation
- Triple action closing of the door, by means of an aluminium plate
- Excellent surface finish
- Can be mounted on the wall, ground or on a base
- Good for inside or outside use
- Aesthetically pleasing to the eye

Applications

Chemical industry	Electricity supply	Traffic lights
Food industry	Water supply	Campsites and leisure/sports
Petrochemical Industry	Gas supply	Paper mills
Telephone network	Railways	Textile industry
Public lighting	Airports	

Mounting Plates & Accessories

Ref	For Enclosure	Description
PMM55	ART55	Metal Mounting Plate
PMM57	ART57	Metal Mounting Plate
PMM75	ART75	Metal Mounting Plate
PMM77	ART77	Metal Mounting Plate
PMM107	ART107	Metal Mounting Plate
PMP55	ART55	Polyester Mounting Plate
PMP57	ART57	Polyester Mounting Plate
PMP75	ART75	Polyester Mounting Plate
PMP77	ART77	Polyester Mounting Plate
PMP107	ART107	Polyester Mounting Plate
	SDP300T	Movable Support
	CML12T	Cylinder lock with key
	CTR11T	Triangular bolt lock
	CCU-08T	Square bolt lock

ART range of Polyester Enclosures

External Dimensions mm			
Ref	H	W	D
ART55	500	500	300
ART57	500	750	300
ART75	750	500	300
ART77	750	750	300
ART105	1000	500	300
ART107	1000	750	300
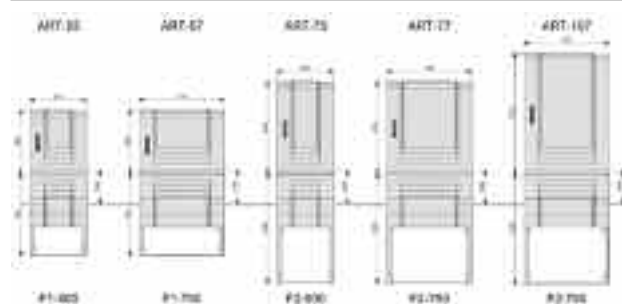
Mounting Plates	Size	Qty
PMP55	400 x 400	1
PMP57	400 x 650	1
PMP55	650 x 400	1
PMP75	400 x 400	1
PMP77	650 x 650	1
PMP105	900 x 400	1
PMP107	900 x 650	1

Locking System

Movable Support

CA Range of Modular Polyester/Polycarbonate Enclosures to IP66

Features:
A range of reinforced polyester Polyamid
RAL7035.

Benefits:
• Stabilized polycarbonate lids,ultraviolet resistant
• Lids with holes for wire sealing
• High mechanical resistance against impacts
• Manufactured from non hygroscopic materials, water absorption practically nil
• Good stray current resistance
• Resistance to corrosion by chemicals
• Compact and light making it easy to install
• Self extinguishing materials as per UNE53315 and ASTM D635.
• Maximum working temperature –30°C to +120°C
• Nominal intensity: 1,000A
• Nominal voltage: 660V
• Dielectric rigidity: > at 5,000V
• Insulation resistance > at 5 M O

Special features of the enclosure available with Transparent Lid or Opaque Lid

• Fibre glass reinforced rear polyester panel, to RAL7035
• Lid is made of colourless polycarbonate
• IP65 protection degree against dust, water and impacts
• Excellent for outdoor use

CA Modular Polyester Enclosures to IP66 with Transparent Lid			
External Dimensions (mm)			
Ref	W	H	D
CA1515	135	135	130
CA215	180	135	130
CA220	180	180	130
CA315	270	135	130
CA32	270	180	170
CA33	270	270	170
CA42	360	180	170
CA43	360	270	170
CA43A	360	270	205
CA44	360	360	170
CA44A	360	360	205
CA63	540	270	170
CA63A	540	270	205
CA64	540	360	170
CA64A	540	360	205
CA66	540	540	170
CA66A	540	540	205
CA84A	720	360	205
CA86A	720	540	205

Mounting Plates & Accessories		
Ref	For use on	Description
PP1515	CA1515	Polyester Back Plate
PP215	CA215	Polyester Back Plate
PP220	CA220	Polyester Back Plate
PP315	CA315	Polyester Back Plate
PP32	CA32	Polyester Back Plate
PP33	CA33	Polyester Back Plate
PP42	CA42	Polyester Back Plate
PP43	CA43	Polyester Back Plate
PP44	CA44	Polyester Back Plate
PP63	CA63	Polyester Back Plate
PP64	CA64	Polyester Back Plate
PP66	CA66	Polyester Back Plate
PP84	CA84	Polyester Back Plate
PP86	CA86	Polyester Back Plate
OFC-4000	CA1515/CA315	Wall Fixing Lug
OFC-400	CA32/CA86	Wall Fixing Lug
TFT4000	CA1515/CA315	Spare Screws for Lid
TFT400	CA32/CA86	Spare Screws for Lid
BO-BRE	CA32/CA86A	Ext. Hinge
DV-M		Vent Device (Small)
DV-G		Vent Device (Large)

CA Modular Polyester Enclosures to IP66 with Opaque Lid			
External Dimensions (mm)			
Ref	W	H	D
CA1515S	135	135	130
CA215S	180	135	130
CA220S	180	180	130
CA315S	270	135	130
CA32S	270	180	170
CA33S	270	270	170
CA42S	360	180	170
CA43S	360	270	170
CA43AS	360	270	205
CA44S	360	360	170
CA44AS	360	360	205
CA63S	540	270	170
CA63AS	540	270	205
CA64S	540	360	170
CA64AS	540	360	205
CA66S	540	540	170
CA66AS	540	540	205
CA84AS	720	360	205
CA86AS	720	540	205

Customised CA Enclosures

We can adapt the CA range of enclosures fully customised to meet your requirement.

So if its cut-outs for glands, push buttons or even viewing windows for metering applications we can customise the CA enclosure for you.

It might be a fully or partly populated solution you are looking for, if so for more information or technical questions please contact our customer service department
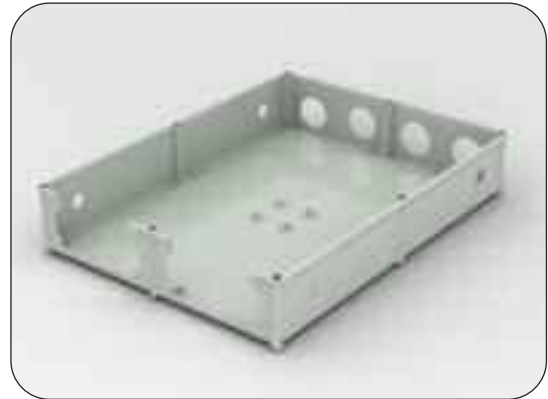
NSYPLS Polyester/Polycarbonate Modular Boxes System 27 IP65

Range of insulated modular boxes with bases made of hot moulded fibreglass reinforced polyester and lids made of polycarbonate or polyester depending on models. Boxes NSYPLSC are with transparent polycarbonate lid, boxes NSYPLSC with opaque polycarbonate lid. Boxes NSYPLSP are with both lid and base made of fibreglass reinforced polyester.

- Light grey colour similar to RAL 7032
- Modular design that allows the joining boxes to form assemblies in addition to the use as a single box
- Self-extinguishing, double insulation
- Dielectric rigidity >5 kV, insulating resistance >5MW
- Fully gasketed lids
- Operating temperature between -30°C and 120°C for types NSYPLS and up to 150°C for types NSYPLSP
- Good resistance to UV and chemicals, corrosion free, very easy machining
- Standard locking through insulated slotting screws

Polycarbonate Transparent Low Lid

Reference	Height	Width	Depth
NSYPLS1827	180	270	180
NSYPLS2727	270	270	180
NSYPLS2736	270	360	180
NSYPLS2754	270	540	180
NSYPLS3636	360	360	180
NSYPLS3654	360	540	180
NSYPLS5454	540	540	180

Polycarbonate Transparent High Lid

Reference	Height	Width	Depth
NSYPLS2727A	270	270	230
NSYPLS2736A	270	360	230
NSYPLS2754A	270	540	230
NSYPLS3654A	360	540	230
NSYPLS5454A	540	540	230
NSYPLS3672A	360	720	230
NSYPLS5472A	540	720	230

Polycarbonate Opaque Low Lid

Reference	Height	Width	Depth
NSYPLSC1827	180	270	180
NSYPLSC2727	270	270	180
NSYPLSC2736	270	360	180
NSYPLSC2754	270	540	180
NSYPLSC3636	360	360	180
NSYPLSC3654	360	540	180
NSYPLSC5454	540	540	180

Polyester Lid Boxes

Reference	Height	Width	Depth
NSYPLS1827	180	270	180
NSYPLS2727	270	270	180
NSYPLS2736	270	360	180
NSYPLS2754	270	540	180
PNSYPLS3636	360	360	180
NSYPLS3654	360	540	180
NSYPLS5454	540	540	180

Polycarbonate Opaque High Lid

Reference	Height	Width	Depth
NSYPLSC2727A	270	270	230
NSYPLSC2736A	270	360	230
NSYPLSC2754A	270	540	230
NSYPLSC3654A	360	540	230
NSYPLSC5454A	540	540	230
NSYPLSC3672A	360	720	230
NSYPLSC5472A	540	720	230

Mounting Plate

Steel Mounting Plates

Reference	Height	Width	Thickness
NSYPMM1827	140	230	2
NSYPMM2727	230	230	2
NSYPMM2736	230	320	2
NSYPMM2754	230	500	2
NSYPMM3636	320	320	2
NSYPMM3654	320	500	2
NSYPMM5454	500	500	2
NSYPMM3672	320	680	2.5
NSYPMM5472	500	680	2.5

Polyester Mounting Plates

Reference	Height	Width	Thickness
NSYPMA1827	140	230	3
NSYPMA2727	230	230	3
NSYPMA2736	230	320	3
NSYPMA2754	230	500	3
NSYPMA3636	320	320	3
NSYPMA3654	320	500	4
NSYPMA5454	500	500	4
NSYPMA3672	320	680	4
NSYPMA5472	500	680	4

Hinged Windows

Designed for viewing of internal equipment and easy access to it. Maintain IP-65 protection. Made of transparent polycarbonate.
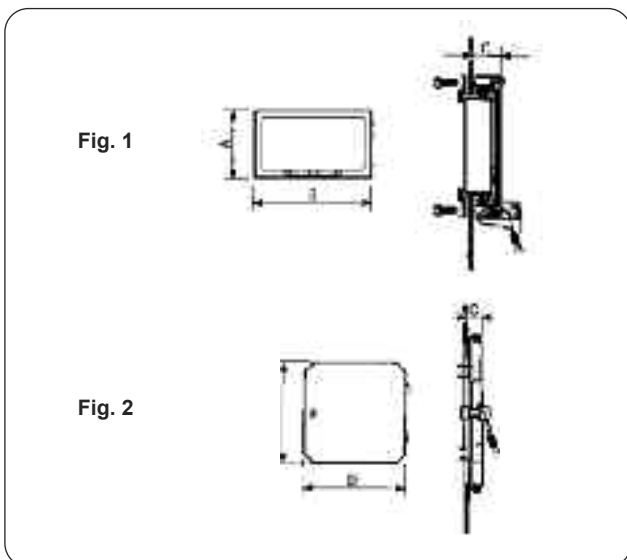
Fig. 1

Fig. 1

Fig. 2

Fig. 2

Hinged Windows

Reference Standard Lid	Reference High Lid	No. of poles 18 (mm)	fig.	A	B	C Standard Lid	C High Lid
NSYVA272M	NSYVA272MA	2	1	78	60	15 25	
NSYVA274M	NSYVA274MA	4	1	78	95	15 25	
NSYVA276M	NSYVA276MA	6	1	78	130	15 25	
NSYVA278M	NSYVA278MA	8	1	78	165	15 25	
NSYVA2710M	NSYVA2710MA	10	1	78	200	15	25
NSYVA2712M	NSYVA2712MA	12	1	78	235	15 25	
NSYVA2716M	-	16	2	195	165	13	-
NSYVA2724M	-	24*	2	196	235	13	-

* Rows of 12 modules each.

Hinges

For fixing directly to any type of box.

• External hinges, opening approximately 180°

Hinges

Reference	Description	Pack Qty
NSYBE27	External Hinge	2
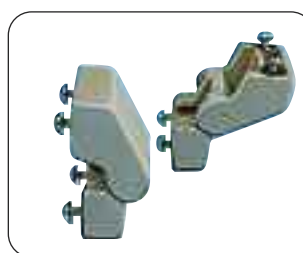
Wall Fixing Kit

Wall Fixing Kit

Reference	Description	Pack Qty
NSYPF27N	Fixing Kit	4

NSYTBP/NSYTBS Industrial Boxes

Features:

• Cover closes by 4 fast coarse pitch screws (flat head
  screwdriver) assuring IP66 protection.
• From dimensions 138mm x 93 mm, standard screws (flat
  head screwdriver) can be replaced by other
  standardised screw head shapes.
• 3 ways of wall fixing: outside usable area, sealed, via 4
  corners at box corners, through box via 2 or
  4 knock-out oblong holes, with fixing lugs.
• Equipment fixing studs in box cover and body for self-
  tapping screws Ø 4 mm ref.: TOR/IB (not provided).
• Adaptable hinges on all 20 and 40 mm depth covers.

Technical Characteristics:

• IP66 to standard IEC 60529.
• NEMA 4 & 4X to NEMA 250.
• Class II to IEC 536.
• Colour: box grey RAL7035, covers smoked transparent.
• Halogen-free insulating plastic materials.
• Resistance to chemical and atmospheric agents.
• According to standard EN 62208.

• PC Boxes.
• IK08 (5J) to EN 50102.
• Incandescent wire: 750°C.
• Operating temperature: -25°C to +80°C
• Installation temperature: -15°C to +60°C

Industrial Boxes

| External dimensions (mm)				Ref NSYTBS		Ref NSYTBP	
Height	Width	Depth	Cover Height	Opaque Cover	Transparent Cover	Opaque Cover	Transparent Cover
74	74	54	10	NSYTBS775	-	NSYTBP775	-
89	89	54	10	NSYTBS885	-	NSYTBP885	-
116	74	62	10	NSYTBS1176	-	NSYTBP1176	-
116	116	62	10	NSYTBS11116	-	NSYTBP11116	-
138	93	72	20	NSYTBS1397	NSYTBS1397T	NSYTBP1397	NSYTBP1397T
164	121	87	20	NSYTBS16128	NSYTBS16128T	NSYTBP16128	NSYTBP16128T
192	121	87	20	NSYTBS19128	NSYTBS19128T	NSYTBP19128	NSYTBP19128T
192	121	105	40	NSYTBS191210H	NSYTBS191210HT	NSYTBP191210H	NSYTBP191210HT
193	164	87	20	NSYTBS19168	NSYTBS19168T	NSYTBP19168	NSYTBP19168T
193	164	105	40	NSYTBS191610H	NSYTBS191610HT	NSYTBP191610H	NSYTBP191610HT
241	194	87	20	NSYTBS24198	NSYTBS24198T	NSYTBP24198	NSYTBP24198T
241	194	105	40	NSYTBS241910H	NSYTBS241910HT	NSYTBP241910H	NSYTBP241910HT
241	194	127	60	NSYTBS241912H	NSYTBS241912HT	NSYTBP241912H	NSYTBP241912HT
291	241	88	20	NSYTBS29248	NSYTBS29248T	NSYTBP29248	NSYTBP29248T
291	241	128	20	NSYTBS292412	NSYTBS292412T	NSYTBP292412	NSYTBP292412T
291	241	128	60	NSYTBS292412H	NSYTBS292412HT	NSYTBP292412H	NSYTBP292412HT
291	241	168	60	NSYTBS292416H	NSYTBS292416HT	NSYTBP292416H	NSYTBP292416HT
341	291	128	20	NSYTBS342912	NSYTBS342912T	NSYTBP342912	NSYTBP342912T
341	291	168	60	NSYTBS342916H	NSYTBS342916HT	NSYTBP342916H	NSYTBP342916HT

NSYTBS Boxes

• ABS
• IK07 (2J) to EN 50102
• Incandescent wire: 650°C to IEC 60695-2-11
• Operating Temp: -25…+60ºC
• Installation Temp: -15…+40°C

NSYTBP Boxes

• PC
• IK08 (5J) to EN 50102
• Incandescent wire: 750° C
• Operating Temp: -25…+80°C
• Installation Temp: -15…+60°C

For mounting plates and hinges please contact customer services on - **01922 458 151**
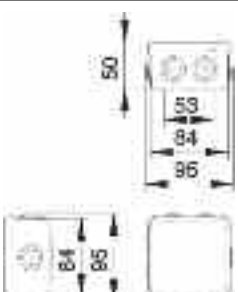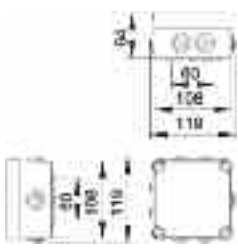
Light Range Junction Boxes to IP65/IP67

These junction boxes have an ample internal space for installation of mechanism of larger size, and they are available with transparent and opaque lids.

All enclosures are adapted to the metric system and include supports for installation of DIN rail and mounting plates on the base.
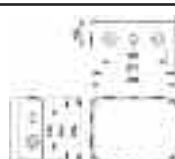
- Degree of protection IP65/IP67
- Resistance to impact IK07
- Auto-extinguishing degree HB (UL94)
- Test of resistance to glow wire from 650°C in 55DS and 55GS types and 850°C in 55DA and 55GA types.
- Ball pressure test 70°C
- Also available halogen free
- Box and opaque lid material is PS
- Transparent lid material is polycarbonate (UV protected)

		Reference
	With conical cable glands 84 x 84 x 50mm	
IP54		Cable Entries: 4 x M25

	Reference	
	EPO88	
	With conical cable glands 95 x 95 x 50mm	
	EXO88	
IP54	With premoulded cable entries 95 x 95 x 50mm	Cable Entries: 7 x M25

	Reference	
	EV111 - IP65	
	With conical cable glands 119 x 119 x 64mm	
	EX111 - IP65	
	With pre-moulded cable entries 119 x 119 x 64mm	
	EL111 - IP67	
IP65/67	Plain Sides 108 x 108 x 64mm	Cable Entries: 7 x M25

Reference		
EL161		
Plain sides	Polyester Mounting Plate	
162 x 116 x 76mm	Ref - 92121	Cable entries: 6 x M25-4 x M40

IP67

Reference		
EL171		
Plain sides opaque lid	Polyester Mounting Plate	
175 x 151 x 95mm	Ref - 92122	Cable entries: 6 x M25-4 x M40

IP67

Reference		
EL231		
Plain sides opaque lid 241 x 180 x 95mm		
ELT231	Polyester Mounting Plate	
Plain sides, transparent lid 241 x 180 x 95mm	Ref - 92124	Cable entries: 4 x M25-6 x M40

IP67

Reference		
EL322		
Plain sides, opaque lid 328 x 239 x 120mm		
ELT322	Polyester Mounting Plate	
Plain sides transparent lid 328 x 239 x 120mm	Ref - 92128	Cable entries: 12 x M40

IP67

Reference		
GSL171		
Plain sides, opaque lid 175 x 151 x 155mm		
GSLT171		
Plain sides transparent- lid 175 x 151 x 155mm		Cable entries: 6 x M25-4 x M40

IP65

Reference		
GSL231		
Plain sides, opaque lid 241 x 180 x 175mm		
GSLT231		
Plain sides transparent- lid 241 x 180 x 175mm		Cable entries: 4 x M25-6 x M40

IP65

Reference		
GSL322		
Plain sides, opaque lid 328 x 239 x 188mm		
GSLT322		
Plain sides transparent- lid 328 x 239 x 188mm		Cable entries: 12 x M40

IP65

A Range IP44, IP55, IP56 Junction Boxes

• Plastic halogen material
• High performaning
• Glow wire tested to IEC95-2-1
• AS boxes to 650c, ASH to 950c

With Stepped Glands and Press Fit Lids IP-44	
Reference	Description
A1	65 x 35 (round)
A2	80 x 35 (round)
A3	80 x 80 x 40

With smooth Walls and Grey Screw on Lids IP56	
Reference	Description
AS05	123 x 83 x 62
AS15	103 x 103 x 62
AS25	154 x 113 x 77
AS35	193 x 144 x 79
AS45	242 x 190 x 90
AS55	305 x 225 x 126
AS65	390 x 310 x 128
*Lid fixing by means of plastic screws c/w box	

With Smooth Walls and Transparent Screw on Lids IP56	
Reference	Description
AS35T	190 x 140 x 70
AS45T	240 x 190 x 90
AS55T*	300 x 220 x 150
AS65T*	380 x 300 x 150
*Lid fixing by means of plastic screws c/w box	

High Lid with Smooth Walls and Grey Screw Lids IP55	
Reference	Description
ASH15	110 x 110 x 112
ASH25	150 x 110 x 150
ASH35	150 x 150 x 150
ASH45	220 x 150 x 150
ASH55	300 x 220 x 150
*Lid fixing by means of plastic screws c/w box	

Metal Plate	
Reference	Description
PB1	for boxes AS3 - 35 - 35T
PB2	for boxes AS4 - 45 - 45T
PB3	for boxes AS5 - 55 - 55T
PB4	for boxes AS6 - 65 - 65T
PB5	for boxes ASH15 - ASH15T
PB6	for boxes ASH25 - ASH25T
PB7	for boxes ASH35 - ASH35T
PB8	for boxes ASH45 - ASH45T
PB9	for boxes ASH55 - ASH55T

NEW ECOLOGY Watertight Distribution Enclosures
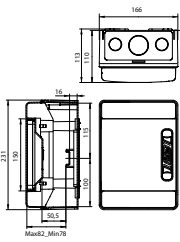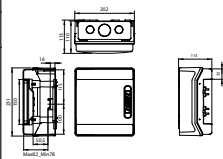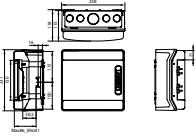
The new ECOLOGY range of distribution enclosures have a completely new and innovative shape, reaching the highest level of quality and design.
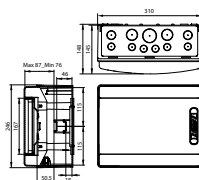
Made from halogen free long-lasting thermoplastic ABS. They have a large capacity for wiring and also the possibility to place the DIN rail in two height positions. Mounting plates and other accessories can be installed on the base inside.
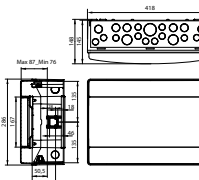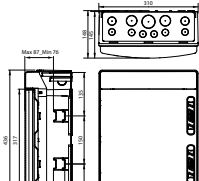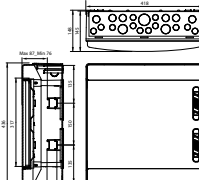
Technical Data:
• IP65
• IK08 resistance to impact
• HB (UL94) auto-extinguishing degree
• 650ºC test of resistance to glow wire
•70ºC ball pressure test
• -25ºC/+40ºC temperature range
• Halogen free material ABS
• Earth and neutral bars included
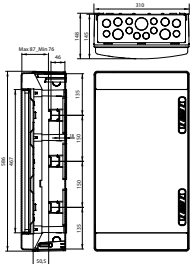
	Reference
	CDN4PT/RR
	Grey with transparent window
	Material ABS
	Size: H231 x W166 x D113
IP65	**Type**: 65S04 - 1 x 4 modules DIN Rail Cable entries sup: 2xM25 + 1xM40 inf: 2xM25 + 1xM40 Oblong back: 2xOB25_25

	Reference
	CDN6PT/RR
	Grey with transparent window
	Material ABS
	Size: H231 x W202 x D113
IP65	**Type**: 65S04 - 1 x 6 modules DIN Rail Cable entries sup: 2xM25 + 1xM40 inf: 2xM25 + 1xM40 Oblong back: 2xOB25_25

	Reference
	CDN8PT/RR
	Grey with transparent window
	Material ABS
	Size: H231 x W238 x D118
IP65	**Type**: 65S08 - 1 x 8 modules DIN Rail Cable entries sup: 4xM25 + 1xM40 inf: 4xM25 + 1xM40 Oblong back: 2xOB25_25
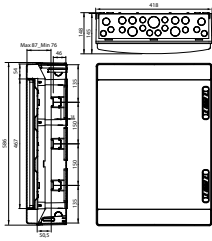
	Reference
	CDN12PT/RR
	Grey with transparent window
	Material ABS
	Size: H246 x W310 x D148
IP65	**Type**: 65S12 - 1 x 12 modules DIN Rail Cable entries sup: 6xM20 + 2xM25 + 2xM32 + 1xM40 inf: 6xM20 + 2xM25 + 2xM32 + 1xM40 Oblong back: 2xOB25_32_25

	Reference
	CDN18PT/RR
	Grey with transparent window
	Material ABS
	Size: H286 x W418 x D148
IP65	**Type**: 65S18 - 1 x 18 modules DIN Rail Cable entries sup: 12xM20 + 6xM25 + 2xM32 + 1xM40 inf: 12xM20 + 4 x M25 + 6xM25 + 2xM32 + 1xM40 int: 4 x M25 Oblong back: 1xOB25_32_25

	Reference
	CDN24PT/RR
	Grey with transparent window
	Material ABS
	Size: H436 x W310 x D148
IP65	**Type**: 65S24 - 2 x 12(24) modules DIN Rail Cable entries sup: 7xM20 + 2xM25 + 2xM32 + 2xM40 inf: 7xM20 + 2xM25 + 2xM32 + 2xM40 int: 4xM25 Oblong back: 2xOB25_32_25

	Reference
	CDN36PT2F/RR
	Grey with transparent window
	Material ABS
	Size: H436 x W418 x D148
IP65	**Type**: 65S36 - 2 x 18 (36) modules DIN Rail Cable entries sup: 12xM20 + 6xM25 + 2xM32 + 1xM40 inf: 12xM20 + 4xM25 + 6xM25 + 2xM32 + 1xM40 int: 4xM25 Oblong back: 2xOB25_32_25

	Reference	
	CDN36PT3F/RR	
	Grey with transparent window	
	Material ABS	
	Size: H586 x W310 x D148	

IP65	**Type**: 65S36 - 3 x 12 (36) modules DIN Rail
	Cable entries sup: 7xM20 + 2xM25 2xM32 + 1xM40
	               inf: 7xM20 + 2xM25 2xM32 + 1xM40
	               int: 4xM25
	Oblong back: 2xOB25_25_32_25	

	Reference	
	CDN54PT/RR	
	Grey with transparent window	
	Material ABS	
	Size: H586 x W418 x D148	

IP65	**Type**: 65S54 - 3 x 18 (36) modules DIN Rail
	Cable entries sup: 12xM20 + 6xM25 2xM32 + 1xM40
	               inf: 12xM20 + 6xM25 2xM32 + 1xM40
	               int: 4xM25
	Oblong back: 2xOB25_32_25	

C Range IP-40, IP-55 Distribution Boards

Surface Mounting Without Door - IP-40		
Reference	Description	Dimensions
CT2	1-2 pole	51 x 130 x 60
CT4	3-4 pole	88 x 130 x 60

Surface Mounting - Complete With Transparent Door - IP40		
Reference	Description	Dimensions
CT5PT	4 + 1 smooth sides	144 x 168 x 94
CT8PT	8 smooth sides	215 x 168 x 94
CT12PT	12 + 1 smooth sides	283 x 168 x 94
CT24PT	24 smooth sides	256 x 326 x 101

Wall Mounting Enclosures - IP-55		
Reference	Description	Dimensions
CT3G	3 pole	83 x 175 x 106
CT5G	5 pole	125 x 175 x 114
CT8G	8 pole	215 x 175 114
CT12G	12+1 pole	287 x 200 x 124

Distribution Boards With Provision For CEE Sockets - IP-65		
Reference	Description	Dimensions
CT24GL	24 way	285 x 375 x 136
CT36GL	36 way	285 x 500 x 136

Terminal Bar Supports In Polycarbonate (960ºC G.W. Test)		
Reference	Description	Pack Qty
CTR3	For CT5G - CT5SG - CT5GT	10
CTR4	For CT8G - CT8SG - CT8GT - CT12G CT12SG - CT12SG1 - CT12GT	10
CTR5	For CT3G	10

Terminal Bar Supports In Polycarbonate (960ºC G.W.Test)		
Reference	Description	Pack Qty
CTR6	For CT24L - CT36L	10
CTR9	For CT5-CT5PT-CT5PT/C (1 piece steel + 1 SUM 1)	10
CTR10	For CT8-CT8PT-CT8PT/C (1 piece steel + 1 SUM 1)	10
CTR11	For CT12-PT-PT/C (1 piece steel + 1 SUM 1)	10
CTR12	For CT24/36-PT-PO-PT/C-PO/C (1 piece steel + 1 SUM 2)	10

Pryma Range

Pryma IP67 enclosures can come either plain or equipped with sockets and wiring, in any combination and without minimum order quantities required. They are sealable, UV protected on windows and also complete with fastening for turning hinges with a locking device to assure their water-tightness.

Manufactured from halogen free long lasting plastic material. Wall mounting screws are placed away from the watertight area (Ref 17.8P and 17.8M). Din rail can be fixed to the frame, and also to the base without the need of screws. Holders are included on the enclosure to fix mounting plates and they are ready for earth and neutral bar installation.

Cable entries are adapted to the metric system and sockets wiring is carried out under electrical engineering preceptives.

•   Degree of protection IP67
•   Resistance to impact IK08
•   Auto-extinguishing degree HB (UL94)
•   Test of resistance to glow wire 650°C
•   Ball pressure test 70°C

	Reference	
	17.8.P/RR	
IP67	Grey with transparent window 204 x 284 x 222mm	1 x 8 modules DIN rail

	Reference	
	17.8.M/RR	
IP67	Grey with transparent window 204 x 369 x 222mm	1 x 8 modules DIN rail

	Reference	
	17.12.GM/RR	
IP67	Grey with transparent window 279 x 504 x 297mm	1 x 12 modules DIN RAIL

	Reference	
	17.24.GM/RR	
IP67	Grey with transparent window 279 x 504 x 297mm	2 x 12 (24) modules DIN RAIL

CK Range – The range for every need

The CK Range offers a broad range of enclosures, which satisfy every need.

The range is consists of:
• boards for modular devices 3-35 modules.
• universal boards for modular devices, power outlets and non modular devices

The range has high performance along with a tastefully designed aesthetic appearance.

A Complete Range
The CK Range is composed by an overall of 19 watertight enclosures Mini Boards (3-12 mod), Modular Boards (12-54 mod), Mixed Boards and Universal Boards.

The Mini and Modular can receive only modular devices while the Mixed and Universal are conceived to receive within the boards also non modular devices such as voltage transformers, control devices, relay and even electronic circuits.

High Performance
The CK Range are halogen free and guarantee a high performance due to:
• IP65 degree of protection
• IK09 high impact resistance and resistance to chemical and atmospheric agents, UVS etc.
• Class 2 insulating material
• Conformity with IEC 670 standard for empty enclosures and with IEC 60439-3 standard for equipped switchboards.

Facilities
• Metric and PG system cable entries
• Plenty of cable space
• Two depths of Din rail positioning
• Unbreakable door joists
• Vertical and horizontal association
• Left and right door opening
• Door locking facilities available as an option
• Optional mounting plates
• Sealing kit for front face available as an option
• Halogen free material
• Instalation temperature -35°C to +60°C
• Glow wire test: according to 650°C as per IEC 60965-2-1
• Self extinguishing insulating materials

Mini Boards		
Reference	Description	Dimensions
CK003	3	90 x 150 x 111.5
CK004	4	123 x 200 x 111.5
CK006	6	159 x 200 x 111.5
CK008	8	195 x 200 x 111.5
CK012	12	267 x 200 x 111.5

Modular Boards		
Reference	Description	Dimensions
CK112	12	340 x 280 x 164
CK118	18	448 x 280 x 164
CK224	2 x 12	340 x 460 x 164
CK236	2 x 18	448 x 460 x 164
CK336	3 x 12	340 x 610 x 164

Universal Boards	
Reference	Description
CK410	340 x 460 x 164
CK411	340 x 610 x 164
CK412	448 x 460 x 164
CK413	448 x 610 x 164

Mixed Boards		
Reference	Description	Dimensions
CK505	5	138 x 460 x 153.5
CK514	13	340 x 335 x 153.5

CK Range - Brass Terminal Bar

- MO4 Kit of 10 pcs, each bar with 4 holes
- MO8 Kit of 10 pcs, each bar with 8 holes
- MO10 Kit of 10 pcs, each bar with 10 holes
- MO12 Kit of 10 pcs, each bar with 12 holes
- MO14 Kit of 10 pcs, each bar with 14 holes
- MO16 Kit of 10 pcs, each bar with 16 holes
- MO22 Kit of 10 pcs, each bar with 22 holes

For a full range of accessories please contact customer services on - **01922 458 151**

FILTER FANS RAL7035 – IP54

A range of ventilation products for use in switchboards and controls panels.

With temperature playing a major role in reducing the life expectancy of devices such as VSC drives, PLC's, soft starters and telecommunication equipment, it is imperative that effective thermal management processes are considered for the protection of process control and power distribution systems within enclosed cabinets.

The air flow direction is from the outside towards the inside of the enclosure. If needed, the user can easily reverse the direction by simply re-assembling the fan in the opposite way.

Installation is fast thanks to the simple square cut out on the enclosure panel and to the snap in fixing system where no screws are required.

The snap in fixing system can be used on panels with a thickness in the range of 1.2mm to 2.4mm. For different thicknesses fixing can still be done with the screw kit which is included in each pack for this purpose.

The special configuration of the grill, the self adhesive gasket and the filter mat ensure IP54 protection degree.

An external cowl for increased protection to allow IP55 according to EN60529/10.91 is also available.

| XTALFAA500BP | XTALFA1600BP | XTALFA2300BP | XTALFA2500BP | XTALFA3500BP |

Part No	Airflow mt per hour	Dimensions H x W x D	Power Supply
XTALFAA500BP	24 m/hr	114mm x 114mm x 57mm	230v ac 50/60 Hz
XTALFAA5010BP	24 m/hr	114mm x 114mm x 57mm	110v ac 50/60 Hz
XTALFAA5024BPT	24 m/hr	114mm x 114mm x 57mm	24v dc 50/60 Hz
XTALFA1600BP	55 m/hr	150mm x 150mm x 77mm	230v ac 50/60 Hz
XTALFA1610BP	55 m/hr	150mm x 150mm x 77mm	110v ac 50/60 Hz
XTALFA1624BPT	55 m/hr	150mm x 150mm x 77mm	24v dc 50/60Hz
XTALFA2300BP	105 m/hr	250mm x 250mm x 111mm	230v ac 50/60 Hz
XTALFA2310BP	105 m/hr	250mm x 250mm x 111mm	110v ac 50/60 Hz
XTALFA2324BPT	105 m/hr	250mm x 250mm x 111mm	24v dc 50/60 Hz
XTALFA2500BP	230 m/hr	250mm x 250mm x 119mm	230v ac 50/60 Hz
XTALFA2510BP	230 m/hr	250mm x 250mm x 119mm	110v ac 50/60 Hz
XTALFA2524BPT	230 m/hr	250mm x 250mm x 119mm	24v dc 50/60 Hz
XTALFA3500BP	500 m/hr	325mm x 325mm x 151mm	230v ac 50/60 Hz
XTALFA3510BP	500 m/hr	325mm x 325mm x 151mm	110v ac 50/60 Hz

FILTER and GRILL

Part No	Overall Dimensions H x W x D	For use with
XTALFAA000G	114mm x 114mm x 17mm	XTALFAA500BP
XTALFA1000G	150mm x 150mm x 28mm	XTALFA1600BP
XTALFA2000G	250mm x 250mm x 30mm	XTALFA2300BP & XTALFA2500BP
XTALFA3000G	325mm x 325mm x 30mm	XTALFA3500BP

XTALFAA000G　　**XTALFA1000G**

XTALFA2000G　　**XTALFA3000G**

THERMOSTATS

Compact thermostats for din rail mounting to control ventilation and heating devices.

XTTHV02	N/O Vent ●	0/+60°C	din rail mounted	120V/230V AC
XTTHR02	N/C Heat ●	0/+60°C	din rail mounted	120V/230V AC

XTTHV02　　**XTTHR02**

HEATERS

Application: Enclosure heaters are often necessary to prevent failures or corrosion caused by low temperature or high humidity inside the enclosure. Such conditions are likely to occur when ambient temperature is low and the equipment inside the enclosure is not powered or fails to dissipate enough heat to keep enclosure temperature above the minimum threshold.

Outdoor enclosures, for instance, are almost always in such conditions. Safety: According to the type of heater, surface temperature is limited either by a PTC or by an over temperature safety switch. This allows a safe operation and a self-adjusted heating power. All are class II protection, IP20 EN60529.

Part No	Watts	Dimensions H x W x D	Power Supply	Max Current
XTSHT25W	25W	90mm x 50mm x 80mm	110-250V AC or DC	2A
XTSHT50W	50W	110mm x 50mm x 80mm	110-250V AC or DC	2A
XTSHT75W	75W	160mm x 50mm x 80mm	110-250V AC or DC	4A
XTSHT100W	100W	110mm x 90mm x 80mm	110-250V AC or DC	4A

ACCESSORIES

XTFINRIP – Door Panel Light Switch 1N/O + 1N/C
• IP65
• Dimensions: 91mm x 31mm x 39mm
• Power supply 230V(400v) AC15

XTFINSTAFF – Light Switch Bracket
• For use in the above Light switch

XTLAMPSP22MAG – Magnetic Lamp
• 230V supply
• 11 watt lamp magnetic fixing
• Dimensions: 95mm x 43mm x 268mm

XTCUFF10B – Cover for IP55 Protection
• Dimensions: 195mm x 255mm x 55mm
• For use with XTALFAA500BP & XTALFA1600BP

XTCUFF20B – Cover for IP55 Protection
• Dimensions: 325mm x 425mm x 60mm
• For use with XTALFA2300BP & XTALFA2500BP

XTCUFF30B – Cover for IP55 Protection
• Dimensions: 410mm x 540mm x 110mm
• For use with XTALFA3500BP

FILTER FANS

Part No	Air flow mt per hour	Dimensions H x W x D	Power supply
NSYCVF38M230PF	38 m/hr	137mm x 117mm x 49mm	230v
NSYCVF85M230PF	85 m/hr	170mm x 150mm x 62mm	230v
NSYCVF165M230PF	165 m/hr	268mm x 248mm x 104mm	230v
NSYCVF300M230PF	300 m/hr	268mm x 248mm x 116mm	230v
NSYCVF850M230PF	850 m/hr	336mm x 316mm x 162mm	230v

FILTER & GRILL

Part No	For use with	Overall size
NSYCAG92LPF	NSYCVF38M230PF	137mm x 117mm x 13mm
NSYCAG125LPF	NSYCVF85M230PF	170mm x 150mm x 15mm
NSYCAG223LPF	NSYCVF165M230PF NSYCVF300M230PF	268mm x 248mm x 18mm
NSYCAG291LPF	NSYCVF850M230PF	336mm x 316mm x 18mm

THERMOSTATS

NSYCCOTHO	N/O thermostat	●	0 - +60°C	Control a fan or alarm
NSYCCOTHC	N/C thermostat	●	0 - +60°C	Control a resistance heater or an alarm

HEATERS

Part No	Watts	Power supply
NSYCR10WU2	10W	110V/250 AC
NSYCR20WU2	20W	110V/250 AC
NSYCR55WU2	55W	110V/250 AC
NSYCR100WU2	90W	110V/250 AC

HOW ZERUST® DIFFUSER PRODUCTS WORK

Zerust® ICT® diffusers are easy to use corrosion protection products that contain patented Zerust® corrosion inhibiting technology. They come in different formats to meet specific protection needs. They all emit powerful corrosion inhibiting molecules into an enclosure that settle on metal surfaces and protect them from corrosion. Use them to protect ferrous and non-ferrous metal such as iron, steel, copper, zinc and solder.

How the ZERUST® protective molecules suppress corrosion:

1. They passivate the electron flow between the anodic and cathodic areas on the metal surfaces.
2. They may also form a hydrophobic layer that prevents water and moisture from direct contact with the metal therefore acting as an electrolyte.
3. They may regulate the pH value of the electrolyte.
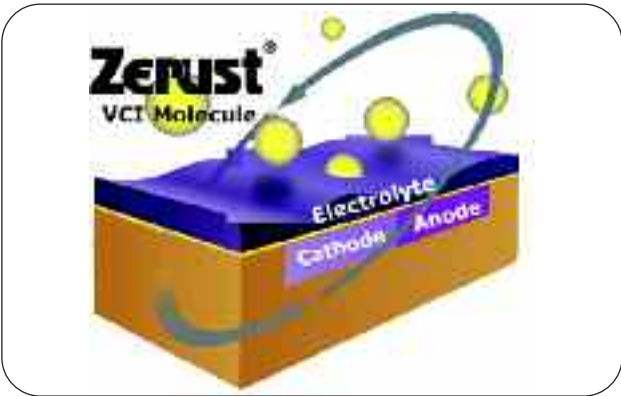
Features:
- Proven corrosion protection
- Easy to use
- Non toxic and odourless
- Fits restricted spaces
- Does not leave residue on electrical contact surfaces

Benefits:
- Reduce corrosion incidences
- Improve equipment reliability
- Reduce need for inspection and rework
- Save money and resources

Application Examples:
- Protect electrical connections in enclosures
- Protect an entire control room from corrosion

Product Code	Volume of Protection	Radius of Protection	Duration of Protection	Adhesive Backing
VC1-1 (S)	4.2ft3 (0.12 m^3)	1ft (0.3m)	1 year	Yes
VC1-1	4.2ft3 (0.12 m^3)	1ft (0.3m)	1 year	Yes
VC2-1	33.5ft3 (0.95 m^3)	2ft (0.6m)	1 year	Yes
VC2-2	33.5ft3 (0.95 m^3)	2ft (0.6m)	2 years	Yes
VC6-1	905ft3 (25.63 m^3)	6ft (1.8m)	1 year	No
VC6-2	905ft3 (25.63 m^3)	6ft (1.8m)	2 years	No

HellermannTyton

Tensioning Tools For Use With Nylon Cable Ties

HellermannTyton's cable tie tensioning tools are designed to reduce operator fatigue and speed up assembly. Safety is enhanced as the tool can eliminate the sharp edges of a cut off cable tie. Selecting the correct application tool, used at the correct setting, produces consistent, quality cable tie applications.

Mark 3

- Used for HellermannTyton cable ties 2.5mm to 4.8mm wide
- Adjustable preset tension device
- Automatic flush cut off for excess tie

EV07

- Lightweight, durable tool
- Used for HellermannTyton cable ties 2.5mm to 4.8mm wide
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Innovative, patent-pending TCL technology (Tension Lock Cut), providing maximum performance with minimum effort

Mark 6

- Used for HellermannTyton cable ties 4.8mm to 9mm wide
- Adjustable preset tension device
- Automatic flush cut off for excess tie

Mark 9

- Two variable tensioning levels
- Used for HellermannTyton cable ties up to 13.5mm wide
- Non-slip handle
- US MIL Specification approved

Mark 20

- Lightweight and economical
- Squeeze trigger to tension
- Twist to cut
- Used for HellermannTyton ties 2.5 to 4.8mm wide

Mark 21

- Inexpensive alternative to heavy duty tool
- Used with HellermannTyton ties 4.8 to 7.6mm wide
- Lightweight design lessens operator fatigue
- Simply twist to cut

NEW: EVO7 Application Tool

- Manual tensioning tool for cable ties up to 4.8mm wide
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Fast and precise application with minimum effort
- Extended, slim nose for use in narrow spaces
- Convenient and simple tension adjustment
- Durable, lightweight design
- Innovative, patent-pending TCL technology (Tension Lock Cut), providing maximum performance with minimum effort
- Extremely low maintenance

Type	Strap Width max mm	StrapThickness max.	Weight	Description	Qty	Article No.
EVO7	4.8	1.5	0.275 kg	EVO Tensioning Tool (90mm hand span)	1	110-70129
EVO7SP	4.8	1.5	0.275 kg	EVO Tensioning Tool (80mm hand span)	1	110-70130
BLADEKIT				Blade Replacement Kit	1	110-70106

* All dimensions in mm subject to technical change

Perfect cutting made easy with the EVO7

From precise preliminary settings to the perfect cut, the EVO7 allows for an even lighter, gentler and easier cable tie application than ever before. The patent-pending TLC technology makes all the difference!

Tension the cable tie as usual. Use the tension adjustment knob to select the desired tension setting. The patent pending locking mechanism detects when the desired tension is reached, locking the tie in place prior to cutting. No manual pressure is required to hold the cable tie in place.

For the final cut, very little effort is needed. By simply pulling the trigger enough to cut the tie, a precise finish can be achieved without excessive strain on the user.

T-Series Cable Ties

- HellermannTyton cable ties - customer specified worldwide
- Injection moulded in virgin grade PA66
- Superior quality, design and manufacture
- Quick, simple fixing by hand or with HellermannTyton tensioning tools
- Products approved to U.S. Military specification 23190 drawing MS3367
- Black or natural as standard
- Other colours available to special order
- Other colours and sizes available - just ask our sales desk

Reference	Overall Length mm	Strap Width mm	Minimum Tensile Strength lbs	N	Recommended Cable Diameter mm	Tensioning Tool	Pack Qty
T18R	100	2.5	18	80	22	MK3/MK20/EV07	100
T18I	140	2.5	18	80	35	MK3/MK20/EV07	100
T18L	205	2.5	18	80	55	MK3/MK20/EV07	100
T30R	150	3.5	30	135	35	MK3/MK20/EV07	100
T30L	190	3.5	30	135	50	MK3/MK20/EV07	100
T30LL	290	3.5	30	135	80	MK3/MK20/EV07	100
T40R	175	4.0	40	180	40	MK3/MK20/EV07	100
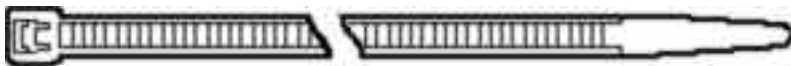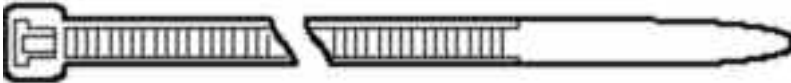
Military Specification Ties - Virgin Grade PA66

Recommended Tensioning Tool

EV07

- Lightweight, durable tool
- Used for HellermannTyton cable ties 2.5mm to 4.8mm wide
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Innovative, patent-pending TCL technology (Tension Lock Cut), providing maximum performance with minimum effort

T-Series Cable Ties

- Lightweight, high strength fixings
- One piece, all plastic construction
- Range of different materials available for high specification environments
- Other sizes available - just ask our sales desk

Military Specification Ties - Virgin Grade PA66							
Reference	Overall Length	Strap Width	Minimum Tensile Strength		Recommended Cable Diameter	Tensioning Tool	Pack Qty
	mm	mm	lbs	N	mm		
T50S	150	4.6	50	225	35	MK3/MK20//EV07	100
T50R	200	4.6	50	225	50	MK3/MK20//EV07	100
T50I	300	4.6	50	225	85	MK3/MK20//EV07	100
T50L	390	4.6	50	225	110	MK3/MK20//EV07	100

T120S	225	7.6	120	535	55	MK6/MK21/MK9	50
T120I	300	7.6	120	535	80	MK6/MK21/MK9	100
T120R	380	7.6	120	535	100	MK6/MK21/MK9	100
T120M	460	7.6	120	535	130	MK6/MK21/MK9	100
T120XM	600	7.6	120	535	175	MK6/MK21/MK9	50
T120L	760	7.6	120	535	225	MK6/MK21/MK9	50
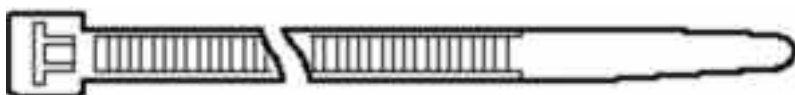
Recommended Tensioning Tools

EV07

- Lightweight, durable tool
- Used for HellermannTyton cable ties 2.5mm to 4.8mm wide
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Innovative, patent-pending TCL technology (Tension Lock Cut), providing maximum performance with minimum effort

Mark 9

- Two variable tensioning levels
- Used for HellermannTyton cable ties up to 13.5mm wide
- Non-slip handle
- US MIL Specification approved

T-Series Cable Ties

- Easy to fasten by hand
- Very high tensile strength
- Consistent performance and reliability
- Infinitely adjustable throughout bundle range
- High quality application tooling to ease installation
- Black available from stock
- Other sizes available - just ask our sales desk

Military Specification Ties - Virgin Grade PA66

Reference	Overall Length	Strap Width	Minimum Tensile Strength		Maximum Cable Diameter	Recommended Tensioning Tool	Pack Qty
	mm	mm	lbs	N	mm		
T150L	820	8.9	175	780	245	MK6/MK9/MK21	25
T150XL	1095	8.9	175	780	330	MK6/MK9/MK21	25

| T250X | 370 | 12.5 | 250 | 1115 | 100 | MK9 | 100 |
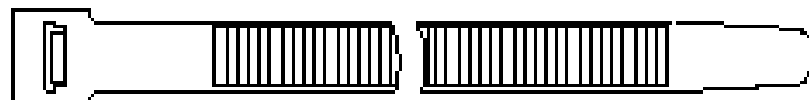
Recommended Tensioning Tools

Mark 9

- Two variable tensioning levels
- Used for HellermannTyton cable ties up to 13.5mm wide
- Non-slip handle
- US MIL Specification approved

Q-Series Cable Ties

The Q-tie is a unique and innovative product for bundling and fixing cables for a wide range of applications. It is available in various colours and materials. The innovative design of the open head tie provides an easy insertion even under difficult circumstances.

Features

Q-tie is the perfect solution for applications under difficult working conditions. It is designed for use in application where working with gloves is necessary or for blind applications with a limited view on the work.

Due to several simultaneous working processes, it is not always possible to install all cables and conduits in one single step. Thus, working with standard cable ties means either destroying the cable tie of the first installation or applying additional cable ties. The integrated pre-locking function of the Q-tie offers the ability of both a temporary and final cable fastening solution in one.

Q-ties save you time and money!

A wide range of materials are available:
• Polyamide 6.6 (PA66), black, natural and in various colours
• Polyamide 6.6 weather-resistant (PA66W), only black
• Polyamide 6.6 heat stabilized (PA66HS), black and natural

Application

1. Open lock head for quick and easy insertion.
2. Two rails in the strap ensure perfect guidance for the tracks in the head.
3. The locking device interacts safely with the serration of the cable tie.
4. The tracks prevent a deformation of the head under load.
5. The thin part of the cable tie can be simply placed into the open lock head.
6. The large ribbed tail allows a safe and ergonomic installation.
7. Integrated pre locking feature (starts with type Q30).

Q-Series Cable Ties						
Reference	Length	Width	Bundle diameter	Min Tensile Strength		Pack Qty
	mm	mm	mm	(N)	(lbs)	
Q18R	105	2.6	24	80	18	100
Q18I	155	2.6	40	80	18	100
Q18L	195	2.6	50	80	18	100
Q30R	160	3.6	38	130	18	100
Q30L	200	3.6	50	130	30	100
Q30LR	250	3.6	65	130	30	100
Q50R	210	4.7	50	220	30	100
Q50I	290	4.7	75	220	50	100
Q50L	410	4.7	110	220	50	100
Q120I	300	7.7	70	530	120	100
Q120R	420	7.7	110	530	120	100
Q120M	520	7.7	145	530	120	100
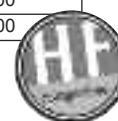
Cable Tie with 90° Angled Head V-Series

V-Series is the consequent advancement of HellermannTyton's outside serrated cable ties. Manufactured in PA66HS.

Features

• 90° angled head
• Easy and parallel insertion
• Good fit to bundles, tubes, harness etc.
• Low and rounded profile head
• Less hight above the bundle
• No damage of parallel routed bundles
• Outside serrated cable tie
• Smooth surface to the bundle, no damage of insulation
• Easy and safe to use
• Up to 20% higher tensile strength compared to other
  ties with similar strap cross-section
• Natural colour

Application

Its outstanding properties allows access to all industry markets. V-Series is perfect for:

• Use in applications with restricted space
• To bundle cables in camera and alarm systems
• For cable routing in Automation systems
  (Remote I/O Systems)
• For parallel bundles
• For installation/ mainly subsequent installation
  in switch cases
• Smooth geometry and round head avoids
  snag on the back of the hand
• Bundles which have to be fed through a
  grommet or ductwork for cables
• Easy to handle due to the low profile head

V-Series is perfect for parallel bundles

V-Series - less height above the bundle

Outside serration means no damage of insulation
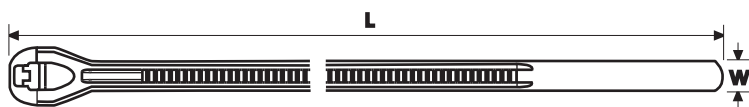
V Series Cable Ties						
Reference	Length	Width	Max Bundle diameter	Min Tensile Strength		Pack Qty
	mm	mm	mm	(N)	(lbs)	
V100R	102.5	2.45	20	100 (N)	22	100
V150R	150	3.3	35	150 (N)	33	100

OS-Series Outside Serrated Cable Ties

A new range of patented Outside Serrated cable ties offer the ideal combination of high specification materials and supperior design to meet the needs for bundling and securing thin-wall and soft insulated cables. The new curved shape of the head allows the tie to follow the contours of the cable and takes up less space than other designs of cable ties.

- Made from Heat Stabilised material
- Operating temperatures -40˚C to 105˚C contiuous (+145˚C 500 hours)
- UL94V2 Halogen Free
- Presents a smooth surface to the cable preventing insulation damage by chafe, vibration and indentation
- Low insertion and high tensile strength
- Will hold and secure cable bundles as small as 1.6m diameter
- Also available in VO Material for London Underground (LUL) Projects

Outside Serrated Cable Ties - Military Specification, Virgin Grade PA66							
Reference	Overall length mm	Width mm	Tensile strength lbs	N	Recommended Tensioning tool	Bundle Diameter max mm	Pack Qty
T18ROS	100	2.5	18	80	MK3/EVO7	20	100
T30ROS	148	3.4	30	135	MK3/EVO7	35	100
T30LOS	200	3.4	30	135	MK3/EVO7	50	100
T50SOS	150	4.6	50	225	MK3/EVO7	35	100
T50ROS	200	4.6	50	225	MK3/EVO7	50	100
T50MOS	245	4.6	50	225	MK3/EVO7	66	100
T50LOS	384	4.6	50	225	MK3/EVO7	110	100
T120ROS	385	7.6	120	535	MK6/EVO7	105	100
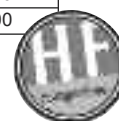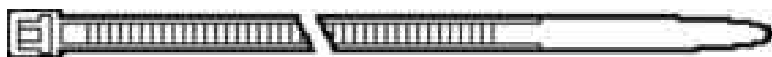
Recommended Tensioning Tools

EV07

- Lightweight, durable tool
- Used for HellermannTyton cable ties 2.5mm to 4.8mm wide
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Innovative, patent-pending TCL technology (Tension Lock Cut), providing maximum performance with minimum effort

Mark 9

- Two variable tensioning levels
- Used for HellermannTyton cable ties up to 13mm wide
- Non-slip handle
- US MIL Specification approved

High Temperature Cable Ties

- Improved performance in high temperature applications
- Virgin Grade PA46
- 150˚C for 5000 hours
- 135˚C continuous working temperature
- Use with HellermannTyton cable tie tooling as per table below
- Can withstand intense heat for very short periods
- Ideal for electronics applications
- Colour natural

High Temperature Cable Ties - Virgin Grade PA46							
Reference	Overall Length	Strap Width	Minimum Tensile Strength		Recommended Cable Diameter	Tensioning Tool	Pack Qty
	mm	mm	lbs	N	mm		
T18R PA46	100	2.5	18	80	22	MK3/EVO7	100
T30R PA46	150	3.5	30	135	35	MK3/EVO7	100
T50R PA46	200	4.6	50	225	50	MK3/EVO7	100
T50I PA46	300	4.6	50	222	85	MK3/EVO7	100
T50L PA46	390	4.6	50	225	110	MK3/EVO7	100
T120R PA46	380	7.6	120	535	100	MK6/EVO7	100

Flame Retardant Cable Ties

- UL 94 V0 Rated material at >0.8mm thickness
- Ideal for mass transit or other fire sensitive applications
- Low toxicity rating
- Inside or outside serrated ties available

Flame Retardant Inside Serrated Cable Ties - Virgin grade PA66							
Reference	Overall Length	Strap Width	Minimum Tensile Strength		Maximum Cable Diameter	Recommended Tensioning Tool	Pack Qty
	mm	mm	lbs	N	mm		
T18R V0	100	2.5	18	80	22	MK3/EVO7	100
T30R V0	150	3.5	30	135	35	MK3/EVO7	100
T50R V0	200	4.6	50	225	50	MK3/EVO7	100
T50L V0	390	4.6	50	222	110	MK3/EVO7	100
T120R V0	380	7.6	120	535	100	MK6/EVO7	100

The HellermannTyton MAT Stainless Steel tie range is available in both coated and un-coated versions. Incorporating a 'ladder' type locking mechanism the ties are easy to install and are suitable for a wide range of electrical cable installations.

MAT Product Range

- Simple to install, either by hand or with a tensioning tool (see page 137)
- Tough and corrosion resistant
- Lightweight and easy to handle
- Manufactured from Marine Grade 316 Stainless Steel
- Available coated or un-coated
- Wide temperature range -80°C to +538°C

MAT Coated Stainless Steel Ties - 316 Marine Grade Stainless Steel							
Reference	Overall Length		Strap Width		Maximum Cable Diameter		Pack Qty
	mm	in	mm	in	mm	in	
MAT8SSC7	230	9.0	7.0	0.3	60	2.4	100
MAT12SSC7	330	13.0	7.0	0.3	90	3.5	100
MAT16SSC7	430	16.9	7.0	0.3	120	4.7	100
MAT24SSC7	630	24.8	7.0	0.3	180	7.1	100
MAT8SSC12	230	9.0	12.0	0.5	60	2.4	100
MAT12SSC12	330	13.0	12.0	0.5	90	3.5	100
MAT16SSC12	430	16.9	12.0	0.5	120	4.7	100
MAT24SSC12	630	24.8	12.0	0.5	180	7.1	100

Uncoated version available to special order only.

The HellermannTyton MLT range of Stainless Steel ties incorporate a 'buckle' type locking mechanism. Once installed the MLT range offer an extremely secure method of cable bundling.

MLT Product Range

- Simple to install, either by hand or with a tensioning tool (see page 137)
- Tough and corrosion resistant
- Manufactured from Marine Grade 316 Stainless Steel
- Available coated or un-coated
- Wide temperature range -80°C to +538°C
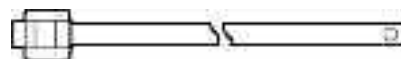
MLT Coated Stainless Steel Ties - 316 Marine Grade Stainless Steel							
Reference	Overall Length		Strap Width		Maximum Cable Diameter		Pack Qty
	mm	in	mm	in	mm	in	
MLT8SSC5	230	9.0	5.0	0.2	60	2.4	100
MLT12SSC5	330	13.0	5.0	0.2	90	3.5	100
MLT16SSC5	430	16.9	5.0	0.2	120	4.7	100
MLT24SSC5	630	24.8	5.0	0.2	180	7.1	100
MLT8SSC10	230	9.0	10.0	0.4	60	2.4	100
MLT12SSC10	330	13.0	10.0	0.4	90	3.5	100
MLT16SSC10	430	16.9	10.0	0.4	120	4.7	100
MLT24SSC10	630	24.8	10.0	0.4	180	7.1	100

Uncoated version available to special order only.

MBT Uncoated Range

- 3 strap widths available
- Up to 1,011 lbs / 4,500 N tensile strength
- Fast, secure installation
- Safe to handle
- Flame retardant
- High temperature capability -80°C to +538°C

MBT Stainless Steel Ties - 316 Marine Grade Stainless Steel									
Reference	Overall Length		Strap Width		Minimum Tensile Strength		Maximum Cable Diameter		Pack Qty
	mm	in	mm	in	lbs	N	mm	in	
MBT5S	127	5.0	4.6	0.18	200	900	25	1.0	100
MBT8S	201	7.9	4.6	0.18	200	900	50	2.0	100
MBT12S	300	12	4.6	0.18	200	900	76	3.0	100
MBT14S	362	14.3	4.6	0.18	200	900	102	4.0	100
MBT20S	521	20.5	4.6	0.18	200	900	152	6.0	100
MBT27S	681	26.8	4.6	0.18	200	900	203	8.0	100
MBT33S	838	33.0	4.6	0.18	200	900	254	10.0	100
MBT8H	201	7.9	7.9	0.31	440	2,000	50	2.0	50
MBT12H	300	12	7.9	0.31	440	2,000	76	3.0	50
MBT14H	362	14.3	7.9	0.31	440	2,000	102	4.0	50
MBT20H	521	20.5	7.9	0.31	440	2,000	152	6.0	50
MBT27H	681	26.8	7.9	0.31	440	2,000	203	8.0	50
MBT33H	838	33.0	7.9	0.31	440	2,000	254	10.0	50
MBT14XH	362	14.3	12.3	0.48	595	2,700	102	4.0	50
MBT20XH	521	20.5	12.3	0.48	595	2,700	152	6.0	50
MBT27XH	681	26.8	12.3	0.48	595	2,700	203	8.0	50
MBT33XH	838	33.0	12.3	0.48	595	2,700	254	10.0	50
MBT14UH	362	14.3	16	0.63	1,011	4,500	102	4.0	50
MBT20UH	521	20.5	16	0.63	1,011	4,500	152	6.0	50
MBT27UH	681	26.8	16	0.63	1,011	4,500	203	8.0	50
MBT33UH	838	33.0	16	0.63	1,011	4,500	254	10.0	50
MBT43UH	1092	43.0	16	0.63	1,011	4,500	330	13.0	25
MBT49UH	1245	49.0	16	0.63	1,011	4,500	380	15.0	25

MBT - 304 Grade Stainless Steel Ties									
Reference	Overall Length		Strap Width		Minimum Tensile Strength		Maximum Cable Diameter		Pack Qty
	mm	in	mm	in	lbs	N	mm	in	
MBT5SS	127	5.0	4.6	0.18	200	900	25	1.0	100
MBT8SS	201	7.9	4.6	0.18	200	900	50	2.0	100
MBT12SS	300	12	4.6	0.18	200	900	76	3.0	100
MBT14SS	362	14.3	4.6	0.18	200	900	102	4.0	100
MBT20SS	521	20.5	4.6	0.18	200	900	152	6.0	100
MBT27SS	681	26.8	4.6	0.18	200	900	203	8.0	100
MBT33SS	838	33.0	4.6	0.18	200	900	254	10.0	100
MBT8HS	201	7.9	7.9	0.31	440	2,000	50	2.0	50
MBT12HS	300	12	7.9	0.31	440	2,000	76	3.0	50
MBT14HS	362	14.3	7.9	0.31	440	2,000	102	4.0	50
MBT20HS	521	20.5	7.9	0.31	440	2,000	152	6.0	50
MBT27HS	681	26.8	7.9	0.31	440	2,000	203	8.0	50
MBT33HS	838	33.0	7.9	0.31	440	2,000	254	10.0	50
MBT14XHS	362	14.3	12.3	0.5	450	2,000	102	4.0	50
MBT20XHS	521	20.5	12.3	0.5	450	2,000	152	6.0	50
MBT27XHS	681	26.8	12.3	0.5	450	2,000	203	8.0	50
MBT33XHS	838	33.0	12.3	0.5	450	2,000	254	10.0	50

* see page 152 for suitable tensioning tool.

MBT Coated Range

- 3 strap widths available
- Polyester coated
- High tensile strength
- Manufactured from Marine Grade 316 Stainless Steel
- Tough and corrosion resistant

* Red coated stainless steel ties also available. Please contact us for further information

MBT Fully Coated Stainless Steel Ties - 316 Marine Grade Stainless Steel									
Reference	Overall Length		Strap Width		Minimum Tensile Strength		Maximum Cable Diameter		Pack Qty
	mm	in	mm	in	lbs	N	mm	in	
MBT5SFC	127	5.0	4.6	0.18	105	467	25	1.0	100
MBT8SFC	201	7.9	4.6	0.18	105	467	50	2.0	100
MBT12SFC	300	12	4.6	0.18	105	467	76	3.0	100
MBT14SFC	362	14.3	4.6	0.18	105	467	76	3.0	100
MBT20SFC	521	20.5	4.6	0.18	105	467	152	6.0	100
MBT27SFC	681	26.8	4.6	0.18	105	467	203	8.0	100
MBT33SFC	838	33.0	4.6	0.18	105	467	254	10.0	100
MBT8HFC	201	7.9	7.9	0.31	175	779	50	2.0	50
MBT12HFC	300	12	7.9	0.31	175	779	76	3.0	50
MBT14HFC	362	14.3	7.9	0.31	175	779	102	4.0	50
MBT20HFC	521	20.5	7.9	0.31	175	779	152	6.0	50
MBT27HFC	681	26.8	7.9	0.31	175	779	203	8.0	50
MBT33HFC	838	33.0	7.9	0.31	175	779	254	10.0	50
MBT14XHFC	362	14.3	12.3	0.48	350	1,558	102	4.0	50
MBT20XHFC	521	20.5	12.3	0.48	350	1,558	152	6.0	50
MBT27XHFC	681	26.8	12.3	0.48	350	1,558	203	8.0	50
MBT33XHFC	838	33.0	12.3	0.48	350	1,558	254	10.0	50
MBT14UHFC	362	14.3	16	0.63	562	2,500	102	4.0	50
MBT17UHFC	434	17.1	16	0.63	562	2,500	125	4.9	50
MBT20UHFC	521	20.5	16	0.63	562	2,500	152	6.0	50
MBT23UHFC	575	22.6	16	0.63	562	2,500	168	6.6	50
MBT27UHFC	681	26.8	16	0.63	562	2,500	203	8.0	50
MBT30UHFC	754	29.7	16	0.63	562	2,500	225	8.9	50
MBT33UHFC	838	33.0	16	0.63	562	2,500	254	10.0	50
MBT43UHFC	1092	43.0	16	0.63	562	2,500	330	13.0	50
MBT49UHFC	1245	49.0	16	0.63	562	2,500	380	15.0	50

* see page 152 for suitable tensioning tool.

MBT Kit

- Includes MBT 304 Stainless Steel cable ties, THT Ratchet Installation
- Tool, and strong plastic carry case
- Kit contains popular sizes of cable ties
- Easy to use reversible ratchet tool
- Ideal for Mechanical & Electrical Contractors and many other applications.

Product	Quantity
MBT14SS	30
MBT14HS	30
MBT8HS	20
MBT8SS	20
MBT5SS	20
THT	1

Reference 111-01422

MBT Double Wrap Cable Ties Uncoated

The double wrap ties of the MBT-series are used in applications where a fixing requires an extraordinary high tensile strength. The unique design allows the strap to be wrapped around the bundle and inserted through the head twice, providing a very high tensile strength to carry enormous applied loads.

Features & Benefits:

• Stainless steel MBT ties with double wrap operation
• Manufactured in SS316 grade stainless steel
• Wraps around the bundle and passes through the head twice
• Very high tensile strength to carry enormous applied loads
• Head with two locking balls for high performance
• Resistant to arduous conditions and environments
• Non-burning

Reference	Overall Length		Strap Width		Minimum Tensile Strength		Maximum Cable Diameter		Pack Qty
	mm	in	mm	in	lbs	N	mm	in	
MBT27XHD	681	26.8	12.3	0.48	1,124	5,000	100	3.9	50
MBT33XHD	838	33.0	12.3	0.48	1,124	5,000	120	4.7	50
MBT43XHD	1092	43.0	12.3	0.48	1,124	5,000	160	6.3	25
MBT49XHD	1245	49.0	12.3	0.48	1,124	5,000	180	7.1	25
MBT60XHD	1524	60.0	12.3	0.48	1,124	5,000	230	9.1	25
MBT27UHD	681	26.8	16.0	0.63	1,573	7,000	100	3.9	50
MBT33UHD	838	33.0	16.0	0.63	1,573	7,000	120	4.7	50
MBT43UHD	1092	43.0	16.0	0.63	1,573	7,000	160	6.3	25
MBT49UHD	1245	49.0	16.0	0.63	1,573	7,000	180	7.1	25
MBT60UHD	1524	60.0	16.0	0.63	1,573	7,000	230	9.1	25

MBT Double Wrap Cable Ties with Coating

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industries, theatres and exhibition halls. In the event of a fire, cables will remain securely held in place and will not fall to block emergency exits.

Features & Benefits:

• MBT cable ties, made from stainless steel SS316 with a
  polyester coating
• Patented non-releasable locking feature
• Double wrap operation
• Corrosion resistant
• Weather resistant
• Outstanding chemical resistance
• Antimagnetic
• High temperature resistant
• Non-burning
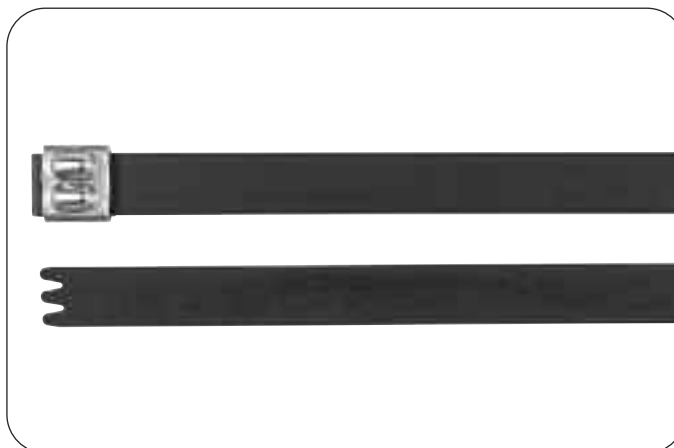
Reference	Overall Length		Strap Width		Minimum Tensile Strength		Maximum Cable Diameter		Pack Qty
	mm	in	mm	in	lbs	N	mm	in	
MBT27XHDFC	681	26.8	12.3	0.48	674	3,000	100	3.9	50
MBT33XHDFC	838	33.0	12.3	0.48	674	3,000	120	4.7	50
MBT43XHDFC	1092	43.0	12.3	0.48	674	3,000	160	6.3	25
MBT49XHDFC	1245	49.0	12.3	0.48	674	3,000	180	7.1	25
MBT60XHDFC	1524	60.0	12.3	0.48	674	3,000	230	9.1	25
MBT27UHDFC	681	26.8	16.0	0.63	1,124	5,000	100	3.9	50
MBT33UHDFC	838	33.0	16.0	0.63	1,124	5,000	120	4.7	50
MBT43UHDFC	1092	43.0	16.0	0.63	1,124	5,000	160	6.3	25
MBT49UHDFC	1245	49.0	16.0	0.63	1,124	5,000	180	7.1	25
MBT60UHDFC	1524	60.0	16.0	0.63	1,124	5,000	230	9.1	25

* Red coated stainless steel ties also available. Please contact us for further information

Stainless Steel P-Mounts

A range of stainless steel P-Mounts ideal for use with our range of stainless steel ties. Designed as a one hole fixing solution, the mounts are made of high performance 316 grade stainless steel.

The range consists of three different hole sizes that are suitable for screw diameters of 4mm, 5mm and 6mm with a slot width of 10mm.

The P-Mounts can be used in conjunction with our range of MBT, MLT and MAT products.

With its heavy duty design, the stainless steel P-Mounts provide a sustainable and durable fixing solution.

Note: It is recommended that stainless steel screws/bolts are used to install the P-Mounts to prevent potential corrosion.

Application:

• Used in the most arduous of environments
• Where additional security, strength and fire resistance of a metal fixing is required.
• Used for fixing cables, tubing, conduits and pipes.

Material:	Stainless Steel type SS316
Operating Temperature:	-80ºC to +538ºC
Flammability:	Non burning

Reference	Length mm	Width mm	Height mm	Hole Dia mm	Screw Dia mm	Cable Tie Width mm	Material	Qty
SSPC4	23	10.2	4.5	4.2	4	10.0	SS316	100
SSPC5	23	10.2	4.5	5.3	5	10.0	SS316	100
SSPC6	23	10.2	4.5	6.3	6	10.0	SS316	100

Stainless Steel Ties Application Tools

HellermannTyton offer a range of application tools designed to make the installation of Stainless Steel ties quick and easy. Lightweight and robust the range shown below accommodates tie ranges as detailed.

MK9SST Application Tool

- Side entry for immediate positioning of tie
- Fully adjustable controlled tensioning
- Single handed operation
- Automatic cut off
- Flush cut - no sharp edges
- Non slip ergonomic handle
- Suitable for the complete MBT range

Ties	
Ref	Setting
MBT S(FC)	Standard
MBT H(FC)	Heavy
MBT XH(FC)	Heavy

MTT4 Application Tool

- Designed for use with all sizes of MAT and MLT stainless steel ties
- Simple ratchet operation
- Operator controlled tensioning and cutting facility
- Lightweight and easy to use

STG200

- The STG200 is a stainless steel tie tensioning and cutting tool.
- The tensioning strength can be adjusted while pulling the trigger, and the excess tail is cut off by pulling the tie-cut lever to finish.
- It is easy to handle and far more reliable than trying to tension the ties by hand.
- Manual Processing Tool for Metal Ties MBT and MAT Series.
- STG200 up to 12.3 mm strap width.

NEW: HDT16 Application Tool

- Suitable for up to 16mm wide coated and uncoated stainless steel cable ties

- Rotating nose piece for use with both MBT-Series and AMT-Series ties

- Adjustable handles for either single or two-handed operation

- Ergonomically designed for ease of use

- Integrated cutting mechanism delivering a flush cut and professional finish

- Manual operation, suitable for heavy duty applications

- Ideal for use with MBT-UH, UHFC, UHD & UHDFC ties

Stainless Steel Application Tools		
Ref	Suitable Ties	Pack Qty
MK9SST	MBT	1
MTT4	MLT & MAT	1
STG200	MBT & MAT	1
HDT16	MBT & AMT	1

LFPC

LFPC is a protective channel specifically designed for use with Stainless Steel ties where limited fire hazard materials are required.

LFPC is used in naval, aerospace, offshore, railway and construction industries as a protective cushion between Stainless Steel ties and cables where shock or vibration are experienced.

LFPC is approved to Def. Stan. 61-12 (part 31) and is available in a range of sizes to suit different widths of Stainless Steel ties.

- Limited fire hazard
- Halogen free
- Low toxicity
- Low smoke
- Self extinguishing

LFPC Protective Channel				
Reference	Width mm	Thickness mm	Coil Length	For Ties
LFPC70	7.0	1.1	25m Coil	MBTS
LFPC83	8.3	1.1	25m Coil	MBTH
LFPC103	10.3	1.1	25m Coil	MBTH
LFPC129	12.9	1.1	25m Coil	MBTXH
LFPC132	13.2	1.1	25m Coil	MBTXH
LFPC150	15.0	1.1	25m Coil	MBTXH
LFPC163	16.3	1.1	25m Coil	MBTXH

Material Specification	
Parameter	Comment
Continuous operating temperature	-40°C to +90°C
Intermittent temperature (200hr)	160°C
Flammability	V0
Halogen content	Zero

Coloured Ties

- One piece, all plastic design
- Quick, simple fastening by hand or tensioning tool
- Ideal for identifying particular cable runs
- Useful indicator that quality control checks have been undertaken
- Provides proof of calibration
- Can indicate that component is a reject
- Cadmium free

Coloured Ties						
Reference	Length mm	Width mm	Maximum Cable Bundle Diameter	Minimum Tensile Strength lbs N	Tensioning Tool	Pack Qty
T18R	100	2.5	22	18 80	MK3/MK20/EVO7	100
T30R	150	3.5	35	30 135	MK3/MK20/EVO7	100
T50R	200	4.6	50	50 225	MK3/MK20/EVO7	100
LK2A	270	4.6	73	50 225	MK3/MK20/EVO7	100
T50L	390	4.6	110	50 225	MK3/MK20/EVO7	100
T120R	380	7.6	100	120 535	MK6/MK21/MK9	100

Coloured Ties						
Colour	T18R	T30R	T50R	LK2A	T50L	T120R
Red	•	•	•	•	•	•
Yellow	•	•	•	•	•	•
Blue	•	•	•	•	•	•
Green	•	•	•	•	•	•

Minimum order quantities may apply.

* When ordering use the reference number followed by the colour eg - T18R Yellow

Recommended Tensioning Tools

EV07

- Lightweight, durable tool
- Used for HellermannTyton cable ties 2.5mm to 4.8mm wide
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Innovative, patent-pending TCL technology (Tension Lock Cut), providing maximum performance with minimum effort

Mark 9

- Two variable tensioning levels
- Used for HellermannTyton cable ties up to 13.5mm wide
- Non-slip handle
- US MIL Specification approved

Cable Ties - LK Range

The original forerunner to the Military Specification Cable Ties, the LK range is still a very popular range, LK2A being one of the most successful cable ties ever produced. Produced to the highest quality standards from prime raw materials, with similar features to the MilSpec Range.

- Commercial range with similar features to Military Specification Cable Ties
- Versatile straps which can be used in countless applications as well as binding cable and wires
- Smooth manufactured design improves installation time and increases productivity

Standard Cable Ties - LK Range						
Reference	Overall Length mm	Strap Width mm	Minimum Tensile Strength lbs N	Maximum Cable Diameter mm	Recommended Tensioning Tool	Pack Qty
LK2A	270	4.6	50 225	73	MK3/MK20/EVO7	100

LK5	535	13.2	250 1115	150	MK9	50
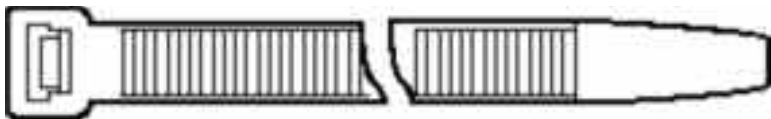
Recommended Tensioning Tools

Mark 9

- Two variable tensioning levels
- Used for HellermannTyton cable ties up to 13.5mm wide
- Non-slip handle
- US MIL Specification approved

Parallel Entry Cable Ties

- Low profile design of the head allows for use in applications with restricted space
- Outside serrated to prevent damage to cables
- High integral tensile strength
- Weather resistant black as standard

LPH Range - Virgin Grade PA66					
Reference	Overall Length mm	Strap Width mm	Minimum Tensile Strength lbs N	Maximum Cable Diameter mm	Pack Qty
LPH175	175	9	70 310	40	100
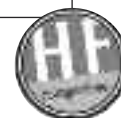
LPH275	265	9	108	480	62	100
LPH350	355	9	108	480	92	100
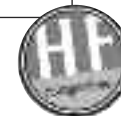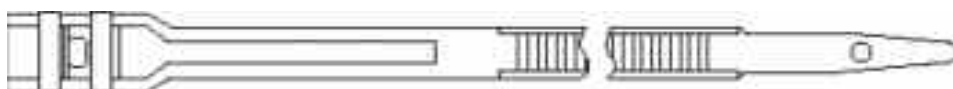
SRT-Series Releasable Ties

Features and Benefits
Manufactured from a soft, tear-resistant thermoplastic polyurethane these ties have several unique features:
UV and weather resistant, strong yet elastic, and suitable for temperatures as low as -40°C. The SRT ties are releasable and reusable which is ideal for bundling cables in temporary applications such as musical events, theatres, cable harnesses.

Application
The SRT range offers solutions to numerous bundling applications. The soft, flexible material makes these ties particularly suitable for use on data and fibre-optic cables. The elasticity of the material makes them ideal for securing young trees to support poles, and other applications within the gardening and landscaping industry.

The Elasticity of the SRT ties make them suitable for use in many applications

Material Data	
Material	Thermoplastic Polyurethane (TPU)
Colours	Black (BK)
Operating Temperature	-40°C to +85°C
Flammability	UL94HB

SRT Ties					
Reference	Length (L)	Width (W)	Bundle ø max.	Min. Tensile Strength (N)	Pack Qty
SRT1807	180	7	45	57	16
SRT2607	260	7	79	57	12
SRT26011	260	11	55	123	8
SRT34011	340	11	90	123	6
SRT58028	580	28	150	360	3

Cable Tray Ties

- Range of CTF ties can accommodate both UK and European design of Cable Tray
- Simply break the joining strip
- Put into tray slots and twist through 90˚
- Standard colour black

Cable tray ties in appliction

Cable tray ties in appliction

Cable Tray Ties - Virgin Grade PA66					
Reference	Overall Length	Strap Width	Minimum Tensile Strength	Recommended Tensioning Tool	Pack Qty
	mm	mm	lbs N		
CTF120	320	7.6	120 535	MK6/MK9/MK21	100
CTF250	355	13.0	250 1115	MK6/MK9	50
*CTF120/90	320	7.6	120 535	MK6/MK9/MK21	100

*   For cable tray slots at 90º angle.
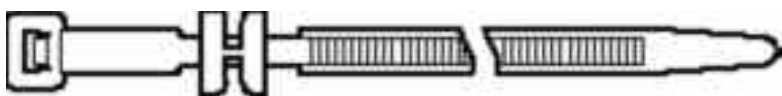
Metal Content Tie

The HellermannTyton Metal Content Tie is a cable tie specifically designed for use in the food and pharmaceutical processing industries. A unique manufacturing process, involving the inclusion of a metallic pigment, enables the tie to be detected more readily than standard nylon ties.

Applications

The HellermannTyton Metal Content Cable Tie range is ideally suited for electrical cabling applications both on plant and within areas adjacent to the manufacturing process.

Features

- Specifically designed for use in the food and pharmaceutical processing industries.
- Nylon tie incorporating a metallic compound throughout.
- Total metal dispersion throughout the body of the tie.
- Can be part of the Hazardous Analysis of Critical Control Point (HACCP), a pro-active process control system by which food quality is ensured. This system has been adopted by many countries around the world and is mandatory in some.
- Blue in colour, again to assist in detection.
- Greatly reduces the risk of contamination.

A safe and contamination free production process with MCT50L

Metal Content Tie

Reference	Overall Length	Strap Width	Minimum Tensile Strength		Recommended Tensioning Tool	Pack Qty
	mm	mm	lbs	N		
MCT18R	100	2.5	18	80	MK3/MK20/EVO7	100
MCT30R	150	3.5	30	135	MK3/MK20/EVO7	100
MCT50R	200	4.6	50	225	MK3/MK20/EVO7	100
MCT50L*	390	4.6	50	225	MK3/MK20/EVO7	100
MCT120R	380	7.6	120	535	MK6/MK21/MK9	100

* Also available in green, orange, yellow or red.

Releasable Metal Content Tie

Reference	Overall Length	Strap Width	Minimum Tensile Strength		Pack Qty
	mm	mm	lbs	N	
MCTRELK2M	250	4.6	50	225	100

Recommended Tensioning Tools

EV07

- Lightweight, durable tool
- Used for HellermannTyton cable ties 2.5mm to 4.8mm wide
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Innovative, patent-pending TCL technology (Tension Lock Cut), providing maximum performance with minimum effort

Mark 9

- Two variable tensioning levels
- Used for HellermannTyton cable ties up to 13.5mm wide
- Non-slip handle
- US MIL Specification approved

Metal Content MB Mounts

- Metal detectable cable tie mounting bases

- Ideal for use with MCT-Series cable ties

- 4-way entry providing quick and easy installation

- Screw fixing bases ideal for securing cable bundles

Metal Content Mounts						
Reference	Length mm	Width mm	Cable Tie Width mm	Fixing Hole Diameter mm	HellermannTyton Cable Ties	Pack Qty
MCMB3	19	19	4.1	3.1	Up to MCT30 Series	100
MCMB4	28	28	5.4	4.0	Up to MCT50 Series	100

Commercial Grade Cable Ties & Bases

- A range of general purpose cable ties and bases
- Available in either black or natural

Commercial Grade Cable Ties & Bases				
Part Number	Colour	Size (mm)	Pack Size	Packs Per Carton
UB100A	Black or Natural	100 x 2.5	100	320
UB140A	Black or Natural	140 x 2.5	100	200
UB200A	Black or Natural	200 x 2.5	100	130
UB150B	Black or Natural	150 x 3.5	100	100
UB200B	Black or Natural	200 x 3.5	100	80
UB160C	Black or Natural	160 x 4.6	100	70
UB200C	Black or Natural	200 x 4.6	100	70
UB250C	Black or Natural	250 x 4.6	100	50
UB270C	Black or Natural	275 x 4.6	100	60
UB300C	Black or Natural	300 x 4.6	100	50
UB385C	Black or Natural	380 x 4.6	100	40
UB385E	Black or Natural	380 x 7.6	100	20
UB760E	Black or Natural	760 x 7.6	50	20
UB540H	Black or Natural	535 x 13	50	16
UB19 Base	Black or Natural	19 x 19	100	120
UB28 Base	Black or Natural	28 x 28	100	60

Sold in carton quantities only.

Releasable Cable Ties

- Easily assembled by hand
- Ideal for temporary fastening
- High quality cable ties with releasable feature
- Black and natural available

The RT, RELK and RLT cable ties can be easily re-opened and re-used

Releasable Cable Ties - Virgin Grade PA66						
Reference	Overall Length	Strap Width	Minimum Tensile Strength		Maximum Cable Diameter	Pack Qty
	mm	mm	lbs	N	mm	
RELK2R	200	4.6	50	225	50	100
RELK2M	250	4.6	50	225	65	100
RELK2I	300	4.6	50	225	81	100
RELK2L	350	4.6	50	225	95	100

RLT150	770	8.9	150	670	225	50

Bobble Tie

Bobble Tie - Virgin Grade PA66			
Reference	Overall Length mm	Strap Width mm	Pack Qty
RS1	110	2.0	100

HellermannTyton   www.hellermanntyton.co.uk

Easy Release Design

REZ-Series

- Innovative design
- Quick and simple to use
- Patented Pinch Release mechanism gives best handling of any releasable tie
- Standard colour black

Easy Release Design - Virgin Grade PA66					
Reference	Overall Length	Strap Width	Minimum Tensile Strength		Maximum Cable Diameter	Pack Qty
	mm	mm	lbs	N	mm	
REZ200	200	4.7	30	135	50	100
REZ300	305	4.7	30	135	80	100

REL-Series

- Easily assembled by hand
- Simple thumb release on head
- Ideal for temporary fastening
- Standard colour black

REL Series - Virgin Grade PA66					
Reference	Overall Length	Strap Width	Minimum Tensile Strength		Maximum Cable Diameter	Pack Qty
	mm	mm	lbs	N	mm	
REL140	150	7.6	45	180	35	100
REL180	180	6.5	34	150	46	100
REL250	250	7.6	45	200	68	100
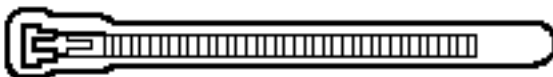
Speedy Tie™

THE RE-USABLE, QUICK-RELEASE TIE

- Fully re-usable. SpeedyTie™ is the first product of its kind designed to be re-used again and again eliminating hassle and saving you money
- Easy releasable, SpeedyTie™'s patented hand release trigger makes removal of the product simple - even with a gloved hand
- Easy to apply, the release mechanism provides for quick and easy application of the product prior to final tensioning
- Tuck away feature, once applied, excess tails can be neatly tucked away providing for a safer application

SpeedyTie™ - Virgin Grade PA66							
Reference	Overall Length mm	Strap Width mm	Minimum Tensile Strength lbs	N	Maximum Bundle Diameter mm	Colour	Pack Qty
RTT750HR	750	13	200	888	210	Yellow	5
RTT750HR	750	13	200	888	210	Black	5

HellermannTyton   www.hellermanntyton.co.uk

Hook and Loop TEXTIE™

Features and Benefits

Quick and simple to use without the need for tools they have no waste, are corrosion free, are resistant to ageing and are re-usable (up to 400 times).

Various colours are available to enable easy identification of multiple cable runs.

Loops are manufactured from Polyamide (PA) the hooks from Polyethylene (PE)

Application:

As cables use thinner and softer insulation, and as fibre optic cables become more common there is a need for a 'soft' method of bundling. The TEXTIEs ™ are ideal for use on telephone cables, optical fibre and network cables.

Perfect for use in temporary installations such as theatre stage construction or prototype cable harnesses.

There are a lot of private and office applications too
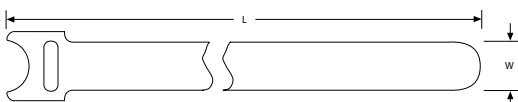
TEXTIE							
Reference	Length mm	Width mm	Bundle Diameter Max	Material Loop	Material Hook	Colour	Pack Qty
130-00012	150	12.5	45	PA	PE	Black (BK)	10
130-00013	200	12.5	60	PA	PE	Black (BK)	10
130-00021	200	12.5	60	PA	PE	White (WH)	10
130-00014	200	12.5	60	PA	PE	Red (RD)	10
130-00016	200	12.5	60	PA	PE	Yellow (YE)	10
130-00017	200	12.5	60	PA	PE	Green (GN)	10
130-00018	200	12.5	60	PA	PE	Blue (BU)	10
130-00019	330	12.5	100	PA	PE	Black (BK)	10
130-00020	5000	12.5	-	PA	PE	Black (BK)	1
130-00022	25000	13	-	PA	PE	Black (BK)	1

Wall Plug Ties

- One piece fixing and cable tie
- Can be fixed to brick, cement or wood
- Simply drill an 8mm hole and knock in the peg
- Time saving and versatile
- Colour black
- Grey available on request
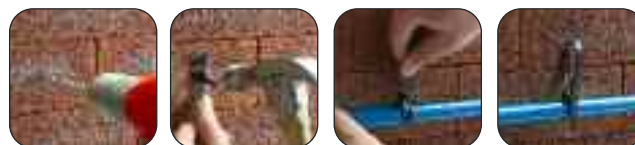
Wall Plug Ties - Virgin Grade PA66				
Reference	Overall Length mm	Strap Width mm	Maximum Cable Bundle Diameter mm	Pack Qty
WPT230	230	8	59	100

Self Adhesive Cable Tie

- Combined cable tie and self adhesive base
- Integral base ensures firm securement
- Ideal for clean applications
- Colour - Natural
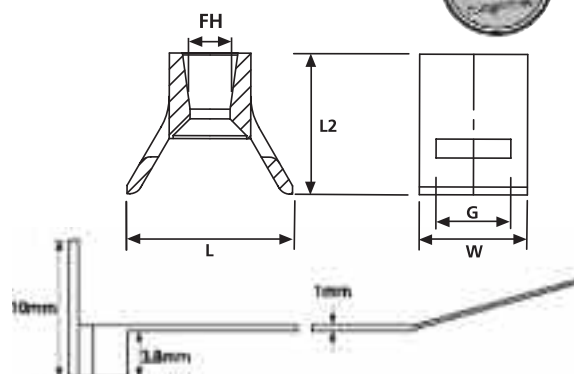
Self Adhesive Cable Tie - Virgin Grade PA66				
Reference	Overall Length mm	Strap Width mm	Maximum Cable Bundle Diameter mm	Pack Qty
T18R SA	100	2.5	16	100

Mounting Head Ties

- Ideal for securing to metal, wood and plastic panels
- Screw or bolt down through moulded-in fixing head
- Standard colours - Natural & Black
- Suitable for fixing both hoses and cables

Mounting Head Ties							
Reference	Overall Length mm	Strap Width mm	Minimum Tensile Strength lbs	N	Maximum Bundle Diameter mm	Panel Hole Diameter mm	Pack Qty
T18MR	110	2.5	18	80	20	3.1	100
T30MR	160	3.5	30	135	32	4.3	100
T50MS	165	4.6	50	225	32	5.4	100
T50MR	215	4.6	50	225	45	5.4	100
T120MR	395	7.6	120	535	102	6.5	100

Edge Clips

Available with either 'inside' or 'outside' serrated ties these two piece assemblies simply push onto metal or plastic 'edges' with thickness from 1.0 to 3.0mm and from 3.0 to 6.0mm. The high 'pull off' forces are due to the integrated metal clamp.

These cable ties and Edge Clip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail.

- Standard colour black

T50ROSEC5B – the cable runs 90 degrees to the edge.
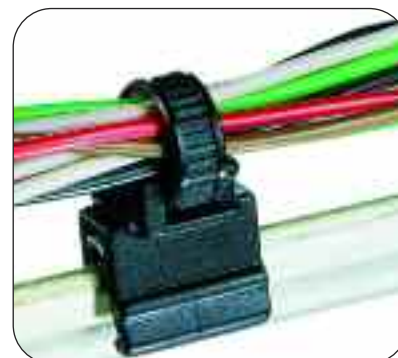
T50ROSEC4A – the cable bundle runs parallel to the edge.

Reference	Length (L) mm	Width (W) mm	Bundle Ø max.	Min. Tensile Strength (N)	Material Cable tie	Material Foot part	Recommended Tensioning Tool	Drawing	Pack Qty
Two piece, panel thickness 1.0 – 3.0 mm									
T50ROSEC4A	200	4.6	45	225	PA66HS	PA66HIRHS	MK3/EVO7/MK20		500
T50ROSEC4B	200	4.6	45	225	PA66HS	PA66HIRHS	MK3/EVO7/MK20		500
T50ROSEC5A	200	4.6	45	225	PA66HS	PA66HIRHS	MK3/EVO7/MK20		500
T50ROSEC5B	200	4.6	45	225	PA66HS	PA66HIRHS	MK3/EVO7/MK20		500
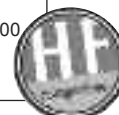
Reference	Length (L)	Width (W)	Bundle Ø max.	Min. Tensile Strength (N)	Material Cable tie	Material Foot part	Recommended Tensioning Tool	Drawing	Pack Qty
Two piece, panel thickness 3.0 – 6.0 mm									
T50ROSEC19	200	4.6	45	225	PA66HS	PA66HIRHS	MK3/EVO7/MK20		500
T50ROSEC20	200	4.6	45	225	PA66HS	PA66HIRHS	MK3/EVO7/MK20		500
T50ROSEC23	200	4.6	45	225	PA66HS	PA66HIRHS	MK3/EVO7/MK20		500
T50ROSEC24	200	4.6	45	225	PA66HS	PA66HIRHS	MK3/EVO7/MK20		500

SAC Range

- Mild steel construction
- High gloss polyester coating
- Acrylic adhesive with polyethylene protective liner
- Colour - white
- Self Adhesive

SACTC1

SACTC2

SAC Range - Mild Steel					
Reference	A mm	B mm	Cable Tie Width mm	HellermannTyton Cable Ties	Pack Qty
SAC TC1	35	25	7	Up to T50 & LK2A	100
SAC TC2	41	31	12	Up to T120 & RLT150	100

SAC Range

- Mild steel fixing for cables and pipes
- Deformable tongue allows for a variety of cable sizes per clip
- Colour - White
- Self Adhesive
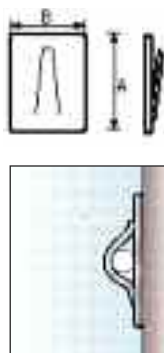
Electro galvanised mild steel (0.5mm thickness).
Adhesive on closed cell polyethylene carrier (1mm thickness).

Metal SAC Range - Mild Steel				
Reference	Overall Length mm	Strap Width mm	Maximum Cable Bundle Diameter mm	Pack Qty
SAC0	20	15	3	100
SAC1	32	22	4	100
SAC2	38	25	8	100
SAC3	44	33	12	100
SAC4	54	38	16	100

Self Adhesive Mounting Bases
MB Range

- Quick assembly in clean applications
- Allows 4 way entry for HellermannTyton cable ties
- Ideal for use where panel access is limited
- Stabilise and secure wiring bundles
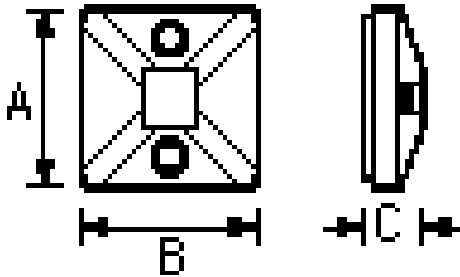
The MB range is available in Natural and Black.
Loading is dependent on the surface to which the adhesive is applied, temperature in service and the curing time once affixed.

MB Range - Virgin Grade PA66							
Reference	A mm	B mm	C mm	Cable Tie Width mm	HellermannTyton Cable Ties	Standard Colours	Pack Qty
MB2A	13	13	4.1	2.5	Up to T18 series	Natural/Black	50
MB3A	19	19	4.3	3.5	Up to T30 series	Natural/Black	100
MB4A	28	28	4.7	5.6	Up to T50 series	Natural/Black	100
MB5A	38	38	6.3	7.6	Up to T120 series	Natural	100

Screw Fixing Mounts

- LKC with overlapping curved design

Designed specifically for holding heavier cable bundles these mounting bases can be used in many industries from agriculture to truck manufacture. They offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 13mm wide.

Features and Benefits:

- Curved design for additional cable support
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration

Mounting Cradles - Virgin Grade PA66						
Reference	Length mm	Width mm	Height mm	Max. Cable Tie Width mm	Screw Fixing	Pack Qty
LKC	25	17	13.5	8	M5	100
LKCSF1	19	40	16.8	13	M6	100
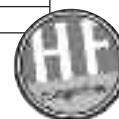
Screw Fixing Mounts

- KR with curved design

Designed specifically for holding heavier cable bundles these mounting bases can be used in many industries from agriculture to truck manufacture. They offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 7.6mm wide.

Mounting Cradles - Virgin Grade PA66						
Reference	Length mm	Width mm	Height mm	Max. Cable Tie Width mm	Screw Fixing	Pack Qty
KR6G5	18	12	9	6	M4	100
KR8G5	25	14.5	12	8	M6	100
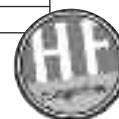
Two Piece Fixing Ties with Clip Coupler

- T50R Coupler for max. bundles 2 x 50mm
- T120R Single Coupler for max. bundles of 1 x 1000
- T120R Coupler for max. bundles of 2 x 1000mm
- Coupler can be used for parallel routing of two cable ties.
- The second tie can be used for post-installations.

Features and Benefits

The Coupler is the simple way to connect two cable ties for a parallel routing of two bundles. This special design allows the ties to be rotated 90 degrees. This is ideal for all applications where the cable, pipe or hose should move in relation to the fixing point.

The Coupler can be used with one or two cable ties. This allows easily subsequent installation or replacements of further cables, pipes or hose.

Can be used for parallel routing of two cable ties

The second tie can be used for post installations

L
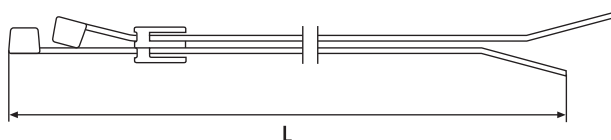
T120R Coupler with 2 cable ties

Coupler
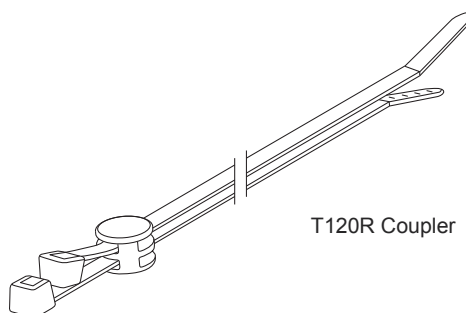
T120R Coupler

COUPLER							
Reference	Length mm	Width mm	Bundle diameter Max	Mimumum Tensile Strength	Material	Colour	Pack Qty
T50R COUPLER	200	4.6	50	225	PA66HIRHS	Black (BK)	500
T50R COUPLER	200	4.6	50	225	PA46	Grey (GY)	500
T120R SINGLE COUPLER	380	7.6	100	535	PA66HIRHS	Black (BK)	1000
T120R COUPLER	380	7.6	100	535	PA66HIRHS(S)	Black (BK))	500

Screw Fix Cable Tie Accessories

- Mounting bases for restricted spaces
- Fixing Heads to convert cable ties to mounting head ties
- Colour - black or natural

Side Mounting Tie Cradle - Virgin Grade PA66

Reference	A mm	B mm	C mm	Max. Cable Tie Width mm	Screw Fixing	Pack Qty
LKM	27	12	16	7.6	M6	100

Low Profile Mounting Bases - Virgin Grade PA66

Reference	A mm	B mm	C mm	Max. Cable Tie Width mm	Screw Fixing	Pack Qty
MB1	12.5	8	3.5	2.9	M2.5	100
MB2	20.5	12.5	3.3	5.0	M5	100

Tie Fixing Heads - Virgin Grade PA66

Reference	A mm	B mm	C mm	Max. Cable Tie Width mm	Screw Fixing	Pack Qty
FH18	13.3	7.1	4.0	2.5	M5	100
FH30	17.9	9.5	4.7	3.5	M5	100
FH50	22.2	11.3	6.2	4.6	M6	100
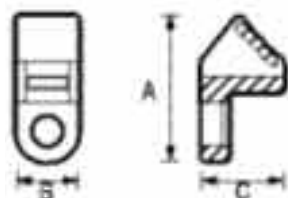
LKM

MB1
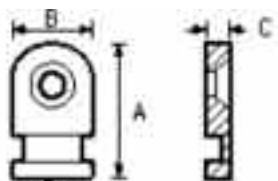
MB2
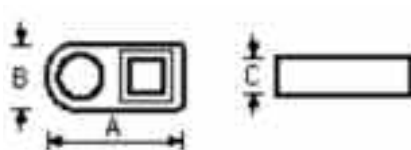
FH SERIES

LOK-Series

- Secure cable or pipe runs to brick, concrete or wood
- Simply drill hole and push fit
- Designed for use with HellermannTyton cable ties up to 9mm wide
- Standard colour black
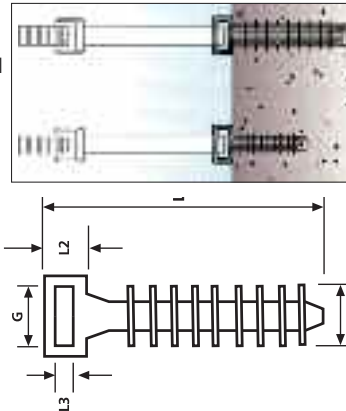
LOK-Series - Virgin Grade PA66					
Reference	Length mm	Width mm	Dia mm	Fixing Hole Dia	Pack Qty
LOK01	44	12.0	9.2	7.0 - 8.0	100
LOK01B	30	12.0	7.2	6.0	100

Screw Fix Cradle

- Maximum diameter 5mm screw fixing
- Can also be secured to studs 6.35 - 7mm
- For use with HellermannTyton cable ties up to 9mm
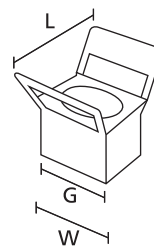
Screw Fix Cradle - Virgin Grade PA66						
Reference	Length mm	Width mm	Height mm	Fixing Hole mm	Strap Width Max mm	Pack Qty
LOK02	21	14.0	18.0	5.1	9.0	100

Cable Tie Coupler

- Allows two ties to secure cables along posts or pipe work
- For use with HellermannTyton cable ties up to 9mm width
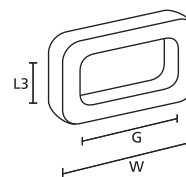
Cable Tie Coupler - Virgin Grade PA66					
Reference	Length mm	Width mm	Strap Width mm	Colour	Pack Qty
LOK04	4.0	16.0	9.0	Black	100

RA-Clips

- Cost effective easy application on clean, smooth surfaces
- Circular design ideal for cable or pipe
- Standard Colour - Natural
- Self Adhesive
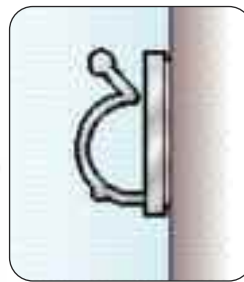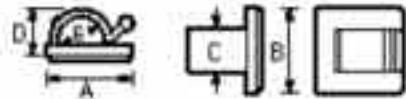
RA Clips - Virgin Grade PA66						
Reference	A mm	B mm	C mm	D mm	E mm	Pack Qty
RA3	13	13	5	5	3	100
RA6	19	19	5	9	6	100
RA9	19	19	7.5	12.5	9	100
RA13	25	25	10	16.5	13	100
RA18	28.5	28.5	10	23	18	100

RB-Clips

- RB self adhesive clips are ideal for cable or pipe bundles.
- Available to suit diameters of 5mm, 8mm and 14mm
- Colour - Natural
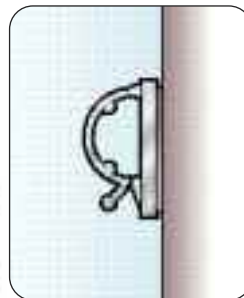
RB Clips - Virgin Grade PA66				
Reference	A mm	B mm	C mm	Pack Qty
RB5	19	6	19	50
RB8	25	11.5	25	50
RB14	33.2	16	27.4	50

D-Clips

- Available in 3 sizes
- Guaranteed cost saving by simply pressing the cable into the holder.
- The flexible grip makes removal easy
- 3 different bore diameters for fixing the holder are available
- Polyacetal (POM) material
- Colour Black
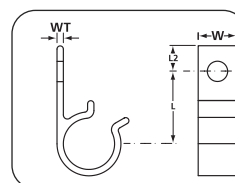
D Clips							
Reference	Length (L) mm	Length (L2) mm	Width mm	Wall (WT) mm	Fixing Hole Diameter	Bundle Diameter Max	Colour
4D10	17	8	15	2	4	10	Black (BK)
4D15	25	10	15	2	4	15	Black (BK)
4D20	28	10	15	2.5	4	20	Black (BK)
6D10	17	8	15	2	6	10	Black (BK)
6D15	25	10	15	2	6	15	Black (BK)
6D20	28	10	15	2.5	6	20	Black (BK)
8D10	17	8	15	2	8	10	Black (BK)
8D15	25	10	15	2	8	15	Black (BK)
8D20	28	10	15	2.5	8	20	Black (BK)

Cable Clips for SWA Cables

A range of black polypropylene fixings suitable for use with SWA cables as listed. Also suitable for fixing conduit.

Supplied complete with masonry nails. Packed in quantities of 25 of one size together with nails. Hole diameter of 5mm in SWA 83 and SWA 98 and 6mm in SWA 106 means that screw fixing can be used in place of a nail if required. Screw not included.

Nail Fixings For SWA Cables			
Reference	Cable Size	Pin Length	Pack Qty
SWA 46	2 Core 1.5mm 3 Core 1.5mm	35mm	25
SWA 53	2 Core 2.5mm 3 Core 2.5mm 4 Core 1.5mm	35mm	25
SWA 56	4 Core 2.5mm	35mm	25
SWA 61	2 Core 4.0mm 3 Core 4.0mm	35mm	25
SWA 65	2 Core 6.0mm	40mm	25
SWA 72	2 Core 16.0mm 3 Core 6.0mm 4 Core 6.0mm	40mm	25
SWA 83	2 Core 10.0 & 25mm 3 Core 10 & 16mm 4 Core 6.0mm	50mm	25
SWA 98	2 Core 35mm 3 Core 25mm 4 Core 10 & 16mm	50mm	25

Screw Fixings For SWA Cables			
Reference	Cable Size	Pin Length	Pack Qty
SWA 106	2 Core 50mm 3 Core 35mm 4 Core 25mm	Screw Fixing	25

P-Clips - Plastic

- H range offering more sizes for increased applications
- Secure fixing for cables and pipes
- Available in 18 sizes
- Natural Sizes 3.2 - 35m
- Black Size 3.2 - 25.4m

Maximum diameter
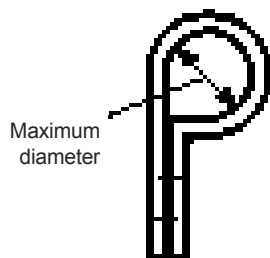
H Clip Natural

Reference	Max Diameter mm	Pack Qty
H1P-NT	3.2	100
H2P-NT	5.00	100
H3P-NT	6.50	100
H4P-NT	8.00	100
H5P-NT	9.50	100
H6P-NT	11.00	100
H7P-NT	12.50	100
H8P-NT	14.00	100
H9P-NT	16.00	100
H10P-NT	17.50	100
H11P-NT	19.00	100
H12P-NT	20.50	100
H13P-NT	22.00	100
H14P-NT	24.00	100
H15P-NT	25.50	100
H16P-NT	28.50	100
H17P-NT	31.50	100
H18P-NT	35.00	100

H Clip Black

Reference	Max Diameter mm	Pack Qty
H1P-BK	3.2	100
H2P-BK	5.00	100
H3P-BK	6.50	100
H4P-BK	8.00	100
H5P-BK	9.50	100
H6P-BK	11.00	100
H7P-BK	12.50	100
H8P-BK	14.00	100
H9P-BK	16.0	100
H10P-BK	17.5	100
H11P-BK	19.0	1000
H12P-BK	20.5	1000
H13P-BK	22.0	1000
H14P-BK	24.0	1000
H15P-BK	25.5	1000

P-Clips - Aluminium

- Protected with Black Chloroprene
- Easy to apply around cables or pipes
- Good resistance to mineral oils, lubricants, fuels, acids and alkalis
- Provides support and protects cables from vibration and chafing

ALU Clips Aluminium					
Reference	Cable Diam mm	Fixing hole size mm	Width mm	Fixing hole length mm	Pack QTY
ALU-4C	3.2	5.2	16.3	11.6	100
ALU-5C	4.8	5.2	16.3	12.6	100
ALU-6C	6.4	5.2	16.3	13.4	100
ALU-7C	8.0	5.2	16.3	14.2	100
ALU-8C	9.5	5.2	16.3	15	100
ALU-9C	11.1	5.2	16.3	15.8	100
ALU-10C	12.7	5.2	16.3	16.6	100
ALU-11C	14.3	5.2	16.3	19.1	100
ALU-12C	15.9	5.2	16.3	19.9	100
ALU-13C	17.5	5.2	16.3	20.7	100
ALU-14C	19.1	5.2	16.3	21.5	100
ALU-15C	20.6	5.2	16.3	22.3	100
ALU-16C	22.2	5.2	16.3	23.1	100
ALU-17C	23.8	5.2	16.3	23.9	100
ALU-18C	25.4	5.2	16.3	24.6	100
ALU-19C	27	5.2	16.3	25.5	50
ALU-20C	28.6	5.2	16.3	27	50
ALU-22C	31.8	5.2	16.3	28.6	50

P-Clips - Stainless Steel

- Easy to apply around cable or pipes

AFCSS					
Reference	Cable Diam mm	Fixing hole size mm	Width mm	Fixing hole length mm	Pack QTY
AFCSS10	5	11	11	Metal	10
AFCSS12	5	11	14	Metal	10
AFCSS16	5	11	17	Metal	10
AFCSS20	5	11	21	Metal	10
AFCSS25	5	11	25	Metal	10
AFCSS32	5	11	34	Metal	10
AFCSS40	6.9 x 8.8	12.7	44	Metal	5
AFCSS50	6.9 x 8.8	12.7	54	Metal	5
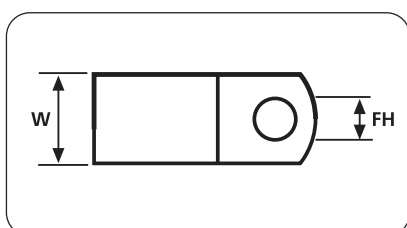
Snapper Hose Clips

- Quick ratchet plastic hose clip
- Cannot rust or corrode
- Can be applied with hose in place
- Will not damage hose
- Range of sizes from 8.7-38.9mm
- See table below for quick reference
- Standard colour natural
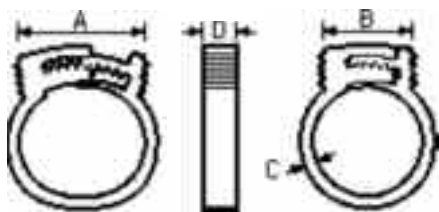
Snapper Hose Clips - Acetal (POM)								
Reference	A mm	B mm	C mm	D mm	Maximum Dia mm	No of teeth engaged	Minimum Dia mm	Pack Qty
SNP2	21	17	1.5	6.0	10.0	1	8.7	100
SNP3	25	19	1.8	6.0	11.4	1	10.0	100
SNP4	23	19	1.8	6.0	12.3	2	10.8	100
SNP6	24	19	1.8	6.0	13.7	2	12.0	100
SNP8	24	19	1.8	6.0	15.3	2	13.7	100
SNP10	24	19	1.8	6.0	16.8	2	15.0	100
SNP12	24	19	1.8	6.0	18.4	2	16.8	100
SNP14	24	19	1.8	6.0	19.9	2	18.1	100
SNP16	24	19	1.9	6.0	21.7	2	19.9	100
SNP18	22	16	1.9	6.0	23.0	2	21.4	100
SNP20	26	20	1.8	6.0	24.7	2	22.7	100
SNP22	26	20	1.6	6.0	27.3	2	25.3	100
SNP24	26	20	2.0	6.0	28.0	2	26.5	100
SNP32	34	27	2.0	7.5	33.1	2	30.3	100
SNP34	34	27	2.0	7.5	35.1	2	32.5	100
SNP36	34	27	2.0	7.5	37.1	2	34.8	100
SNP38	34	27	2.0	7.5	38.9	2	36.7	100

Sizes up to 60mm available on request.

Standards for HellermannTyton Cable Ties

Type	Length	Width	UL/UR	GL	BV	DNV	VG 95387 T04 PA66HS-Natural	VG 95387 T04 PA66W-Black	VG 95387 T04 PA66-Natural	SAE AS23190 (MIL MS 3367)
T18S	83	2.3	●	●					A106A	MS 3367-42
T18R	100	2.5	●	●	●	●	A201L	A106B	A106A	MS 3367-42
T18RA	100	2.5	●							MS 3367-42
T18ROS	100	2.5								
T18I	140	2.5	●	●	●	●				
T18L	200	2.5	●	●	●	●				
T25L	240	2.8	●	●	●	●				
T25LL	330	2.8	●	●	●	●				
T30R	150	3.5	●	●	●	●	A208L	A107B	A107A	MS 3367-52
T30ROS	145	3.4								
T30L	190	3.5	●	●	●	●		A107B	A107A	
T30LOS	200	3.4								
T30LL	285	3.5	●	●	●	●				
T30LR	260	3.3			●					
T40S	145	3.5								
T40R	175	4.0	●	●	●					
T40I	290	4.0	●			●				
T40L	365	4.0	●	●						
T50S	150	4.6	●	●	●	●				
T50SOS	150	4.6								
T50R	200	4.6	●	●	●	●	A202L	A108B	A108A	MS 3367-12
T50ROS	200	4.6								
T50RDH	200	4.6	●		●	●				
T50MOS	245	4.6								
T50I	300	4.6	●	●	●	●	A203L	A109B	A109A	MS 3367-22
T50IDH	300	4.6	●							
T50L	390	4.6	●	●	●	●	A205L	A110B	A110A	MS 3367-22
T50LOS	384	4.8								
T50LDH	390	4.6	●			●				
T50LL	445	4.6			●	●				
T80R	210	4.7	●	●	●		A202L 4			
T80I	360	4.7	●	●	●					
T80L	390	4.7	●	●	●		A205L			
T120S	225	7.6	●	●	●	●				
T120I	300	7.6	●	●	●	●				
T120R	380	7.6	●	●	●	●		A111B	A111A	MS 3367-32
T120M	460	7.6		●	●	●				
T120XM	600	7.6			●					
T120L	760	7.6	●	●	●	●		A112B	A112A	MS 3367-62
T150R	365	7.6	●	●	●	●	A204L			
T150M	530	8.9	●	●	●	●				
T150L	820	8.9	●	●	●	●				
T150LL	925	8.9	●	●	●					
T150XL	1095	8.9	●	●	●	●				
T150XLL	1325	8.9	●		●	●				
T250S	225	12.5	●		●					
T250R	520	12.5	●		●					
T250M	565	12.5	●		●					
T250I	725	12.5	●		●					
T250L	880	12.5	●		●					
T250XL	1030	12.5	●							
T255S	225	12.5	●							
T255R	520	12.5	●							
T255M	565	12.5	●							
LK2	120	4.8		●	●					
LK2A	270	4.6	●	●	●	●				

Standards for HellermannTyton Cable Ties

Type	Length	Width	UL/UR	GL	BV	DNV	VG 95387 T04 PA66W-Black	VG 95387 T04 PA66-Natural	E.A.D.F.
PT2A	145	3.4		●					
PT220	220	4.7		●					
PE180	180	9.0			●				HN-33-5-62/97
RPE275	275	9.0							HN-33-5-62/97
RPE350	350	9.0							HN 33 5-62/97
PE530	535	9.0			●				HN-33-5-62/97
LPH175	175	9.0			●	●			
LPH275	100	2.5			●	●			
LPH350	100	2.5			●	●			
CTT20R	100	2.5		●					
CTT60R	205	4.7		●					
LRT230	230	7.6			●				
RLT120	340	7.6		●	●				
RLT150	770	8.9		●	●				
REL100	100	6.5	●						
REL140	140	7.5	●						
REL250	250	7.5	●						
RT40R	217	3.0	●						
RELK2B	200	4.6			●	●			
RELK2M	250	4.6			●	●			
RELK2I	300	4.6			●				
RELK2L	350	4.6			●	●			
RT50R	140	8.6	●						
RT50S	165	4.8	●						
RT250S	230	12.5	●		●	●			
RT250R	516	12.5	●		●	●			
RT250M	570	12.5	●		●	●			
RT250I	729	12.5	●			●			
RT250L	878	12.5	●			●			
RT250XL	1025	12.5	●			●			
T18MR	110	2.3	●				8001B	8001A	
IT18R	100	2.3	●			●			
IT18FL	110	2.5	●			●			
T30MR	160	3.5	●				8002B	8002A	
T30RSF	165	3.5	●						
IT50RT	205	4.7	●						
IT50L	390	4.7	●			●			
T50ML	400	4.8	●						
T50MR	215	4.6	●				8004B	8004A	
T50MS	160	4.6	●						
IT50R	203	4.6	●			●			
T50RSF	216	4.8	●						
T120MR	400	7.6	●				8005B	8005A	
KR6/35	350	6.0		●					
KR8/21	210	8.0		●					
KR8/33	330	8.0		●					

[1] Polyamide 6.6 (PA66), Polyamid 6 6 UV Resistant (W) black,
[2] Polyamide 6 6 (PA66) natural, Polyamid 6 6 UV Resistant (W) black
[3] Polyamide 6.6 (PA66) natural, Polyamide 6 6 Heat stabilised (HS) natural, Polyamide 6 6 UV Resistant (W) black
[4] Polyetheretherketone (PEEK)
Subject to changes.

HellermannTyton UL-File Nr.:	
E 64 13 9	E 64 96 2
E 64 96 3	E 65 34 4
E 85 31 9	E 19 38 18

Standards for HellermannTyton Cable Ties

Type	Length	Width	GL	BV	DNV	DEF STAN
MAT8SS7	230	7,0		●¹		
MAT12SS7	330	7,0		●¹		
MAT16SS7	430	7,0		●¹		
MAT24SS7	630	7,0		●¹		
MAT8SS12	230	12,0		●¹		
MAT12SS12	330	12,0		●¹		
MAT16SS12	430	12,0		●¹		
MAT24SS12	630	12,0		●¹		
MAT8SSC7	230	7,0				
MAT12SSC7	330	7,0				
MAT16SSC7	430	7,0				
MAT24SSC7	630	7,0				
MAT8SSC12	230	12,0				
MAT12SSC12	330	12,0				
MAT16SSC12	430	12,0				
MAT24SSC12	630	12,0				
M8T5S	127	4,6	●¹	●¹	●¹	
M8T8S	201	4,6	●¹	●¹	●¹	
M8T14S	362	4,6	●¹	●¹	●¹	
M8T20S	521	4,6	●¹	●¹	●¹	
M8T27S	681	4,6	●¹	●¹	●¹	
M8T33S	838	4,6	●¹	●¹	●¹	
M8T8H	201	7,9	●¹	●¹	●¹	
M8T14H	362	7,9	●¹	●¹	●¹	
M8T20H	521	7,9	●¹	●¹	●¹	
M8T27H	681	7,9	●¹	●¹	●¹	
M8T33H	838	7,9	●¹	●¹	●¹	
M8T14XH	362	12,3	●¹	●¹		
M8T20XH	521	12,3	●¹	●¹		
M8T27XH	681	12,3	●¹	●¹		
M8T33XH	838	12,3	●¹	●¹		
MLT8SS5	230	5,0		●¹		
MLT12SS5	330	5,0		●¹		
MLT16SS5	430	5,0		●¹		
MLT24SS5	630	5,0		●¹		
MLT8SS10	230	10,0		●¹		
MLT12SS10	330	10,0		●¹		
MLT16SS10	430	10,0		●¹		
MLT24SS10	630	10,0		●¹		
Protective Channel LFPC70	–	7,0				61-12/31
Protective Channel LFPC103	–	10,3				61-12/31
Protective Channel LFPC150	–	10,3				61-12/31

¹ Stainless Steel type 316 uncoated
Subject to changes.

Standards for HellermannTyton Fixing Bases

Type	Length	Width	UL/UR	Type	Length	Width	UL/UR
Mounting Bases MB1	17,5	8,0	●	Mounting Bases CTAM1	20,5	10,7	●
Mounting Bases MB3	19,0	19,0	●	Mounting Bases CTAM2	20,3	10,2	●
Mounting Bases MB4	28,0	28,0	●	Mounting Bases CTAP2	34,0	12,7	●
Mounting Bases MB5	38,0	38,0	●	Mounting Bases CTAP3	54,1	12,7	●
Mounting Bases MB3A Self Adhesive Mounting Bases	19,0	19,0	●	Mounting Bases MSMP5	204,0	15,7	●
Mounting Bases MB4A Self Adhesive Mounting Bases	28,0	28,0	●	Mounting Bases MSMP6	242,0	15,7	●
Mounting Bases MB5A Self Adhesive Mounting Bases	38,0	39,0	●	Mounting Bases TM1SF	10,2	7,6	●

HellermannTyton

Stainless Steel Printing System

M-BOSS Compact Printer

M-BOSS Compact is a quiet, easy to use metal plate embossing printer with a small production footprint. It is simple to install and operate and only needs a standard electrical supply and a PC. Texts are created with Tagprint Pro 3.0. Simply open the easy to use program to create print lists. Improved cooling system now ensures a continuous operation between 8-10 hours.

Features & Benefits

- Small, easy to use metal plate embosser
- Quiet embossing mechanism suited to production and office environments
- Emboss first marker within a minute of power up
- Designed for low to medium sized print jobs
- Use Tagprint Pro 3.0 labelling software to create and edit marker plate texts
- Pre-loaded marker plate templates
- Pre-defined excel print file to simplify user input
- Powered by a standard electrical supply
- Integrated printed output marker management option
- Characters have been tested to withstand 1 million strikes each
- Improved cooling system allows 8-10 hours continuous printing
- Printer is delivered with 45 piece 4mm character set.

Type	Width (W)	Length (L)	Pack cont.	Article No.
M-BOSS Compact	570mm	480mm	1	544-20000

M-BOSS Compact Organiser

M-BOSS Compact Organiser is a 10 container carousel storage system that can be programmed to hold either an individual or a pre-defined set of marker plates. This means that users have the flexibility to manage how they work with the printed output. A simple input screen on the top of the machine is used to specify the quantity per container within the carousel. The carousel drawer when opened extends 430mm from the front of the printer.

Features & Benefits
- Ability to manage how the printed marker plates are organised
- Carousel system under the printer has 10 marker plate containers
- Flexible output means all marker plates or a set amount can be sent to each container
- Container capacity is 40 marker plates

Type	Pack cont.	Dia	Article No.
M-BOSS Compact Organiser	1	370mm	544-21000

M-BOSS Compact Markers

M-BOSS Markers are used in all areas where severe mechanical or chemical conditions occur e.g. offshore industry, marine engineering, petrochemical industry, mining, underground or on radio and cellular masts where mark permanence is critical.

Technical Table Type	Strap Width (G)	No. of Lines	Characters per line	No. of characters	Width (W) mm	Length (L) mm	Pack Cont.	Article No.
MBML-10X45	4.6 mm	1	8	8	10.00	45.00	1000	540-20005
MBML-10X90	4.6 mm	1	23	23	10.00	90.00	500	540-20004
MBML-20X45	4.6 mm	3	8	24	20.00	45.00	1000	540-20002
MBML-20X90	4.6 mm	3	23	69	20.00	90.00	500	540-20001

TT4000+ Printer

- Tough metal construction chassis made of dye-cast aluminum especially designed for the most demanding applications
- 300 dpi printhead
- Prints labels (TAG…), heatshrink (TCGT, TULT, TLFX), TIPTAGS and non-heatshrink sleeving (TLFPT)
- New spring-loaded print head with a user-friendly pressure control ensures even printing
- USB 2.0 High Speed Slave interface for standard connection to the PC
- USB cable and Tagprint Pro software included with a PC

Order code – TT4000+UK

TT4000+ Printer

TagPrint[R] PRO 3.0

Increase productivity, reduce errors and decrease time spent producing labels with a complete labelling management solution from HellermannTyton.

A cost effective, easy to use label design and printing software Used in wire and component marking, asset tagging and structured cable identification Compatible with Windows 7, Vista and XP as well as future operating systems such as Windows 8.

Design Features:
- TagPrint Pro3 is What You See Is What You Get (WYSIWYG) label creation software with practical pull-down menus and a wide array of design options.
- Word Art for user creation of unique text
- Open and print multiple label designs at one time

Graphic Features:
- Easily link graphics to the table for adding different graphics to different labels
- Software includes hundreds of clip art images
- Flip, rotate, inverse or mirror image graphics and test

Bar Code Features:
- Human readable on top, side or bottom of the bar code
- Print the most popular bar code symbolises
- Control bar code specifications such as module, ratio, compensation and height

Printing Features:
- Full software control of printer features and settings
- Preview mode allows the user to check accuracy prior to printing
- Stores heat and speed settings in the template, when saved.

Table Features:
- Open imported files directly into the table
- Create serial numbers automatically
- Import using the ASCII or OBCD utility field
- Store saved label designs in each row of a column within a single table
- Print multiple, different label designs from a single table

Tagprint Pro Software

Thermal Transfer printer TT430

The TT430 is a modern and cost effective medium volume thermal transfer printer, offering cutting edge technology whilst being simple to use. The print engine is optimised for consistent high quality printing.

Features & Benefits

- Prints on a wide range of consumables: TLFX DS, TDRT DS, TULT DS and Shrink Trak, TLFX, TULT, TCGT continuous tubing, Tiptags and adhesive labels.

- Quiet, efficient, desktop printing with 300dpi print head able to print logos, graphics, bar codes, text and serial numbers

- Weighs only 4kg

- Measures 322mm x 189mm x 253mm

- Print speed up to 125mm/s

- External reel holder (caddy) and cutter also available

TT430		
Article No.	**Reference**	**Description**
556-00450	TT430	Thermal Transfer Printer
556-00451	TT430 Caddy	External Reel Holder (Caddy)
556-00452	S430 Cutter	Cutter

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Thermal Transfer Panel Labels

Application:

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. Suitable for industrial control panels, switchgear, data racks and general equipment labelling.

Create crisp and clear professional looking labels by printing with TT4000+ or TT430 printer. Simple label design creation is easily achieved using Tagprint Pro software (see page 184)

Features & Benefits

- Cost effective replacement for engraved plastic plates, no need for additional label holder.

- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required.

- Rounded corners ensure better long term durability of adhesion.

- Wide range of sizes to suit most commonly installed equipment.

- Print high contrast text and barcodes.

- Print 'on site' not order 'off site'

- Material Polyester (PET), White (WH)

- Recommended ribbon TT822OUT

- Adhesive: Acrylic

- Operating temperature -40ºC to +90ºC

- Excellent resistance to ageing, weathering and UV radiation.

  Extensive resistance to the influence of chemicals and solvent.

Easily print on TT4000+ or TT430

Ideal replacement for engraved plates: panel labels

Panel Labels					
Article No.	Type	Colour	Dimensions (W) (H)	Labels per Row	Pack cont per Reel
596-00560	TAG13-07TDK1-1220-WH	White (WH)	13 X 7mm	1	1000
596-00561	TAG22-22TDK1-1220-WH	White (WH)	22 X 22mm	1	1000
596-00562	TAG27-08-TDK1-1220-WH	White (WH)	27 X 8mm	1	1000
596-00558	TAG27-12.5TDK1-1220-WH	White (WH)	27 X 12.5mm	1	1000
596-00563	TAG27-15TDK1-1220-WH	White (WH)	27 X 15mm	1	1000
596-00564	TAG27-18TDK1-1220-WH	White (WH)	27 X 18mm	1	1000
596-00565	TAG27-27TDK1-1220-WH	White (WH)	27 X 27mm	1	1000
596-00566	TAG35-18TDK1-1220-WH	White (WH)	35 X 18mm	1	1000
596-00567	TAG45-15TDK1-1220-WH	White (WH)	45 X 15mm	1	1000
596-00568	TAG45-25TDK1-1220-WH	White (WH)	45 X 25mm	1	1000
596-00569	TAG60-30TDK1-1220-WH	White (WH)	60 X 30mm	1	500
596-00570	TAG90-45TDK1-1220-WH	White (WH)	90 X 45mm	1	500
596-00571	TAG100-30TDK1-1220-WH	White (WH)	100 X 30mm	1	250
596-00572	TAG100-70TDK1-1220-WH	White (WH)	100 X 70mm	1	250

Shrinkable Wire Markers:
"Ladder Style", Thermal Transfer

ShrinkTrak

Features and Benefits

HellermannTyton's ShrinkTrak 3:1 ratio heat shrinkable markers make it easy to identify wire and cable. The ladder-style function has been designed to enhance the user's ability to pick markers off the carrier. The side slits have been specifically designed to ensure that the wire entry gap is as large as possible whilst remaining on the carrier strip. This enables the user to quickly insert wire and cable into the marker. For a complete labelling solution, ShrinkTrak can be printed using HellermannTyton's Tagprint Pro professional label creation software, thermal transfer printers and ribbons to create a permanent print which is resistant to most solvents when shrunk and applied.

ShrinkTrak ladderstyle markers with side slits for easy application

Versatile

- Flexible, flame retardant, heat shrinkable polyolefin material is used to manufacture these easy to use markers
- 3:1 shrink ratio enables a wide range of wire sizes to be covered
- Standard colours - yellow, white and black
- Larger pack options result in less box changes
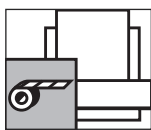
Thermal Transfer Printer
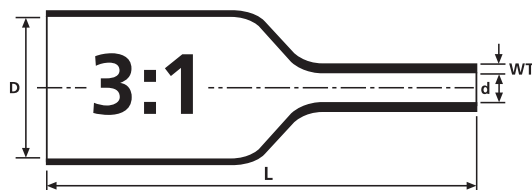
Ease of use - Step by Step Guide

Step 1
Bend liner at side slit

Step 2
Pull marker away from the liner

Step 3
ShrinkTrak applied

Material Data	
Material	Polyolefin, cross-linked (POX)
Colour	Black (BK), Yellow (YE), White (WH)
Shrink Ratio	3:1
Min Shrink	+90 °C
Operating	-55 °C to +135 °C
Recommended	TTRO/TTRX
Dielectric Strength	19,7 kV/mm
Certification	UL-224 as +125C, 600V (VW-1), SAEAS81531 , AMS-DTL-23053/5 Class 1 and 3, CE

Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

Technical Table			Markers per row	Length (L)	Pack Cont (pcs)
Article-No.	**Type**	**Colour**			
HST 3-1 (3mm supplied, 1mm recovered)					
553-50002	HST3-1WH	White (WH)	1	48	250
HST 4-8 3-1 (3mm supplied, 1mm recovered)					
553-50009	HST4.8-1.6WH	White (WH)	1	48	250
HST 6-2 3-1 (3mm supplied, 1mm recovered)					
553-50016	HST6-2WH	White (WH)	1	48	250
HST 1-2-4 (3mm supplied, 1mm recovered)					
553-500029	HST12-4	White (WH)	1	48	250

L

48 mm

1

1 marker per row
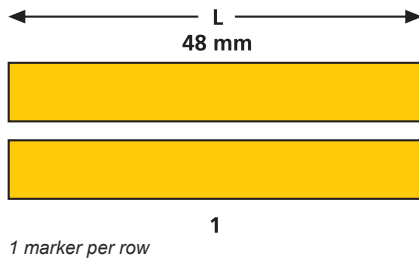
All dimensions in mm. Subject to technical changes.

TLFX

- 2:1 heat shrinkable tubing
- Halogen free
- Thin walled
- Flexible
- Available in continuous lengths as standard or semi severed in 25mm and 50mm sleeve (made to order)
- White or yellow
- Supplied flat on reels for trouble free printing
- Good resistance to acids, alkalis, oils, fuels and abrasion
- Operating temperature - -40°C to 105°C
- Recommended ribbon – TTDTHOUT/TTRX (Black), TTRW (White)

Item	Pack Qty (M)
TLFX24WH	15
TLFX24YE	15
TLFX32WH	15
TLFX32YE	15
TLFX48WH	15
TLFX48YE	15
TLFX64WH	15
TLFX64YE	15
TLFX95WH	15
TLFX95YE	15
TLFX127WH	12.5
TLFX127YE	12.5
TLFX190WH	12.5
TLFX190YE	12.5
TLFX254WH	10
TLFX254YE	10
TLFX381WH	10
TLFX381YE	10

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TLFX DS

A rail approved 2:1 heatshrink marking system supplied in a ladder format that holds pre-cut markers in rows enabling users to quickly identify the correct marker and apply it to the wire. The design of the carrier has been developed to make the users job easier and quicker when removing markers and attaching it to a wire.

The 'DS' means Double Sided as you can print on both sides of the marker.

Features

- 2:1 rail approved cross-linked polyolefin heatshrink tubing for thermal transfer printers
- Colours available: White and Yellow (other colours available on request)
- Print on TrakMark DS, TT4000+ and TT430
- Recommended ribbons: TTRX or TTRC+
- Shrink Temperature (min) >90°C
- Operating Temperature: -30°C to +105°C
- Colour: White (other colours available on request)
- Specified to: ASTM E 662, CEN TS 45545-2:2009, BS-6853:1999, DIN 5510-2: 2009, DIN53438-3: 1984, EN ISO 11925-2: 2010, NF F 16-101: 1988, NF X 70-100-1:2006, NF X 70-100-2, UNI CEI 11170-3 Ed. 2005 + FA 2007

Type	Pack Qty (M)
TLFX32DS-1x50WH	5000
TLFX32DS-1x50YE	5000
TLFX48DS-1x50WH	5000
TLFX48DS-1x50YE	5000
TLFX64DS-1x50WH	3000
TLFX64DS-1x50YE	3000
TLFX95DS-1x50WH	2500
TLFX95DS-1x50YE	2500
TLFX127DS-1x50WH	1500
TLFX127DS-1x50YE	1500
TLFX190DS-1x50WH	1500
TLFX190DS-1x50YE	1500
TLFX254DS-1x50WH	1000
TLFX254DS-1x50YE	1000

TCGT

- 3:1 heat shrinkable tubing – one size covers a wide range of diameters
- General use commercial tube
- Self extinguishing
- Good mechanical strength
- Good resistance against organic solvents and chemicals
- Available in continuous lengths
- White or yellow
- Supplied flat on reels for trouble free printing
- Operating temperature - -55°C to +135°C
- CSA approved
- Recommended ribbon – TTDTHOUT/TTRX (Black), TTRW (White)

Item	Pack Qty M (Sleeves)
TCGT3-1WH	176M (8 X 22M)
TCGT3-1YE	176M (8 X 22M)
TCGT4.8-1.6WH	110M (5 X 22M)
TCGT4.8-1.6YE	110M (5 X 22M)
TCGT6-2WH	110M (5 X 22M)
TCGT6-2YE	110M (5 X 22M)
TCGT9-3WH	72M (4 X 18M)
TCGT9-3YE	72M (4 X 18M)
TCGT12-4WH	54M (3 X 18M)
TCGT12-4YE	54M (3 X 18M)
TCGT18-6WH	26M (2 X 13M)
TCGT18-6YE	26M (2 X 13M)
TCGT24-8WH	26M (2 X 13M)
TCGT24-8YE	26M (2 X 13M)

TULT

- 3:1 heat shrinkable tubing – one size covers a wide range of diameters
- Self extinguishing
- Good mechanical strength
- Good resistance against organic solvents and chemicals
- Available in continuous lengths
- White or yellow
- Supplied flat on reels for trouble free printing
- Operating temperature - -55 C to +135 C
- CSA approved
- UL224 VW1
- Recommended ribbon – TTDTHOUT/TTRX (Black), TTRW (White)
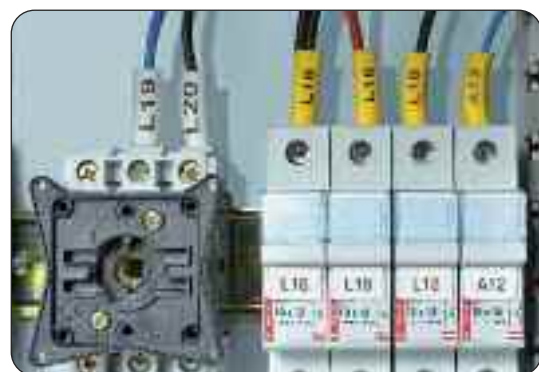
Item	Pack Qty M (Sleeves)
TULT3-1WH	176M (8 X 22M)
TULT3-1YE	176M (8 X 22M)
TULT4.8-1.6WH	110M (5 X 22M)
TULT4.8-1.6YE	110M (5 X 22M)
TULT6-2WH	110M (5 X 22M)
TULT6-2YE	110M (5 X 22M)
TULT9-3WH	72M (4 X 18M)
TULT9-3YE	72M (4 X 18M)
TULT12-4WH	54M (3 X 18M)
TULT12-4YE	54M (3 X 18M)
TULT18-6WH	26M (2 X 13M)
TULT18-6YE	26M (2 X 13M)
TULT24-8WH	26M (2 X 13M)
TULT24-8YE	26M (2 X 13M)

TULT DS

A UL and Military grade 3:1 heatshrink marking system supplied in a ladder format that holds pre-cut markers in rows enabling users to quickly identify the correct marker and apply it to the wire. The design of the carrier has been developed to make the users job easier and quicker when removing markers and attaching it to a wire.

The 'DS' means Double Sided as you can print on both sides of the marker.

Features

- 2:1 rail approved cross-linked polyolefin heatshrink tubing for thermal transfer printers
- Colours available: White and Yellow (other colours available on request)
- Print on TrakMark DS, TT4000+ and TT430
- Recommended ribbons: TTRX or TTRC+
- Shrink Temperature (min) >90°C
- Operating Temperature: -30°C to +105°C
- Colour: White (other colours available on request)
- Specified to: ASTM E 662, CEN TS 45545-2:2009, BS-6853:1999, DIN 5510-2: 2009, DIN53438-3: 1984, EN ISO 11925-2: 2010, NF F 16-101: 1988, NF X 70-100-1:2006, NF X 70-100-2, UNI CEI 11170-3 Ed. 2005 + FA 2007

Item	Pack Qty
TULT3-1DS-1x50WH	1000
TULT3-1DS-1x50YE	1000
TULT4.8-1.6DS-1x50WH	1000
TULT4.8-1.6DS-1x50YE	1000
TULT6-2DS-1x50WH	1000
TULT6-2DS-1x50YE	1000
TULT9-3DS-1x50WH	500
TULT9-3DS-1x50YE	500
TULT12-4DS-1x50WH	500
TULT12-4DS-1x50YE	500
TULT18-6DS-1x50WH	500
TULT18-6DS-1x50YE	500
TULT24-8DS-1x50WH	250
TULT24-8DS-1x50YE	250

TIPTAG

- Printable polyolefin tags 'from the roll'
- Especially suitable for identifying large cable bundles, pipes etc
- Attached with cable ties
- Halogen free
- Low generation of toxic gases
- Low generation of corrosive acid
- Low smoke generation
- Operating temperature - -40°C to +90°C
- London Underground RSE STD 013
- White or Yellow
- Available in 11mm and 15mm height by 65mm and 100mm width
- Recommended ribbon – TTRX (Black)

Item	Reel Qty
TIPTAG11X65YE	190
TIPTAG11X65WH	190
TIPTAG11X100YE	120
TIPTAG11X100WH	120
TIPTAG15X65YE	190
TIPTAG15X65WH	190
TIPTAG15X100YE	120
TIPTAG15X100WH	120

HellermannTyton   www.hellermanntyton.co.uk
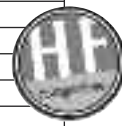
TIPTAG PU

Identification tags for cable bundle, continuous, thermal transfer

Features and Benefits

The exceptional print permanence of this material when used with TTRC+ ribbon gives an excellent print resistant marker able to survive in areas of harsh abrasion. Printed text on the surface of the TIPTAG remains virtually unaffected. Should the top layer of the material be removed, a visible mark will still remain within the TIPTAG material similar to a tattoo effect.

This tattoo-like effect usually occurs after 7 days as the material gradually absorbs the ink which penetrates from the surface of the TIPTAG.

Other sizes and colours are available on request.

The printed mark has a tattoo-like permanency.

Technical Table					
Article-No.	**Type**	**Colour**	**Length (L)**	**Width (W)**	**Pack Cont**
Identification tags					
556-25010	**TTAGPU15X100YE**	Yellow (YE)	100	15	125
556-25006	**TTAGPU15X100WH**	White (WH)	100	15	125
556-25011	**TTAGPU15X65YE**	Yellow (YE)	65	15	190
556-25007	**TTAGPU15X65WH**	White (WH)	65	15	190
556-25020	**TTAGPU11X100YE**	Yellow (YE)	100	11	125
556-25021	**TTAGPU11X100WH**	White (WH)	100	11	125
556-25019	**TTAGPU11X65YE**	Yellow (YE)	65	11	190
556-25012	**TTAGPU11X65WH**	White (WH)	65	11	190

• **TIPTAG PU for high temperature**
All dimensions in mm. Subject to technical changes.

Self-laminating labels, thermal transfer

Features and Benefits

The label is ideally suited for labelling cables and pipes after cables have been connected or for rework requirements. The protective laminating foil ensures optimal protection against humidity, dirt, debris, and mechanical abrasion. The labels are supplied in a protective box that ensures labels are kept as good as new. Other colours are available on request.

For problem-free printing, we recommend Tagprint PRO software, and TT4000+ and TT430 printers.

Self-laminating labels offer an excellent protection against abrasion and environmental impact.
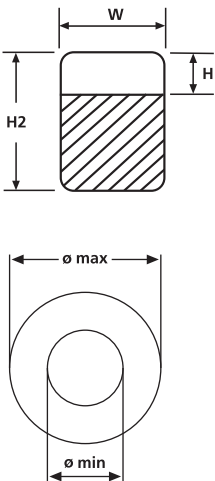
Material Data	
Material	**Type 1209, Vinyl (PVC), white-transparent (WH/CL)**
	-20 °C to +80 °C
Ribbons	**TTRA, TTRD**
Curing	**from 0 °C**
Adhesive	**Acrylic**
Thickness of Foil (µm)	**90**
chem. material properties	**Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.**

Technical Table									
Article-No.	Type	Colour	Bundle Ø min.	Bundle Ø min.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack
596-12091	**TAG51TD3-1209-WHCL**	White	1.35	3.0	25.40	8.80	19.05	85.0	3	5000
596-12094	**TAG24TD1-1209-WHCL**	White	3.5	7.6	50.80	12.70	36.50	55.0	1	1000
596-11209	**TAG6TD1-1209-WHCL**	White	10.0	22.2	50.80	25.40	95.25	55.0	1	500

All dimensions in mm. Subject to technical changes.
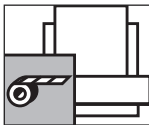
Thermal Transfer Printer

Labels for control panel identification, thermal transfer yellow

Features and Benefits

These labels can be used for both permanent and temporary labelling. They have good adhesion characteristics for most surface types, and they are ideal for use in areas such as repair and extension of control cabinets and control units. Material 1212 can be removed without leaving a sticky residue. For problem-free printing, we recommend Tagprint Pro software, TT4000+ and TT430 printers with TT822OUT ribbons.

Switchgear application.

Material Data

Material	Type 1211, Vinyl (PVC), yellow gloss
	Type 1212, Vinyl (PVC), yellow matt
	-20 °C to +80 °C
Curing	from +5 °C
Recommended	TTRD
Adhesive	Acrylic
Thickness of Foil (µm)	83 (1211)/86 (1212)
chem. material properties	Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.

Technical Table

Article-No.	Type	Colour	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.
Thermal Transfer - Plain Labels, Material 1211							
596-21211	TAG15-09TE-1211-	Yellow	15.00	9.00	89.0	5	10000
596-01211	TAG16-06TE-1211-	Yellow	16.50	6.00	101.60	5	20000
596-31211	TAG19-11TE-1211-	Yellow	19.00	11.00	89.0	4	10000
596-11211	TAG20-08TE-1211-	Yellow	20.00	8.00	101.60	4	10000
596-41211	TAG38-11TE-1211-	Yellow	38.00	11.00	85.09	2	5000
596-51211	TAG56-22TE-1211-	Yellow	56.00	22.00	62.0	1	2000

All dimensions in mm. Subject to technical changes.

Technical Table

Article-No.	Type	Colour	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.
Thermal Transfer - Plain Labels, Material 1212							
596-12122	TAG15-09TE-1212-	Yellow	15.00	9.00	89.0	5	10000
596-12120	TAG16-06TE-1212-	Yellow	16.50	6.00	101.60	5	20000
596-12123	TAG19-11TE-1212-	Yellow	19.00	11.00	89.0	4	10000
596-12121	TAG20-08TE-1212-	Yellow	20.00	8.00	101.60	4	10000
596-12124	TAG38-11TE-1212-	Yellow	38.00	11.00	85.09	2	5000
596-12125	TAG56-22TE-1212-	Yellow	56.00	22.00	62.0	1	2000

All dimensions in mm. Subject to technical changes.
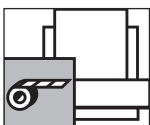
Thermal Transfer Printer

Labels for control panel identification, thermal transfer white

Features and Benefits

These white labels give excellent contrast and are suitable for clear and permanent identification of control panels. Available sizes are designed to cover the needs of most manufacturers.

For problem-free printing, we recommend Tagprint Pro software, TT4000+ and TT430 printers with TT822OUT ribbons.

Switchgear application.

Material Data	
Material	**Type 1210, Polyart, Vinal (WH)**
Operating	**-30 °C to +60 °C**
Curing	**0 °C**
	TTRD
Adhesive	**Acrylic**
Thickness of Foil (μm)	**105**
chem. material properties	**Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis**

Technical Table

Article-No.	Type	Colour	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.
596-12147	**TAG05-08TC-1216-WH**	White (WH)	5.00	8.00	85.00	16	25000
596-12151	**TAG05-15TC-1216-WH**	White (WH)	5.00	15.00	85.00	16	25000
596-12149	**TAG06-10TC-1216-WH**	White (WH)	6.00	10.00	85.00	13	25000
596-12148	**TAG08-08TC-1216-WH**	White (WH)	8.00	8.00	85.00	10	25000
596-12150	**TAG08-10TC-1216-WH**	White (WH)	8.00	10.00	85.00	10	25000
596-12152	**TAG08-15TC-1216-WH**	White (WH)	8.00	15.00	85.00	10	25000

All dimensions in mm. Subject to technical changes.
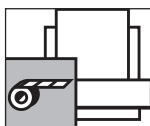
Thermal Transfer Printer

Type labels, thermal transfer (silver)

Features and Benefits

A matt silver polyester label ideally suited for use as an asset rating plate for electronic equipment such as computers, televisions, and music systems.

The temperature range is suitable for use on all electronic home and office components. The silver colour also ensures that barcode scanners easily read printed barcodes.

For problem-free printing, we recommend Tagprint PRO software, TT4000+ and TT430 printers with TT822OUT ribbons.
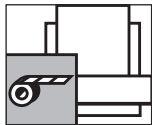
Thermal Transfer Printer

Material Data	
Material	**Type 1204, Polyester (PET) Silver (SE)**
	-40 °C to +150 °C, intermittent +200 °C
	from 0 °C
Curing	**TTRD**
Recommended	**Acrylic**
Adhesive	**55**
Thickness of Foil (µm)	**Excellent resistance to water, alcohol,**
chem. material properties	**most oils, greases, fuel, aliphatic solvents,**
	weak acids, salts and alkalis

Technical Table

Article-No.	Type	Colour	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.
596-27120	**TAG27TD2-1204**	Silver (SR)	38.10	19.05	85.09	2	5000
596-73124	**TAG73TD1-1204**	Silver (SR)	50.80	25.40	55.00	1	2000
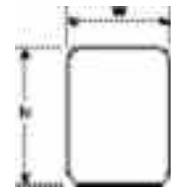
Please note! Not all products listed on this page may have this approval. For product specific approvals please refer to the Appendix.

Warehouse labelling, thermal transfer (yellow)

Features and Benefits

For high contrast identification labelling in warehouse areas, this continuous length label material gives the user the ability to print large sized text and barcodes and cut to length after printing with either a supplied in-line cutter with the TT4000+ or by hand with the TT430. Using these products across the company ensures that all marking is to a consistent and professional standard. For problem-free printing, we recommend Tagprint PRO software, TT4000+ and TT430 printers with TT822OUT ribbons.

Warehouse labelling large enough to easily identify stores material.

Material Data

Material	**Type 1213, Vinyl (PVC), glossy colours**
	-40 °C to +90 °C
Curing	**from +8 °C**
Recommended	**TTRD/TTRW**
Adhesive	**Acrylic**
Thickness of Foil (µm)	**66**

Technical Table

Article-No.	Type	Colour	Width (W)	Width of Liner (WL)	Labels per Row	Pack Cont.
596-03103	**TAGR4TD1-1213-YE**	Yellow	25.0	25.0	1	50,0
596-12167	**TAG108TD1-1213-YE**	Yellow	40.0	40.0	1	50,0
596-12169	**TAGR1TD-1213-YE**	Yellow	101.6	101.6	1	30,5

All dimensions in mm. Subject to technical changes.

Pipe Marking
Thermal Transfer Labels
(yellow/green & white)

Features and Benefits

Continuous length label material in a range of high visibility colours gives the user the ability to print large sized text and barcodes for use in industrial pipe marking areas. The label can be cut to length after printing with a supplied in-line cutter with the TT4000+ or by hand with the TT430. Using these products across the company ensures that all marking is to a consistent and professional standard.

For problem-free printing, we recommend Tagprint PRO software, TT4000+ and TT430 printers. Use ribbon TTRD for yellow and white material, and ribbon TTRW for green and red material.

Large and highly visible pipe marking.

Material Data

Material	Type 1213, Vinyl (PVC), glossy colours
	-40 °C to +90 °C
Curing	from +8 °C
Recommended	TTRD/TTRW
Adhesive	Acrylic
Thickness of Foil (µm)	66

Technical Table

Article-No.	Type	Colour	Width (W)	Reel Length (M)
596-03103	TAGR4TD1-1213-YE	Yellow	25.0	50
596-12167	TAG108TD1-1213-YE	Yellow	40.0	50
596-12169	TAGR1TD-1213-YE	Yellow	101.6	30.5

All dimensions in mm. Subject to technical changes.

Ribbons

- Specially formulated to match TIPS printable products
- Durable, permanent marks
- Cost effective widths available
- Available in black and white ink
- Value 300m rolls

Item	Reel Qty	Colour
TTRD 100MM	300m	Black
TTRW 30MM	300m	White
TTRW60MM	300m	White
TTRW 100MM	300m	White
TTDTHOUT/TTRX 40MM	300m	Black
TTDTHOUT/TTRX 60MM	300m	Black
TTDTHOUT/TTRX 100MM	300m	Black
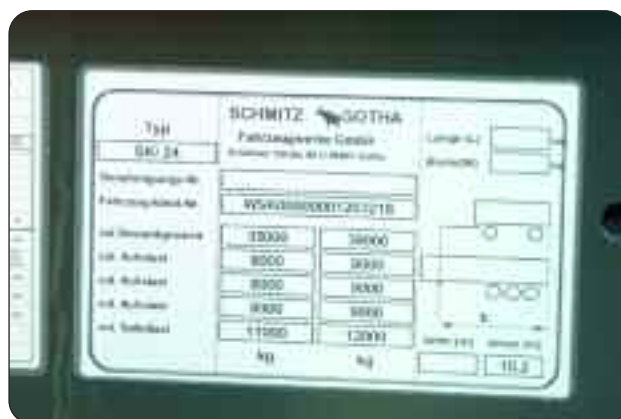
A comprehensive range of self-adhesive plain, self-laminating and tamper proof labels are available, all of which can be printed on using the TT4000+ or TT430 printer.

Please ask for our full catalogue for further details.

Helagrip Chevron Cut

Helagrip is the ideal wire and cable identification solution. Our indelible printing technology and high grade PVC material ensures that Helagrip is the best expandable marker system available. Our special chevron cut ensures that the markers lock together and this, in conjunction with our specially designed profile, enables a wide range of cable sizes to be identified with a single marker. The standard PVC material is ideal for everyday use.

Applications
General Panel Building, Mass Transit, Telecommunications, Utilities.
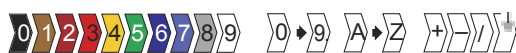
Helagrip Reels				
Reel Qty.		1000	1000	250
Mark	Colour	1-3mm	2-5mm	4-9mm
0	Black or Black/White	HGDC1-3/0	HGDC2-5/0	HGDC4-9/0
1	Brown or Black/White	HGDC1-3/1	HGDC2-5/1	HGDC4-9/1
2	Red or Black/White	HGDC1-3/2	HGDC2-5/2	HGDC4-9/2
3	Orange or Black/White	HGDC1-3/3	HGDC2-5/3	HGDC4-9/3
4	Yellow or Black/White	HGDC1-3/4	HGDC2-5/4	HGDC4-9/4
5	Green or Black/White	HGDC1-3/5	HGDC2-5/5	HGDC4-9/5
6	Blue or Black/White	HGDC1-3/6	HGDC2-5/6	HGDC4-9/6
7	Violet or Black/White	HGDC1-3/7	HGDC2-5/7	HGDC4-9/7
8	Grey or Black/White	HGDC1-3/8	HGDC2-5/8	HGDC4-9/8
9	White or Black/White	HGDC1-3/9	HGDC2-5/9	HGDC4-9/9
A	*Black/White or Black/Yellow	HGDC1-3/A	HGDC2-5/A	HGDC4-9/A
B	*Black/White or Black/Yellow	HGDC1-3/B	HGDC2-5/B	HGDC4-9/B
C	*Black/White or Black/Yellow	HGDC1-3/C	HGDC2-5/C	HGDC4-9/C
D	*Black/White or Black/Yellow	HGDC1-3/D	HGDC2-5/D	HGDC4-9/D
E	*Black/White or Black/Yellow	HGDC1-3/E	HGDC2-5/E	HGDC4-9/E
F	*Black/White or Black/Yellow	HGDC1-3/F	HGDC2-5/F	HGDC4-9/F
G	*Black/White or Black/Yellow	HGDC1-3/G	HGDC2-5/G	HGDC4-9/G
H	*Black/White or Black/Yellow	HGDC1-3/H	HGDC2-5/H	HGDC4-9/H
I	*Black/White or Black/Yellow	HGDC1-3/I	HGDC2-5/I	HGDC4-9/I
J	*Black/White or Black/Yellow	HGDC1-3/J	HGDC2-5/J	HGDC4-9/J
K	*Black/White or Black/Yellow	HGDC1-3/K	HGDC2-5/K	HGDC4-9/K
L	*Black/White or Black/Yellow	HGDC1-3/L	HGDC2-5/L	HGDC4-9/L
M	*Black/White or Black/Yellow	HGDC1-3/M	HGDC2-5/M	HGDC4-9/M
N	*Black/White or Black/Yellow	HGDC1-3/N	HGDC2-5/N	HGDC4-9/N
O	*Black/White or Black/Yellow	HGDC1-3/O	HGDC2-5/O	HGDC4-9/O
P	*Black/White or Black/Yellow	HGDC1-3/P	HGDC2-5/P	HGDC4-9/P
Q	*Black/White or Black/Yellow	HGDC1-3/Q	HGDC2-5/Q	HGDC4-9/Q
R	*Black/White or Black/Yellow	HGDC1-3/R	HGDC2-5/R	HGDC4-9/R
S	*Black/White or Black/Yellow	HGDC1-3/S	HGDC2-5/S	HGDC4-9/S
T	*Black/White or Black/Yellow	HGDC1-3/T	HGDC2-5/T	HGDC4-9/T
U	*Black/White or Black/Yellow	HGDC1-3/U	HGDC2-5/U	HGDC4-9/U
V	*Black/White or Black/Yellow	HGDC1-3/V	HGDC2-5/V	HGDC4-9/V
W	*Black/White or Black/Yellow	HGDC1-3/W	HGDC2-5/W	HGDC4-9/W
X	*Black/White or Black/Yellow	HGDC1-3/X	HGDC2-5/X	HGDC4-9/X
Y	*Black/White or Black/Yellow	HGDC1-3/Y	HGDC2-5/Y	HGDC4-9/Y
Z	*Black/White or Black/Yellow	HGDC1-3/Z	HGDC2-5/Z	HGDC4-9/Z
+	*Black/White or Black/Yellow	HGDC1-3/+	HGDC2-5/+	HGDC4-9/+
-	*Black/White or Black/Yellow	HGDC1-3/-	HGDC2-5/-	HGDC4-9/-
/	*Black/White or Black/Yellow	HGDC1-3//	HGDC2-5//	HGDC4-9//
⊥	*Black/White or Black/Yellow	HGDC1-3/⊥	HGDC2-5/⊥	HGDC4-9/⊥

* Please specify which colour when ordering Black/White or Black/Yellow

Helagrip Chevron Cut - Helagrip Kits

Helagrip Kit			
Reference	Cable Range in mm	Marker Length	Marker Quantity
HGPC1-3-Kit	1.0 – 3.0	3.5	18 x 250
HGPC2-5-Kit	2.0 – 5.0	3.5	18 x 250

Kit Contents. Chevron Cut.

0 1 2 3 4 5 6 7 8 9   L N R S T + – |

Helagrip Cassette				
Reference	Cable Range in mm	Marker Length	Marker Quantity	Included Applicator Tool
HGCC1-3	1.0 – 3.0	3.5	24 x 25	TJC1-3
HGCC2-5	2.0 – 5.0	3.5	20 x 25	TJC2-5

Kit Contents. Chevron Cut.

0 1 2 3 4 5 6 7 8 9   A L N R + – |

Helagrip Thimble Jig - Applicator Tool

The PTFE coated applicator tools are designed for use with Helagrip. The coating ensures that the markers can be slipped onto the wire with minimum effort.

Thimble Jig		
Reference	Marker Type	Pack Qty
TJC 1-3	HG 1-3	1
TJC 2-5	HG 2-5	1
TJC 4-9	HG 4-9	1

P Thin Wall PVC Markers

Features

These high grade PVC markers have a thin wall which makes them ideal for identifying wire in areas where space is at a premium. The thin wall also ensures that the product is flexible, thus making installation easier. Since the PU range has a thin wall, the product is also lighter than other wire markers. In order to facilitate the application of a single mark or series of markers, a range of TJC applicator tools is available.

Applications

For close density wiring applications where the thin wall section takes up the minimum amount of space.
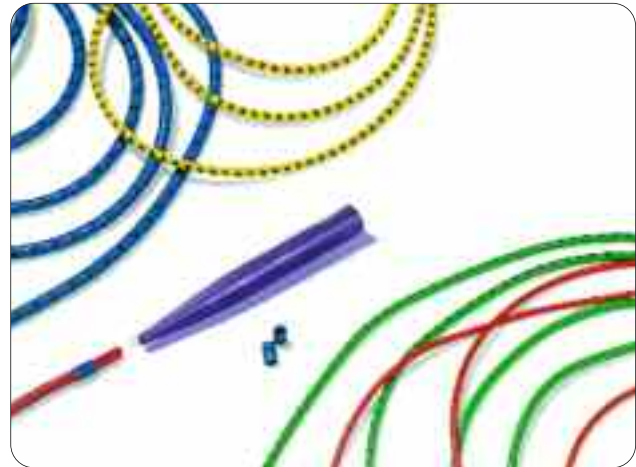
For areas where space and weight saving is required.

d   internal diameter
L   length of single mark
W   wall thickness

Unicut Markers P	
Material	PVC
Colours	international resistor colour code 0-9
Temperature	-65°C to +105°C, intermittent 135°C
Material Specification	UL224, BS-3858-Type 3, IEC 304
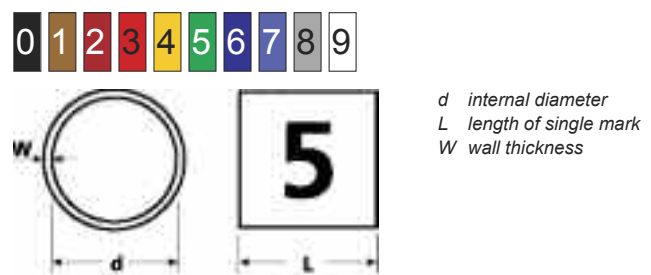
P Thin Wall PVC Markers

Semi Severed Reference	d mm	Wall Thickness mm	Length mm	Pack Qty	Recommended Tool
P10	1.00	0.35	3.0	500	TJC00
P12	1.20	0.35	3.0	500	TJC00
P15	1.50	0.35	3.0	500	TJC 1-3
P20	2.00	0.35	5.0	500	TJC 2-5
P25	2.50	0.35	5.0	500	TJC 2-5
P30	3.00	0.35	5.0	500	TJC 3-7
P40	4.00	0.35	5.0	500	TJC 4-9
P55	5.50	0.35	5.0	1000	-

Applicator Tool

Reference	Marker	Pack Qty
TJC1-3	For P15	1
TJC2-5	For P20	1
TJC2-5	For P25	1
TJC4-9	For P40	1

Ovalgrip Markers

Features

Ovalgrip can either be used directly onto the wire as a pre wire-termination marker, or used in conjunction with Arrow Tags and cable ties as a post termination marking system. Ovalgrip is available semi-severed, straight cut on reels as standard.

Ovalgrip Markers Straight Cut HOBS	
Material	PVC
Colours	white, yellow, international resistor colour code, 0 – 9, A – Z, +, –, /,
Temperature	-65°C to +105°C, intermittent +135°C
Material Specification	UL224, BS-2782-540B, IEC 304

LFHO	
Material	Polyolefin
Colours	Yellow 0-9, A-Z, +, -, /,
Temperature	-40°C to +90°C, intermittent +120°C
Flammability	Zero Halogen, low smoke and Toxicity
Material Specification	RSE/STD/013

A simple idea for complex marking solutions.

Black/White Markers		
Pack Qty. Mark	Colour	100 2.5 - 6mm
0	Black/White	HOBS85/0
1	Black/White	HOBS85/1
2	Black/White	HOBS85/2
3	Black/White	HOBS85/3
4	Black/White	HOBS85/4
5	Black/White	HOBS85/5
6	Black/White	HOBS85/6
7	Black/White	HOBS85/7
8	Black/White	HOBS85/8
9	Black/White	HOBS85/9
A	Black/White	HOBS85/A
B	Black/White	HOBS85/B
C	Black/White	HOBS85/C
D	Black/White	HOBS85/D
E	Black/White	HOBS85/E
F	Black/White	HOBS85/F
G	Black/White	HOBS85/G
H	Black/White	HOBS85/H
I	Black/White	HOBS85/I
J	Black/White	HOBS85/J
K	Black/White	HOBS85/K
L	Black/White	HOBS85/L
M	Black/White	HOBS85/M
N	Black/White	HOBS85/N
O	Black/White	HOBS85/O
P	Black/White	HOBS85/P
Q	Black/White	HOBS85/Q
R	Black/White	HOBS85/R
S	Black/White	HOBS85/S
T	Black/White	HOBS85/T
U	Black/White	HOBS85/U
V	Black/White	HOBS85/V
W	Black/White	HOBS85/W
X	Black/White	HOBS85/X
Y	Black/White	HOBS85/Y
Z	Black/White	HOBS85/Z

Black/Yellow Markers		
Mark	Colour	Reel of 1000 2.5 - 6mm
0	Black/Yellow	HODS85/0
1	Black/Yellow	HODS85/1
2	Black/Yellow	HODS85/2
3	Black/Yellow	HODS85/3
4	Black/Yellow	HODS85/4
5	Black/Yellow	HODS85/5
6	Black/Yellow	HODS85/6
7	Black/Yellow	HODS85/7
8	Black/Yellow	HODS85/8
9	Black/Yellow	HODS85/9
A	Black/Yellow	HODS85/A
B	Black/Yellow	HODS85/B
C	Black/Yellow	HODS85/C
D	Black/Yellow	HODS85/D
E	Black/Yellow	HODS85/E
F	Black/Yellow	HODS85/F
G	Black/Yellow	HODS85/G
H	Black/Yellow	HODS85/H
I	Black/Yellow	HODS85/I
J	Black/Yellow	HODS85/J
K	Black/Yellow	HODS85/K
L	Black/Yellow	HODS85/L
M	Black/Yellow	HODS85/M
N	Black/Yellow	HODS85/N
O	Black/Yellow	HODS85/O
P	Black/Yellow	HODS85/P
Q	Black/Yellow	HODS85/Q
R	Black/Yellow	HODS85/R
S	Black/Yellow	HODS85/S
T	Black/Yellow	HODS85/T
U	Black/Yellow	HODS85/U
V	Black/Yellow	HODS85/V
W	Black/Yellow	HODS85/W
X	Black/Yellow	HODS85/X
Y	Black/Yellow	HODS85/Y
Z	Black/Yellow	HODS85/Z

0 1 2 3 4 5 6 7 8 9

Colour Coded Markers

Mark	Colour	1000 2.5 - 6mm
0	Black	HODS85/0
1	Brown	HODS85/1
2	Red	HODS85/2
3	Orange	HODS85/3
4	Yellow	HODS85/4
5	Green	HODS85/5
6	Blue	HODS85/6
7	Violet	HODS85/7
8	Grey	HODS85/8
9	White	HODS85/9

Ovalgrip Markers Kit - Straight Cut

Reference	Dimensions	Marker Length	Qty Per Reel	Recommended Carrier	No of Marks Per Carrier
HOPS85 KIT	2.5 - 6.0	4.5	18 x 125	AT2/AT3	8/14

Kit contents

0 1 2 3 4 5 6 7 8 9   L N R S T + – ⊥
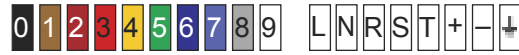
All dimensions are in mm and are subject to technical modification.
A handy rack is also available.

Arrow Tags AT

Features

The range of Arrow Tags is suitable for use after wire termination
has taken place, and can be mounted with Ovalgrip Cable Markers
or written on by hand using an indelible ink.
The Arrow Tags are fixed onto the wire or cable bundle with
cable ties (maximum cable tie width is 7.5mm).

Identification Arrow Tags AT

Material	PA66
Colours	Natural (NL) and Black (BK)
Temperature	-40°C to +85°C, intermittent 105°C
Flammability	UL94 V2

A simple and quick marking method.

L length
B width

Arrow Tag AT3   *Arrow Tag AT2*

Identification Arrow Tags AT

Reference	L	B	Maximum Cable Tie Width	Maximum Markers	Colour NL	BK	Pack Quantity
AT2	63.0	9.0	6.0	8	•	•	100
AT3	100.0	9.0	6.0	14	•	•	100

Identification Arrow Tags AT

Reference	Length	Width		Suitable C/Ties	Pack Qty
IT1	44	19	N/A	2 x T50 Series	100

HellermannTyton

WIC Clip-On Markers

The new easy to use WIC clip-on cable marker is ideal for both pre and post termination marking. WIC's (Wire Identification Clip) uniquely strong gripping profile ensures that the marker stays in place even under the most arduous of conditions.

- Easy to apply with or without the WICTOOL
- Only 3 sizes need to cover cables from 0.5mm - 6.0mm²
- Each WIC marker interlocks with the next to form perfectly aligned multi-mark codes
- Unique WICTOOL makes application easy especially in confined spaces.
- Markers are supplied loaded into a handy pocket sized dispenser.
- Manufactured from high grade PA66 for excellent mechanical strength and chemical resistance.
- Individual letters / numbers in yellow to special order only

Product Reference	Cable Diameter Range mm	Cable size Range mm²
WIC1	2.0 - 2.8	0.5 - 1.5
WIC2	2.8 - 3.8	1.5 - 2.5
WIC3	4.3 - 5.3	4.0 - 6.0
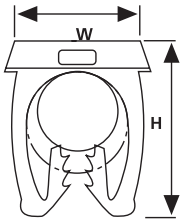
Number and letter combinations available in kit form See page ??.

0 1 2 3 4 5 6 7 8 9

WIC Markers				
Box Qty.		1000	1000	500
Mark	*Colour*	*0.5 - 1.5mm*	*1.5 - 2.5mm*	*4-6mm*
0	Black	W1/0	W2/0	W3/0
1	Brown	W1/1	W2/1	W3/1
2	Red	W1/2	W2/2	W3/2
3	Orange	W1/3	W2/3	W3/3
4	Yellow	W1/4	W2/4	W3/4
5	Green	W1/5	W2/5	W3/5
6	Blue	W1/6	W2/6	W3/6
7	Violet	W1/7	W2/7	W3/7
8	Grey	W1/8	W2/8	W3/8
9	White	W1/9	W2/9	W3/9

WIC Materials Information	
Material	PA66
Colours	Yellow material and Colour Code
	White material on special request
Temperature	-40°C to +85°C, intermittent +105°C
Flammability	Meets UL94 V0
Material Specification	Colours meet IEC304 and EN60062

WIC Tool	
Reference	Pack Qty
W1 220	1

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WIC Clip-On Marker Kits

- Kits available from stock

WIC Materials Information	
Material	PA66
Colours	Yellow material and Colour Code
	White material on special request
Temperature	-40°C to +85°C, intermittent +105°C
Flammability	Meets UL94 V0
Material Specification	Colours meet IEC304 and EN60062

WIC Clip-On Marker Kits		
Reference	Contents	Pack Qty
Colour Coded		
W1-270 Red Dispenser	1 box of 5 dispensers each containing 10 strips of 20 marks 0-9 colour Coded 0.5mm-1.5mm	1000
W2-270 Blue Dispenser	1 box of 5 dispensers each containing 10 strips of 20 marks 0.9 colour Coded 1.5mm-2.5mm	1000
W3-270 Yellow Dispenser	1 box of 5 dispensers each containing 10 strips of 20 marks 0.9 colour Coded 4mm-6mm	500
Letters Black on Yellow		
W1-272	W1 AELNRST + IQ packed as above	Black on Yellow	1000
W1-273	W1 BCUVWPDFIM	Black on Yellow	1000
W1-274	W1 GHYZOQJKXL	Black on Yellow	1000
W2-272	W2 AELNRST + IQ packed as above	Black on Yellow	1000
W2-273	W2 BCUVWPDFIM	Black on Yellow	1000
W2-274	W2 GHYZOQJKXL	Black on Yellow	1000
W3-272	W3 AELNRST + IQ packed as above	Black on Yellow	500
W3-273	W3 BCUVWPDFIM	Black on Yellow	500
W3-274	W3 GHYZOQJKXL	Black on Yellow	500

RiteOn® Label Dispenser
Self Laminating Labels

This practical label dispenser provides a simple, handy method for identifying cables and wires. It is ideally suited for pre-assembly marking or for repairs in the field. RiteOn® self adhesive labels consist of a printable area on which the mark is written and a self-laminating portion which protects the mark.

Characteristics
The RiteOn® label dispenser is ideal for the production of simple cable markers, on site repair operations, temporary marking or prototyping. The refillable dispenser is designed to aid the user to produce hand written inscriptions neatly and quickly anywhere.

Application
Using a marker pen (supplied in the starter pack), the desired inscription is written onto the white portion of the label displayed in the window. The label is ejected from the front of the dispenser by pulling the backing tape.

Typical Applications
RiteOn® labels are used in Telecommunication, Automotive applications, for marking PC cables, sports equipment and laboratory apparatus.

With the aid of the marking pen supplied in the starter pack, rapid identification marking on site is possible.

RiteOn® Identification Marking Labels

Material	Type 100, self laminating labels
Colour	Inscription field red (RD), orange (OE), yellow (YW), green (GN), blue (BE), white (WE)
Operating Temp.	-40°C to +80 °C
Adhesive Base	Acrylic
Properties	Non-shrinking, aging resistant

Starter Kit includes - 1 x RO202, 1 x CB/CTL/BLACK

Self Laminating Labels

Reference	Description	A	B	C	Labels Per Roll	Pack Qty
SPRO200-WH	Starter pack	19.1	12.7	50.8	150	1
RO201	Dispenser & Markers	12.7	12.7	38.1	200	1
RO201REF	Refill pack	12.7	12.7	38.1	200	1
RO202	Dispenser & Markers	19.1	12.7	50.8	150	1
RO202REF	Refill pack	19.1	12.7	50.8	150	1
RO203	Dispenser & Markers	19.1	25.4	76.2	100	1
RO203REF	Refill pack	19.1	25.4	76.2	100	1

Standard colour White (WE), others available on request.

Marker Pens

Reference	Description	Pens Per Pack
CB/CTL/BLACK	RiteOn® permanent marker pen	1

Ordering Example: R0201-BE

Colour

Part number

Marker pen

Colour Options

Colour
Red (RD)
Orange (OE)
Yellow (YW)
Green (GN)
Blue (BE)
White (WE)
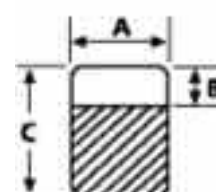
A   Label width
B   Height of markable area
C   Label height

*RiteOn®
Self-laminating labels*

Marker Dispenser
5mm wide adhesive vinyl cloth markers printed black on white, supplied in roll form of 2.4m per roll.

• Refills available 0-9, A-Z

Marker Dispenser

Reference	Description	Pack Qty
MT1	Dispenser 10 Rolls 0-9	1
MTRK	Refill Kit 0-9	1

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Identification Cable Ties

- HellermannTyton I.D. Ties will both bundle and identify in one operation
- Larger sizes of ties and tags can be pre-printed, telephone our Sales Hotline for further information
- Marking by indelible marker pen or hot foil printing
- Material - PA66
- Colour - natural

Identification Cable Ties

Reference	Length mm	Width mm	Flag Area mm	Bundle Diameter mm	Pack Qty
IT18R	100	2.3	25 x 8	22	100
ITI8FL	110	2.5	20.5 x 9	19	100
IT50R	203	4.6	28 x 12.9	44.5	100
IT50L	390	4.7	56 x 12.8	100	100
IT50RD	205	4.7	29 x 26.3	44	50
IT50RT	205	4.7	46 x 26.3	44	50
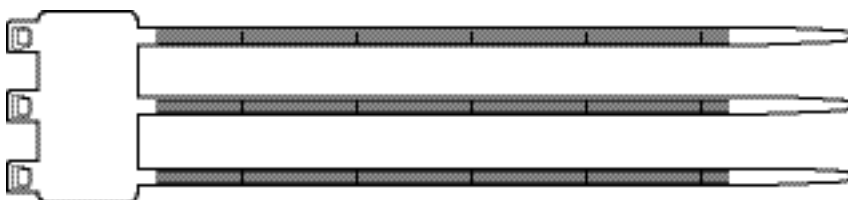
HellermannTyton can offer customised printing on any of the above ties, please call our customer service department for further details. For our range of standard printed cable ties please see page 211, section 4.5.

Please see page 209 for details of the marker pen to be used with the above Identification Ties.

Printed Ties for General ID Purposes

- Easily identify cables, pipes, tools and equipment
- Custom printed to your requirements
- Manufactured from Virgin Grade PA66 material
- Available in various colours
- Other sizes available on request
- MOQ of 5000 applicable

Printed Identification Ties

Reference	Description	Length	Width	Printable Area	Pack Qty
T50RPRN	Printed Tie	200mm	4.6mm	100mm	1000
LK2APRN	Printed Tie	275mm	4.6mm	200mm	1000

Printed Ties for Metering Installation

A range of printed ties specifically designed for meter installations.

Available ties are:

- Light Blue Printed N
- Dark Blue Printed N
- Orange Printed L
- Orange Printed L1
- Orange Printed L2
- Orange Printed L3
- Brown Printed L1
- Brown Printed L2
- Brown Printed L3
- MOQ applies

Meter Ties

Reference	Description	Length	Width	Pack Qty
T50RPRN.N1904	Light Blue Meter Tie Printed N	200mm	4.6mm	1000
T50RPRN.NL920	Dark Blue Meter Tie Printed N	200mm	4.6mm	1000
T50RPRN.N9900	Orange Meter Tie Printed L	200mm	4.6mm	1000
T50RPRN.N9901	Orange Meter Tie Printed L1	200mm	4.6mm	1000
T50RPRN.N9902	Orange Meter Tie Printed L2	200mm	4.6mm	1000
T50RPRN.N9903	Orange Meter Tie Printed L3	200mm	4.6mm	1000
T50RPRN.NA921	Brown Meter Tie Printed L1	200mm	4.6mm	1000
T50RPRN.NA922	Brown Meter Tie Printed L2	200mm	4.6mm	1000
T50RPRN.NA923	Brown Meter Tie Printed L3	200mm	4.6mm	1000

Printed Ties to Identify Vibration Risk

• For use on power tools & other equipment
• Identifies 3 Risk Levels, Low, Medium & High
• Custom printed to your specific requirements
• Available in Red, Blue, Green, Yellow & Orange
• MOQ applicable

Printed Ties to Identify Vibration Risk						
Reference	Description	Length	Width	Printable Area	Pack Qty	Carton Qty
T120RPRN	Printed Tie	380mm	7.6mm	180mm	100	1000

Printed Fluorescent Ties

• Easily identify tools and equipment
• Custom printed to your requirements
• Manufactured from Virgin Grade PA66 material
• Available in fluorescent Orange or Yellow
• MOQ applicable

Printed Fluorescent Ties						
Reference	Description	Length	Width	Printable Area	Pack Qty	Carton Qty
T120IPRN	Printed Tie	300mm	7.6mm	180mm	100	1000

Pull Tight Security Seal

- Suitable for fire doors & fire extinguishers
- Safe deposit boxes
- Coin boxes
- Moulded in high grade polypropylene
- Supplied in mats of 10
- Available with a sequential serial number if required
- Customised printing available at extra cost. MOQ will apply
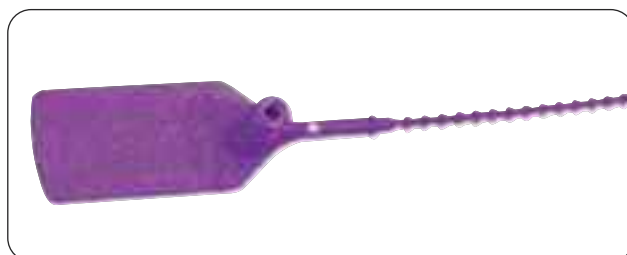
Pull Tight Security Seal							
Reference	Description	Length mm	Width mm	Flag length mm	Flag Width mm	Printable Area mm	Pack Qty
PTSK	Pull Tight Seal	195	2.4	40	19.5	32	2000

Pull Tight Security Seal

- 220mm long
- Suitable for transportation
- Postal bags
- Roll cages
- Moulded in high grade polypropylene
- Customised printing available at extra cost. MOQ will apply

Pull Tight Security Seal							
Reference	Description	Length mm	Width mm	Flag length mm	Flag Width mm	Printable Area mm	Pack Qty
PTSK2	Pull Tight Seal 220mm	220	8	85	27	50	1000

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Pull Tight Security Seals

- 350mm long
- Suitable for postal bags
- Security containers
- Transportation
- Moulded in high grade polypropylene
- Customised printing available at extra cost. MOQ will apply
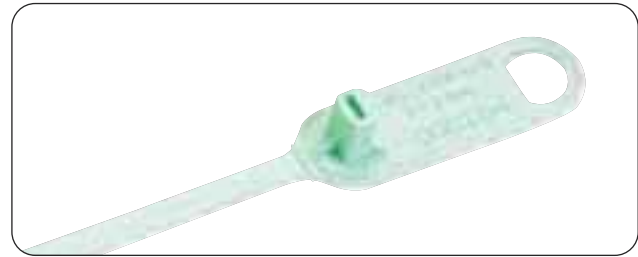
Pull Tight Security Seal							
Reference	Description	Length mm	Width mm	Flag length mm	Flag Width mm	Printable Area mm	Pack Qty
PTSK3	Pull Tight Seal 350mm	350	8	85	27	50	1000

Fixed Length Security Seal

- 200mm long
- Suitable for vehicle doors
- Roll cages
- Tankers
- Made in high grade polypropylene
- Customised printing available at extra cost. MOQ will apply
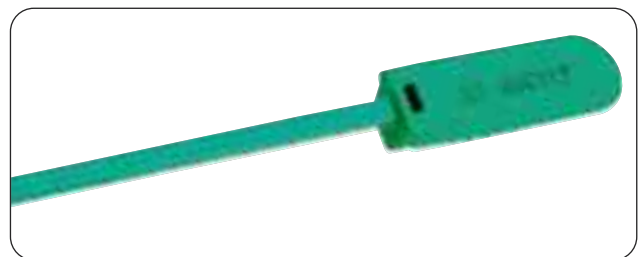
Fixed Length Security Seal							
Reference	Description	Length mm	Width mm	Flag length mm	Flag Width mm	Printable Area mm	Pack Qty
FLSK	Fixed Length Seal	200	5.9	55	19.5	50	1000

Pluglok Security Closure

- For use with attached lid distribution containers
- Easy application and removal giving considerable time savings
- Manufactured in high grade polypropylene
- Available in 4 sizes to suit most popular box types
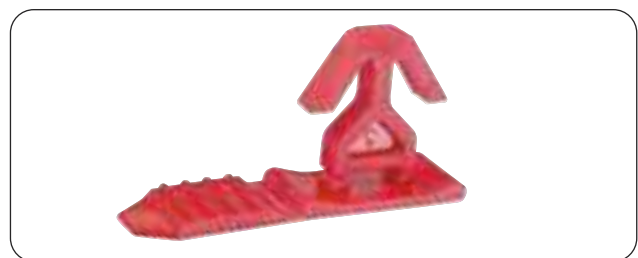
Pluglok Security Closure		
Reference	Description	Pack Qty
PLS10	Pluglok Security Closure	1000
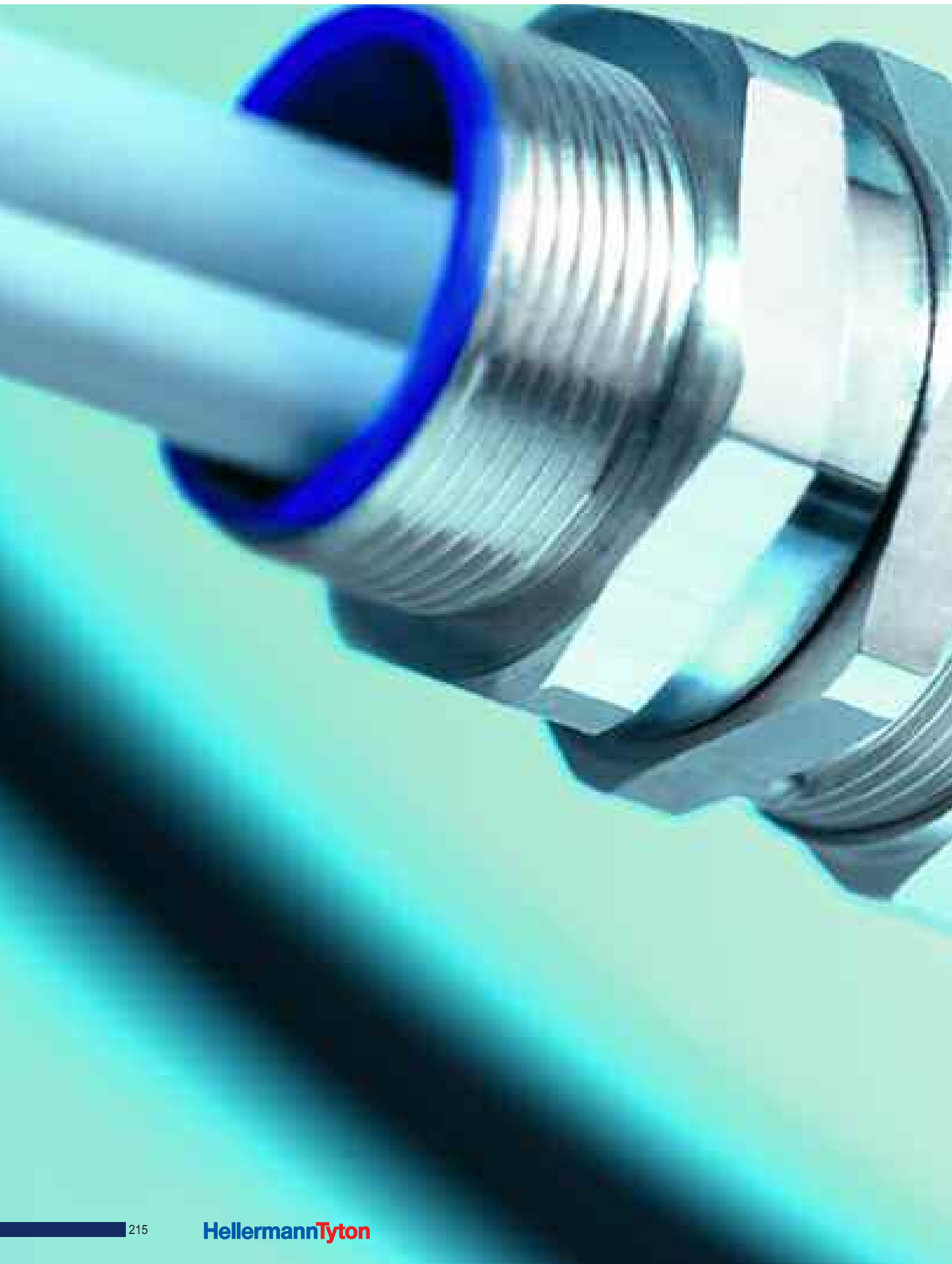
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Helsyn Rubber Sleeves

• Ideally suited to rigorous environments
• Extensive range of tubing
• Extruded from the highest-grade elastomeric compound
• Excellent elasticity along with mechanical and electrical protection
• The tubing can be stretched x5 in fitting and x2 in use
• Can reduce your stock holding as one size of tube covers
   a wide range of cable diameters

Helsyn	
Reference	H
Name	Helsyn 120
Material	Polychloroprene Rubber
Min. Working Temperature	65ºC
Max. Working Temperature	95ºC
Intermittent Temperature	120ºC
Proof Voltage	4kV
Good Resistance To Acids, Alkalis,	Mineral and Vegetable Oils, Aromatic Fuels,
Material Specification	BS3G198 Part 1 Type 1, Def Stan 59-15 Types D2a and D2c, BS3858 Type 1
Standard Colour	Black - Packs of 100 and 1000

Applicator Tool and Hellerine see page 220

Helsyn Cut Sleeves			
Reference	ID	Colour	Pack Qty
H12 x 20	1.2mm dia x 20mm long	Black	1000 100
H15 x 20	1.5mm dia x 20mm long	Black	1000 100
H20 x 20	2.0mm dia x 20mm long	Black	1000 100
H30 x 25	3.0mm dia x 25mm long	Black	1000 100
H50 x 25	5.0mm dia x 25mm long	Black	1000 100
H75 x 25	7.5mm dia x 25mm long	Black	1000 100
H100 x 25	10.0mm dia x 25mm long	Black	1000 100
H150 x 25	15.0mm dia x 25mm long	Black	1000 100
H200 x 25	20.0mm dia x 25mm long	Black	1000 100

All dimensions are in mm (nominal) and are subject to technical modification. Other lengths, including, continuous, available subject to price and MOQ requests.

Sleeve expansion applicator tools ensures easy application of elastomeric products NA 8/5 (left), D, SS, S, K (right).

PVC Sleeving

- Commercial PVC Sleeving
- Highly Flexible Insulation
- Can be used for identification

PVC	
Reference	PVC
Material	PVC
Min. Working Temperature	-30ºC
Max. Working Temperature	85ºC
Material Specification	BS2848 Type 3, Class 85T
Standard Colour	Black, blue, brown, grey, green-yellow

Reference	ID	Wall Thickness	Colours	Coil Length
PVC20 (colour)	2.0	0.5	Black, Blue, Brown, Grey	100m
PVC30 (colour)	3.0	0.5	Black, Blue, Brown, Grey	100m
PVC40 (colour)	4.0	0.5	Black, Blue, Brown, Grey	100m
PVC50 (colour)	5.0	0.5	Black, Blue, Brown, Grey	100m

All dimensions are in mm (nominal) and are subject to technical modification.
Further sizes available on request.

Reference	ID	Wall Thickness	Colours	Coil Length
PVC20 GN-YW	2.0	0.5	Green-yellow	100m
PVC30 GN-YW	3.0	0.5	Green-yellow	100m
PVC40 GN-YW	4.0	0.5	Green-yellow	100m
PVC50 GN-YW	5.0	0.5	Green-yellow	100m
PVC60 GN-YW	6.0	0.5	Green-yellow	100m
PVC80 GN-YW	8.0	0.7	Green-yellow	100m
PVC100 GN-YW	10.0	0.7	Green-yellow	100m
PVC120 GN-YW	12.0	0.9	Green-yellow	100m
PVC160 GN-YW	16.0	0.9	Green-yellow	100m

All dimensions are in mm (nominal) and are subject to technical modification.
Further sizes available on request.

PVC Sleeving - On a Drum

Reference	ID	Wall Thickness	Colours	Length
PVC20GN-YWRL	2.00	0.5	Green/Yellow	100m drum
PVC20BNRL	2.00	0.5	Brown	100m drum
PVC20BERL	2.00	0.5	Blue	100m drum
PVC30GN-YWRL	3.00	0.5	Green/Yellow	100m drum
PVC30BNRL	3.00	0.5	Brown	100m drum
PVC30BERL	3.00	0.5	Blue	100m drum
PVC40GN-YWRL	4.00	0.5	Green/Yellow	100m drum
PVC40BNRL	4.00	0.5	Brown	100m drum
PVC40BERL	4.00	0.5	Blue	100m drum

PVCB Sleeving

- Highly flexible PVCB tubing
- Exceptional value for money
- Wide range of uses in automotive and white goods manufacturing
- Ideally suited to cable and wire protection.

PVCB				
Reference			PVCB	
Material			PVC	
Min. Working Temperature			-65ºC	
Max. Working Temperature			105ºC	
Good Resistance To			Moisture, Oils, Acids & Fuels	
Material Specification			BS2848 Type 3 Class 105T	
Standard Colours			Black	
Reference	ID	Wall Thickness	Colours	Coil Length
PVCB10BK	1.0	0.5	Black	100m
PVCB15BK	1.5	0.5	Black	100m
PVCB20BK	2.0	0.5	Black	100m
PVCB25BK	2.5	0.5	Black	100m
PVCB30BK	3.0	0.5	Black	100m
PVCB40BK	4.0	0.5	Black	100m
PVCB50BK	5.0	0.5	Black	100m
PVCB60BK	6.0	0.5	Black	100m
PVCB70BK	7.0	0.7	Black	100m
PVCB80BK	8.0	0.7	Black	100m
PVCB90BK	9.0	0.7	Black	100m
PVCB100BK	10.0	0.7	Black	100m
PVCB120BK	12.0	0.9	Black	100m
PVCB130BK	13.0	0.9	Black	100m
PVCB150BK	15.0	0.9	Black	100m
PVCB200BK	20.0	0.9	Black	50m
PVCB250BK	25.0	0.9	Black	50m
All dimensions are in mm (nominal) and are subject to technical modification. Further colours available on request.				

HellermannTyton   www.hellermanntyton.co.uk
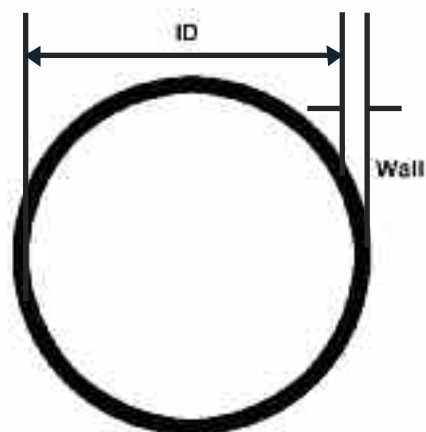
Hellerine

Hellerine M grade is a fungistatic lubricating oil designed to dry slowly so that the components stay lubricated longer, offering a wider scope for planning assembly procedures for cable looming work.

Hellerine M is ideal for lubricating most rubber and plastic cable markers. It can also be used as a wire and cable pulling lubricant.

Hellerine Data	
Operating Temperature	-10°C to +150°C, Flash Point +180°C
Specific Gravity	0.88 - 0.90
Redwood Viscosity	137.3 - 165.3
Relevant Standards	AFS. No 611A (DTD900/4877)

Hellerine	
Reference	Description
LUB-M-284ML	284 ml container x 4

Three Pronged Sleeve Expansion Applicator Tools
Features

The latest, simplest way of fitting elastomeric sleeves and markers. Four fixed prong model caters for all internal diameters from 1.2mm - 25.5mm. The D Kit contains everything you need to fit sleeves with internal diameters from 1.2mm - 11.5mm. The D Kit includes tool body, three sets of interchangeable prongs, 1 bottle Hellerine lubricant and a prong assembly locater.

Sleeve expansion applicator tools ensures easy application of elastomeric products NA 8/5 (left), D, SS, S, K (right).

Sleeve Expanders					
Reference	For Tubes From	For Tubes To	Max D	Max Sleeve Length	Pack Qty
D Kit	1.2	11.5	—	—	1
SFT3032	replacement body for D Kit			—	1
SFT3033	replacement prongs for D Kit 1.2 to 3.0			—	1
SFT3034	replacement prongs for D Kit 3.0 to 5.0			—	1
SFT3035	replacement prongs for D Kit 5.5 to 11.5			—	1
SS	1.20	2.00	15.00	20.0	1
S	2.50	4.00	15.00	20.0	1
K	5.00	10.00	17.00	32.0	1
NA 8/10	12.00	17.00	25.50	60.0	1

All dimensions are in mm and are subject to technical modification. Details are available upon request.
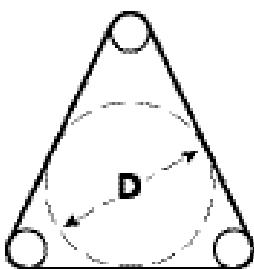
Three Pronged Tool

D = maximum available diameter

Ordering Example: SS

Sleeve expansion tool for tubes ranging between 1.2 to 2.0

Weldy Plus

- Intelligent terminal display
- Stand-by for eco drive
- Memory function
- The last select functions (function program) are immediately available again after switching the tool off and then on again
- 7 function programmes

Weldy Plus							
Reference	Code	Voltage	Output	Temp Range	Airflow	Weight	Pack Qty
Weldy Plus	999-213	110V	2000W	+80ºC to +650ºC	-	620g	1
Weldy Plus	999-323	230V	2000W	+80ºC to +650ºC	-	620g	1

Weldy Pro

- Electronic temperature adjustment from 100ºC to 550ºC
- Air flow adjustment via two-step switch
- Compact and lightweight

Weldy Pro							
Reference	Code	Voltage	Output	Temp Range	Airflow	Weight	Pack Qty
Weldy Pro	999-212	110V	1800W	+100ºC to +550ºC	-	570g	1
Weldy Pro	999-322	230V	1800W	+100ºC to +550ºC	-	570g	1

Weldy Pic

- Standard two step heat gun
- Two temperature and airflow settings
- Light weight and ergonomic design
- Available in 230V with a UK plug
- Full range of accessories available below

Weldy Pic							
Reference	Code	Voltage	Output	Temp Range	Airflow	Weight	Pack Qty
Weldy Pic	999-321	230V	1600W	+350ºC to +500ºC	350/500 l/min	500g	1

Weldy Accessories			
Reference	No.	Description	Pack Qty
990-805	1	Welding Nozzle	1
990-804	2	Reflector Nozzle	1
990-801	3	Glass Protection Nozzle	1
990-802	4	Wide-Slot Nozzle	1
990-803	5	Reduction Nozzle Ø 20mm	1
990-806	6	Overlap Welding Nozzle	1
990-807	7	Pressure Roller	1
990-808	8	Solder Sleeve Reflector	1

E4500 Hot Air Tool

The E4500 hot air gun is suitable for shrinking all types of heat shrink products including tubing, shapes and cable repair sleeves. It can also be used for the bending and shaping of PVC pipes, soft soldering of copper pipes, sealing, defrosting, heating and paint stripping.

- Cordless gas heating gun
- Weighs 760g
- Automatic piezo ignition
- Valve controlled temperature setting
- P445 cartridge available
- Can be operated on its stand for hands free use
- Cartridge has a continuous burn time of approx 1.5 hours
- Ideal for restricted spaces

E4500 Hot Air Tool		
Reference	Description	
E4500	Gas Heat Gun with protective spring incl. gas cartridge, reflector nozzle Z2 and flat nozzle Z3.	1
P445	Refill gas cartridge	1
Z2	Deflector Nozzle	1
Z3	Reduction Nozzle	1

HEATSHRINK HIS-3 BAG 3:1
Shrink Ratio
Merchandisable Pack
(mixed colours)

Application:

- General purpose electrical installation
- Coloured identification
- Protection against mechanical abrasion and corrosion

Features & Benefits

3:1 shrink ratio and handy 250mm length allows
for both individual and large bundled wires to be
sleeved quickly and easily. HIS-3-BAG comes in five
colours: black, brown, grey, blue and green and
yellow and in three sizes from 6mm to 40mm
thus reducing the size of inventory required by
half compared to a standard 2:1 product. This
makes the HIS-3-BAG the ideal product to carry in
a toolbox. Minimising space and maximising uses!

	Supplied Id	Recovered Id
Kit Ref. HIS-3-Bag 6/2	6.0	2.0
Kit Ref. HIS-3-Bag 12/4	12.4	4.0
Kit Ref. HIS-3-Bag 40/13	40.0	13.0

Colours Supplied - BK, BN, GY, BE, GNYE

LVRK CABLE REPAIR KIT

The cable repair kit LVRK allows a quick and safe
repair of damaged cables and wires, post termination.

- For cables 1.5mm² x 2.5mm²
- Fast, safe, durable and labor-saving repair of cables and wires
- No set of recessed conduit boxes or inserting lines necessary,
  therefore, cost-saving
- Packaging in the set for a simple and easy handling

Contents:

1 x adhesive lined shrink tube 200mm long
1 x shrink tube with adhesive
4:1 shrink ratio
5 x butt connectors with heat shrink insulation materials and adhesives
4 x Heat stabilized Q-tie cable ties, innovative and time-saving thanks
to an open tie head

Reference	Description	Qty
LVRK	Cable Repair Kit	1

HIS-3-BAG (Colours)

Heat Shrinkable Tubing 3:1 in
blister bags
• HIS-3 BAG

Features and Benefits
Handy small packaging with 10 pre-cutted
pieces of 200mm. Thin walled and flexible
tubing made of cross-linked Polyolefin with
shrink ratio of 3:1

Application
HIS-3 BAG tubings are useable for insulation
and protection of cables and harnesses.

HIS-3 BAG available in seven colours and four sizes.

Material Data	
Type	**HIS-3 BAG**
Material	**Polyolefin, cross-linked (POX)**
Shrink Ratio	**3:1**
Longitudinal change after	**-5% max.**
Min. Shrink Temperature	**+100 °C**
Operating Temperature	**-55 °C to +135 °C**
Insulation Class	**B (VDE 0530)**
Dielectric Strength	**20 kV/mm according to ASTM D**
Flammability	**UL224 VW-1 (except clear)**

Technical Table

Article-No.	Type	Supplied Ø D min.	Recov. Ø D max.	Wall (WT) nom.	Pack Cont.	Colour
308-30151	**HIS-3-BAG-1.5/0.5**	1.5	0.5	0.45	10 x 200	Black (BK)
308-30160	**HIS-3-BAG-1.5/0.5**	1.5	0.5	0.45	10 x 200	Red (RD)
308-30161	**HIS-3-BAG-1.5/0.5**	1.5	0.5	0.45	10 x 200	Blue (BU)
308-30162	**HIS-3-BAG-1.5/0.5**	1.5	0.5	0.45	10 x 200	Grey (GY)
308-30163	**HIS-3-BAG-1.5/0.5**	1.5	0.5	0.45	10 x 200	Brown (BN)
308-30164	**HIS-3-BAG-1.5/0.5**	1.5	0.5	0.45	10 x 200	Transparent (CL)
308-30165	**HIS-3-BAG-1.5/0.5**	1.5	0.5	0.45	10 x 200	Green-Yellow (GNYE)
308-30310	**HIS-3-BAG-3/1**	3.0	1.0	0.55	10 x 200	Black (BK)
308-30311	**HIS-3-BAG-3/1**	3.0	1.0	0.55	10 x 200	Red (RD)
308-30312	**HIS-3-BAG-3/1**	3.0	1.0	0.55	10 x 200	Blue (BU)
308-30313	**HIS-3-BAG-3/1**	3.0	1.0	0.55	10 x 200	Grey (GY)
308-30314	**HIS-3-BAG-3/1**	3.0	1.0	0.55	10 x 200	Brown (BN)
308-30315	**HIS-3-BAG-3/1**	3.0	1.0	0.55	10 x 200	Transparent (CL)
308-30316	**HIS-3-BAG-3/1**	3.0	1.0	0.55	10 x 200	Green-Yellow (GNYE)
308-30610	**HIS-3-BAG-6/2**	6.0	2.0	0.65	10 x 200	Black (BK)
308-30611	**HIS-3-BAG-6/2**	6.0	2.0	0.65	10 x 200	Red (RD)
308-30612	**HIS-3-BAG-6/2**	6.0	2.0	0.65	10 x 200	Blue (BU)
308-30613	**HIS-3-BAG-6/2**	6.0	2.0	0.65	10 x 200	Grey (GY)
308-30614	**HIS-3-BAG-6/2**	6.0	2.0	0.65	10 x 200	Brown (BN)
308-30615	**HIS-3-BAG-6/2**	6.0	2.0	0.65	10 x 200	Transparent (CL)
308-31210	**HIS-3-BAG-12/4**	12.0	4.0	0.80	10 x 200	Black (BK)
308-31211	**HIS-3-BAG-12/4**	12.0	4.0	0.80	10 x 200	Red (RD)
308-31212	**HIS-3-BAG-12/4**	12.0	4.0	0.80	10 x 200	Blue (BU)
308-31213	**HIS-3-BAG-12/4**	12.0	4.0	0.80	10 x 200	Grey (GY)
308-31214	**HIS-3-BAG-12/4**	12.0	4.0	0.80	10 x 200	Brown (BN)
308-31215	**HIS-3-BAG-12/4**	12.0	4.0	0.80	10 x 200	Transparent (CL)

All dimensions in mm. Subject to technical changes.

HFT-A Polyolefin Heatshrink

- Crossed linked semi-flexible polyolefin heatshrink sleeving
- Shrinks uniformly to form a permanent insulation covering
- Ideal for use as an insulation over cable joints or terminations
- Also frequently used for cable bundling in harness work
- Recovers and conforms to the shape of the substrate
- Transparent HFT-B is also available for the use where the substrate has to be visible
- Please note HFT-B transparent is Halogen free

Heatshrink Tubing (HFT-A)	
Material	Polyolefin
Shrink Ratio	2:1 & 3:1
Min. Working Temperature	-55ºC
Max. Working Temperature	135ºC
Intermittent Temperature	225ºC
Min Shrink Temperature	100ºC
Flame Retardency UL94	V2
Dielectric Strength	25kV/mm
Fluid Resistance	Good
Good Resistance To	Acids, Alkalis, Fluids & Oil
Material Specification	Def Stan 59-97/3, Type 2a and 2b
Standard Colour	Black (BK). Other colours available BE, RD, YW, WE, TT subject to MOQ prices on application

Reference	Supplied ID	Recovered ID	Nominal Recovered	Colour Wall	Coil
HFT-A-2:1 Shrink Ratio					
HFT-A16	1.6	0.8	0.41	Black	100m
HFT-A24	2.4	1.2	0.41	Black	100m
HFT-A32	3.2	1.6	0.53	Black	100m
HFT-A48	4.8	2.4	0.53	Black	75m
HFT-A64	6.4	3.2	0.53	Black	75m
HFT-A95	9.5	4.8	0.67	Black	50m
HFT-A127	12.7	6.4	0.67	Black	50m
HFT-A190	19.0	9.5	0.82	Black	25m
HFT-A254	25.4	12.7	1.13	Black	25m
HFT-A381	38.1	19.0	1.02	Black	50m
HFT-A508	50.8	25.4	1.14	Black	35m
HFT-A762	76.2	38.1	1.27	Black	25m
HFT-A1016	101.6	50.8	1.40	Black	25m

All dimensions are in mm (nominal) and are subject to technical modification.Standard colour - black. Colours available on request.

ShrinKit 321

ShrinKit 321 is a family of three heat shrink tubing assortments in attractive and handy assembly kits. The range consists of ShrinKit 321 Basic, ShrinKit 321 Universal and ShrinKit 321-A (a dual wall tubing). With their ideal shrink ratio of 3:1 these products replace many differently sized tubing solutions by fitting almost any heat shrink requirements. Each compartment is identified and contains set lengths.

Shrinkit 321 Basic
Each kit contains 1.5-0.5, 3-1, 6-2, 12-4 diameters in BK

Shrinkit 321 Universal
Each kit contains 1.5-0.5, 3-1, 6-2, 12-4, 24-8 diameters in BK, BU, RD, CL and GNYE

Shrinkit 321-A
Each kit contains 3-1, 6-2, 12-4, 24-8 diameters in BK and CL

The right tubing size at hand for any application. ShrinKit 321 Universal, ShrinKit 321-A and ShrinKit 321 Basic.

HIS 3

HIS 3, unlined tubing with 3:1 shrink ratio, is ideal for highly variable substrate dimensions. Only five sizes are needed to cover the same range of diameters from 1mm to 20mm compared with the ten needed with a 2:1 shrink ratio, reducing your inventory by half.
To augment the HIS-3 range, 9mm-3mm and 18mm-6mm tubing are also available.

HIS-3	
Material	E-beam Crosslinked Polyolefin
Shrink ratio	3:1
Long. change after shrinkage	-10% max.
Min. shrink temperature	+110 °C
Cont. operating temperature	-55 °C to +125 °C
Dielectrical Strength	25kV/mm, ASTM D 876
Flammability	self-extinguishing, ASTM 2671

HIS-3 can fit highly variable substrate dimensions.

HIS-Service Station

This sturdy Service Station contains up to 5 dispensers. It can be put on a bench or mounted to a wall. A special cutter is included making it easy to cut the tubing length as desired.

HIS - Service Station		
Reference	Type	Pack Qty
365-30100	HIS Service Station with Cutter Contains 5 HIS-3 dispenser boxes (black). Sizes are as follows: HIS 3-1, HIS-6-2, HIS 12-4 (2 packs.), HIS 24-8	1
300-30000	HIS Service Station with Cutter. Frame supplied separately, without any dispenser cartons. Special order only.	1

Order example

```
308-3060 X
```
Colour code

Replace the X with the code number of the desired colour. For instance, if you were to order the HIS-3-6-2 in red the complete order number would be 308-30602.

Colour-Coding	
Colour	Colour digit
Black (BK)	0
Red (RD)	2
Blue (BE)	6
Transparent (TT)	3
Green/Yellow* (GN/YW)	7

*can be supplied from 3 - 1 upwards

HIS-Service Station contains 5 dispensers and a special cutter.

Dispenser Boxes					
Reference	Type	Inside Diameter in mm		Wall thickness in mm	Length in m
		min. expanded as supplied	max. recovered after heating	fully recovered nominal	
308-3015X	HIS-3 1.5–0.5 (Colour)	1.5	0.5	0.50	10
308-3030X	HIS-3 3-1 (Colour)	3.0	1.0	0.60	10
308-3060X	HIS-3 6-2 (Colour)	6.0	2.0	0.70	5
308-3090X	HIS3 9-3 (Colour)	9.0	3.0	0.80	5
308-3120X	HIS3 12-4 (Colour)	12.0	4.0	0.85	5
308-3180X	HIS3 18-6 (Colour)	18.0	6.0	1.00	4
308-3240X	HIS3 24-8 (Colour)	24.0	8.0	1.20	3

All dimensions in mm. Subject to technical changes.
Black available from stock, other colours available on request

An adhesive lined tubing with a 3:1 shrink ratio (ref. HIS-A) is also available in black.

TCN20

Features and Benefits

TNC20 is a general purpose, flame retardant polyolefin tubing with good resistance to common fluids and solvents. This flexible, 2:1 shrink ratio tubing has an excellent physical and electrical performance. The low shrink temperature and good mechanical strength means this tubing is widely used in the electrical, electronics and automotive industries.

Application

TCN20 is suitable for a wide range of applications such as electrical insulation, mechanical protection and cable bundling.

Material Data	
Material	Polyolefin, cross-linked (POX)
Colour	Black (BK)
Shrink Ratio	2:1
Longitudinal change after	+/-5%
Minimum Shrink	+100°C
Operating Temperature	-55°C to +125°C
Dielectric Strength	20kV/mm according to ASTM
Flammability	Self extinguishing
Specification	UL224 125°C 600V VW-1

TCN20					
Article-No	Type	Supplied øD	Recov. ø d	Wall (WT) nom.	Reel Length (m)
300-73010	TCN20-1.2/0.6	1.2	0.6	0.30	300
300-73020	TCN20-1.6/0.8	1.6	0.8	0.35	300
300-73030	TCN20-2.4/1.2	2.4	1.2	0.45	300
300-73040	TCN20-3.2/1.6	3.2	1.6	0.45	300
300-73050	TCN20-4.8/2.4	4.8	2.4	0.50	300
300-73060	TCN20-6.4/3.2	6.4	3.2	0.55	300
300-73070	TCN20-9.5/4.8	9.5	4.8	0.55	100
300-73080	TCN20-12.7/6.4	12.7	6.4	0.65	100
300-73090	TCN20 19,1/9,5	19.1	9.5	0.80	60
300-73100	TCN20 25,4/12,7	25.4	12.7	0.90	60
300-73110	TCN20 38,1/19,1	38.1	19.1	1.02	30
300-73120	TCN20-50.8/25.4	50.8	25.4	1.15	30
All dimensions in mm. Subject to tecnical changes					

LVR (HST) Heatshrink Tubing

PVC heatshrink tubing with 2:1 shrink ratio.
Supplied polythene wrapped for ease of use.

LVR Heatshrink Tubing	
Operating Temperature	-20°C to +105°C
Shrink Temperature	135°C
Shrink Ratio	2:1
Dielectric Strength	15 kV/mm
Longitudinal Shrink Ratio	10% max

LVR Heatshrink Tubing				
Reference (BK,RD,YW,BE)	Supplied ID	Recovered ID	Recovered Wall mm (nom)	Coil Length
LVR24	2.4	1.2	0.45	100m
LVR32	3.2	1.6	0.45	100m
LVR48	4.8	2.4	0.50	100m
LVR64	6.4	3.2	0.60	100m
LVR95	9.5	4.8	0.60	50m
LVR127	12.7	6.4	0.65	50m
LVR190	19.0	9.5	0.80	25m
LVR254	25.4	12.7	1.00	25m
LVR381	38.1	19.1	1.25	25m
Standard colour - black.				

HMT200A

- Hot melt adhesive tape
- Designed for use with heat-shrink sleevings and mouldings
- The tape flows when heated and provides permanent air and water tight seals
- Supplied in 50m rolls.

Hot Melt Adhesive Tape (HMT 200A)	
Min Working Temperature	-55ºC
Max Working Temperature	105ºC
Softening Point	110ºC
Peel Strength Halogen Content	XLPE/Metal 100N / 25mm XLPE/XLPE 210N / 25mm PVC/PVC 80N / 25mm
Standard Colours	Def Stan 59-97 Type W (w) Golden Brown

Reference	Description	
HMT200A	50m	

HEK Cable End Caps

Features and Benefits

End caps are used to seal cables during storage or transportation. HEK end caps can be used as an insulating cap for live LV cables (0.6/1kV), and the cap is marked with a lightning flash to indicate a live circuit. The adhesive lining provides an excellent environmental seal.

End caps can be fitted with air valves for certain pressurised cable applications. The high shrink ratio minmises the number of end cap sizes needed.

Application

End caps are suitable for use on both polymeric and paper insulated, lead jacketed cables which may include aluminium or steel armouring.

The appropriate end cap for every cable diameter, and cable type.

Material Data

Material	Polyolefin, Chemically cross-linked (POX)
Colour	Black (BK)
Shrink Ratio	up to 3:1
Minimum Shrink Temperature (Metric)	+135˚C
Operating Temperature	-55˚C to +70˚C
Dielectric Strength (Metric)	15 kV/mm
Flammability	ASTM D635
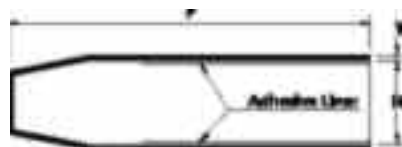
HEK

| Reference | Recomm. Application cable diameter | | H min a | H max b | Fully recovered | | Pack Qty |
	From	To			P ±10%	HW ±20%	
Standard Range Cable Cap							
1612-1-B8W	4.0	8.0	10.0	4.0	33.5	2.0	1
1613-1-B8W	8.0	16.0	20.0	7.5	55.3	2.3	1
1614-1-B8W2	16.0	32.0	40.0	15.0	90.0	3.0	1
1615-1-B8W2	26.0	51.0	63.0	25.0	143.0	3.3	1
1615-2-B8W2	26.0	44.0	55.0	25.0	143.0	3.3	1
1617-1-B8W2	32.0	61.0	76.0	30.0	158.0	4.0	1
1616-1-B8W2	48.0	80.0	100.0	45.0	162.0	4.0	1

All dimensions in mm. Subject to technical changes
a) As supplied
b) Recovered

Helagaine Braided Sleeving

- Helagaine is a range of expandable braided sleeving
- Offers a simple method of protecting cables, hoses and wire bundles
- Lightweight woven sleeving, available in three materials
- Covers a wide range of cable diameters
- Helagaine can also be used for cosmetic purposes making very neat and aesthetically pleasing wire looms
- Use HSG0 hot cutting tool to prevent fraying

Polyester Braided Sleeving

Name	Helagaine
Material	Polyester
Min Working Temperature	-50ºC
Max. Working Temperature	150ºC
Intermittent Temperature	220ºC
Flammability	V2
Halogen Content	Halogen Free
Standard Colours	Black (BK) or Grey (GY)

Polyester VO Braided Sleeving

Name	Helagaine
Material	Polyester V0
Min Working Temperature	-50ºC
Max. Working Temperature	150ºC
Intermittent Temperature	220ºC
Flammability	V0
Standard Colours	Grey with Black Thread

PA66 Braided Sleeving

Name	Helagaine
Material	PA66
Min Working Temperature	-60ºC
Max. Working Temperature	160ºC
Intermittent Temperature	200ºC
Flammability	V2
Halogen Content	Halogen Free
Standard Colours	Grey (GY)

Polyester Braided Sleeving

Reference	Min ID	Max ID	Coil Length
HEGP05(BK) / HEGP05(GY)	3.0	9.0	100m
HEGP10(BK) / HEGP10(GY)	7.0	15.0	100m
HEGP15(BK) / HEGP15(GY)	10.0	20.0	100m
HEGP20(BK) / HEGP20(GY)	14.0	26.0	50m
HEGP25(BK) / HEGP25(GY)	18.0	34.0	50m
HEGP30(BK) / HEGP30(GY)	20.0	40.0	50m

All dimensions are in mm (nominal) and are subject to technical modification.Note: Short coils available to special order.

Polyester VO Braided Sleeving

Reference	Min ID	Max ID	Colours	Coil Length
HEGPV002	2.0	3.0	Grey (GY)	100m
HEGPV003	2.0	5.0	Grey (GY)	100m
HEGPV004	3.0	7.0	Grey (GY)	100m
HEGPV005	4.0	9.0	Grey (GY)	100m
HEGPV006	5.0	11.0	Grey (GY)	100m
HEGPV008	7.0	13.0	Grey (GY)	100m
HEGPV0010	9.0	15.0	Grey (GY)	50m
HEGPV0012	11.0	17.0	Grey (GY)	50m
HEGPV0015	13.0	20.0	Grey (GY)	50m
HEGPV0020	18.0	25.0	Grey (GY)	50m
HEGPV0025	22.0	30.0	Grey (GY)	50m
HEGPV0030	27.0	40.0	Grey (GY)	50m
HEGPV0040	35.0	50.0	Grey (GY)	50m
HEGPV0050	45.0	60.0	Grey (GY)	50m

All dimensions are in mm (nominal) and are subject to technical modification.

PA66 Braided Sleeving

Reference	Min ID	Max ID	Colours	Coil Length
HEGPA6603-(6TS3)	2.0	4.0	Grey (GY)	200m
HEGPA6604-(6TS5)	3.0	6.0	Grey (GY)	200m
HEGPA6605-(6TS6)	4.0	8.0	Grey (GY)	200m
HEGPA6608-(6TS8)	5.0	10.0	Grey (GY)	100m
HEGPA6610-(6TS10)	7.0	12.0	Grey (GY)	100m
HEGPA661-(6TS12)	8.0	14.0	Grey (GY)	100m
HEGPA6614-(6TS14)	10.0	16.0	Grey (GY)	100m
HEGPA6616-(6TS16)	12.0	18.0	Grey (GY)	50m
HEGPA6620-(6TS20)	15.0	23.0	Grey (GY)	50m
HEGPA6625-(6TS25)	18.0	28.0	Grey (GY)	50m
HEGPA6630-(6TS30)	25.0	32.0	Grey (GY)	50m
HEGPA6640-(6TS40)	30.0	44.0	Grey (GY)	50m
HEGPA6650-(6TS50)	40.0	55.0	Grey (GY)	50m

All dimensions are in mm (nominal) and are subject to technical modification.
Colour options - NN - Standard colour grey. Black available on request.

Helagaine HLB

Features and Benefits
Helagine HLB polyester braided sleeving has an expansion ratio of 3:1. With diameters running from 5mm to 54mm, just 3 sizes of the versatile Helagaine HLB covers a very wide range of applications. Large differences in diameter, for instance due to cable jacks and connectors, are easy to handle.

The sleeves are supplied in practical 10m reels in dispenser boxes. The boxes protect the sleeves and can be efficiently stocked. The dispenser opening also guarantees easy extraction of the sleeves.

Application
Because Helagaine HLB is supplied in practical dispenser boxes and covers a wide range of applications with only a few sizes, it is ideal for both the professional and the home user. Helagaine HLB bundles and effectively protects cables and wires, for instance in HiFi systems and in industrial plants. Helagaine HLB also provides good resistance to abrasion.

Application Method
The fraying of the sleeving can be prevented with the HSG0 hot cutting tool. You can find more information on the HSG0 hot cutting tool on page 82.

Helagaine HLB: The expansion rate makes it possible. Only three sizes in a handy dispenser box for almost all standard diameters.
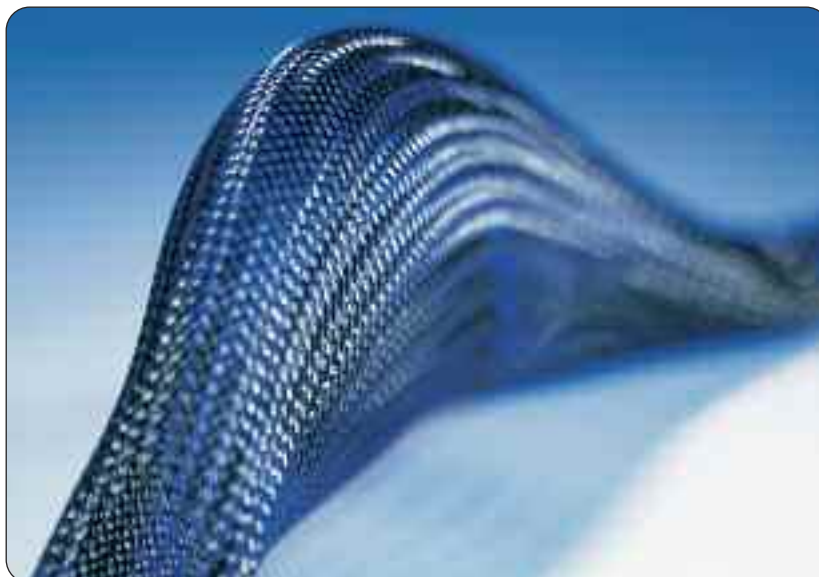
Helagaine HLB covers a wide range of applications with only three sizes.

HLB Reference	ø D	Bundle ø min.	Bundle ø max.	Reel Length
HLB15	15.0	5.0	21.0	10m
HLB25	25.0	10.0	30.0	10m
HLB35	35.0	18.0	54.0	10m

All dimensions in mm. Subject to technical changes.

Material Data HLB

Material	Polyester (PET
Colour	Black (BK)
Operating Temperature	-50˚C to +150˚C
	Intermittent +200˚C
Melting Point (Metric)	+250˚C
Oxygen Index	34% (NFG 07-128)

Glass Braided Sleeving

- Highly flexible glass fibre braided sleeving impregnated with silicone rubber
- Temperature range -60˚C to +250˚C
- Continuous (peak of +450˚C)
- Breakdown voltage: 0.8kV
- Colour: White. Supplied in 25m coils

PA66 Braided Sleeving	
Name	Helaglass GSS
Material	Glass fibre
Min Working Temperature	-60ºC
Max. Working Temperature	+250ºC
Intermittent Temperature	+450ºC
Flammability	Self-extinguishing
Standard Colours	White

Glass Braided Sleeving		
Reference	Bore Dia (mm)	Coil
GSS1	1.0	25m
GSS1.5	1.5	25m
GSS2	2.0	25m
GSS2.5	2.5	25m
GSS3	3.0	25m
GSS4	4.0	25m
GSS5	5.0	25m
GSS6	6.0	25m
GSS7	7.0	25m
GSS8	8.0	25m
GSS10	10.0	25m
12mm, 14mm, 16mm & 18mm diameter sleeving available to special order.		

Braided sleeve hot cutting tool - HSG0

The HSG0 hot cutting tool is a light, robust, hand-held device to cut synthetic fabrics such as braided sleeving. It heats up quickly with the press of a button and cuts the sleeving cleanly in a matter of seconds. The individual strands melt and fuse together preventing the sleeve from fraying.

HSG0		
Reference	Weight (Kg)	Colour
HSG0	1.0	Blue (BU)

Subject to technical changes.

The HSG0 hot cutting tool prevents the braided sleeving from fraying.

Helawrap

- Helawrap is a complete system consisting of a slit cable cover and a thermoplastic applicator tool
- Available in 2 materials
- Allows easy access to the cable at any point
- Applicator tool ensures quick and easy installation
- Build costs can be significantly reduced due to its innovative design
- Can be used to wrap and cover wires, cables or hoses
- Can be removed and reapplied easily
- Available in 2 & 25 metre pack size with tool
- HWVO is zero halogen and flame retarded

Helawrap HWVO	
Reference	HWV0
Name	Helawrap
Material	Flame Retarded PA6
Min. Working Temperature	-40ºC
Max. Working Temperature	90ºC
Intermittent Temperature	120ºC
Flammability	UL94V0
Standard Colours	Black (BK)

Applicator Tools		
Reference	Colour	Pack
HAT8	Blue	10
HAT16	Blue	10
HAT20	Blue	10
HAT25	Blue	10
HAT30	Blue	10

HWPA-V0						
Reference	ID Min	ID Max	Wall Thickness	Colour	Applicator Tool	Pack Length
HWPA-VO8	6.0	9.0	0.90	Black (BK)	HAT8	25m
HWPA-VO16	14.0	16.0	0.90	Black (BK)	HAT16	25m
HWPA-VO20	17.0	20.0	0.90	Black (BK)	HAT20	25m
HWPA-VO25	21.0	25.0	0.90	Black (BK)	HAT25	25m
HWPA-VO30	25.0	30.0	0.95	Black (BK)	HAT30	25m

Helawrap HWPP	
Reference	HWPP
Name	Helawrap
Material	Polypropylene
Min. Working Temperature	-60ºC
Max. Working Temperature	110ºC
Intermittent Temperature	140ºC
Standard Colours	Black (BK) or Grey (GY)

HWPP						
Reference	ID Min	ID Max	Wall Thickness	Colour	Applicator Tool	Pack Length
HWEPP8	6.0	9.0	0.90	Grey,Black,Silver,White	HAT8	25Metres
HWEPP16	14.0	16.0	0.90	Grey,Black,Silver,White	HAT16	25Metres
HWEPP20	17.0	21.0	0.90	Grey,Black,Silver,White	HAT20	25Metres
HWEPP25	21.0	28.0	0.90	Grey,Black,Silver,White	HAT25	25Metres
HWEPP30	25.0	30.0	0.95	Grey,Black,Silver,White	HAT30	25Metres
HWEPP16/2	14.0	16.0	0.90	Grey, Black, Silver	HAT16	2Metres
HWEPP25/2	21.0	25.0	0.90	Grey, Black, Silver	HAT25	2Metres

Silver/White on request. Nylon material and other pack variations available on request.

Insert one or more cables into the applicator tools

Place the applicator into one end of the Helawrap

Simply slide the tool through the Helawrap Cover

Hellermann Tyton   www.hellermanntyton.co.uk

Spiral Binding SBPE, SBPEFR, LFPS

Features and Benefits

Spiral binding is used for organising and protecting cables and hoses. Due to the spiral structure, spiral binding can be applied to cables or hoses in situ.

Cables can branch out at any point and in any direction.

HellermannTyton spiral binding is available in a wide range of diameters, colours and materials:

• Standard polyethylene SBPE for general applications

• Flame-retardant polyethylene SBPEFR for enhanced flame protection

• LFPS polyolefin for zero halogen, low smoke and toxicity applications.

Application

Spiral binding is used to route and bind cables that need high mechanical protection, for instance in the automotive industry as well as in control panels and cabinets. It is also used in electrical installation, where safety is a primary consideration. Spiral binding provides a tidy solution for may applications.
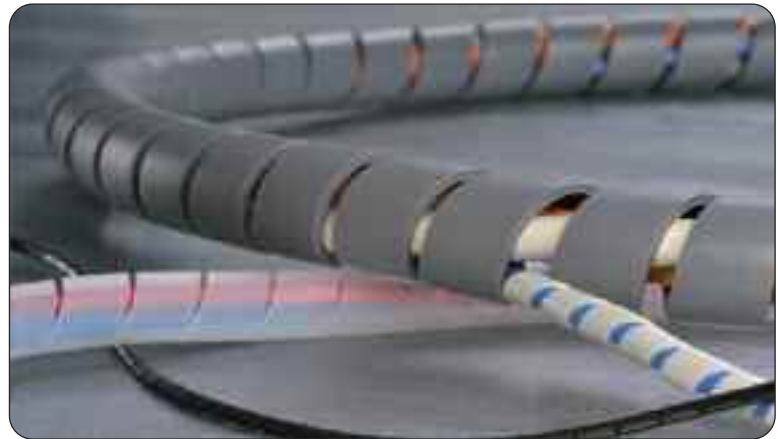
SBPE/NFP

Material	Polyethylene (PE)
Operating Temperature	-60ºC to +90ºC, intermittent +120ºC
Flammability	UL94 HB

SBPEFR/FRP

Material	Polyethylene (PEFR), flame retardant
Operating Temperature	-60ºC to +80ºC, intermittent +120ºC
Flammability	UL94 V2, FMVSS 302 Type B

LFPS

Material	Polyolefin (PO)
Operating Temperature	-40ºC to +90ºC, intermittent 120ºC
Flammability	UL94 V0 @ 3mm thickness

Technical Table

Article-No.	Type	O D (WT)	Wall (P)	Pitch Ø min.	Bundle Ø max.	Bundle	Material cont.	Colour	Pack
SBPE, 5 m – Packs									
	SBPE4D	4.0	1.0	7.8	5.0	20.0	PE	Black, office grey, natural	5m
	SBPE9D	9.0	1.4	12.5	10.0	100.0	PE	Black, office grey, natural	5m
SBPE/NFP									
	SBPE1.5	1.5	0.8	6.0	1.6	8.0	PE	Black, office grey, natural	30m
	SBPE4	4.0	1.0	7.8	5.0	20.0	PE	Black, office grey, natural	30m
	SBPE9	9.0	1.4	12.5	10.0	100.0	PE	Black, office grey, natural	30m
	SBPE16	16.0	1.6	16.0	20.0	150.0	PE	Black, office grey, natural	30m
SBPEFR/FRP									
	SBPEFR1.5	1.5	0.8	6.0	1.6	8.0	PE-FR	Black and white	30m
	SBPEFR4	4.0	1.0	7.8	5.0	20.0	PE-FR	Black and white	30m
	SBPEFR9	9.0	1.4	12.5	10.0	100.0	PE-FR	Black and white	30m
	SBPEFR16	16.0	1.6	16.0	20.0	150.0	PE-FR	Black and white	30m
LFPS									
	1LFPSGY	4.0	1.0	7.8	5.0	20.0	PO	Grey	30m
	2LFPSGY	9.0	1.4	12.5	10.0	100.0	PO	Grey	30m
	3LFPSGY	16.0	1.6	16.0	20.0	150.0	PO	Grey	30m

SBPEMC METAL CONTENT SPIRAL BINDING

SBPEMC is a metal content spiral binding system with a metal content capable of being identified by x-ray as well as magnetic detection equipment on food processing lines.

Developed to the specification standards of the US Food Drug Administration (FDA), the SBPEMC is easily applied to pre-termination cables, encapsulating them in a protective jacket made from fully x-ray and magnetic detectable material.

The range consists of the following sizes: SBPEMC1.5, SBPEMC4, SBPEMC9 and SBPEMC16

Metal content spiral binding is a solution for bundling applications where the material needs to be detectable by its metal content, it is used for organising and protecting cables, cable jackets and hoses. Spiral binding is available in a range of diameters coloured blue.

• Unique to market
• Fully X-ray/magnetically detectable
• High visibility

Markets/Applications

Fully x-ray/magnetically detectable SBPEMC is aimed at the food and Pharmaceutical sector and associated industries such as bakeries, beverage, confectionary, dairy and meat and poultry. Machinery servicing, installation, packaging, processing and automation/robotics

Technical Table									
Article-No.	Type	O D (WT)	Wall (P)	Pitch Ø min.	Bundle Ø max.	Bundle	Material cont.	Colour	Pack
SBPEMC									
	SBPEMC1.5	1.5	0.8	6.0	1.6	8.0	PEMC	Blue	30m
	SBPEMC4	4.0	1.0	7.8	5.0	20.0	PEMC	Blue	30m
	SBPEMC9	9.0	1.4	12.5	10.0	100.0	PEMC	Blue	30m
	SBPEMC16	16.0	1.6	16.0	20.0	150.0	PEMC	Blue	30m

HWPPMC. Metal Content HELAWRAP

Features and Benefits

Metal Content Helawrap is a solution for bundling applications where the material needs to be Detectable by its metal content. It is used for organising and protecting cables and hoses.
Helawrap is available in a range of diameters coloured blue. HWPPMC provides protection against abrasion, it can be applied to cables or hoses in situ. The unique profile allows cables to be applied rapidly and effortlessly whilst retaining the ability to branch out at any point and in any direction .

Application

The HWPPMC is specifically designed for use in the food & pharmaceutical processing industries. Metal Content Helawrap is used to bundle and protect cables on and around machinery, enclosures,and other electrical equipment. Helawrap in 25m lengths is the time saving solution for industrial applications.

HWPPMC	
Material	PP MC
Continuous Operating Temperature	-60ºC to +110ºC
Intermittent Temp	+140ºC
Metal Content	ca 14%
Colour	Blue
Test Method	IEC 216

Article-No.	Wall	Bundle Max	Material	Colour	Pack
HWPPMC8	0.75	9	PPMC	Blue	25m
HWPPMC16	0.80	16	PPMC	Blue	25m
HWPPMC20	0.95	21	PPMC	Blue	25m
HWPPMC25	1.05	27	PPMC	Blue	25m
HWPPMC30	1.3	32	PPMC	Blue	25m

Helaguard Flexible Conduits and Fittings

HelaGuard

[HelaGuard, Non Metallic Conduit with Fittings]
• Inner Ø D: 6.3mm - 56.5mm
• Operating temperature range: -50°C to + 120°C
• Fulfils up to IP69K with fittings
• Range of materials and weights to suit many applications

HelaGuard
Non-Metallic Conduits

HelaGuard
PA6 Standard

HelaGuard
PA6 Flame Retardant

For the full range of Helaguard Flexible Conduits and Fixings call customer services on 01922 458151 to request a copy.

HelaGuard SC

SC

Galvanised Steel Conduit
• Inner Ø D: 6,8mm – 70mm
• Operating temperature: -50°C to + 300°C
• IP40 with fitting

HelaGuard PCS
PCS/ NCS/ LFHCS

PCS:

Galvanised Steel Conduit, PVC coating
• Inner Ø D: 6,8mm – 70mm
• Operating temperature: -15°C to + 70°C
• max. IP65 with fitting

HelaGuard LTS

LTS

Galvanised Steel Conduit, Smooth PVC Cover
• Inner Ø D: 7mm – 51,6mm
• Operating temperature: 20°C to +105°C
• max. IP68 with fitting

HellermannTyton   www.hellermanntyton.co.uk

HelaGuard Handipacks

- A range of Handipacks aimed at the contractor
- All packs have 10mts of conduit and 10 standard fittings
- Available in three types to cover most applications
- Two popular sizes of conduit for each type, to suit M20 and M25 fittings

Polypropylene - HG-PP

- Suitable for general purpose installations
- IP40 fittings
- Halogen free and good resistance to oils and greases

Handipacks	
Order Code	Product Description
L0174	HG-PP21 Conduit x 10MTS & 10 x M20 Fittings
L0175	HG-PP26 Conduit x 10MTS & 10 x M25 Fittings

HG-SW PA6 Standard Weight

Please note! Not all products listed on this Standard weight corrugated flexible conduit for industrial applications.

Features and Benefits

• Highly flexible and high fatigue life

• Abrasion resistant

• High impact strength, recovers if crushed

• Highly resistant to solvents and oils

• Free of halogen, sulphur and phosphorus

• Low smoke and low toxicity

• Colour: black (UV resistant); grey

(RAL 7031) on request

Application

Machine building, plant construction, control

panels, public buildings.

HelaGuard PA6 Standard for industrial applications.

Material Data	
Material	**Polyamide 6 (PA6)**
Operating Temperature	**-40 °C to +120 °C**
Operating Temperature Moving	**-20 °C to +100 °C**
Flammability	**UL94 V2**

Technical Table								
Article-No.	Type	Nomin Ø	Outside Ø	Inside Ø	Bending Radius	Weight	Reel Length (m)	Colour
166-11100	**HG-SW10**	10	10.0	6.3	15	19	50	Black (BK)
166-11101	**HG-SW11**	11	11.5	8.2	20	22	50	Black (BK)
166-11102	**HG-SW13**	13	13.0	9.8	25	28	50	Black (BK)
166-11103	**HG-SW16**	16	15.8	11.8	35	38	50	Black (BK)
166-11104	**HG-SW21**	21	21.2	16.7	45	60	50	Black (BK)
166-11112	**HG-SW28**	28	28.5	22.8	50	100	50	Black (BK)
166-11118	**HG-SW34**	34	34.5	28.1	60	135	50	Black (BK)
166-11113	**HG-SW42**	42	42.5	35.5	70	165	25	Black (BK)
166-11114	**HG-SW54**	54	54.5	47.2	80	235	25	Black (BK)
166-11109	**HG-SW67**	67	67.2	56.3	130	365	10	Black (BK)

All dimensions in mm. Subject to technical changes.

Colour grey available on request.

Other reel lengths available on request.

• **HG-SW PA6 Standard Weight**

Helaguard Light PA6

Light weight corrugated flexible conduit.

Features and Benefits

• Highly flexible and high fatigue life

• Light weight

• Small bending radius

• High impact strength, recovers if crushed

• Highly resistant to solvents and oils

• Free of halogen, sulphur and phosphorus

• Low smoke and low toxicity

• Colour: black (UV resistant); grey

(RAL 7031) on request

Application

Machine building, plant construction, control panels and public buildings, wherever lower mechanical protection is required.

HG-LW PA6 Light Weight is very flexibel and used in moving applications.

Material Data	
Material	**Polyamide 6 (PA6)**
Operating Temperature	**-40 °C to +120 °C**
Operating Temperature Moving	**-20 °C to +100 °C**
Flammability	**self-extinguishing according to EN IEC**

Technical Table								
Article-No.	Type	Nomin Ø	Outside Ø	Inside Ø	Bending Radius	Weight	Reel Length (m)	Colour
166-11200	**HG-LW10**	10	10.0	6.5	15	18	50	Black (BK)
166-11201	**HG-LW11**	11	11.5	8.4	20	22	50	Black (BK)
166-11202	**HG-LW13**	13	13.0	10.0	25	24	50	Black (BK)
166-11203	**HG-LW16**	16	15.8	12.0	35	36	50	Black (BK)
166-11204	**HG-LW21**	21	21.2	16.9	40	56	50	Black (BK)
166-11205	**HG-LW28**	28	28.5	23.0	45	90	50	Black (BK)
166-11206	**HG-LW34**	34	34.5	28.3	55	110	50	Black (BK)
166-11207	**HG-LW42**	42	42.5	35.7	65	150	25	Black (BK)
166-11208	**HG-LW54**	54	54.5	47.4	80	200	25	Black (BK)
166-11209	**HG-LW67**	67	67.2	56.5	110	310	10	Black (BK)

All dimensions in mm. Subject to technical changes.

Colour grey available on request.

Other reel lengths available on request.

• **HG-LW PA6 Light Weight**

Non Metalic Conduits

• HG-PP PP Standard Weight

The standard conduit made from
Polypropylene

Features and Benefits

• resistant to acids and alkalis

• self-extinguishing

Application

Machine building, electrical installations,
buildings, particularly when buried in concrete
or plaster.

*HelaGuard PP Standard is typically used in electrical installations and buildings,
particularly when buried in concrete or plaster.*

Material Data	
Material	**Polypropylene (PP)**
Operating Temperature	**-20 °C to +90 °C**
Flammability	**Self-extinguishing according to EN IEC 61386**

Technical Table								
Article-No.	Type	Nominal Ø	Outside Ø	Inside Ø	Bending Radius	Weight	Reel Length (m)	Colour
166-11900	**HG-PP10**	10	10.0	6.3	15	16	50	Black (BK)
166-11901	**HG-PP13**	13	13.0	9.8	25	20	50	Black (BK)
166-11902	**HG-PP16**	16	15.8	11.8	35	30	50	Black (BK)
166-11903	**HG-PP20**	20	20.0	14.8	40	45	50	Black (BK)
166-11904	**HG-PP21**	21	21.2	16.7	40	50	50	Black (BK)
166-11905	**HG-PP25**	25	25.0	19.1	50	60	50	Black (BK)
166-11906	**HG-PP26**	26	25.4	21.4	50	52	50	Black (BK)
166-11907	**HG-PP28**	28	28.5	22.8	55	65	50	Black (BK)
166-11908	**HG-PP34**	34	34.5	28.1	65	90	25	Black (BK)
166-11909	**HG-PP42**	42	42.5	35.5	80	120	25	Black (BK)
166-11910	**HG-PP54**	54	54.5	47.2	100	150	25	Black (BK)
166-11911	**HG-PP67**	67	67.2	56.3	150	250	10	Black (BK)

All dimensions in mm. Subject to technical changes.
Colour grey available on request.

Other reel lengths available on request.

• **HG-SW PA6 Standard Weight**

HG-S Straight Fitting IP66

Features and Benefits

• One piece, fast fit

• High pull-off strength

• Highly resistant to solvents and oils

• Free of halogen, sulphur and phosphorus

• Metric threads supplied with locknuts

HelaGuard HG-S Straight, IP66.

Fittings with UNEF and NPT threads available upon request.
Please contact us!

Material Data

Material	**Polyamide 6.6 (PA66)**
Colour	**Black (BK)**
Operating	**-50 °C to +135 °C**
Flammability	**UL94 V2**

Technical Table

Article-No.	Type	Colour	Length (L)	Width (W)	Pack Cont
166-21000	HG10-S-M12	10	M12	–	10
166-21020	HG10-S-M16	10	M16	–	10
166-21010	HG10-S-PG7	10	–	PG7	10
166-21031	HG10-S-PG9	10	–	PG9	10
166-21021	HG11-S-M12	11	M12	–	10
166-21032	HG11-S-PG7	11	–	PG7	10
166-21022	HG13-S-M12	13	M12	–	10
166-21001	HG13-S-M16	13	M16	–	10
166-21023	HG13-S-M20	13	M20	–	10
166-21033	HG13-S-PG7	13	–	PG7	10
166-21011	HG13-S-PG9	13	–	PG9	10
166-21034	HG13-S-PG11	13	–	PG11	10
166-21002	HG16-S-M16	16	M16	–	10
166-21003	HG16-S-M20	16	M20	–	10
166-21035	HG16-S-PG9	16	–	PG9	10
166-21012	HG16-S-PG11	16	–	PG11	10
166-21013	HG16-S-PG13	16	–	PG13.5	10
166-21036	HG16-S-PG16	16	–	PG16	10
166-21024	HG18-S-M20	18	M20	–	10
166-21037	HG18-S-PG13	18	–	PG13.5	10
166-21038	HG18-S-PG16	18	–	PG16	10
166-21025	HG20-S-M20	20	M20	–	10
166-21004	HG21-S-M20	21	M20	–	10
166-21039	HG21-S-PG13	21	–	PG13.5	10
166-21014	HG21-S-PG16	21	–	PG16	10
166-21040	HG21-S-PG21	21	–	PG21	10
166-21026	HG25-S-M25	25	M25	–	10
166-21005	HG28-S-M25	28	M25	–	10
166-21027	HG28-S-M32	28	M32	–	10
166-21015	HG28-S-PG21	28	–	PG21	10
166-21041	HG28-S-PG29	28	–	PG29	10
166-21006	HG34-S-M32	34	M32	–	10
166-21028	HG34-S-M40	34	M40	–	10
166-21016	HG34-S-PG29	34	–	PG29	10
166-21007	HG42-S-M40	42	M40	–	2
166-21029	HG42-S-M50	42	M50	–	2
166-21017	HG42-S-PG36	42	–	PG36	2
166-21008	HG54-S-M50	54	M50	–	2
166-21030	HG54-S-M63	54	M63	–	2
166-21042	HG54-S-PG42	54	–	PG42	2
166-21018	HG54-S-PG48	54	–	PG48	2
166-21009	HG67-S-M63	67	M63	–	1
166-21019	HG67-S-PG48	67	–	PG48	1

All dimensions in mm. Subject to technical changes.
Colour grey available on request.

Fittings with fixed external thread 90° elbow fitting, IP66

90° elbow external thread.
Features and Benefits

• One piece, fast fit

• High pull-off strength

• Highly resistant to solvents and oils

• Free of halogen, sulphur and phosphorus

HelaGuard HG-S Straight, IP66.

**Fittings with UNEF and
NPT threads
available upon
request.
Please contact us!**

Technical Table					
Article-No.	Type	Colour	Length (L)	Width (W)	Pack Cont
166-22200	HG10-90-M12	10	M12	–	10
166-22210	HG10-90-PG7	10	–	PG7	10
166-22220	HG11-90-M12	11	M12	–	10
166-22201	HG13-90-M16	13	M16	–	10
166-22211	HG13-90-PG9	13	–	PG9	10
166-22202	HG16-90-M16	16	M16	–	10
166-22203	HG16-90-M20	16	M20	–	10
166-22225	HG16-90-PG9	16	–	PG9	10
166-22212	HG16-90-PG11	16	–	PG11	10
166-22213	HG16-90-PG13	16	–	PG13.5	10
166-22226	HG18-90-PG13	18	–	PG13.5	10
166-22221	HG20-90-M20	20	M20	–	10
166-22204	HG21-90-M20	21	M20	–	10
166-22227	HG21-90-PG13	21	–	PG13.5	10
166-22214	HG21-90-PG16	21	–	PG16	10
166-22222	HG25-90-M25	25	M25	–	10
166-22205	HG28-90-M25	28	M25	–	10
166-22215	HG28-90-PG21	28	–	PG21	10
166-22206	HG34-90-M32	34	M32	–	10
166-22216	HG34-90-PG29	34	–	PG29	10
166-22207	HG42-90-M40	42	M40	–	2
166-22223	HG42-90-M50	42	M50	–	2
166-22217	HG42-90-PG36	42	–	PG36	2
166-22208	HG54-90-M50	54	M50	–	2
166-22224	HG54-90-M63	54	M63	–	2
166-22218	HG54-90-PG48	54	–	PG48	2
166-22209	HG67-90-M63	67	M63	–	1
166-22219	HG67-90-PG48	67	–	PG48	1

All dimensions in mm. Subject to technical changes.
Colour grey available on request.

Material Data	
Material	**Polyamide 6.6 (PA66)**
Colour	**Black (BK)**
Operating	**-50 °C to +135 °C**
Flammability	**UL94 V2**

SC Galvanised steel conduit

General purpose flexible steel conduit.

Features and Benefits

• High compression strength

• High tensile strength

• High impact strength

• Highly flexible

Application

Underfloor wiring in offices data cabling,

protection of hydraulic or pneumatic conduits.

For high mechanical protection.

Material Data	
Material	**Galvanised Steel (GS)**
Operating Temperature	**-100 °C to +300 °C**

Technical Table

Article-No.	Type	Nomin Ø	Outside Ø	Inside Ø	Bending Radius	Weight	Reel Length (m)	Colour
SC Standard lengths								
166-30100	**SC10**	10	9.0	6.8	25	110	50	Metal (ML)
166-30101	**SC12**	12	13.0	10.2	30	113	50	Metal (ML)
166-30102	**SC16**	16	16.0	13.0	40	152	25	Metal (ML)
166-30103	**SC20**	20	20.5	16.9	45	295	25	Metal (ML)
166-30104	**SC25**	25	25.0	21.1	55	321	25	Metal (ML)
166-30105	**SC32**	32	32.0	28.1	60	450	25	Metal (ML)
166-30106	**SC40**	40	42.5	37.6	80	519	25	Metal (ML)
166-30107	**SC50**	50	53.0	48.4	90	802	25	Metal (ML)

All dimensions in mm. Subject to technical changes.
Other reel length available on request.

Fittings for metallic conduits

• SC-FM Fixed external thread
Fixed external thread, nickel plated brass.

Features and Benefits
• Two part fitting comprising shell and body
  with external thread
• Can be secured with a locknut

HelaGuard SC-FM Fixed External Thread.

Technical Table					
Article-No.	Type	Nominal Ø	Thread Size (metric)	Thread Size PG	Pack Cont
166-30300	SC10-FM-M12	10	M12	–	10
166-30311	SC10-FM-PG7	10	–	PG7	10
166-30301	SC12-FM-M16	12	M16	–	10
166-30312	SC12-FM-PG7	12	–	PG7	10
166-30313	SC12-FM-PG9	12	–	PG9	10
166-30302	SC16-FM-M16	16	M16	–	10
166-30303	SC16-FM-M20	16	M20	–	10
166-30314	SC16-FM-PG11	16	–	PG11	10
166-30304	SC20-FM-M20	20	M20	–	10
166-30315	SC20-FM-PG16	20	–	PG16	10
166-30305	SC25-FM-M25	25	M25	–	10
166-30316	SC25-FM-PG21	25	–	PG21	10
166-30306	SC32-FM-M32	32	M32	–	2
166-30317	SC32-FM-PG29	32	–	PG29	2
166-30307	SC40-FM-M40	40	M40	–	2
166-30318	SC40-FM-PG36	40	–	PG36	2
166-30308	SC50-FM-M50	50	M50	–	1
166-30319	SC50-FM-PG42	50	–	PG42	1
166-30320	SC50-FM-PG48	50	–	PG48	1
166-30309	SC63-FM-M63	63	M63	–	1
166-30310	SC75-FM-M75	75	M75	–	1

All dimensions in mm. Subject to technical changes.

Material Data	
Material	**Nickel Plated Brass (NPB)**
Colour	**Metal (ML)**
Temperature	**-100 °C to +300 °C**

• SSC-FM Fixed external thread

Fixed external thread, stainless steel (SS316).

Features and Benefits
• Two part fitting comprising shell and body
  with external thread
• Can be secured with a locknut

HelaGuard SSC-FM Fixed External Thread.

Technical Table				
Article-No	Type	Nominal Ø	Thread Size Metric	Pack
166-30321	**SSC10-FM-M12**	10	M12	1
166-30322	**SSC12-FM-M16**	12	M16	1
166-30323	**SSC16-FM-M16**	16	M16	1
166-30324	**SSC20-FM-M20**	20	M20	1
166-30325	**SSC25-FM-M25**	25	M25	1
166-30326	**SSC32-FM-M32**	32	M32	1
166-30327	**SSC40-FM-M40**	40	M40	1
166-30328	**SSC50-FM-M50**	50	M50	1

All dimensions in mm. Subject to technical changes.

Material Data	
Material	**Stainless Steel (SS316)**
Colour	**Metal (ML)**
Temperature	**-100 °C to +400 °C**

PCS Galvanised metallic conduit, PVC

PCS Galvanised metallic conduit, PVC

Features and Benefits
- High compression strength
- High tensile strength
- High impact strength
- Highly flexible
- Good resistance to alkalis and acids
- Good resistance to chemicals
- Colour: black; grey on request

Application
Machines and plants.

HelaGuard PCS Galvanised Steel Conduit with PVC Coating.

Material Data	
Material	**Galvanised Steel (GS),**
Operating Temperature	**-15 °C to +70 °C**

HelaGuard PCS Galvanised Steel Conduit with PVC Coating, 10 m in grey.

Technical Table

Article-No.	Type	Nomin Ø	Outside Ø	Inside Ø	Bending Radius	Weight	Reel Length (m)	Colour
SC Standard lengths								
166-30700	**PCS10**	10	10.0	6.8	25	140	50	Black (BK)
166-30701	**PCS12**	12	14.0	10.2	30	143	50	Black (BK)
166-30702	**PCS16**	16	17	13.0	40	196	25	Black (BK)
166-30703	**PCS20**	20	21.5	16.9	45	345	25	Black (BK)
166-30704	**PCS25**	25	26.0	21.1	55	411	25	Black (BK)
166-30705	**PCS32**	32	34.0	28.1	70	560	25	Black (BK)
166-30706	**PCS40**	40	44.5	37.6	80	719	25	Black (BK)
166-30707	**PCS50**	50	55.0	48.4	90	1052	25	Black (BK)
166-30708	**PCS63**	63	64.5	57.5	115	1091	10	Black (BK)
166-30709	**PCS75**	75	79.0	70.0	150	1459	10	Black (BK)
PCS 10m lengths								
166-30722	**PCS10**	10	10.0	6.8	25	140	10	Grey (GY)
166-30723	**PCS12**	12	14.0	10.2	30	143	10	Grey (GY)
166-30724	**PCS16**	16	17.0	13.0	40	196	10	Grey (GY)
166-30725	**PCS20**	20	21.5	16.9	45	345	10	Grey (GY)
166-30726	**PCS25**	25	26.0	21.1	55	411	10	Grey (GY)
166-30727	**PCS32**	32	34.0	28.1	70	560	10	Grey (GY)
166-30728	**PCS40**	40	44.5	37.6	80	719	10	Grey (GY)
166-30729	**PCS50**	50	55.0	48.4	90	1052	10	Grey (GY)

All dimensions in mm. Subject to technical changes.
Other reel length available on request.

Fittings for metallic conduits with plastic coating

Fixed external thread, nickel plated brass.

Features and Benefits

• Two part fitting comprising shell and body
  with external thread
• Can be secured with a locknut

Helaguard PCS-FM Fixed External Thread.

Technical Table					
Article-No.	Type	Nominal Ø	Thread Size (metric)	Thread Size PG	Pack Cont
166-31000	PCS10-FM-M12	10	M12	–	10
166-31010	PCS10-FM-PG7	10	–	PG7	10
166-31001	PCS12-FM-M16	12	M16	–	10
166-31013	PCS12-FM-PG7	20	–	PG7	10
166-31011	PCS12-FM-PG9	12	–	PG9	10
166-31002	PCS16-FM-M16	16	M16	–	10
166-31003	PCS16-FM-M20	16	M20	–	10
166-31012	PCS16-FM-PG11	16	–	PG11	10
166-31004	PCS20-FM-M20	20	M20	–	10
166-31014	PCS20-FM-PG16	20	–	PG16	10
166-31005	PCS25-FM-M25	25	M25	–	10
166-31015	PCS25-FM-PG21	25	–	PG21	10
166-31006	PCS32-FM-M32	32	M32	–	2
166-31016	PCS32-FM-PG29	32	–	PG29	2
166-31007	PCS40-FM-M40	40	M40	–	2
166-31017	PCS40-FM-PG36	40	–	PG36	2
166-31008	PCS50-FM-M50	50	M50	–	1
166-31018	PCS50-FM-PG48	50	–	PG48	1
166-31009	PCS63-FM-M63	63	M63	–	1
166-31019	PCS75-FM-M75	75	M75	–	1

All dimensions in mm. Subject to technical changes.

Material Data	
Material	Nickel Plated Brass (NPB)
Colour	Metal (ML)
Temperature	-100 °C to +300 °C

Metallic conduits with liquidtight cover

Galvanised steel conduit, PVC cover

Flexible galvanised steel conduit with
smooth, liquid-tight pvc cover.
Fulfills IP66, IP67, IP68 and IP69k with LTSfittings.

Features and Benefits

• Liquid-tight (IP68 and IP69k with LTS fittings)

• High compression strength

• High tensile strength

• High impact strength

• Good flexibility

• Smooth outer cover

• Cover does not wrinkle when bent

• Resistant to oils and greases

• Good resistance to petrol

• Resistant to acids

• UV resistant (black), suitable for outdoor use

• Colour: black; grey on request

HelaGuard LTS galvanised steel conduit with a smooth, liquid-tight PVC cover is ideal for outdoor installations.

HelaGuard LTS.

Material Data	
Material	**Galvanised Steel (GS), Polyvinylchloride (PVC)**
Operating Temperature	**-20 °C to +105 °C**

Technical Table									
Article-No.	Type	Nominal Ø	US Trade Size	Outside Ø	Inside Ø	Bending Radius	Weight	Reel length	Colour
166-31900	**LTS10**	10	1/4 Zoll	11.8	7.0	35	185	50	Black (bk)
166-31901	**LTS12**	12	5/16 Zoll	14.2	10.0	40	203	25	Black (bk)
166-31902	**LTS16**	16	3/8 Zoll	17.8	12.6	45	311	25	Black (bk)
166-31903	**LTS20**	20	1/2 Zoll	21.1	16.0	65	407	25	Black (bk)
166-31904	**LTS25**	25	3/4 Zoll	26.4	21.1	100	503	25	Black (bk)
166-31905	**LTS32**	32	1 Zoll	33.1	26.5	135	732	25	Black (bk)
166-31906	**LTS40**	40	1 1/4 Zoll	41.8	35.4	175	885	25	Black (bk)
166-31907	**LTS50**	50	1 1/2 Zoll	47.9	40.4	230	1240	25	Black (bk)
166-31908	**LTS63**	63	2 Zoll	59.7	51.6	280	1470	10	Black (bk)

All dimensions in mm. Subject to technical changes.
Colour grey and other reel lengths available on request.

Technical Table					
Article-No.	Type	Nominal Ø	Thread Size (metric)	Thread Size PG	Pack Cont
166-32200	**LTS10-FMC-M12**	63	M12	–	10
166-32201	**LTS10-FMC-M16**	10	M16	–	10
166-32203	**LTS12-FMC-M16**	12	M16	–	10
166-32204	**LTS16-FMC-M16**	16	M16	–	10
166-32212	**LTS16-FMC-PG11**	16	–	PG11	10
166-32205	**LTS16-FMC-M20**	16	M20	–	10
166-32206	**LTS20-FMC-M20**	20	M20	–	10
166-32213	**LTS20-FMC-PG16**	20	–	PG16	10
166-32207	**LTS25-FMC-M25**	25	M25	–	10
166-32214	**LTS25-FMC-PG21**	25	–	PG21	10
166-32208	**LTS32-FMC-M32**	32	M32	–	2
166-32215	**LTS32-FMC-PG29**	32	–	PG29	2
166-32209	**LTS40-FMC-M40**	40	M40	–	1
166-32210	**LTS50-FMC-M50**	50	M50	–	1
166-32211	**LTS63-FMC-M63**	63	M63	–	1

HelaGuard LTS-FMC Compression Fitting.

Material Data	
Material	**Nickel Plated Brass (NPB), Polyamide 6 (PA6)**
Colour	**Metal (ML)**
Operating Temperature	**-40 °C to +135 °C**

Technical Table				
Article-No	Type	Nominal Ø	Thread Size Metric	Pack
166-32300	**LTS12-SMC-M16**	12	M16	10
166-32301	**LTS16-SMC-M16**	16	M16	10
166-32302	**LTS16-SMC-M20**	16	M20	10
166-32303	**LTS20-SMC-M20**	20	M20	10
166-32304	**LTS25-SMC-M25**	25	M25	10
166-32305	**LTS32-SMC-M32**	32	M32	2

All dimensions in mm. Subject to technical changes.

Material Data	
Material	**Nickel Plated Brass (NPB), Polyamide 6 (PA6)**
Colour	**Colour Metal (ML)**
Operating Temperature	**-40 °C to +135 °C**

Flexible Conduit Systems

Made to CEI Standards CEI EN 50086.1-94 and CEI EN 50086. 2.3-1996.

Degree of protection achieved with Guviflex fittings is IP65.

- Composition: Plasticised PVC with shockproof rigid PVC spiral core
- Colour: Black (grey or blue to special order)
- Insulation: Greater than 100MV per 500V
- Dielectric strength: Greater than 2000V., 50Hz for 15min
- Minimum temperature 5°C
- Maximum temperature: 60°C
- Bend radius: As conduit outside diameter
- Incandescent wire test at 850°: positive result - IMQ report No. 1493
- Self-extinguishing: To UL 94 VO Standards
- Supplied in 30m coils

Black Flexible Conduit			
Reference	Coil	Int. Dia mm	Ext. Dia mm
GUAN10	30m	10	14.7
GUAN12	30m	12	16.4
GUAN16	30m	16	20.7
GUAN20	30m	20	24.7
GUAN25	30m	25	30.6
GUAN28	30m	28	33.5
GUAN32	30m	32	38.0
GUAN35	30m	35	41
GUAN40	30m	40	46.4
GUAN50	30m	50	57.2

Handipacks

Contains 10 metres of Black conduit and 10 straight fittings.

801 – 10 x 554 & 10 x 782
802 – 10 x 558 & 10 x 784
803 – 10 x 557 & 10 x 783)

Handipacks		
Reference	Int Dia mm	Ex Dia mm
801	16	20.7
802	22	27.7
803	20	24.7

Straight Fittings

Fittings are easily assembled onto the conduit without the use of tools to give a swivel joint with sealing to IP65 standards.
Fittings are made from self-extinguishing polypropylene in compliance with UL94 standards. Available with Metric and Gas threads in compliance with CEI 23-26 standards.
The swivel fittings are easily fitted to the conduit and are fitted with 'O' rings to maintain IP rating when terminating into enclosures etc.

Straight Fittings		
Reference	Thread	To Fit Conduit Ref
RAMN 12	16 x 1.5 Metric	12mm-552
RAMN 16	20 x 1.5 Metric	16mm-554
RAMN 20	25 x 1.5 Metric	20mm-557
RAMN 22	25 x 1.5 Metric	22mm-558
RAMN 25	32 x 1.5 Metric	25mm-559
RAMN 32	40 x 1.5 Metric	32mm-562
RAGN 10	1/4 in Gas	10mm-551
RAGN 12	3/8 in Gas	12mm-552
RAGN 16 - 724	1/2 in Gas	16mm-554
RAGN 22 - 726	3/4 in Gas	22mm-558
RAGN 25 - 727	1 in Gas	25mm-559
RAGN 28	1 in Gas	Guan 28
RAGN 32 - 729	11/4 in Gas	32mm-562
RAGN 35	11/4 in Gas	Guan 35
RAGN 40 - 731	11/2 in Gas	40mm-564
RAGN 50 - 732	2 in Gas	50mm-565

FCT

FCT Convoluted Tubing	
Material	Impact Modified PA6
Min Working Temperature	-40ºC
Max. Working Temperature	120ºC
Intermittent Temperature	155ºC
Oxygen Index	22%
Halogen Content	Halogen Free
Standard Colours	Black (BK)

Reference	ID	Wall Thickness	Coil Length
FCT7BK	6.8	0.45	200m
FCT10BK	10.5	0.45	200m
FCT11BK	11.5	0.45	200m
FCT13BK	12.6	0.45	200m
FCT16BK	16.5	0.45	100m
FCT19BK	19.5	0.45	50m
FCT23BK	23.5	0.45	50m

Slit Format				
Reference	ID	Wall	Applicator Tool	Coil Length
FCT7BK/S	6.8	0.45	HAT8	200m
FCT10BK/S	10.5	0.45	n/a	200m
FCT11BK/S	11.5	0.45	n/a	200m
FCT13BK/S	12.6	0.45	n/a	200m
FCT16BK/S	16.5	0.45	HAT16	100m
FCT19BK/S	19.5	0.45	HAT20	50m
FCT23BK/S	23.5	0.45	HAT25-32	50m

All dimensions are in mm (nominal) and are subject to technical modification.

Applicator Tools
Reference
HAT8
HAT16
HAT20
HAT25

Kanalflex

A flexible routing system made from grey polypropylene (RAL 7040). The upper 'tongues' of the section are inclined downward to facilitate easy insertion of cables. Supplied with adhesive fixing strip and pre-drilled for additional screw fixing as required.
Supplied in lengths of 500mm in packs of 10 lengths.

| Kanalflex		
Reference	Dimensions mm	Pack Qty
BK1313A	12.5 x 12.5	10 x 0.5m
BK1616A	16 x 16	10 x 0.5m
BK2020A	20 x 20	10 x 0.5m
BK2525A	25 x 25	10 x 0.5m
BK3030A	30 x 30	10 x 0.5m
BK4040A	40 x 40	10 x 0.5m
BK5050A	50 x 50	10 x 0.5m

Open Slot Trunking

Slotted trunking provides a neat and efficient means of supporting cables in switchgear, control cubicles etc. The open slot construction with tapered slots means that cables can be laid in an assembly wiring progresses, the lid being finally snapped in place to secure the installation. When required, individual 'fingers' forming the slots can be removed without the use of cuttng tools to accommodate larger cables or to permit butt joints between two trunking sections. Supplied in grey finish (RAL 7030).

PVC Cable Trunking

- Made from rigid anti-shock pvc.
- Flame and combustion resistant to DIN 4102 and ASTM D 635.
- Mounting hole dimensions to DIN 43659.
- Plain and open slot versions in grey.
- Supplied in 2m lengths in standard or bulk packs.
- Fixing rivets and tools simplify installation.
- Open and closed trunking CSA approved.
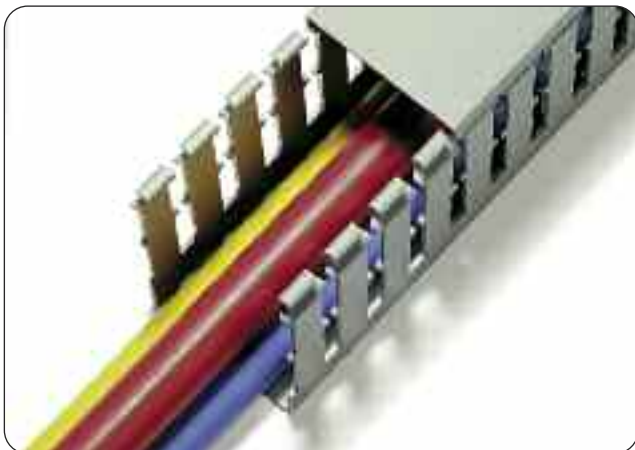
Heladuct HTC

Flexible Supports for Cables and Wires
These Supports, for bundles, cables and wires, provide a simple, reliable and economical wiring system, which can be installed quickly. The supports are available in four standard sizes in lengths of 500mm and are particularly suitable for supporting and fixing cables/wires in switchgear, control gear enclosures, vehicles etc.

- Made from white polypropylene (self extinguishing UL94V-0)
- Good chemical resistance
- Operating Temperature range -20ºC to +70ºC
- Rectangular and circular sections
- Supplied with adhesive fixing strip. Also pre-drilled for additional screw fixing as required


| Adhesive Strip | Adhesive Strip | Adhesive Strip | Adhesive Strip |
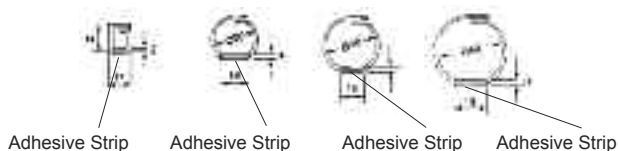
Open Slot Trunking (HTS)

Reference	Section W x H (mm)	Pack Quantity Std (m)	Bulk (m)
HTS 1A	15 x 25	10 x 2	100
HTS 1B	25 x 25	10 x 2	150
HTS 2	30 x 30	10 x 2	120
HTS 3	25 x 40	10 x 2	100
HTS 4	40 x 40	10 x 2	72
HTS 5	60 x 40	10 x 2	48
HTS 5A	80 x 40	10 x 2	60
HTS 5B	100 x 40	-	32
HTS 5C	30 x 50	10 x 2	100
HTS 5D	50 x 50	10 x 2	60
HTS 6	25 x 60	10 x 2	64
HTS 7	40 x 60	10 x 2	48
HTS 8	60 x 60	10 x 2	32
HTS 9	80 x 60	10 x 2	48
HTS 10	100 x 60	4 x 2	32
HTS 12	25 x 80	10 x 2	42
HTS 13	40 x 80	10 x 2	60
HTS 14	60 x 80	10 x 2	48
HTS 14A	80 x 80	4 x 2	36
HTS 15	100 x 80	4 x 2	24
HTS 16	120 x 80	4 x 2	24
HTS 17A	40 x 100	-	40
HTS 17B	60 x 100	-	32
HTS 18A	80 x 100	4 x 2	24
HTS 19	100 x 100	4 x 2	16
HTS 20	150 x 100	4 x 2	12

Narrow slot trunking available on request.

Lids - 2m Lengths (HLD)

Reference	Width	Length
HLD 25	25	2m
HLD 40	40	2m
HLD 60	60	2m
HLD 80	80	2m
HLD 100	100	2m

Spare lids MOQ (10 mixed).
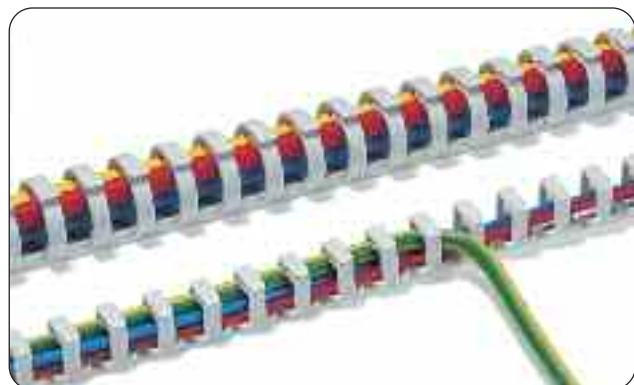
Heladuct White

| Reference	Internal Dimensions mm	Capacity (Number of Wires) 1.5mm2	2.5mm2	Pack Qty
HTC10SK	9 x 11	6	4	10 x 0.5m
HTC20SK	20 dia	22	14	10 x 0.5m
HTC30SK	30 dia	50	34	10 x 0.5m
HTC40SK	40 dia	81	60	10 x 0.5m

Beading

SM1BK, RA1BK, PS1BK

Beadings are manufactured from a self-extinguishing flexible PVC compound which ensures flexibility and ease of application.
Beading is used to cover panel edging so ensuring that wire bundles do not chafe through bulkheads.

SM1BK, RA1BK & PS1BK	
	SM1BK, RA1BK, PS1BK
Material	PVC
Operating Temperature	-65°C to +105°C Intermittent +130°C
Flammability	Self-extinguishing
Colour	Black

SM1BK   RA1BK   PS1BK
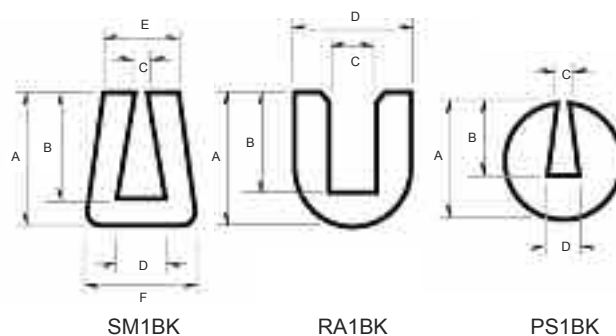
Beading Reference	A	B	C	D	E	F	Coil
SM1BK	6.3	4.9	1.0	1.8	4.2	5.0	75m
RA1BK	7.1	5.6	2.4	6.4	-	-	75m
PS1BK	5.0	3.15	0.6	1.2	-	-	75m

Flexiform G51P

- Polyethylene
- Available in a wide range of sizes to cover different panel thicknesses from 0.4 to 6.5mm
- The flexible 'U' section has been designed to fit and line any shape or size of hole
- Also prevents possible damage from chafing

Flexiform (G51P)	
Material	Polyethylene
Min. Working Temperature	-30ºC
Max. Working Temperature	80ºC
Intermittent Temperature	120ºC
Halogen Content	Halogen Free
Standard Colours	Natural (NL)

Flexiform (G51P) Reference	Coil	Colour	Size	Width	Channel Width	Height	Panel Thickness
G51PAA	25m	Natural	AA	2.2	0.95	2.4	0.4-0.9
G51PA	25m	Natural	A	3.8	1.4	4.0	0.4-1.3
G51PB	25m	Natural	B	4.5	2.3	4.0	1.3-2.1
G51PC	25m	Natural	C	5.6	3.3	4.0	2.1-3.3
G51PD	25m	Natural	D	8.3	5.0	5.8	3.3-4.8
G51PE	25m	Natural	E	9.8	6.6	6.1	4.8-6.5

All dimensions are in mm (nominal) and are subject to technical modification.