







HellermannTyton

Product Catalogue



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Note : Some images and specifications may differ from what is included in this catalogue

Note : Some products in this catalogue are non standard stocked items which will incur a longer lead time.

Note : PART NO. is local to HellermannTyton Australia. TYPE is the HellermannTyton global part no.

HellermannTyton

Supporting you in Asia-Pacific

HellermannTyton Pty Ltd has been serving the Asia Pacific region since 1981. More than 450 people are employed within Asia-Pacific, focusing on providing high-quality services. A wide range of injection moulding products are manufactured at our sites - from standard cable ties to customised products for specific applications and tailor-made developments for our customers.



HellermannTyton - Singapore (Regional HQ)

- Incorporated:** July 1981
- Staff Strength:** 167
- Space area:** 4,000 square meters
- Machines:** 52 injection molding machines producing 4 billion pieces per annum
- Manufacturing focus:** Injection moulding, assembly operations, laser-welding

Global Presence in 39 Countries

Perfect solutions for your cable needs



About HellermannTyton

HellermannTyton is a leading manufacturer and supplier of products for fastening, fixing, installing, connecting, insulating, protecting and identifying electrical cables and data network infrastructure. We also develop parts for customer-specific industrial applications.

Experienced partner at your side

We are always close to you, talking to you to create solutions tailored precisely to your individual needs. Decision-making paths are shortened, and your knowledge is bundles with ours to achieve the very best results for each project.

Global Player & Local Strength

Since 1935, our mission is to provide innovative solutions around all cable management needs – with customer satisfaction as our first priority. Our portfolio includes more than 75,000 items. We operate 16 world-class manufacturing facilities and develop products at 13 locations. More than 5,400 employees work at HellermannTyton in 39 countries and offer you first-class service and advice – wherever you need it.

Our global brand is trusted by industry professionals around the world. The quality of HellermannTyton products is inspired by your cable management needs.











We are at your service:

<http://www.HellermannTyton.com/au>

HellermannTyton Product Overview





Cable Ties and Fixings

As one of the leading manufacturers of cable ties and fixing elements, HellermannTyton sets the standards in the production of high-quality cable ties and fixing elements. HellermannTyton provides system solutions which can meet practically any challenge. We do not just fulfil the most up to date requirements for cable ties and cable tie systems, but also constantly pushes back the boundaries of what is technologically possible with its fixing elements.

				
Cable Ties Inside Serrated	Cable Ties Outside Serrated	Cable Ties Without Serration	Cable Ties, Releasable	Cable Ties, Stainless Steel
				
Cable Ties With Fixing Elements	Cable Tie Mounts	Fixing Elements	Clips, Clamps and Plugs	Special Material Cable Ties

Insulation

HellermannTyton focuses on matching all of its heat shrink tubing optimally in the jobs for which it will be used in developing, manufacturing and distributing its heat shrink tubing and heat shrink moulded shapes. We set the pace with each new piece of heat shrink tubing when it comes to providing protection against mechanical, environmental, chemical or electrical effects.

			
Heat Shrinkable Tubing	Heat Shrinkable Moulded Shapes	Heat Shrinkable Cable Repair Sleeves	Heat Shrinkable Tubing - Thick Wall Adhesive Lined









Electrical Installation

HellermannTyton provides innovative products for electrical installations, for example with HelaCon wire connectors and HelaTape electrical tapes, which are available in a wide selection of sizes and colours. The cable installation system Cable Scout+ and the unique downlight mounting device range of SpotClip helps to work faster and easier while ensuring maximum quality and safety.

			
Electrical and Technical Tapes	Cable Lugs	Pre-Insulated Terminals	Cast Resin Technology

Cable Protection Systems

HellermannTyton does not compromise when it comes to cable protection. Cable protection tubes, cable seals, cable protection grommets, flexible conduits, fittings and further cable protection accessories from HellermannTyton not only meet all current and normalised standards, the cable protection products from Tornesch and the other world-wide sites exceed them and provide the best possible cable protection in the market today.

			
Non-Metallic Conduit Systems	Metallic Conduit Systems	Wiring Duct and Accessories	Conduit System Accessories
			
Protective Tubing and Spiral Binding	Braided Sleeves	Edge Protection	Grommets

Identification Systems

Durable and easy to work with industrial identification is becoming critical in modern working processes. HellermannTyton offer easy to integrate solutions for you to ensure both highly complicated label designs for serial production to simple one-off labels in a few clicks. Our 80+ year experience in the identification industry ensures that the materials to print on, our printers, and software suit your needs.

		
Wire and Cable Markers	Control Panel Labelling	Industrial Identification
		
Security Labelling	Hazardous Area Identification	Printers and Software

Application Tooling

HellermannTyton provides over 60,000 solutions covering all aspects of cables – and as a logical outcome, the company also develops and sells optimum, user-friendly application tools, which make carrying out assembly jobs as simple and efficient as possible. The range of application tools ranges from manual cable tie guns to fully automatic cable tie systems for industrial serial production.

				
Automatic Cable Tying System	Cable Tie Application Tool (EVO 7)	Cable Tie Application Tool (EVO 9)	Metal Tie Application Tool (MK95ST)	Cable Tie Application Tool (MK20)

HellermannTyton: Long-term experience and a variety of system solutions for your business

Our system solutions are perfectly suited to meeting the challenges of different industries around the world.



Automotive Industry



Aviation and Aerospace



Ship Building



Rail Transportation



Renewable Energies



Construction



Defence



Offshore Development



Agricultural Technology



Telecommunications



White Goods



Food and Beverage Industry

A World of Solutions at your Fingertips

Comprehensive product information online

Digital versions of all our publications, plus video clips of products, are available to you in the media centre on our website. You can also download product data in 2D and 3D formats from our product pages.

Extensive portfolio of high-quality products

We make it as easy as possible for you to discover the perfect product that helps you solve your particular electrical installation or engineering challenge. Our printed publications guide you through our extensive portfolio.



Something for everyone: our brochures focus on key products and product ranges designed for specific applications

Variety of products and product supplies to meet your demands

Different packaging sizes offer the right quantities for every application.



HelaTape-stand

H/Shrink-stand-large

H/Shrink-stand-large-dual

H/Shrink-stand-small

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HellermannTyton is your partner for close, intensive on-site cooperation

We meet growing global challenges by being close to our clients. HellermannTyton speaks your language when it comes to devising new solutions and optimising processes. We want you to be able to provide your customers with even better results.



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















Inspired by design

EdgeClips were developed for a luxury car. The cables needed to be routed precisely along an edge where neither drilling nor welding was permitted. The newly developed EdgeClip solved the problem so brilliantly that this smart cable routing solution was quickly applied to other models all over the world. We now offer around 90 different versions that are used in different industries.

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Material Specification Overview

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Aluminium-alloy	AL	-40 °C to +180 °C	Natural (NA)		<ul style="list-style-type: none"> Corrosion resistant Antimagnetic 	RoHS
Chloroprene	CR	-20 °C to +80 °C	Black (BK)		<ul style="list-style-type: none"> Weather-resistant High yield strength 	RoHS
Ethylene Tetrafluoroethylene (Tefzel®)	E/TFE	-80 °C to +170 °C	Blue (BU)	UL 94 V0	<ul style="list-style-type: none"> Resistance to radioactivity UV-resistant, not moisture sensitive Good chemical resistance to: acids, bases, oxidizing agents 	RoHS
Polyacetal	POM	-40 °C to +90 °C, (+110 °C, 500 h)	Natural (NA)	UL 94 HB	<ul style="list-style-type: none"> Limited brittleness sensitivity Flexible at low temperature Not moisture sensitive Robust on impacts 	RoHS
Polyamide 11	PA11	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Bio-plastic, derived from vegetable oil Strong impact resistance at low temperature Very low moisture absorption Weather-resistant Good chemical resistance 	HF RoHS
Polyamide 12	PA12	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Good chemical resistance to: acids, bases, oxidizing agents UV-resistant 	HF RoHS
Polyamide 4.6	PA46	-40 °C to +150 °C (5000 h), +195 °C (500 h)	Natural (NA), Grey (GY)	UL 94 V2	<ul style="list-style-type: none"> Resistance to high temperatures Very moisture sensitive Low smoke sensitiv 	HF LFH RoHS
Polyamide 6	PA6	-40 °C to +80 °C	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> High yield strength 	RoHS
Polyamide 6, high impact modified	PA6HIR	-40 °C to +80 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Limited brittleness sensitivity Higher flexibility at low temperature 	RoHS
Polyamide 6.6	PA66	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK), Natural (NA)	UL 94 V2	<ul style="list-style-type: none"> High yield strength 	HF RoHS
Polyamide 6.6, glass-fibre reinforced	PA66GF13, PA66GF15	-40 °C to +105 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Good resistance to: lubricants, vehicle fuel, salt water and a lot of solvent 	HF RoHS
Polyamide 6.6, heat and UV stabilised	PA66HSW	-40 °C to +105 °C	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> High yield strength Modified elevated max. temperature UV-resistant 	HF RoHS
Polyamide 6.6, heat stabilised	PA66HS	-40 °C to +105 °C	Black (BK), Natural (NA)	UL 94 V2	<ul style="list-style-type: none"> High yield strength Modified elevated max. temperature 	HF RoHS
Polyamide 6.6, high impact modified	PA66HIR	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Limited brittleness sensitivity Higher flexibility at low temperature 	RoHS
Polyamide 6.6, high impact modified, heat and UV stabilised	PA66HIRHSW	-40 °C to +110 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Limited brittleness sensitivity Higher flexibility at low temperature Modified elevated max. temperature High yield strength, UV-resistant 	RoHS
Polyamide 6.6, high impact modified, heat stabilised	PA66HIRHS	-40 °C to +105 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Limited brittleness sensitivity Higher flexibility at low temperature Modified elevated max. temperature 	RoHS
Polyamide 6.6, high impact modified, scan black	PA66HIR(S)	-40 °C to +80 °C, (+105 °C, 500 h)	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Limited brittleness sensitivity Higher flexibility at low temperature 	RoHS
Polyamide 6.6, UV-resistant	PA66W	-40 °C to +85 °C, (+105 °C, 500 h)	Black (BK)	UL 94 V2	<ul style="list-style-type: none"> High yield strength UV-resistant 	HF RoHS

MATERIAL	Material Shortcut	Operating Temperature	Colour**	Flammability	Material Properties*	Material Specifications
Polyamide 6.6 , with metal particles	PA66MP	-40 °C to +85 °C, (+105 °C, 500 h)	Blue (BU)	UL 94 HB	<ul style="list-style-type: none"> High yield strength Metal and X-Ray detectable 	HF RoHS
Polyamide 6.6 , with metal particles	PA66MP+	-40 °C to +85 °C	Blue (BU)	not flame retardant	<ul style="list-style-type: none"> High yield strength Metal and x-ray detectable 	HF RoHS
Polyamide 6.6 V0	PA66V0	-40 °C to +85 °C	White (WH)	UL 94 V0	<ul style="list-style-type: none"> High yield strength Low smoke emission 	HF LFH RoHS
Polyester	SP	-50 °C to +150 °C	Black (BK)	halogen free	<ul style="list-style-type: none"> UV-resistant Good chemical resistance to: most acids, alkalis and oils 	HF LFH RoHS
Polyetheretherketone	PEEK	-55 °C to +240 °C	Beige (BGE)	UL 94 V0	<ul style="list-style-type: none"> Resistance to radioactivity Not moisture sensitive Good chemical resistance to: acids, bases, oxidizing agents 	HF LFH RoHS
Polyethylene	PE	-40 °C to +50 °C	Black (BK), Grey (GY)	UL 94 HB	<ul style="list-style-type: none"> Low moisture absorption Good chemical resistance to: most acids, alcohol and oils 	HF RoHS
Polyolefin	PO	-40 °C to +90 °C	Black (BK)	UL 94 V0	<ul style="list-style-type: none"> Low smoke emissions 	HF LFH RoHS
Polypropylene	PP	-40 °C to +115 °C	Black (BK), Natural (NA)	UL 94 HB	<ul style="list-style-type: none"> Floats in water Moderate yield strength Good chemical resistance to: organic acids 	HF RoHS
Polypropylene, Ethylene-Propylene-Dien-Terpolymere-rubber free of Nitrosamine	PP, EPDM	-20 °C to +95 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> Good resistance to high temperatures Good chemical and abrasion resistance 	HF RoHS
Polypropylene with metal particles	PPMP	-40 °C to +115 °C	Blue (BU)	UL 94 HB	<ul style="list-style-type: none"> Metal and X-Ray detectable Heat resistant Moderate yield strength Good chemical resistance 	RoHS
Polypropylene with metal particles	PPMP+	-40 °C to +85 °C	Blue (BU)	not flame retardant	<ul style="list-style-type: none"> High yield strength Metal and x-ray detectable 	HF RoHS
Polyvinylchloride	PVC	-10 °C to +70 °C	Black (BK), Natural (NA)	UL 94 V0	<ul style="list-style-type: none"> Low moisture absorption Good chemical resistance to: acids, ethanol and oil 	RoHS
Stainless Steel	SS304, SS316	-80 °C to +538 °C	Natural (NA)	non-burning	<ul style="list-style-type: none"> Corrosion resistant Antimagnetic Weather resistant Outstanding chemical resistance 	HF LFH RoHS
Thermoplastic Polyurethane	TPU	-40 °C to +85 °C	Black (BK)	UL 94 HB	<ul style="list-style-type: none"> High elastic Good chemical resistance to: acids, bases and oxidizing agents 	HF RoHS

Tefzel® is a registered trademark of DuPont. General linguistic usage for cable ties made from raw material E/TFE is Tefzel®-Tie. In addition to Tefzel® from DuPont HellermannTyton is also using equivalent E/TFE raw material from other suppliers. *These details are only rough guide values. They should not be regarded as a material specification and are no substitute for a suitability test. Please see our datasheets for further details.

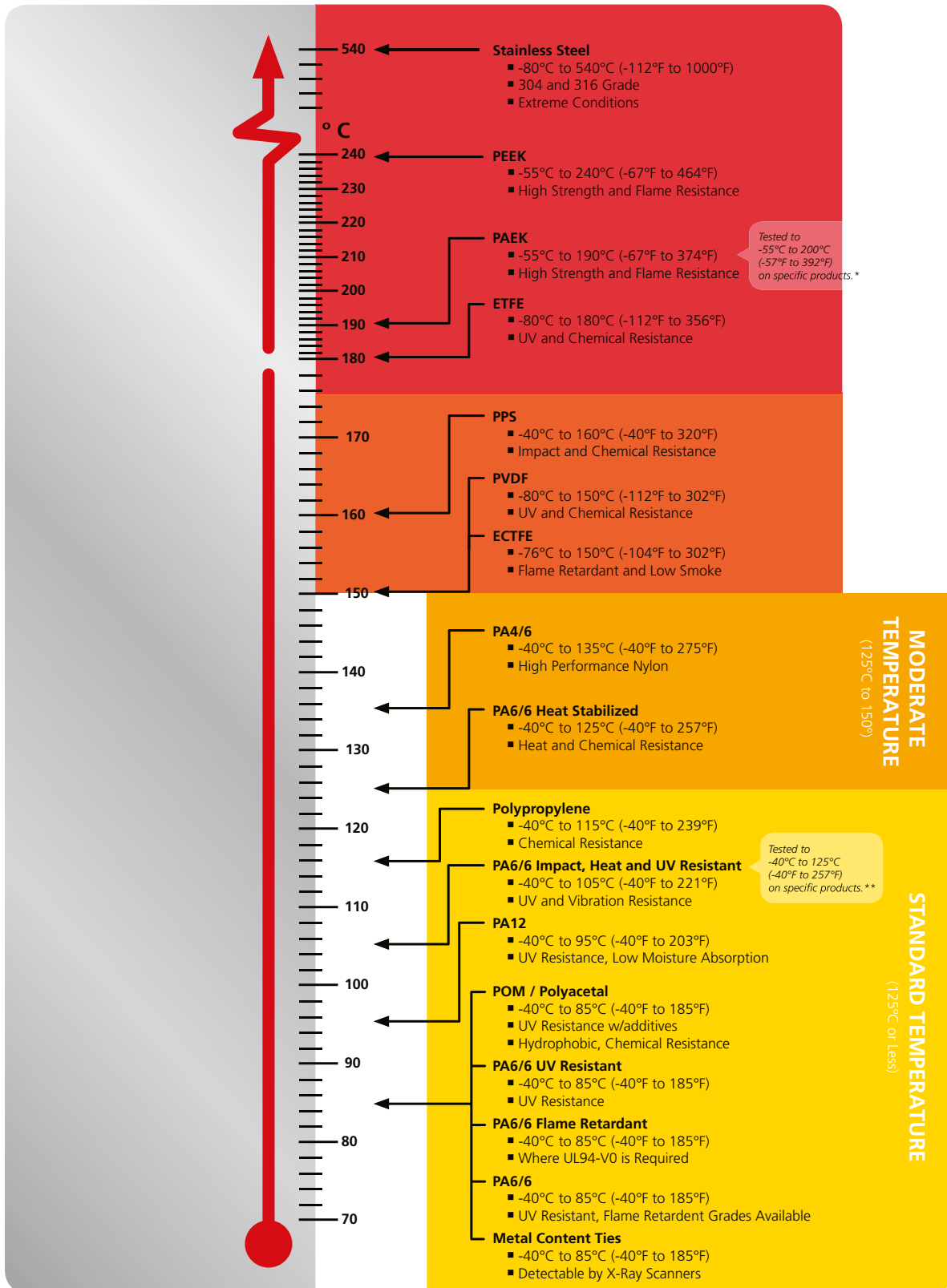
**More colours on request.

 = Minimum Loop Tensile Strength for Cable Ties (Newton)

HF = Halogenfree

LFH = Limited Fire Hazard

RoHS = Restriction of Hazardous Substances



* Ratchet P-Clamps, Cable Ties and Fir Tree Assemblies
 ** Ratchet P-Clamps

Properties of Polyamide PA66

Polyamides are among the most important thermoplastic synthetic materials. Thermoplastics can be reshaped by heating as often as required without undergoing chemical decomposition or other negative changes. This makes polyamide ideal for processing via injection moulding into high quality products. About 90 % of cable ties and fixings from HellermannTyton are made from this material. Polyamide is also known under the brand name of Nylon®, which was introduced by the Dupont company.

The inner structure of polyamide displays a partial order of polymer chains, i.e. polyamides are partially crystalline. Due to the tighter packing of the individual molecular chains polyamide only has limited transparency to light. The plastic is therefore described as translucent.

Each base unit contains 6 carbon atoms (C). Hence the name PA66.

The polyamide PA66 has many properties which are highly advantageous for HellermannTyton cable ties and fixings, such as:

- High strength, rigidity and hardness
- High dimensional stability, even under the effect of heat
- High abrasion resistance

Having a wide range of polyamides and additives allows for an optimum adaptation of the properties of the finished product to suit the respective requirements.

The following PA66 variants are used for HellermannTyton products:

- Polyamide 6.6 standard (PA66) for temperature conditions of up to +85 °C
- Polyamide 6.6 Heat Stabilised (PA66HS) for temperature conditions of up to +105 °C
- Polyamide 6.6 UV Stabilised (PA66W) for exterior use
- Polyamide 6.6 Heat Stabilised and UV Stabilised (PA66HSW) for exterior use up to +105 °C
- Polyamide 6.6 Impact Resistant (PA66HIR) for high elasticity requirements
- Polyamide 6.6 Impact Resistant and Heat Stabilised (PA66HIRHS) for high elasticity requirements and temperatures up to +105 °C
- Polyamide 6.6 V0 for high standards of fire protection

Water content in polyamide

Polyamide is a hygroscopic material - this means that it absorbs and releases water. The mechanical properties are significantly affected by the water content – especially flexibility and minimum tensile strength.

In a standard atmosphere of 23 °C and 50 % relative humidity, the degree of water saturation of polyamide is around 2.5 %. For optimal processing of cable ties it is therefore important that the polyamide has a water content of approximately 2.5 % in a state of equilibrium.



The quality and functionality of the products are thus affected by the water content, therefore the correct storage of our products is crucial. Please read our separate instructions on storage.

Since humidity is so critical to the quality of the tie, the question arises: What happens if the tie is installed and the water content in the tie alters?

The water content determines the flexibility and strength of a tie. At a water content of approximately 2.5 % the tie has the ideal flexibility for installation. When the strap is being threaded through the head of the tie, the pawl must be flexible enough to “see-saw” over the serration of the strap without breaking. On the other hand, there must also be adequate material rigidity for the serrations of the pawl to engage with the serrations of the strap during the tying process so that a 'positive locking' action is achieved. After achieving the positive locking action the tie is in a static condition. Changes in the mechanical properties of the tie as a function of water content are insignificant during this status.

Properties of UV-stabilised Polyamide PA66W

The question constantly arises as to whether a black cable tie is suitable for use outside. This is dependant on the application of the tie, but in general the following statements can be made:

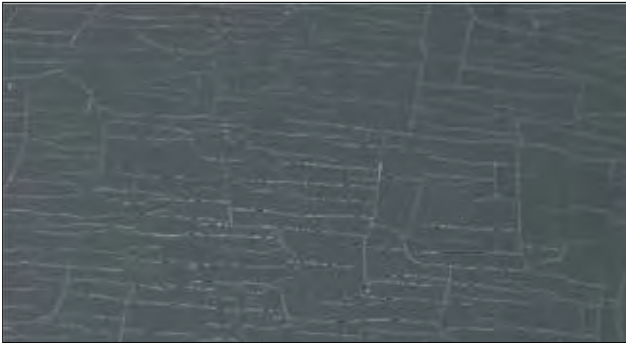
A black cable tie made of polyamide 6.6 standard (PA66) is only coloured black with a low proportion of carbon black. This is not sufficient to protect the material from damage caused by UV-radiation in the long term.

Products made from UV-stabilised polyamide PA66W are produced in accordance with ASTM standard D6779 with a higher carbon black percentage of approx. 2 %. So they resist UV-radiation in the European area for a considerably longer period than standard PA66.

This is clearly illustrated by the comparison of the two images:

After 500 hours of UV-radiation exposure

Polyamide 6.6 standard (PA66) dyed black:



The joint has been damaged throughout by UV-radiation.

Polyamide 6.6 UV-stabilised (PA66W) with approx. 2 % carbon black:



The joint has only been altered at isolated points by the UV-radiation.

For outdoor use we recommend our range of products made from UV-stabilised polyamide (PA66W).

A simple practical test: "the hammer test"

You can quickly determine whether or not a cable tie is UV stabilised. Strike with a hammer the tail of the strap on the tie. Hold up this flattened end to the light. Cable ties with a carbon black content of about 2 % allow no light through and look black throughout. Standard black ties, however, are transparent on the flattened end.

Properties of Polyamide PA11/PA12

Apart from PA66, there are polyamides which are less hygroscopic. These include PA11/PA12.

PA11/PA12 have the following advantages over PA66:

- Less hygroscopic - saturation at 23 °C and 50 % relative humidity is approximately 1 %
- Better impact performance
- Good weather resistance, even without a special additive

These three properties make PA11/PA12 ideal for use outdoors, in particular when requirements may include impact resistance.

The water absorption of PA11/PA12 is not only less than that of PA66 but also slower. This is the requirement where the mechanical properties need to remain relatively unaffected by changing environmental conditions.

Properties of Polyamide PA46

Polyamide PA66, despite the use of additives, is not suitable for long-term use in temperatures of +105 °C. Due to considerably better heat resistance, polyamide PA46 is more suitable for temperatures of up to and exceeding 150 °C (depending on the length of time of operation).

Advantages of PA46 over PA66:

- Greater rigidity, even at higher temperatures
- Higher operating temperature ranges of up to +150 °C (5,000 hours)
- Greater form stability at higher temperatures
- Excellent chemical resistance

Properties of Polyetheretherketone PEEK

PEEK, a linear aromatic polymer is semi-crystalline and is widely regarded as the highest performance thermoplastic material currently available. A summary of key physical properties is as follows:

High temperature performance

- Melting temperature of +343 °C
- Continuous use temperature of +240 °C (UL 746B)

Wear resistance

- Outstanding wear resistance over wide ranges of pressure, velocity, temperature and counter facial roughness

Chemical resistance

- Excellent resistance to a wide range of chemical environments, even at elevated temperatures
- The only common environment that dissolves it is concentrated sulfuric acid

Fire, smoke and toxicity

- Highly stable and requires no flame-retardant additives to achieve a UL94 V0 rating at 1.45 mm thickness
- The composition and inherent purity of the material results in extremely low smoke and toxic gas emission in fire situations

Hydrolysis resistance

- PEEK is not attacked by water or pressurized steam
- Components that are constructed from these materials retain a high level of mechanical properties when continuously conditioned in water at elevated temperatures and pressures

Radiation resistance

- Excellent radiation resistance due to the energetically stable chemical structure of PEEK

Purity

- PEEK materials are inherently pure with exceptionally low levels of ionic extractables
- Excellent out gassing characteristics

This makes PEEK the right choice for any high performance application in any industry with a clearly outstanding continuous use temperature of +240 °C.

Properties of Ethylene Tetrafluoroethylene (E/TFE) - Tefzel®

E/TFE can be best described as a rugged thermoplastic with an outstanding balance of properties.

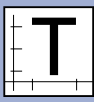
Mechanically, it is tough, has medium stiffness, impact and abrasion resistance.

E/TFE can perform successfully in applications where other materials are lacking in mechanical toughness, broad thermal capability, ability to meet severe environmental conditions.

Tefzel® is a registered trademark of DuPont.

Summary of key properties:

- No load continuous use temperature of +170 °C
- Weather resistant
- Inert to most solvents and chemicals
- Hydrolytically stable
- Substantially better resistance to radiation than other plastic materials



HellermannTyton cable ties conform to IEC62275 standard

HellermannTyton is a global manufacturer of cable management products who specialise in high performance fastening, connecting, routing, protecting and identifying solutions to diverse markets. The extensive product portfolio reflects our long-standing industry expertise. HellermannTyton has provided outstanding product quality and has met the high requirements of various industries for 80 years. Cable ties from the inside serrated (T-Series, Q-Series), the outside serrated (OS-Series) as well as our metal cable ties (MBT-Series and MST-Series) have been tested in accordance with the international cable tie standard IEC 62275 (Cable management systems - Cable ties for electrical installations).

Cable ties manufactured from the standard material Polyamide 6.6 (PA66), heat-stabilised Polyamide 6.6 (PA66HS), UV-stabilised Polyamide 6.6 (PA66W) and Stainless Steel grades SS304 and SS316 have been successfully tested and approved.

The standard includes the following tests:

- Installation test on minimum and maximum specified bundle diameters
- Installation test at minimum specified installation temperature
- Impact test at minimum specified operating temperature
- Minimum tensile strength (in the standard this is described as the loop test)
- Loop tensile test after heat ageing at the specified operating temperature
- Loop tensile test after heat cycling at the minimum and maximum operating temperatures
- Loop tensile test after humidity and heat cycling at the minimum and maximum operating temperatures
- Contribution to the spread of fire on both the actual product and test (tissue paper) substrate
- Loop tensile and visual tests after exposure to ultraviolet light radiation for PA66W ties
- Resistance to corrosion (dependent on material)
- Loop tensile test after vibration test for metallic cable ties

The following cable ties have been tested and certified

- T-Series inside-serrated in PA66-NA, PA66-BK, PA66HS-NA, PA66HS-BK, PA66W
- OS-Series outside-serrated in PA66-NA, PA66-BK, PA66HS-NA, PA66HS-BK, PA66W
- Q-Series inside-serrated in PA66-NA, PA66-BK, coloured PA66, PA66HS-NA, PA66HS-BK
- MBT-Series, uncoated in SS316 material grade
- MST-Series, uncoated in SS304 material grade



Material specification please see page 16.

In addition to the IEC62275, we are proud to offer our customers products which have been certified by well known and independent laboratories such as:



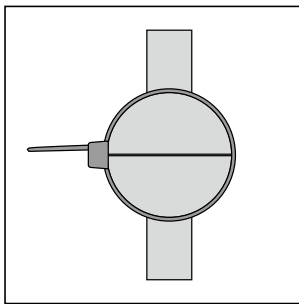
Profit from the knowledge and experience of HellermannTyton and the high-quality of our cable management solutions for your particular industry and market.

Determination of minimum tensile strength

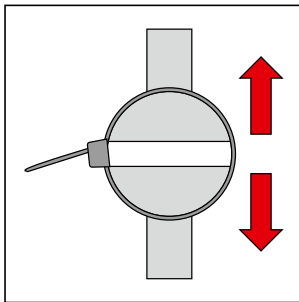
The minimum tensile strength is a critical selection criteria for cable ties. It expresses how much loading a cable tie can bear.

The test procedure to determine minimum tensile strength:

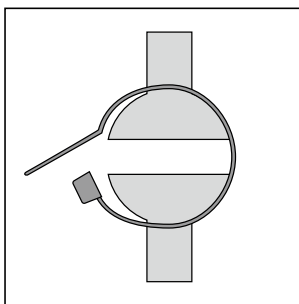
- Stabilisation to achieve equilibrium moisture content
- Set-up of the tensile test fixture
- Application of the tie on a split mandrel fixture
- Test speed



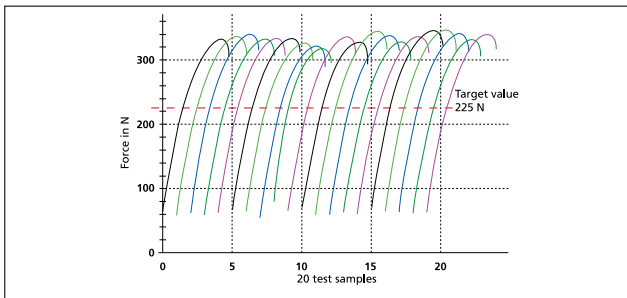
The cable tie is fixed onto a split mandrel fixture with the suitable cable tie application tool.



The mandrel is opened at a defined speed.



The loading at which the cable tie fails is determined. This value is stated in Newtons (N) and is recorded through a computer programme reading the tests. This programme produces graphs as outlined below.



Typical measurement protocol of a T50R made of PA66 with a minimum tensile strength of 225 N.

Explanation of minimum tensile strengths

What does a minimum tensile strength of 225 N (50 lbs) mean?

To explain what this value means, the mass with which the tie can be loaded is calculated. The unit of measurement of the mass is stated in kg. To do so, the unit Newton (N) is shown in the following way:

$$[N] = [kg * m/s^2]$$

The formula for calculating the mass is:

$$\text{Mass} = \text{minimum tensile strength} / \text{acceleration due to gravity}$$

The acceleration due to gravity is 9.81 m/s²

$$\text{Mass} = \text{minimum tensile strength} / [kg * m/s^2] / 9.81 [m/s^2]$$

At a minimum tensile strength of 225 N (50 lbs) the mass is:

$$\text{Mass} = 225 [kg * m/s^2] / 9.81 [m/s^2]$$

The units m/s² cancel each other out, leaving the unit [kg] for the mass. Thus:

$$\text{Mass} = 225 / 9.81 \text{ kg} = 22.9 \text{ kg}$$

Therefore, a T50R cable tie with a minimum tensile strength of 225 N (50 lbs) can be loaded with 22.9 kg.

Conversely, with the required loading capacity the minimum tensile strength can be calculated by a mass:

$$\text{Min. tensile strength} = \text{mass} * 9.81 [m/s^2]$$

If the tie is to be loaded with, for example, 53 kg this produces:

$$\text{Minimum tensile strength} = [53 \text{ kg}] * 9.81 [m/s^2] = 520 \text{ N}$$

In order to withstand a load of 53 kg, the tie must therefore have a minimum tensile strength of 520 N. In this case, select our T120R with a minimum tensile strength of 535 N (120 lbs).

$$\frac{N}{kg} \quad 225 \text{ N} / 9.81 = 22.9 \text{ kg}$$

$$\frac{kg}{N} \quad 53 \text{ kg} * 9.81 = 520 \text{ N}$$

$$\frac{N}{N} = \text{Minimum Loop Tensile Strength for Cable Ties (Newton)}$$

Introduction to the main locking technologies used for cable ties

HellermannTyton offers a wide range of cable ties for use in different applications. By constantly refining our products and satisfying the ever-changing demands of the market, various locking technologies have been developed. Below you will find a brief overview of three most common locking technologies and their characteristics.

Cable ties with plastic pawls

This technology is used in 90% of all polyamide (PA) cable ties applied by HellermannTyton. In order to cover a variety of applications, there are different variants of this system, for example: releasable versions, in-line versions, open head versions.

These are one-piece cable ties, the pawl is moulded as an integral part of the cable tie, thereby building in inherent strengths.

Locking technology

Positive locking is achieved by engaging the pawl with the strap serrations. This allows the cable tie to perform to the published minimum tensile strength, that is the loading that the cable tie can hold under application.

KR series cable ties

This cable tie is distinguished by its smooth strap and unique locking mechanism. With the KR series the chamfered head achieves an especially firm fit around the bundled material.

Locking technology

This locking technology takes advantage of the excellent deformation properties of polyamide (PA). Here, the glass fibre-reinforced locking pin (yellow) is forced into the strap by the use of an application tool - either the KR6/8 or KR8PNSE. The strap is deformed into the head of the tie by the application of the pin, thereby locking the cable tie in position and allowing the bundling of heavy loads.

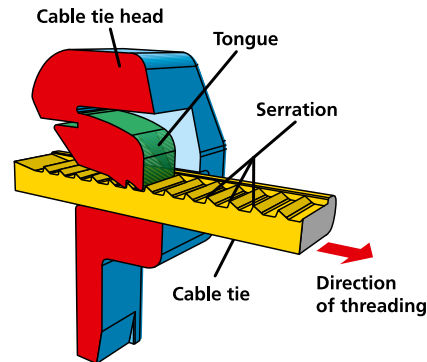
MBT series of cable ties

Made of stainless steel grade 304 or 316, the MBT range of cable ties have no serrations on the strap and are threaded parallel through the head, gliding under a metal ball-bearing locking mechanism. By using an appropriate application tool like our MK9SST the cable tie is tensioned and the strap cut to a flush finish.

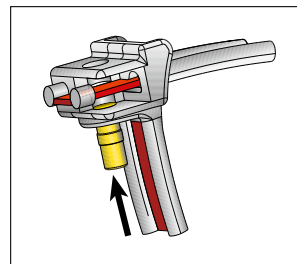
Locking technology

The strap is locked into the head by means of the small ball-bearing. The ball locks into the small end of the wedged shaped housing, forming a positive locking with the strap.

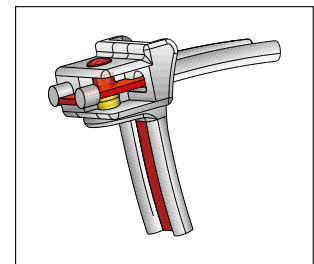
This cable tie is not suitable for rigid objects. Retraction of the ball-bearing (see drawing) is required into the small end of the wedged shaped housing to allow for a positive locking of the strap and also having a flush cut off at the end of the strap. This retraction cannot be ensured when bundling around inflexible materials such as metal pipes. The force by cutting the cable tie might end up in a rebound that could allow the ball moving back slightly. For rigid objects we therefore recommend a protective channel (LFPC) to be laid between strap and bundled object in order to compensate the rebound. The MBT locking technology allows for minimum tensile strengths of up to 7,000 Newton.



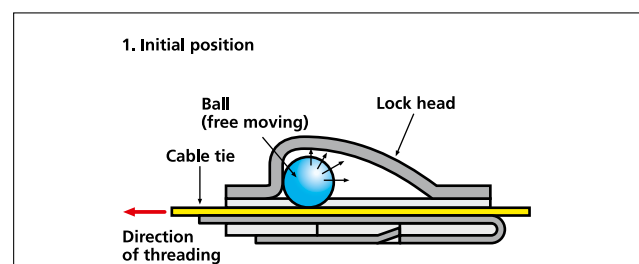
Locking technology of an outside serrated tie.



The unlocked head of a KR-tie.



The cable tie (red) is locked into place with the pin.



1. Initial position








Ball (free moving)
Lock head
Cable tie
Direction of threading





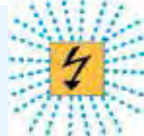






2. Ball locks cable tie by wedging.

Ball (wedged)
Rebound
Lock head
Cable tie
Direction of threading

Enclosures

IP Ratings

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 15° from the vertical
3	 Protected against rain water up to 60° 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



Cable Ties for outdoor use (UV-resistant)

T-Series in PA66W black

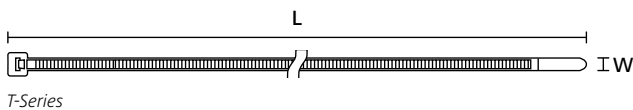
T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for almost any type of application.

Features and Benefits

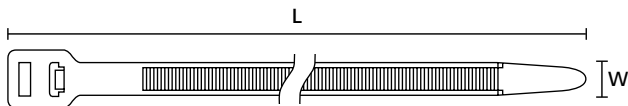
- Weather-resistant black cable tie available in a wide range of sizes
- Made from 100 % high quality plastic, allows for good recycling
- Inside serration for a strong hold around bundles
- Easy application either manually or with a processing tool
- Simple to insert due to the ergonomically bent tail
- UV-resistant



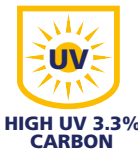
UV-resistant T-Series cable ties (PA66W).



T-Series



T250-series



PART NO.	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
T18RBK/W	100.0	2.5	22.0	80	PA66W	Black (BK)	100 pcs.	111-01960
T18RBK/W-1000	100.0	2.5	22.0	80	PA66W	Black (BK)	1,000 pcs.	111-01867
T18IBK/W	145.0	2.5	35.0	80	PA66W	Black (BK)	100 pcs.	111-02360
T18LBK/W	205.0	2.5	55.0	80	PA66W	Black (BK)	100 pcs.	111-02160
T25LBK/W	240.0	2.8	65.0	110	PA66W	Black (BK)	100 pcs.	111-02560
T30RBK/W	150.0	3.5	35.0	135	PA66W	Black (BK)	100 pcs.	111-03260
T30RBK/W-1000	150.0	3.5	35.0	135	PA66W	Black (BK)	1,000 pcs.	111-01466
T30LBK/W	198.0	3.5	50.0	135	PA66W	Black (BK)	100 pcs.	111-00947
T30LLBK/W	290.0	3.5	80.0	135	PA66W	Black (BK)	100 pcs.	111-03580
T50S/W	150.0	4.6	35.0	225	PA66W	Black (BK)	100 pcs.	111-05860
T50RBK/W	200.0	4.6	50.0	225	PA66W	Black (BK)	100 pcs.	111-04860
T50RBK/W-1000	200.0	4.6	50.0	225	PA66W	Black (BK)	1,000 pcs.	111-00984
LK2ABK/W	270.0	4.6	73.0	225	PA66W	Black (BK)	100 pcs.	111-60160
T50IBK/W	300.0	4.6	85.0	225	PA66W	Black (BK)	100 pcs.	111-00952
T50IBK/W-1000	300.0	4.6	85.0	225	PA66W	Black (BK)	1,000 pcs.	111-05263
T50LBK/W	390.0	4.6	110.0	225	PA66W	Black (BK)	100 pcs.	111-05710
T50LBK/W-1000	390.0	4.6	110.0	225	PA66W	Black (BK)	1,000 pcs.	111-01610
T60RBK/W	300.0	4.8	85.0	250	PA66W	Black (BK)	100 pcs.	111-00751

All dimensions in mm. Subject to technical changes.

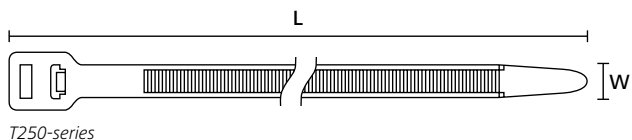
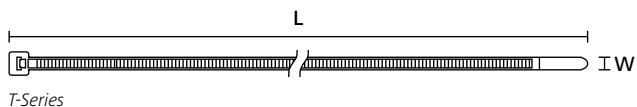
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.






Cable Ties for outdoor use (UV-resistant)

T-Series in PA66W black

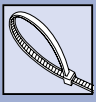


Material specification please see page 14.

PART NO.	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
T120IBK/W	300.0	7.6	80.0	535	PA66W	Black (BK)	100 pcs.	111-12160
T150RBK/W	365.0	7.6	100.0	670	PA66W	Black (BK)	100 pcs.	111-14860
T120RBK/W	387.0	7.6	100.0	535	PA66W	Black (BK)	100 pcs.	111-00944
T120M-BK	460.0	7.6	125.0	535	PA66W	Black (BK)	100 pcs.	111-12610
T120XM-BK	600.0	7.6	175.0	535	PA66W	Black (BK)	50 pcs.	111-12701
T120LBK/W	760.0	7.6	225.0	535	PA66W	Black (BK)	50 pcs.	111-12460
T150LBK/W	8.9	820.0	245.0	780	PA66W	Black (BK)	25 pcs.	111-15460
T150MBK/W	8.9	530.0	150.0	780	PA66W	Black (BK)	25 pcs.	111-15660
T150XLBK/W	8.9	1,095.0	330.0	780	PA66W	Black (BK)	25 pcs.	111-15502
T250MBK/W	565.0	12.4	150.0	1115	PA66W	Black (BK)	25 pcs.	111-25001
T250I-BK	730.0	12.4	203.0	1,115	PA66HIRHSUV	Black (BK)	25 pcs.	111-00507
LK5BK/SCAN	535.0	13.2	150.0	1,115	PA66HIR	Black (BK)	50 pcs.	111-60501
LK5BK/W	535.0	13.2	150.0	1,115	PA66W	Black (BK)	50 pcs.	111-60560

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties Polyamide 6.6 standard (Natural)

T-Series in PA66 natural

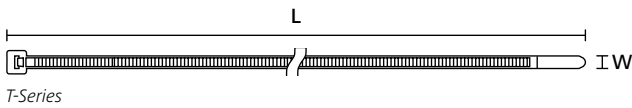
T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for almost any type of application.

Features and Benefits

- Natural cable ties available in a wide range of sizes
- Made from 100 % high quality plastic, allows for good recycling
- Inside serration for a strong hold around bundles
- Easy application either manually or with a processing tool
- Simple to insert due to the ergonomically bent tail




Standard T-Series cable ties – for almost any type of application (PA66).



T-Series



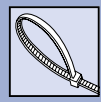
**Material specification
please see page 14.**

PART NO.	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
T18RNA	100.0	2.5	22.0	80	PA66	Natural (NA)	100 pcs.	111-01919
T18RNA-1000	100.0	2.5	22.0	80.0	PA66	Natural (NA)	1,000 pcs.	111-01929
T18INA	145.0	2.5	35.0	80	PA66	Natural (NA)	100 pcs.	111-02210
T18LNA	205.0	2.5	55.0	80	PA66	Natural (NA)	100 pcs.	111-02119
T25LNA	240.0	2.8	65.0	110	PA66	Natural (NA)	100 pcs.	111-02519
T30RNA	150.0	3.5	35.0	135	PA66	Natural (NA)	100 pcs.	111-03219
T30RNA-1000	150.0	3.5	35.0	135	PA66	Natural (NA)	1,000 pcs.	111-03039
T30LLNA	290.0	3.5	80.0	135	PA66	Natural (NA)	100 pcs.	111-03549
T50SNA	150.0	4.6	35.0	225	PA66	Natural (NA)	100 pcs.	111-05819
T50RNA	200.0	4.6	50.0	225	PA66	Natural (NA)	100 pcs.	111-04819
T50RNA-1000	200.0	4.6	50.0	225	PA66	Natural (NA)	1,000 pcs.	111-01153
T50INA	300.0	4.6	85.0	225	PA66	Natural (NA)	100 pcs.	111-00951
T50LNA	390.0	4.6	110.0	225	PA66	Natural (NA)	100 pcs.	111-05619
T60RNA	300.0	4.8	85.0	250	PA66	Natural (NA)	100 pcs.	111-00751
T120INA	300.0	7.6	80.0	535	PA66	Natural (NA)	100 pcs.	111-12119
T120RNA	387.0	7.6	100.0	535	PA66	Natural (NA)	100 pcs.	111-00942
T120M-NA	460.0	7.6	125.0	535	PA66	Natural (NA)	100 pcs.	111-12619
T150LNA	820.0	8.8	245.0	780	PA66	Natural (NA)	25 pcs.	111-15419
T150MNA	530.0	8.9	150.0	780	PA66	Natural (NA)	25 pcs.	111-15619
T150LLNA	925.0	8.9	300.0	225	PA66	Natural (NA)	25 pcs.	111-15719
T150XLNA	1,095.0	8.9	330.0	780	PA66	Natural (NA)	25 pcs.	111-15519
T150XLLNA	1,325.0	8.9	405.0	780	PA66	Natural (NA)	25 pcs.	111-15304

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.





Cable Ties Polyamide 6.6 standard (Coloured)

T-Series in PA66 coloured

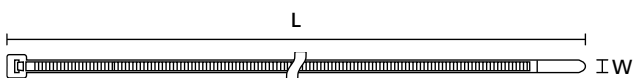
T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for almost any type of application.

Features and Benefits

- Coloured cable ties available in a wide range of sizes
- Made from 100 % high quality plastic, allows for good recycling
- Inside serration for a strong hold around bundles
- Easy application either manually or with a processing tool
- Simple to insert due to the ergonomically bent tail
- Other colours are available on request



T-Series cable ties – ideally suited for colour coding.

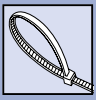


T-Series

PART NO.	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
T18RBL-1000	100.0	2.5	22.0	80	PA66	Blue (BU)	1000 pcs.	111-01845
T18RGN-1000	100.0	2.5	22.0	80	PA66	Green (GN)	1000 pcs.	111-01855
T30RBL	150.0	3.5	35.0	135	PA66	Blue (BU)	100 pcs.	116-03016
T30RGN	150.0	3.5	35.0	135	PA66	Green (GN)	100 pcs.	116-03015
T30RRD	150.0	3.5	35.0	135	PA66	Red (RD)	100 pcs.	116-03012
T30ROR	150.0	3.5	35.0	135	PA66	Orange (OR)	100 pcs.	116-03013
T30RYL	150.0	3.5	35.0	135	PA66	Yellow (YE)	100 pcs.	116-03014
T50RBU	200.0	4.6	50.0	225	PA66	Blue (BU)	100 pcs.	116-05016
T50RGN	200.0	4.6	50.0	225	PA66	Green (GN)	100 pcs.	116-05015
T50RRD	200.0	4.6	50.0	225	PA66	Red (RD)	100 pcs.	116-05012
T50RYE	200.0	4.6	50.0	225	PA66	Yellow (YE)	100 pcs.	116-05014
T50RVT	200.0	4.6	50.0	225	PA66	Violet (VT)	100 pcs.	111-04875
T50RBN	200.0	4.6	50.0	225	PA66	Brown (BR)	100 pcs.	116-05011
T25LRD	240.0	2.8	65.0	110	PA66	Red (RD)	100 pcs.	111-00188
T50IBU	300.0	4.6	86.0	225	PA66	Blue (BU)	100 pcs.	111-01116
T50IBN	300.0	4.6	86.0	225	PA66	Brown (BR)	100 pcs.	111-01117
T50IGN	300.0	4.6	86.0	225	PA66	Green (GN)	100 pcs.	111-01118
T50IOE	300.0	4.6	86.0	225	PA66	Orange (OR)	100 pcs.	111-05200
T50IVT	300.0	4.6	86.0	225	PA66	Violet (VT)	100 pcs.	111-05240
T50ROG	300.0	4.6	86.0	225	PA66	Orange (OR)	100 pcs.	116-05013
T50RWH	300.0	4.6	86.0	225	PA66	White (WH)	100 pcs.	116-05019

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties for food industry, detectable

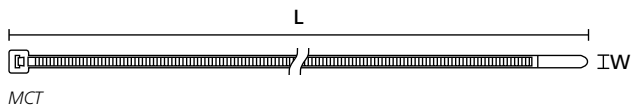
The Metal Content Tie is a cable tie specifically designed for use in the food and pharmaceutical processing industries. A unique manufacturing process, involving the inclusion of a metallic pigment, enables even small 'cut-off' sections of the tie to be detected by standard metal-detecting equipment. Ideally suited for the installation of cabling in and around the manufacturing process.

Features and Benefits


- Total metal dispersion throughout the tie
- Usable as part of HACCP process*
- Blue colour most common for easy visual detection
- Greatly reduces risk of contamination
- Magnetic and X-Ray detectable (detection level depending on specific application)
- Available in a wide range of sizes and colours



Our detectable MCT(S) cable ties used in the food and pharmaceutical industry.



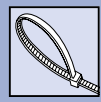
Supports quality processes around the production of food stuffs, such as e.g. HACCP.

PART NO.	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
MCT18RBL	100.0	2.5	22.0	80	PA66MP	Blue (BU)	100 pcs.	111-01225
MCT30RBL	150.0	3.5	35.0	135	PA66MP	Blue (BU)	100 pcs.	111-00829
MCT50RBL	202.0	4.6	50.0	225	PA66MP	Blue (BU)	100 pcs.	111-00830
MCT50LBL	380.0	4.7	110.0	225	PA66MP	Blue (BU)	100 pcs.	111-00831
MCT120RBL	387.0	7.6	100.0	535	PA66MP	Blue (BU)	100 pcs.	111-01136

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

*HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.



Cable Ties for food industry, detectable

MCT-Series / MCTS-Series PPMP

The 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 even small 'cut-off' sections of the tie to be detected by standard metal-detecting equipment. Ideally suited for the installation of cabling in and around the manufacturing process.

Features and Benefits

- High chemical and temperature resistance
- Blue color for easy visual detection
- Greatly reduces risk of contamination
- Magnetic and X-Ray detectable (detection level depending on specific application)
- MCTS ties have very good corrosion resistance
- Usable as part of HACCP process*
- PP cable ties tend to float in various liquids



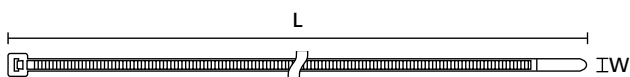
MCTPP ties will float to the surface of liquids so they can easily be seen and removed.




The MCT ties made of PA66MP are the ideal complement for MCMB mounts on page 63.



Supports quality processes around the production of food stuffs, such as e.g. HACCP.



MCT

TYPE	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
MCTPP18R	100.0	2.5	22.0	85	PPMP	Blue (BU)	100 pcs.	111-01664
MCTPP30R	150.0	3.5	35.0	130	PPMP	Blue (BU)	100 pcs.	111-01665
MCTPP50R	200.0	4.6	50.0	150	PPMP	Blue (BU)	100 pcs.	111-01666
MCTPP50L	390.0	4.6	110.0	150	PPMP	Blue (BU)	100 pcs.	111-01667
MCTS200	201.0	4.7	50.0	140	PPMP+	Blue (BU)	100 pcs.	111-01386
MCTPP120R	387.0	7.6	100.0	380	PPMP	Blue (BU)	100 pcs.	111-01668

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

*HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.



Cable Ties for higher chemical resistance and for temperatures up to +170 °C in Ethylene Tetrafluoroethylene

T-Series in E/TFE (Tefzel®) blue

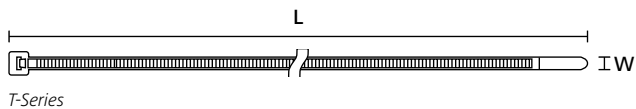
T-Series cable ties for bundling and securing of cables, pipes and hoses. These cable ties can be used for almost any type of application, especially when a high chemical resistance is required.

Features and Benefits


- Blue high chemical resistance cable tie available in a wide range of sizes
- Made from 100 % high quality plastic, allows for good recycling
- Inside serration for a strong hold around bundles
- Easy application either manually or with a processing tool
- Simply to insert due to the ergonomically bent tail
- High temperature resistance
- No moisture absorption



T-Series E/TFE cable ties – for higher chemical resistance up to +170 °C.



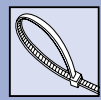
Material specification please see page 14.

PART NO.	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
T18R-TZ	100.0	2.5	22.0	80	E/TFE	Blue (BU)	100 pcs.	111-01845
T30R-TZ	150.0	3.5	36.0	133	E/TFE	Blue (BU)	100 pcs.	111-00698
T50R-TZ	201.0	4.7	50.0	222	E/TFE	Blue (BU)	100 pcs.	111-05016
T50L-TZ	382.0	4.7	105.0	222	E/TFE	Blue (BU)	100 pcs.	111-00718
T120R-TZ	387.0	7.4	105.0	535	E/TFE	Blue (BU)	50 pcs.	111-01125

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. General linguistic usage for cable ties made from raw material E/TFE is Tefzel®-Tie. In addition to Tefzel® from DuPont HellermannTyton is also using equivalent E/TFE raw material from other suppliers.





Cable Ties for temperatures up to +105 °C (heat stabilised)

T-Series in PA66HS natural and black

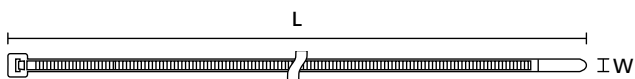
T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for almost any type of application.

Features and Benefits

- Heat stabilised cable tie available in a wide range of sizes
- Made from 100 % high quality plastic, allows for good recycling
- Inside serration for a strong hold around bundles
- Easy application either manually or with a processing tool
- Simply to insert due to the ergonomically bent tail
- Higher temperature resistance up to +105 °C



Heat stabilised T-Series cable ties up to +105 °C.

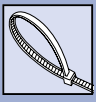


T-Series

TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
T18S	83.0	2.3	16.0	80	PA66HS	Natural (NA)	1000 pcs.	111-00962
T18R	100.0	2.5	22.0	80	PA66HS	Black (BK)	100 pcs.	111-01950
	100.0	2.5	22.0	80	PA66HS	Natural (NA)	1,000 pcs.	111-01866
T18I	145.0	2.5	35.0	80	PA66HS	Black (BK)	100 pcs.	111-02358
	145.0	2.5	35.0	80	PA66HS	Natural (NA)	1,000 pcs.	111-02359
T18L	205.0	2.5	55.0	80	PA66HS	Black (BK)	100 pcs.	111-02049
	205.0	2.5	55.0	80	PA66HS	Natural (NA)	100 pcs.	111-02159
T30R	150.0	3.5	35.0	135	PA66HS	Natural (NA)	100 pcs.	111-03259
	150.0	3.5	35.0	135	PA66HS	Black (BK)	100 pcs.	111-03250
	150.0	3.5	35.0	135	PA66HSW	Black (BW)	100 pcs.	111-01211
T30L	198.0	3.5	50.0	135	PA66HS	Black (BK)	100 pcs.	111-03450
	198.0	3.5	50.0	135	PA66HS	Natural (NA)	100 pcs.	111-03459
T30LL	290.0	3.5	80.0	135	PA66HS	Black (BK)	1,000 pcs.	111-03640
	290.0	3.5	80.0	135	PA66HS	Natural (NA)	100 pcs.	111-01555
T40R	175.0	4.0	40.0	180	PA66HS	Black (BK)	100 pcs.	111-01618
	175.0	4.0	40.0	180	PA66HS	Natural (NA)	100 pcs.	111-03859
T50S	150.0	4.6	35.0	225	PA66HS	Natural (NA)	100 pcs.	111-05859
	150.0	4.6	35.0	225	PA66HS	Black (BK)	100 pcs.	111-05850
T50R	200.0	4.6	50.0	225	PA66HSW	Black (BK)	100 pcs.	111-01278
	200.0	4.6	50.0	225	PA66HS	Natural (NA)	100 pcs.	111-04855
T50I	300.0	4.6	85.0	225	PA66HS	Black (BK)	100 pcs.	111-05250
	300.0	4.6	85.0	225	PA66HS	Natural (NA)	100 pcs.	111-00953
	300.0	4.6	85.0	225	PA66HSW	Black (BK)	100 pcs.	111-00954

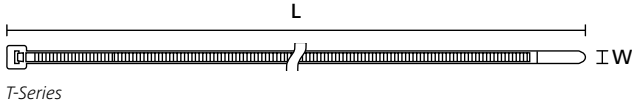
All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.





Cable Ties for temperatures up to +105 °C (heat stabilised)

T-Series in PA66HS natural and black



Material specification
please see page 14.

TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
T50L	390.0	4.6	110.0	225	PA66HS	Black (BK)	100 pcs.	111-05450
	390.0	4.6	110.0	225	PA66HS	Natural (NA)	100 pcs.	111-05655
	390.0	4.6	110.0	225	PA66HSW	Black (BK)	100 pcs.	111-01226
T80R	210.0	4.7	55.0	355	PA66HS	Black (BK)	1,000 pcs.	117-08005
	210.0	4.7	55.0	355	PA66HS	Natural (NA)	100 pcs.	111-05059
T80I	300.0	4.7	85.0	355	PA66HS	Black (BK)	100 pcs.	111-08250
	300.0	4.7	85.0	355	PA66HS	Natural (NA)	100 pcs.	111-08259
T80L	390.0	4.7	110.0	355	PA66HS	Black (BK)	100 pcs.	111-00388
	390.0	4.7	110.0	355	PA66HS	Natural (NA)	100 pcs.	111-05459
T120S	225.0	7.6	55.0	535	PA66HS	Black (BK)	50 pcs.	111-12850
	225.0	7.6	55.0	535	PA66HS	Natural (NA)	50 pcs.	111-12824
T150R	365.0	7.6	100.0	670	PA66HS	Black (BK)	100 pcs.	111-01636
T150R(H)	365.0	7.6	100.0	670	PA66HS	Black (BK)	100 pcs.	111-01156
	365.0	7.6	100.0	670	PA66HS	Natural (NA)	100 pcs.	111-15069
T120R(E)	387.0	7.6	100.0	535	PA66HS	Black (BK)	100 pcs.	111-12050
	387.0	7.6	100.0	535	PA66HS	Natural (NA)	100 pcs.	111-12059
T120M	460.0	7.6	125.0	535	PA66HS	Black (BK)	100 pcs.	111-00153
T120XM	600.0	7.6	175.0	535	PA66HS	Black (BK)	50 pcs.	111-12700
	600.0	7.6	175.0	535	PA66HS	Natural (NA)	50 pcs.	111-12719
T120L	760.0	7.6	225.0	535	PA66HS	Black (BK)	50 pcs.	111-12440
	760.0	7.6	225.0	535	PA66HS	Natural (NA)	50 pcs.	111-12449
T150L	820.0	8.8	245.0	780	PA66HS	Black (BK)	25 pcs.	111-15410
T150M	530.0	8.9	150.0	780	PA66HS	Black (BK)	25 pcs.	111-15609
T150XL	1,095.0	8.9	330.0	780	PA66HS	Black (BK)	25 pcs.	111-15510

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.





Wide Strap Cable Ties

Wide Strap Heavy Duty Cable Ties

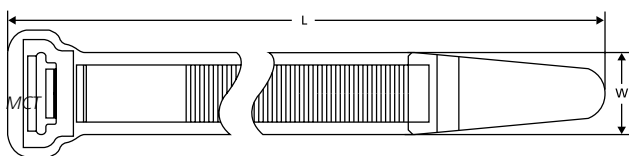
The Heavy Duty Wide-Strap Cable Tie was designed to minimize the pinching of soft bundles and the potential of lateral movement along the bundle. The low-profile head and underside clamping rails increase the grip around the bundle and provide a better fit than traditional cable ties. These are used primarily in the trucking and heavy equipment industries, but can be used in a wide variety of applications where strength is needed.

Features and Benefits

- Wide strap is designed to minimize pinching of soft hoses and convoluted tubing.
- Low-profile head with clamping rails provide compact bundling with a full circumferential compression around bundles.
- Wider and thinner strap design increases flexibility, provides low insertion and minimizes pinching of bundles.
- Bent tail allows for quick insertion into head or mounts.



Heavy Duty Wide Strap Cable Ties.



Material specification please see page 14.

PART NO.	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
WSS	231.0	12.7	58.4	535	PA66HIRHSUV	Black (BK)	300 pcs.	111-12300
WSI	307.0	12.7	83.8	535	PA66HIRHSUV	Black (BK)	300 pcs.	111-12301
WSR	383.5	12.7	104.1	535	PA66HIRHSUV	Black (BK)	300 pcs.	111-12302

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties for parallel routing

DH-Series

Ideal for running two cables in parallel that need to be separated. These ties allow for installation of a second cable run without the need for additional cable ties.

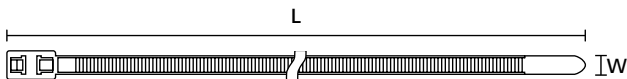
The DH ties are also widely used within the packaging industry - the first loop closes and secures the bag, whilst the second loop can be made into a carrying handle (subject to weight).

Features and Benefits


- Available in a wide range of materials
- Cable tie designed with two heads which creates an inside and outside serrated loop
- For parallel routing of two bundles with only one cable tie
- Bundles can be of different diameter
- Easy application either manually or with a processing tool



DH-Series cable ties for parallel routing.



DH-Series

PART NO.	Length (L)	Width (W)	Ø max. side loops		Min. Tensile Strength 2nd loop (N)	Material	Colour	Pack Qty	Article-No.
T50RDHBK	210.0	4.7	19.0	225	180 N	PA66	Black (BK)	100 pcs.	117-05004
T50LDHBK/W	395.0	4.7	50.8	225	180 N	PA66W	Black (BK)	100 pcs.	117-05460

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



For product specific approvals and specifications please refer to the Appendix.



Cable Ties for thin-walled bundles

OS-Series

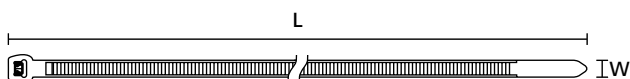
OS-Series cable ties are used in many areas where thin-walled or soft insulation wires and cable are being installed, e. g. automotive and aircraft industry. OS ties made from material PA66V0 are suitable for applications where safety regulations, e. g. reduction of smoke and dangerous gases, are required.

Features and Benefits

- Outside serrated cable tie with smooth surface to the bundle
- Tie follows the contours of the cable bundle perfectly
- Takes up less space due to curved head
- Easy insertion and high tensile strength
- For higher temperature or Limited Fire Hazard demand: Material PA46 or PA66V0
- Easy application either manually or with a processing tool



Outside serrated OS-Series cable tie with smooth surface to the bundle.



OS-Series

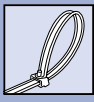


The curved head design of the OS-Series

TYPE	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
T18ROS	100.0	2.5	1.6	20.0	80	PA66HS	Black (BK)	500 pcs.	118-04701
	100.0	2.5	1.6	20.0	80	PA66HS	Natural (NA)	1,000 pcs.	118-00035
	100.0	2.5	1.6	20.0	80	PA66V0	White (WH)	100 pcs.	118-00079
T30ROS	145.0	3.4	1.6	35.0	135	PA66HS	Natural (NA)	100 pcs.	118-00064
	145.0	3.4	1.6	35.0	135	PA66HS	Black (BK)	100 pcs.	118-04800
T30LOS	200.0	3.4	1.6	50.0	135	PA66HS	Natural (NA)	100 pcs.	118-00044
	200.0	3.4	1.6	50.0	135	PA66V0	White (WH)	100 pcs.	118-00080
	200.0	3.4	1.6	50.0	135	PA66HS	Black (BK)	100 pcs.	118-04900
T50SOS	150.0	4.6	1.6	35.0	225	PA66HS	Black (BK)	100 pcs.	118-05850
T50ROS	200.0	4.6	1.6	50.0	225	PA46	Grey (GY)	500 pcs.	118-05078
	200.0	4.6	1.6	50.0	225	PA66HS	Black (BK)	500 pcs.	118-05040
	200.0	4.6	1.6	50.0	225	PA66HS	Natural (NA)	100 pcs.	118-05059
T50MOS	245.0	4.6	1.6	66.0	225	PA66HS	Black (BK)	100 pcs.	118-00018
	245.0	4.6	1.6	66.0	225	PA66HS	Natural (NA)	100 pcs.	118-00055
	245.0	4.6	1.6	66.0	225	PA66V0	White (WH)	100 pcs.	118-00081
T50LOS	384.0	4.6	1.6	110.0	225	PA66HS	Black (BK)	100 pcs.	118-05900
T120ROS	385.0	7.6	5.0	105.0	535	PA66HS	Black (BK)	100 pcs.	118-00066
	385.0	7.6	5.0	105.0	535	PA66HS	Natural (NA)	100 pcs.	118-00067
	385.0	7.6	5.0	105.0	535	PA66V0	White (WH)	100 pcs.	118-00082

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties inside serrated with kickdown lever

REL-Series

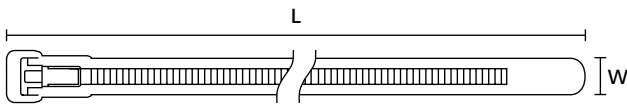
Ideal for use in applications where there is the need to repeatedly open and close the tie.

Features and Benefits

- Releasable and reusable cable tie in black and natural colour (even UV-resistant)
- Extremely easy-to-operate release mechanism
- Opens simply and quickly with one hand
- Inside serrated



Releasable and reusable cable tie, REL-Series.



REL-Series

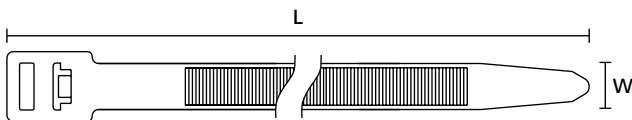
TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
REL180	180.0	6.5	46.0	150	PA66	Black (BK)	100 pcs.	115-00027
REL100	100.0	6.7	21.0	180	PA66	Black (BK)	100 pcs.	131-21010
	100.0	6.7	21.0	180	PA66	Natural (NA)	100 pcs.	131-21019
REL140	150.0	7.6	35.0	200	PA66	Black (BK)	100 pcs.	131-21410
	150.0	7.6	35.0	200	PA66	Natural (NA)	100 pcs.	131-21419
REL250	250.0	7.6	68.0	200	PA66	Black (BK)	100 pcs.	131-22510
	250.0	7.6	68.0	200	PA66	Natural (NA)	100 pcs.	131-22519
	250.0	7.6	68.0	200	PA66W	Black (BK)	100 pcs.	131-22560

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Releasable cable tie REL250-Series.



Releasable cable tie REL250-Series

TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
REL250S	230.0	12.2	50.0	1,115	PA66HIR(S)	Black (BK)	50 pcs.	111-00074
REL250X	385.0	12.2	100.0	1,115	PA66HIR(S)	Black (BK)	50 pcs.	111-00075

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Tie with quick release mechanism Speedy-Click

SpeedyTie

The versatility of the SpeedyTie means that it is suitable for a multitude of applications like: electroinstallations, heating and ventilation, construction and exhibitions and trade fairs. Whether it is used for permanent or temporarily solutions the SpeedyTie is a helping hand in every situation.

Features and Benefits

- Releasable cable tie
- Removable, patented „Speedy-Click“ rapid closure
- Bears loads of up to 888 N (approx. 90 kg)
- 750 mm long for use in wide variety of applications
- Easy to handle wearing work gloves
- Available in signal yellow and in black



Patented



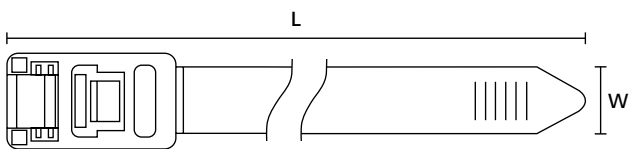
Application video: SpeedyTie



SpeedyTie - Patented quick release mechanism for quick and easy application.



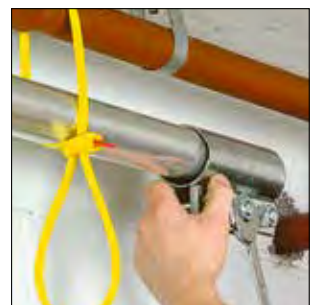
Excess tails can be neatly tucked away.



SpeedyTie



SpeedyTie - Quick and easy.



SpeedyTie is particularly suited for temporary but safe bundling or fixing.

PART NO.	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
RTT750YERD	752.0	13.0	210.0	888	PA66	Yellow (YE), Red (RD)	25 pcs.	115-00000
RTT750HR-BK	752.0	13.0	210.0	888	PA66HIR(S)	Black (BK)	5 pcs.	115-00030

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

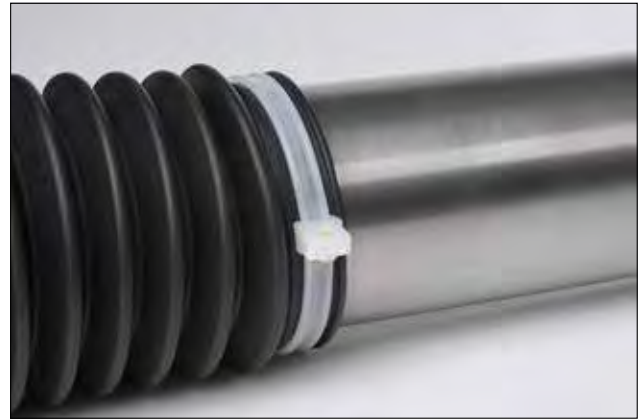


Cable Tie locked by glass fibre pin

In addition to offering a secure method of bundling cables the design of the KR-ties makes them ideal for use as a method of securing bellows on steering racks, water hoses and vacuum lines.

Features and Benefits

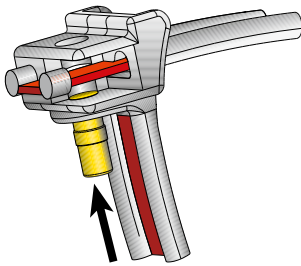
- Patented cable tie system
- Smooth strap which is locked into place with a glass-fibre reinforced pin
- For assembly a special KR-tool is needed
- Very secure and vibration resistant fixing
- KR-ties up to 426 mm are made as one piece
- Available in various materials, even in PA12, which is less hygroscopic



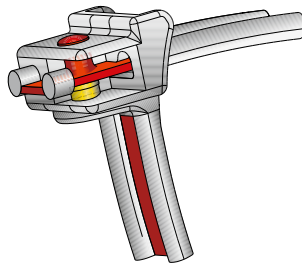
The KR-Series has been repeatedly proven in high vibration applications.



Patented



The unlocked head of a KR-tie.

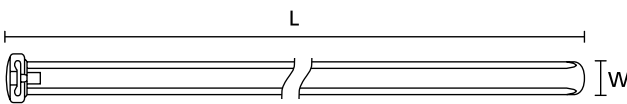


The cable tie (red) is locked into place with the pin.



KR-Series is available in different sizes.

KR-Series, 1-Piece



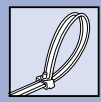
Cable tie KR-Series

TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
KR6/35	360.0	6.1	93.0	490	PA66	Natural (NA)	50 pcs.	121-63519
	360.0	6.1	93.0	490	PA66HS	Natural (NA)	50 pcs.	121-63555
	360.0	6.1	93.0	490	PA66W	Black (BK)	50 pcs.	121-63560
KR8/21	210.0	8.0	47.0	785	PA66HS	Natural (NA)	50 pcs.	121-82155
	210.0	8.0	47.0	785	PA66	Natural (NA)	50 pcs.	121-82119
	210.0	8.0	47.0	785	PA66W	Black (BK)	50 pcs.	121-82160

All dimensions in mm. Subject to technical changes.

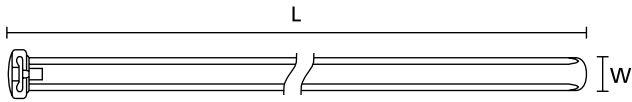
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.





Cable Tie locked by glass fibre pin

KR-Series, 1-Piece



Cable tie KR-Series

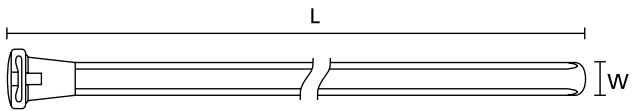
TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
KR8/33	337.0	8.0	86.0	390	PA12	Black (BK)	50 pcs.	121-83380
	337.0	8.0	86.0	785	PA66	Natural (NA)	50 pcs.	121-83319
	337.0	8.0	86.0	785	PA46	Grey (GY)	50 pcs.	121-83378
	337.0	8.0	86.0	785	PA66HS	Natural (NA)	50 pcs.	121-83355
	337.0	8.0	86.0	785	PA66W	Black (BK)	50 pcs.	121-83360
KR8/43	426.0	8.0	105.0	785	PA66HS	Black (BK)	50 pcs.	121-74360
	426.0	8.0	105.0	785	PA66HS	Natural (NA)	50 pcs.	121-74359

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



For product specific approvals and specifications please refer to the Appendix.

KR-Series, ultrasonic welded



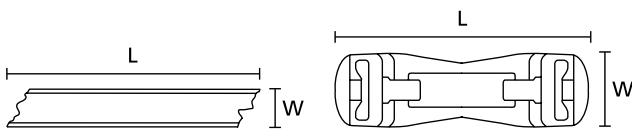
Cable tie KR-Series, ultrasonic welded

i Other dimensions are available on request.

TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
KR8/50	500.0	8.0	152.0	785	PA66	Natural (NA)	50 pcs.	121-05019
KR8/60	600.0	8.0	184.0	785	PA66W	Black (BK)	50 pcs.	121-06060

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

KR-Series, endless

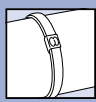


Cable tie KR8S1

Double-head KR8C5

TYPE	Length (L)	Width (W)	N	Material	Colour	Pack Qty	Article-No.
KR8/S1	50.0 m	8.0	785	PA66HS	Natural (NA)	50.0 m	121-98151
	50.0 m	8.0	785	PA66W	Black (BK)	50.0 m	121-98160
KR8/C5	38.0	11.7	-	PA66HS	Natural (NA)	200 pcs.	121-58551
	38.0	11.7	-	PA66W	Black (BK)	200 pcs.	121-58560

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties with Ball-Lock

SST-Series, Stainless Steel SS316

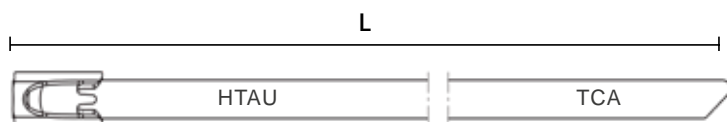
Metal ties are ideal for all applications that require high strength, reliability and fire resistance. The SST range of stainless steel cable ties can be used in chemical industries and on oil platforms as well as in mass transit, shipbuilding and mining industries. SST ties are also suitable for machine building, apparatus construction and in the outside area of radio technology. Additionally, SST ties are ideal for securing lighting in theatres and exhibition halls.

Features and Benefits

- Cable ties SST, made from stainless steel 316
- Patented non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant -80 °C to +538 °C
- Non-burning
- Non-flammable
- UL62275




Stainless Steel Cable Ties, uncoated.



SST-Series 4.6 mm and 7.9 mm width



Material specification
please see page 15.

PART NO.	Length (L)	Width (W)	Bundle Ø max.		Material	Pack Qty
SST150X4.6	150	4.6	46	670	SS316	100 pcs.
SST200X4.6	200	4.6	50	670	SS316	100 pcs.
SST360X4.6	360	4.6	102	670	SS316	100 pcs.
SST520X4.6	520	4.6	152	670	SS316	100 pcs.
SST680X4.6	680	4.6	203	670	SS316	100 pcs.
SST840X4.6	840	4.6	254	670	SS316	100 pcs.
SST1050X4.6	1050	4.6	318	670	SS316	100 pcs.
SST200X7.9	200	7.9	50	1115	SS316	100 pcs.
SST360X7.9	360	7.9	102	1115	SS316	100 pcs.
SST520X7.9	520	7.9	152	1115	SS316	100 pcs.
SST680X7.9	680	7.9	203	1115	SS316	100 pcs.
SST840X7.9	840	7.9	254	1115	SS316	100 pcs.
SST1050X7.9	1050	7.9	318	1115	SS316	100 pcs.

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties with Ball-Lock and Coating

Stainless Steel 316

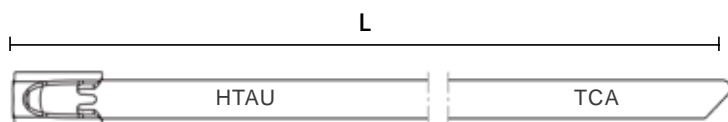
The range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical industry, theatres and exhibition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

Features and Benefits

- Cable ties made from type 316 stainless steel
- Patented non-releasable locking feature
- Coated cable tie with smooth edges
- Comfortable handling and installation
- Eliminates contact corrosion between dissimilar materials during application
- Coated with polyester for insulation and outdoor applications
- UL62775



Stainless Steel Cable Ties, coated

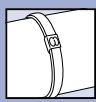


SST-Series 4.6 mm and 7.9 mm width



Material specification please see page 15.

PART NO.	Length (L)	Width (W)	Bundle Ø max.	N	Material	Pack Qty
SSCCTB125X4.6	125	4.6	38	670	SS316	100 pcs.
SSCCTB150X4.6	150	4.6	46	670	SS316	100 pcs.
SSCCTB200X4.6	200	4.6	61.9	670	SS316	100 pcs.
SSCCTB260X4.6	260	4.6	81	670	SS316	100 pcs.
SSCCTB290X4.6	290	4.6	90.6	670	SS316	100 pcs.
SSCCTB360X4.6	360	4.6	112.8	670	SS316	100 pcs.
SSCCTB520X4.6	520	4.6	163.8	670	SS316	100 pcs.
SSCCTB680X4.6	680	4.6	214.8	670	SS316	100 pcs.
SSCCTB840X4.6	840	4.6	265.7	670	SS316	100 pcs.
SSCCTB200X7.9	200	7.9	61.9	1115	SS316	100 pcs.
SSCCTB290X7.9	290	7.9	90.6	1115	SS316	100 pcs.
SSCCTB360X7.9	360	7.9	112.8	1115	SS316	100 pcs.
SSCCTB520X7.9	520	7.9	163.8	1115	SS316	100 pcs.
SSCCTB680X7.9	680	7.9	214.8	1115	SS316	100 pcs.
SSCCTB840X7.9	840	7.9	265.7	1115	SS316	100 pcs.



Colour Cable Ties with Ball-Lock

SST-Series, Stainless Steel SS316

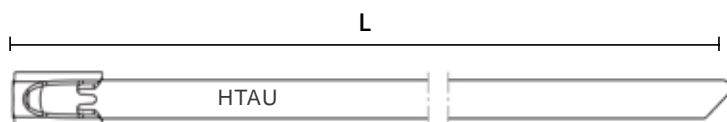
Metal ties are ideal for all applications that require high strength, reliability and fire resistance. The SST range of stainless steel cable ties can be used in chemical industries and on oil platforms as well as in mass transit, shipbuilding and mining industries. SST ties are also suitable for machine building, apparatus construction and in the outside area of radio technology. Additionally, SST ties are ideal for securing lighting in theatres and exhibition halls.

Features and Benefits

- Cable ties SST, made from stainless steel 316
- Patented non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant -80 °C to +538 °C
- Non-burning
- Non-flammable
- UL62275



Stainless Steel Cable Ties, colour coated



SST-Series 4.6 mm and 7.9 mm width



**Material specification
please see page 15.**

PART NO.	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty
SSCCTBL200X4.6	200	4.6	50	670	SS316	Blue (BU)	100 pcs.
SSCCTGR200X4.6	200	4.6	50	670	SS316	Green (GN)	100 pcs.
SSCCTRD200X4.6	200	4.6	50	670	SS316	Red (RD)	100 pcs.
SSCCTWH200X4.6	200	4.6	50	670	SS316	White (WH)	100 pcs.
SSCCTYE200X4.6	200	4.6	50	670	SS316	Yellow (YE)	100 pcs.
SSCCTBL360X4.6	360	4.6	102	670	SS316	Blue (BU)	100 pcs.
SSCCTGR360X4.6	360	4.6	102	670	SS316	Green (GN)	100 pcs.
SSCCTRD360X4.6	360	4.6	102	670	SS316	Red (RD)	100 pcs.
SSCCTWH360X4.6	360	4.6	102	670	SS316	White (WH)	100 pcs.
SSCCTYE360X4.6	360	4.6	102	670	SS316	Yellow (YE)	100 pcs.
SSCCTBL520X4.6	520	4.6	152	670	SS316	Blue (BU)	100 pcs.
SSCCTGR520X4.6	520	4.6	152	670	SS316	Green (GN)	100 pcs.
SSCCTRD520X4.6	520	4.6	152	670	SS316	Red (RD)	100 pcs.
SSCCTWH520X4.6	520	4.6	152	670	SS316	White (WH)	100 pcs.
SSCCTYE520X4.6	520	4.6	152	670	SS316	Yellow (YE)	100 pcs.

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties for single hole application (Chassis Tie)

Button Head Ties

Button Head ties provide a one-piece mounting solutions for bundles, eliminating the need for additional mounts and fasteners. The strap contains serrations on both sides and has two opposing pawls recessed within the domed head, enabling the strap to be directed either way through the buttonhead.

Features and Benefits

A. Pilot Bushing

Protects the strap from abrasion on the mounting hold edge

B. Ribs

Add stability on the bottom of the head

C. Strap

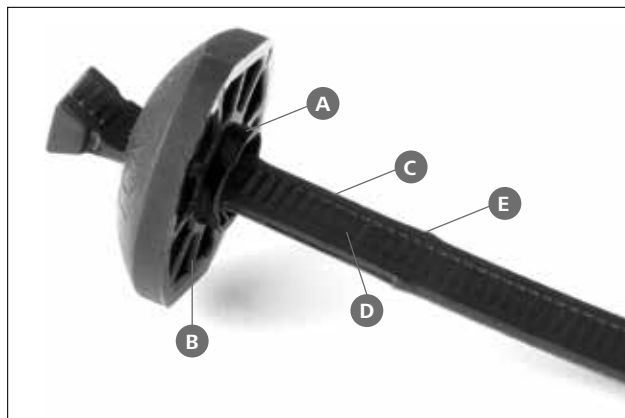
Enhances flexibility due to its edge radiuses

D. Serrations and Wedge

Provides optimal strength when the strap serrations are seated in the head

E. Lower Retainers

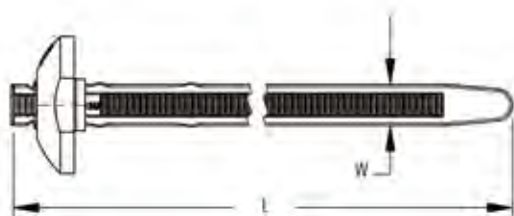
Holds HellermannTyton's MSBT120 saddle mounts in place during assembly (BT130 only)



BT375MBK - Button head tie with pilot bushing



BT375MBK - used for mounting cables via a single hole.



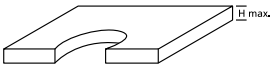
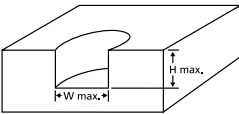
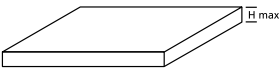
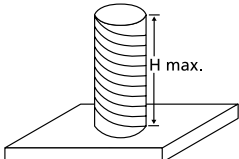
Fixing tie with deep hole anchor

PART NO.	Description	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
BHT375MBK	Button Head Ties with Retainers and Pilot Bushing	375	7.6	100	700	PA66HIRHS	Black (BK)	250 pcs.	150-47595

All dimensions in mm. Subject to technical changes.

Note: In order to assure the strap is fully locked in its final secure position, the installer must make sure that the "wedge" located at the end of the strap is fully seated in the button and flush with the top of the bottom. The EVO9 cable tie tool is recommended and end use testing is advised.

User guide for fixing ties

Application	Arrowhead	Fir Tree Mount	Rivet Wall Plug	Screw Mount	EdgeClip	Weld Stud Mount
	●	●		●		
		●	●	●		
					●	
						●



Arrowhead

This fixing tie is based on an arrowhead offering high extraction forces. The arrowhead is securely in place when a click can be heard and felt by the user.



Arrowhead with disc

The disc minimises the ingress of dust, dirt and water. Furthermore a safe fixation inside the drill hole is assured that withstands pressure from various directions.



Arrowhead with supporting legs

Arrowhead fixings with supporting legs offer good and stable fixation in drilled holes. The supporting legs generate additional pressure to assure a firm and secure fixing while taking up any variation in panel thickness. These ties are also suitable in high vibration applications.



Arrowhead without supporting legs

The arrowhead design assures good fixation while utilising lowest possible space.



Fir Tree Mount

Fir Tree Mounts can be pushed into pre-punched holes easily in panels or threaded, blind holes based on the low insertion forces. The design is ideally suited for a wide range of sheet thicknesses. The disc on top of the fir tree covers the hole and minimises the ingress of dust, dirt and water.



Weld Stud Mount

Many of the HellermannTyton weld stud mounts can easily be attached by hand ("soft push"). The design offers very low insertion forces that require no tools. The mounts can be removed by twisting to the left.



Weld Stud Fixings with Lateral Adjustment

The special oval shape of these mounts provides a 5-6 mm lateral adjustment to cater for any misalignment of the stud or incorrect positioning of ties on the cables. The bundle can therefore be moved when mounted.



EdgeClip

The EdgeClips are specifically designed to bundle and guide cable and wires on edges. Cost intensive drill holes for fixing are no longer required. EdgeClips are easily mounted by hand, the integrated metal clamp, securely keeping the clips on the edge.



EdgeClip Twistable

Ideally suited for fixations where bundles need to be flexibly guided. These EdgeClips are available with facilities for 90° or 360° rotation.



Cable and Hose Attachment

Excellent solution for subsequent attachment of pipes and wires to installed tubes.



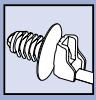
Heavy Duty Application

These sturdy fixing ties can withstand vibrations. They are easy to apply and give a secure alignment to the bundle. There will be high tightening torque through metal bushing.



Two Piece Fixing Ties with Clip Coupler

The Coupler is an article to connect two cable ties for parallel bundling of tubes, harnesses or cables. Its design enables the cable ties to rotate up to 90° and allows flexible installations.



1-Piece Fixing Ties with Mounting Head for Screws

Screw Mount Ties

This range of one piece cable ties have a built in mounting hole and once fastened around the cables the bundle can be simply secured to the panel with a screw or bolt.

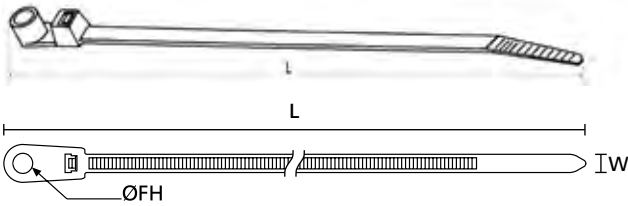
The tie is fitted to the panel first and then the cables can be added.

Features and Benefits

- One-piece bundling and fixing tie
- Quick and easy installation



The mounting head ties can be easily screwed onto a panel.



T()MR Series with Mounting Head for Screw fixing



Material specification please see page 14.

TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Hole Ø (FH)	Mounting	Material	Colour	Pack Qty	Article-No.
T18MR	110.0	2.5	20.0	80	3.1	# 4 screw	PA66	Black (BK)	100 pcs.	113-00022
	110.0	2.5	20.0	80	3.1		PA66	Black (BK)	1000 pcs.	113-00024
	110.0	2.5	20.0	80	3.1		PA66	Natural (NA)	100 pcs.	113-00026
	110.0	2.5	20.0	80	3.1		PA66	Natural (NA)	1000 pcs.	113-00028
T30MR	160.0	3.5	32.0	135	4.3	# 8 screw	PA66	Black (BK)	100 pcs.	113-03010
	160.0	3.5	32.0	135	4.3		PA66	Natural (NA)	100 pcs.	113-03019
T50MR	215.0	4.7	45.0	225	5.4	# 10 screw	PA66	Black (BK)	100 pcs.	113-05000
	215.0	4.7	45.0	225	5.4		PA66	Natural (NA)	100 pcs.	113-05004
T50MI	315.0	4.7	85.0	225	5.5	# 10 screw	PA66W	Natural (NA)	100 pcs.	113-00032
	215.0	4.7	45.0	225	5.5		PA66W	Black (BK)	100 pcs.	113-00038
T50ML T120MR	390.0	4.7	100.0	225	5.5	# 10 screw	PA66	Natural (NA)	100 pcs.	113-05419
	390.0	4.7	100.0	225	5.5		PA66	Black (BK)	100 pcs.	113-00007
T120ML T120MR	395.0	7.6	102.0	535	6.5	# 1/4" screw	PA66	Black (BK)	50 pcs.	113-12020
	395.0	7.6	102.0	535	6.5		PA66	Natural (NA)	50 pcs.	113-12029

All dimensions in mm. Subject to technical changes.



For product specific approvals and specifications please refer to the Appendix.



Fixing Ties for Edges

EdgeClip-Family

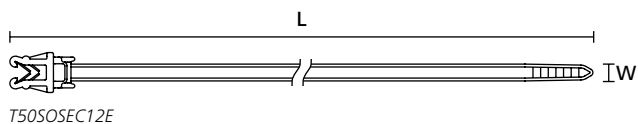
These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail. Once the cable tie is fastened around the cables the EdgeClip is presented ready for attaching to the panel. Widely used within the automotive and panel building industries these cable ties and EdgeClips save time and money.

Features and Benefits

- Easy assembly, just clip on per hand
- For edges of 1 – 3 mm or 3 – 6 mm
- Integrated metal clamp holds clip firmly in place
- Clamp consists of double tempered steel spring
- Ideal for applications where holes or adhesives are not suitable



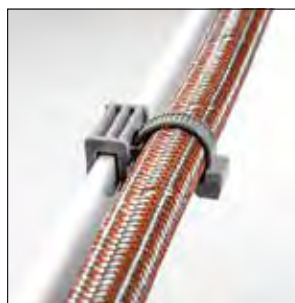
T50ROSEC10 fitted onto a plastic panel to hold a Ø 6 mm harness.



T50SOSEC12E



One Step to the Web!



Pre-assembled 2-Piece Fixing Tie with Edge Clip for edges of 1-3 mm.



1-Piece Fixing Tie T50SOSEC12 can be pushed easily on edges.



EdgeClips are also available on request for panel thickness from 4 - 7 mm.

TYPE	Drawing	Length (L)	Width (W)	Bundle Ø max.		Panel Thickness	Material	Colour	Article-No.
T50SOSEC12E		160.0	4.6	35.0	180	1.0 - 3.0	PA66HS	Black (BK)	148-00200
T50SOSEC13E		160.0	4.6	35.0	180	1.0 - 3.0	PA66HS	Black (BK)	126-00000
T40XEC5SP-E		85.0	4.0	15.0	178	1.0 - 3.0	PA66HS	Black (BK)	133-00059
T50SOSEC34E		155.0	4.6	35.0	180	1.0 - 3.0	PA66HS	Black (BK)	126-00036
T50SOSEC20-E		161.0	4.6	35.0	180	3.0 - 6.0	PA66HS	Black (BK)	126-00235

All dimensions in mm. Subject to technical changes.

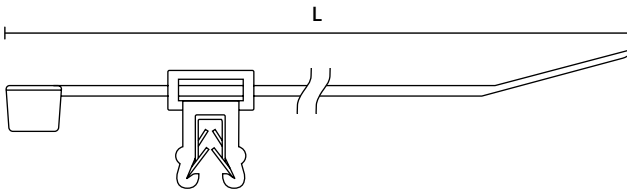


2-Piece Fixing Ties for Edges, 1.0 - 3.0 mm, Top Fixing

EdgeClip-Family

Features and Benefits

- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- EC9, EC10, EC21 and EC22 are for minimum bundle diameters of 1 mm
- For edges of 1 – 3 mm



Fixing Tie with EC4



T50ROSEC10 fitted onto a plastic panel to hold a Ø 6 mm harness.

TYPE	Drawing	Length (L)	Width (W)	Bundle Ø max.	N	Material Cable Tie	Material Foot Part	Colour	Article-No.
T30REC4A		148.0	3.6	33.0	135	PA66HS	PA66HIRHS	Black (BK)	156-00811
T50SOSEC4A		150.0	4.6	35.0	225	PA66HS	PA66HIRHS	Black (BK)	150-76093
T50ROSEC4A		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00461
T50ROSEC4A-W		200.0	4.6	45.0	225	PA66W	PA66W	Black (BK)	156-00570
T50REC4A		202.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-01114
T30REC4B		148.0	3.6	35.0	135	PA66HS	PA66HIRHS	Black (BK)	156-00893
T50SOSEC4B		150.0	4.6	35.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00109
T50ROSEC4B		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00462
T18REC10SD		100.0	2.5	22.0	80	PA66HS	PA66HIRHS	Black (BK)	156-01253
T50SOSEC10		150.0	4.6	31.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00015
T50ROSEC10		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-05904
T18REC9SD		100.0	2.5	22.0	80	PA66HS	PA66HIRHS	Black (BK)	156-01255
T50SOSEC9SD		150.0	4.6	31.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00019
T50ROSEC9		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-05903
T50REC9SD		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-01280
Q50REC4A		210.0	4.7	45.0	220	PA66W	PA66W	Black (BK)	156-01085
Q50REC4B		210.0	4.7	45.0	220	PA66W	PA66W	Black (BK)	156-01086

All dimensions in mm. Subject to technical changes.



2-Piece Fixing Ties for Edges, 1.0 - 3.0 mm, Side Fixing

EdgeClip-Family

Features and Benefits

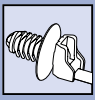
- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- EC9, EC10, EC21 and EC22 are for minimum bundle diameters of 1 mm
- For edges of 1 – 3 mm



T50ROSEC23 - the cable bundle runs parallel with the edge.

TYPE	Drawing	Length (L)	Width (W)	Bundle Ø max.	N	Material Cable Tie	Material Foot Part	Colour	Article-No.
T30REC5A		148.0	3.6	33.0	135	PA66HS	PA66HIRHS	Black (BK)	156-00003
T40REC5A		175.0	4.0	45.0	180	PA66HS	PA66HIRHS	Black (BK)	156-00559
T50SOSEC5A		150.0	4.6	31.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00788
T50ROSEC5A		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00463
T50REC5A		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-01037
T50SOSEC5B		150.0	4.6	31.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00789
T50REC5B		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	150-40582
T50ROSEC5B		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00464
T18REC21		100.0	2.5	18.0	80	PA66W	PA66HIRHS	Black (BK)	156-01258
T50SOSEC21		150.0	4.6	35.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00017
T50ROSEC21		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00951
T18REC21		100.0	2.5	20.0	80	PA66HS	PA66HIRHS	Black (BK)	156-01254
T50ROSEC22		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00011
T50REC22		200.0	4.6	45.0	225	PA66W	PA66HIRHS	Black (BK)	156-00576
Q50REC5A		210.0	4.7	45.0	220	PA66W	PA66W	Black (BK)	156-01087
Q50REC5B		210.0	4.7	45.0	220	PA66W	PA66W	Black (BK)	156-01088

All dimensions in mm. Subject to technical changes.



2-Piece Fixing Ties for Edges, 3.0 - 6.0 mm, Top Fixing

EdgeClip-Family

Features and Benefits

- Pre-assembled 2-piece fixing tie with EdgeClip
- Cable tie head can be moved after bundling
- For minimum bundle diameters of 1 mm
- For edges of 3 – 6 mm



Pre-assembled 2-piece fixing tie with EdgeClip.

TYPE	Drawing	Length (L)	Width (W)	Bundle Ø max.	N	Material Cable Tie	Material Foot Part	Colour	Article-No.
T18ROSEC19		100.0	2.5	20.0	80	PA66HS	PA66HIRHS	Black (BK)	156-04600
T50SOSEC19		150.0	4.6	35.0	225	PA66HS	PA66HIRHS	Black (BK)	156-01309
T50REC19		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00907
T50ROSEC19		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-01038
T50SOSEC20		150.0	4.6	35.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00016
T50ROSEC20		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00834

All dimensions in mm. Subject to technical changes.



Other combinations between cable tie and foot part available on request.

2-Piece Fixing Ties for Edges, 3.0 - 6.0 mm, Side Fixing

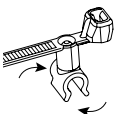
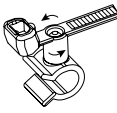
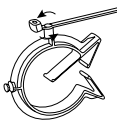
TYPE	Drawing	Length (L)	Width (W)	Bundle Ø max.	N	Material Cable Tie	Material Foot Part	Colour	Article-No.
T50ROSEC23		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00774
T50ROSEC24		200.0	4.6	45.0	225	PA66HS	PA66HIRHS	Black (BK)	156-00775

All dimensions in mm. Subject to technical changes.



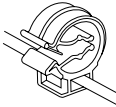
Comprehensive brochure available on request.

2-Piece Fixing Ties with Pipe Clip, twistable 360°

TYPE	Drawing	Length (L)	Width (W)	Bundle Ø max.	Attach to Ø	Material	Colour	Article-No.
T50SVC4S		155.0	4.7	35.0	3,8 - 4,2	PA66HS, PP	Black (BK), Natural (NA)	156-00447
T50SVC6,5		155.0	4.7	35.0	6,5 - 8,0	PA66HS, PA66HIRHS	Black (BK)	156-01371
T50SVCOC10-14		155.0	4.7	35.0	10,0 - 14,0	PA46	Grey (GY)	156-00134
T50SVCOC19-24,5		155.0	4.7	35.0	19,0 - 24,5	PA66HS, PA66HIRHS	Black (BK)	156-00136


All dimensions in mm. Subject to technical changes.

2-Piece Fixing Ties with Pipe Clip

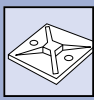
TYPE	Drawing	Length (L)	Width (W)	Bundle Ø max.	Attach to Ø	Material	Colour	Article-No.
T50ROC1B		202.0	4.6	45.0	4,0 - 10,0	PA66HS, PA66HIRHS	Black (BK)	156-00306

All dimensions in mm. Subject to technical changes.

2-Piece Fixing Ties with Pipe, twistable 90°

TYPE	Drawing	Length (L)	Width (W)	Bundle Ø max.	Attach to Ø	Material	Colour	Article-No.
T50ROC15CBTO-SD-SET		202.0	4.6	45.0	15,0 - 18,0	PA66HS, PA66HIRHS	Black (BK)	156-00419

All dimensions in mm. Subject to technical changes.



Fixing Parts with Special Adhesive

FlexTack-Series FMB for round and angled surfaces

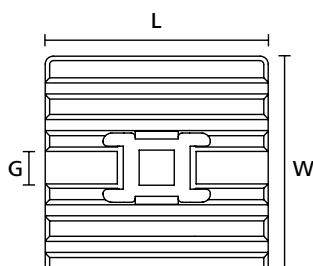
FlexTack cable tie mounts offering an innovative fixing solution especially for round and angled low energy surfaces like PP, PE or if drilling a hole is not possible. Suitable for a wide range of in- and outdoor applications on varnished or plastic or metal surfaces in many areas e. g. electrical cabinet, railway, aerospace, automotive and agriculture machinery.

Features and Benefits

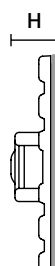
- Flexible Mount for round and angled surfaces
- FMB mounts with homogeneous system of acrylic adhesive
- Allows greater design freedom and offers uniform stress distribution along with weight reduction
- High cohesive strength combined with good weathering resistance
- Innovative fixing solution for low energy surfaces like PP, PE or painted / varnished surfaces
- Protection foil with finger lift for easy peel off
- Temperature resistance up to +105°C



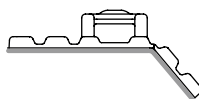
Flexible cable tie mount (FlexTack) in a concave application.



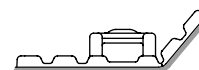
Flexible Adhesive Mount FMB4APT-I (plan view)



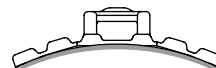
Flexible Adhesive Mount FMB4APT-I (side view)



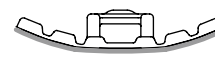
Flexible Adhesive Mount FMB4APT-I (down angled, side view)



Flexible Adhesive Mount FMB4APT-I (up angled, side view)



Flexible Adhesive Mount FMB4APT-I (convex, side view)



Flexible Adhesive Mount FMB4APT-I (concave, side view)

HT AU PART NO.	Length (L)	Width (W)	Height (H)	Strap Width max. (G)	Material	Colour	Adhesive	Pack Qty	Article-No.
FMB4APT-1-BK	28.0	28.0	6.3	5.4	PA66HS	Black (BK)	mod. Acrylate	100 pcs.	151-01527
FMB4APT-1-WT	28.0	28.0	6.3	5.4	PA66HS	White (WH)	mod. Acrylate	100 pcs.	151-01528

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Fixing Parts with Special Adhesive

SolidTack mounts offering an innovative fixing solution especially for low energy surfaces like PP, PE or if drilling a hole is not possible. Suitable for a wide range of in- and outdoor applications on varnished or plastic or metal surfaces in many areas e. g. electrical cabinet, railway, aerospace, automotive and agriculture machinery.

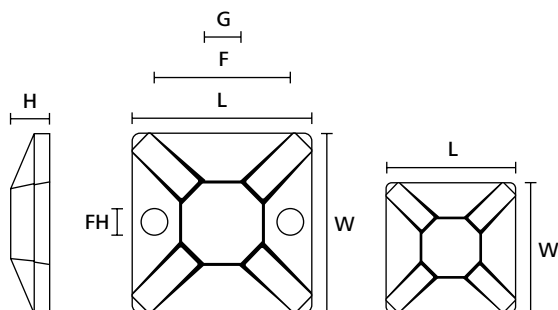
Features and Benefits

- MB mounts with homogeneous system of acrylic adhesive
- Very good initial adhesion, increases with time
- High cohesive strength combined with good weathering resistance
- Innovative fixing solution for low energy surfaces like PP, PE or painted / varnished surfaces
- Protection foil with finger lift for easy peel off



SolidTack products work on varnished and powder coated surfaces.

SolidTack-Series MB



MB3-MB5 (side view) MB3-MB5 (plan view) Cable Tie Mount MB2A (plan view)

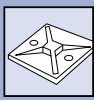


One Step to the Web!

PART NO.	Length (L)	Width (W)	Height (H)	Hole Ø (FH)	Fixing Hole Centres (F)	Strap Width max. (G)	Material	Colour	Adhesive	Pack Qty	Article-No.
MB3APT	19.0	19.0	3.8	3,1	13.2	4.4	PA66	Black (BK)	mod. Acrylate	100 pcs.	115-02554
MB4APT	28.0	28.0	4.7	4,0	20.2	5.6	PA66	Black (BK)	mod. Acrylate	100 pcs.	115-02556
MB5APT	38.0	38.0	6.3	4,7	25.3	10.0	PA66	Black (BK)	mod. Acrylate	100 pcs.	151-01561

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Flat Ribbon Clips

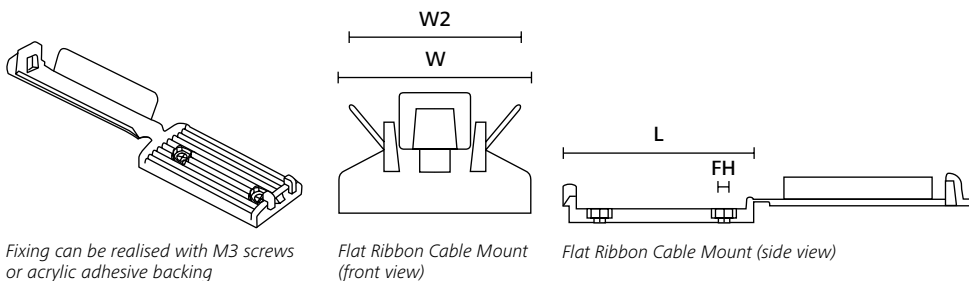
These clips are ideal for use in applications which are difficult to access, or for areas where a self adhesive is the only possible fixing method (for example 'holes' would be unacceptable). The FKH clips are designed to retain flat ribbon cables - ideal for use in computer equipment, gaming machines and domestic appliances. Available in self-adhesive mount or screw mount.

Features and Benefits

- One-piece fixing clips for flat ribbon cables
- Quick and easy installation
- Easily releasable and re-usable



Based on extremely soft wings any flat cable is gently fastened.



Fixing can be realised with M3 screws or acrylic adhesive backing

Flat Ribbon Cable Mount (front view)

Flat Ribbon Cable Mount (side view)

FKH-Series, Self Adhesive, Screw Fixing

TYPE	Length (L)	Width (W)	Width (W2)	Hole Ø (FH)	Material	Colour	Adhesive	Article-No.
FKH25A	31.0	25.0	22.0	3,1	PA66HIR	Black (BK)	Acrylate	151-15250
FKH30A	35.0	25.0	22.0	3,1	PA66HIR	Black (BK)	Acrylate	151-15300
FKH50A	56.5	25.0	22.0	3,1	PA66HIR	Black (BK)	Acrylate	151-15500
FKH80A	86.0	25.0	22.0	3,1	PA66HIR	Black (BK)	Acrylate	151-15800

All dimensions in mm. Subject to technical changes.

FKH-Series, Screw Fixing

TYPE	Length (L)	Width (W)	Width (W2)	Hole Ø (FH)	Material	Colour	Article-No.
FKH25	31.0	25.0	22.0	3,1	PA66HIR	Black (BK)	151-16250
FKH30	35.0	25.0	22.0	3,1	PA66HIR	Black (BK)	151-16300
FKH50	56.5	25.0	22.0	3,1	PA66HIR	Black (BK)	151-16500
FKH80	86.0	25.0	22.0	3,1	PA66HIR	Black (BK)	151-16800

All dimensions in mm. Subject to technical changes.



Self Adhesive, Screw Fixing Cable Tie Mounts

Where speed, simplicity and a firm fixing base are required these self adhesive clips are ideal. Particularly suitable for use in control cabinets, telecoms equipment or domestic appliances where the use of holes, screws, or nuts and bolts is impractical or undesirable.

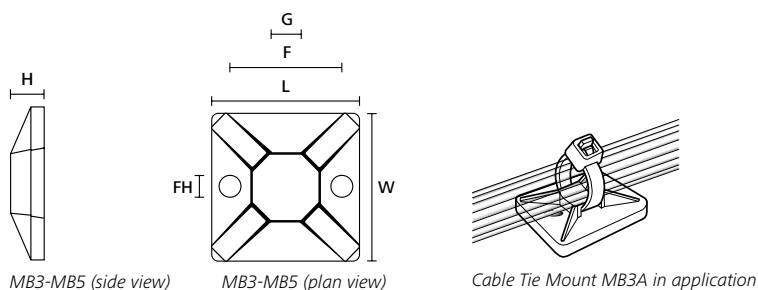
Features and Benefits

- Screwable or self-adhesive versions
- Simple to install with a screw or bolt
- Excellent security, particularly in areas of high vibration
- Maximum surface area with adhesive to achieve high pull-off force
- 4-way entry for cable tie for quicker and more flexible installation
- Synthetic rubber



MB-Series Mounts with square design / screwable, self adhesive.

MB-Series Square-Cut, screwable



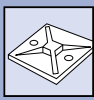
MB3-MB5 (side view)

MB3-MB5 (plan view)

Cable Tie Mount MB3A in application

PART NO.	Length (L)	Width (W)	Height (H)	Fixing Hole Centres (F)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
MB3ANA	19.0	19.0	3.8	13.2	3,1	4.1	PA66	White (WH)	100 pcs.	151-28349
MB3ABK	19.0	19.0	3.8	13.2	3,1	4.1	PA66	Black (BK)	100 pcs.	151-28320
MB4ANA	28.0	28.0	4.7	20.0	4,0	5.4	PA66	White (WH)	100 pcs.	151-28469
MB4ABK	28.0	28.0	4.7	20.0	4,0	5.4	PA66	Black (BK)	100 pcs.	151-28412
MB5ANA	37.7	37.7	6.2	25.3	4,8	8.9	PA66	White (WH)	100 pcs.	151-28529
MB5ABK	37.7	37.7	6.2	25.3	4,8	8.9	PA66	Black (BK)	100 pcs.	151-28602

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Tie Mounts for food industry, detectable

MCMB-Series, screwable

MCMB mounts are ideally suited for holding MCT-Series cable ties in position, even in areas of high vibration such as food manufacturing equipment and automated packaging machines.

Features and benefits

- Distinctive blue colour for easy visual detection
- Simple to install with a screw or bolt
- Provides a secure fixing solution for routing cables, tubes and hoses
- 4-way entry for the cable tie leads to a quicker and more flexible installation
- Magnetic and X-Ray detectable – perfect for use with food and pharmaceutical grade detection equipment
- Total metal dispersion provides consistent detectability, even for small cut-off pieces
- Greatly reduced risk of contamination within food products
- Can support quality assurance in the production of food stuffs, for example HACCP



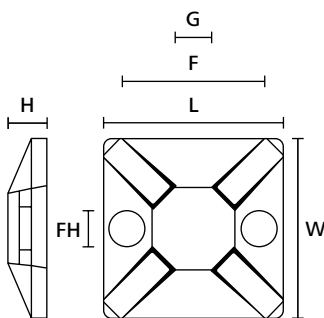
Detectable fixing solution containing of MCMB mount and MCT cable tie.



Can support quality assurance in the production of food stuffs, for example HACCP.



The MCMB mount can ideally be combined with MCT cable ties on page 29.



MCMB Mount (side and plan view)



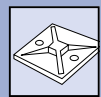
One Step to the Web!

PART NO.	Length (L)	Width (W)	Height (H)	Fixing Hole Centres (F)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
MCMB3	19.0	19.0	3.8	13.2	3.1	3.5	PA66MP	Blue (BU)	100 pcs.	151-01169
MCMB4	28.0	28.0	4.7	20.0	4.0	4.7	PA66MP	Blue (BU)	100 pcs.	151-01170

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

*HACCP stands for Hazard Analysis Critical Control Points. It is a method of identifying and eliminating potential hazards in food production. Those hazards that cannot be eliminated are controlled in such a way that the consumer is protected. These controls are known as Critical Control Points (CCPs). They are CRITICAL because if they fail or are not carried out, the risk of the product harming the customer increases.

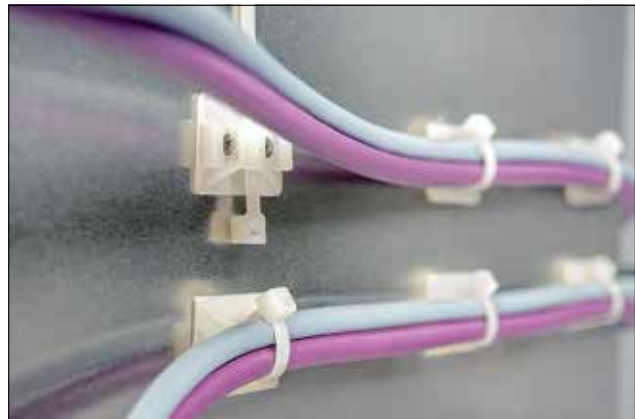


Screw Fixing Cable Tie Mounts

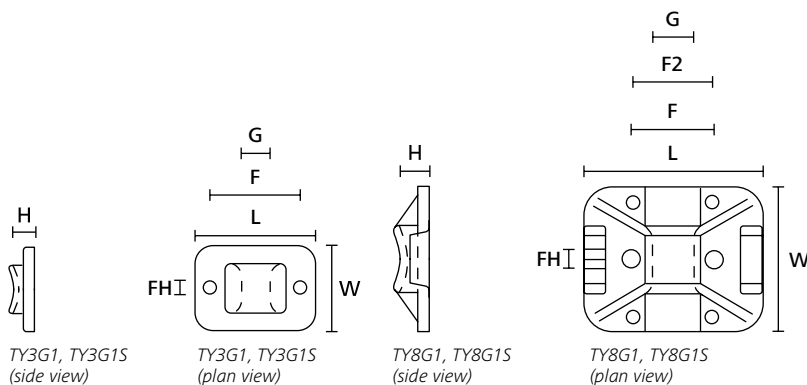
These products are designed for simple, yet robust, installation in a wide variety of applications - particularly used in telecoms equipment, switchgear and control cabinets.

Features and Benefits

- Screwable or self-adhesive versions
- Concave design to support larger diameter cables and bundles
- 2-way mounting base for safe guiding of cables and conduits
- Suitable for applications with minimal space
- Mounted before cable installation
- Usable with standard cable ties



TY-Series mounts with rectangle design / screwable, self adhesive.



TY-Series Rectangle Design, screwable

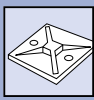
TYPE	Length (L)	Width (W)	Height (H)	Hole Ø (FH)	Fixing Hole Centres (F)	Fixing Hole Centres (F2)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
TY3G1	20.0	14.0	3.7	2,2	15.0	-	4.0	PA66	Natural (NA)	100 pcs.	151-21319
TY8G1	32.0	25.0	5.5	3,2	15.0	14.0	8.0	PA66	Natural (NA)	100 pcs.	151-21819

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

TY-Series Rectangle Design, self adhesive, screwable

TYPE	Length (L)	Width (W)	Height (H)	Hole Ø (FH)	Fixing Hole Centres (F)	Fixing Hole Centres (F2)	Strap Width max. (G)	Material	Colour	Adhesive	Pack Qty	Article-No.
TY3G1S	20.0	14.0	3.7	2,2	15.0	-	4.0	PA66	Natural (NA)	Acrylate	100 pcs.	151-11319
	20.0	14.0	3.7	2,2	15.0	-	4.0	PA66W	Black (BK)	Acrylate	100 pcs.	151-11310
TY8G1S	32.0	25.0	5.5	3,2	15.0	14.0	8.0	PA66	Natural (NA)	Acrylate	100 pcs.	151-11819
	32.0	25.0	5.5	3,2	15.0	14.0	8.0	PA66W	Black (BK)	Acrylate	100 pcs.	151-11810

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Paste Adhesive Mount

PMB5 mount for uneven surfaces

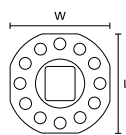
PMB5 pasty mount offers a fixing solution wherever screw fixing is not allowed. Due to a larger diameter the mount can even be installed onto uneven surfaces. PMB5 pasty mount is used in the railway industry as well as in the renewable energy industry. Further applications are in the ship building industry, in the electrical industry and the production of switching cabinets.

Features and Benefits

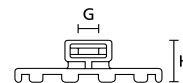
- PMB5 paste adhesive mount for fixings with paste / liquid adhesive
- Mount geometry offers a good form closure with cured adhesive
- Can even be installed onto uneven surfaces due to large diameter
- Can also be applied in combination with hot-melt adhesive, as mount is made of heat resistant PA66



PMB5 mount with paste adhesive.



PMB5 Mount (plan view)



PMB5 Mount (front view)

TYPE	Length (L)	Width (W)	Height (H)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
PMB5	36.0	36.0	10.7	4.8	PA66HS	Black (BK)	100 pcs.	151-00498

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Mounts with round design, self adhesive

RA-Series

These mounts are ideal for use in applications which are difficult to access or for areas where self adhesive is the only possible fixing method and fixing holes would be unacceptable. The round self adhesive mounts can be used without cable ties. Offering process optimization in industries like automotive, bus and truck, construction vehicles or industrial building.

Features and benefits

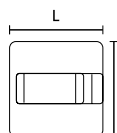
- One-piece self adhesive mount for quick and easy installation
- Can be used without cable ties offering process optimization
- Designed to hold wires, cables or hoses
- Different sizes for various bundle diameters available
- Two types of adhesive can be offered



Self adhesive one piece fixing mounts RA6 (l) and RB5 (r).



RA3-18 Series (side view)



RA3-18 Series (plan view)

PART NO.	Length (L)	Width (W)	Width (W2)	Height (H)	Bundle Ø max.	Material	Colour	Adhesive	Article-No.
RA3	13.0	13.0	5.0	5.0	3.0	PA66	Natural (NA)	Synthetic rubber T60	151-13018
RA6APT-I	19.0	19.0	5.0	9.0	6.0	PA66	Natural (NA)	mod. Acrylate	151-01635
RA6	19.0	19.0	5.0	9.0	6.0	PA66	Natural (NA)	Synthetic rubber T60	151-13019
RA9	19.0	19.0	7.5	12.5	9.0	PA66	Natural (NA)	Synthetic rubber T60	151-13020
RA13APT-I	25.0	25.0	10.0	16.5	13.0	PA66	Natural (NA)	mod. Acrylate	151-01636
RA13	25.0	25.0	10.0	16.5	13.0	PA66	Natural (NA)	Synthetic rubber T60	151-13021
RA18	28.5	28.5	10.0	23.0	18.0	PA66	Natural (NA)	Synthetic rubber T60	151-13119

All dimensions in mm. Subject to technical changes.



Screw Fixing Mounts

LKC- and NY-Series with overlapping curved design

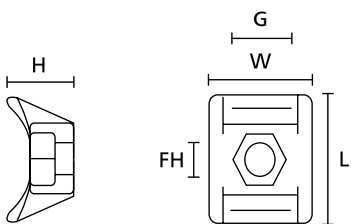
Designed specifically for holding heavier cable bundles, these mounting bases can be used in many industries from agriculture to truck manufacturing, they offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 13 mm width.

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



Cable Tie Mounts LKC Series.



NY3256 (side view)

NY3256 (plan view)

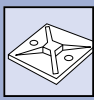


**Material specification
please see page 14.**

PART NO.	Drawing	Length (L)	Width (W)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
LKCBK		25.0	17.0	13.5	5,5	8.0	PA66	Black (BK)	100 pcs.	151-27010
		25.0	17.0	13.5	5,5	8.0	PA66	Natural (NA)	100 pcs.	151-27019
LKCNA		40.0	19.0	16.0	6,0	13.0	PA66W	Black (BK)	100 pcs.	151-01679
		40.0	19.0	16.8	6,0	13.0	PA66	Natural (NA)	100 pcs.	151-27219
		40.0	19.0	16.8	6,0	13.0	PA66	Black (BK)	100 pcs.	151-27202
NY3256		13.5	12.0	7.8	3,1	8.0	PA66	Natural (NA)	1,000 pcs.	151-25219

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



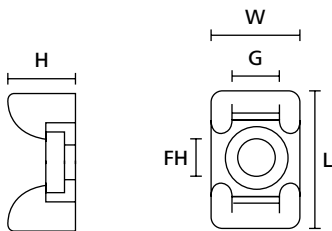
Screw Fixing Mounts

Cable Tie Mounts 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 8.3 mm width.

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



KR6G5, KR8G5 and CTM (side view)

KR6G5, KR8G5 and CTM (plan view)



Cable Tie Mounts KR6G5, KR8G5 and CTM.



The KR-E/TFE mounts can ideally be combined with the E/TFE-cable ties on page 30.



Supports quality processes around the production of food stuffs, such as e.g. HACCP.*

PART NO.	Length (L)	Width (W)	Material	Colour	Pack Qty	Article-No.
KR6G5BK/W	18.0	12.0	PA66	Natural (NA)	100 pcs.	151-24660

All dimensions in mm. Subject to technical changes.

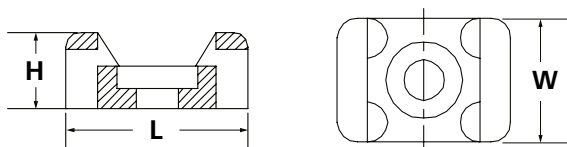
Screw Mounting Bases

Cable Tie Mounts

Designed specifically for holding heavier cable bundles, these mounting bases can be used in many industries from agriculture to truck manufacturing, they offer a very secure fixing and can be used with a wide variety of heavy duty cable ties up to 8.3 mm width.

Features and benefits

- The CTM series is designed to provide stability to wire bundles
- These mounts can accommodate miniature, intermediate, or standard cross-section cable ties.
- Each mount is secured with a single screw.



Cable Tie Mount CTM2WH.

PART NO.	Cable Tie Series	Mounting Screw Type	Length (L)	Width (W)	Height (H)	Material	Colour	Pack Qty	Article-No.
CTM20C2	T18 - T120	#8 (M4) Screw	21.8	15.5	9.4	PA66	Black (BK)	100 pcs.	151-30500
CTM2WH	T18 - T120	#8 (M4) Screw	21.8	15.5	9.4	PA66	White (WH)	100 pcs.	151-30504

All dimensions in mm. Subject to technical changes.





Harness Clip for Heavy Duty Applications, for Screws or threaded Bolts

These heavy duty mounts (HDM) have been primarily designed for use in the automotive and truck industry. Nowadays they can be found in a variety of applications requiring heavy duty mounting in areas like the railway, defence and/or agriculture industry.

Features and benefits

- Design offers secure alignment to the bundle
- Possible replacement of cushion clamps and/or metal clamps
- Eliminates the needs for multiple sized fix diameter clamps
- For heavy duty cable ties up to 12.7 mm width
- High tightening torque
- Easy maintenance of bundle by simply changing the cable tie



Heavy Duty Mounts HDM-Series, patent number US5820083.

Standard Torque Mounts

PART NO.	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
HDM19BK		19.3	36.3	16.7	4.7	12.7	PA66HIRHSUV	Black (BK)	100 pcs.	151-00134
HDM25BK		19.3	36.3	16.7	6.2	12.7	PA66HIRHSUV	Black (BK)	100 pcs.	151-00437
HDM312BK-100		19.3	36.3	16.7	7.8	12.7	PA66HIRHSUV	Black (BK)	100 pcs.	151-00439
HDM312BK		19.3	36.3	16.7	7.8	12.7	PA66HIRHSW	Black (BK)	500 pcs.	151-00440

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Medium Torque Mounts

PART NO.	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
HDM321		24.0	46.0	20.7	8.31	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-07100
HDM401		24.0	46.0	20.7	10.29	12.7	PA66HIRHSUV	Black (BK)	500	151-07300
HDM501		24.0	46.0	20.7	12.7	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-07500

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



High Torque Mounts (metal bushing)

The high torque mount is designed for use with power-assisted impact wrenches and is molded with a metal housing to withstand the forces required to tighten grade 8 bolts. The arched "H" profile of the saddle surface allows for a broad surface contact with the bundle, minimizing pinching and crushing of bundles, and it adjusts to a wide variety of bundle diameters.


TYPE	Drawing	Length (L)	Width (W)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
HDM320		47.0	25.0	20.7	8,31	12.7	PA66HIR	Black (BK)	500 pcs.	151-07000
HDM400		47.0	25.0	20.7	10,29	12.7	PA66HIRHSW	Black (BK)	500 pcs.	151-07200
HDM500		47.0	25.0	20.7	12,95	12.7	PA66HIRHSW	Black (BK)	500 pcs.	151-07400

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

High Torque Double Mounts (metal bushing)

This mount is designed for use with power-assisted impact wrenches and is molded with a metal brushing to withstand the forces required to tighten grade 8 bolts. The high torque double mount secures the bundle directly over the mounting fastener. The arched saddle surface allows for a broad surface contact with the bundle, minimising pinching and crushing of the paddles, and accommodates a wide variety of bundle diameters.


TYPE	Drawing	Length (L)	Width (W)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
HDM375		89.0	34.5	25.2	10,29	12.7	PA66HIRHSW	Black (BK)	100 pcs.	151-00756

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Low Profile Mount

The Low Profile Mount is used in conjunction with a cable tie to attach a bundle to a flat surface, making it ideal for application where space is limited for positioning s bundle. This device is secured to the mounting surface with a mechanical fastener and features a counter bore for easy access with a socket. HellermannTyton cable ties, up to 12.7mm wide, are used to fasten bundles to the Low Profile Mount. Single bundles can be positioned on top of the mount, or two bundles can be separated using the two side saddles.

TYPE	Drawing	Length (L)	Width (W)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
LPM25		45.1	24.9	16.7	6.7	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-01122

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



High Torque Mounts

PART NO.	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Qty	Article-No.
HDM320		25.0	47.0	20.7	8.31	12.7	PA66HIRHSUV	Black (BK)	500	151-02094
HDM400		25.0	47.0	20.7	10.29	12.7	PA66HIRHSUV	Black (BK)	500 pcs.	151-01224
HDM500		25.0	47.0	20.7	12.7	12.7	PA66HIRHSUV	Black (BK)	500	151-02096
HDM375BDM4W		35.6	89.0	25.2	10.29	12.7	PA66HIRHSUV	Black (BK)	100	151-02104

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Two Way Saddle Mount for heavy duty applications, for parallel separation

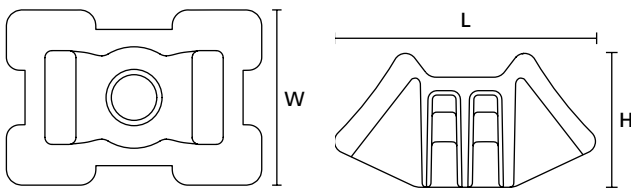
Heavy duty saddle mounts can be installed between two bundles to separate them and prevent chafing and wear. Fastened to a frame rail or mounting bracket, the special profile on the saddle mount provides a tight circumferential loop on large and small bundles. The saddle mount is an ideal assistant in many applications within the railway, truck and agricultural vehicle construction as well as in the ship building industry.

Features and benefits

- For parallel routing of different bundles to avoid wear and chafing
- Offers secure alignment to the bundle
- Can be used in combination with heavy duty cable ties
- Easy maintenance of bundle by simply changing the cable tie
- Made from impact modified, heat stabilized material



This saddle mount is installed between two bundles to separate them and prevent chafing and wear.



S2CM25

TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Bundle Ø max.	Material	Colour	Pack Qty	Article-No.
S2CM25	30.0	45.0	23.0	6.0	12.7	89.0	PA66HIRHS	Grey (GY)	500 pcs.	151-29400
S2HM25	30.0	45.0	23.0	6.0	12.7	89.0	PA66HIRHSUV	Black (BK)	500 pcs.	151-29403

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Fixing Base

LOK-Series

The LOK mounts, in conjunction with a cable tie, can be used either indoors or outdoors for a diverse range of applications from holding climbing plants, to securing cables running between buildings.

Features and Benefits

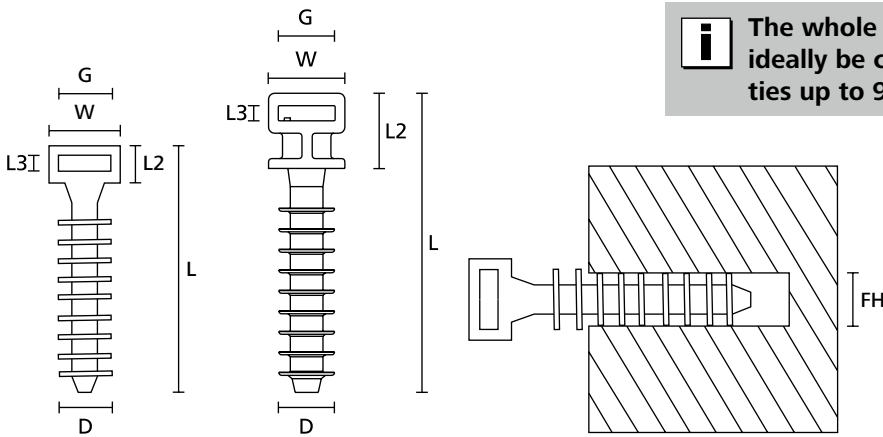
- LOK01 - LOK05 usable with any cable ties up to 9 mm wide
- Suitable for a wide range of materials, including concrete, brick, block and wood
- Installed by knocking into 7 mm or 8 mm diameter hole
- LOK01B is designed for soft brickwork and 6 mm holes
- Elongated head of LOK05 for setting bundles at a distance from brickwork



LOK01 fixing bases for indoor and outdoor use.



The whole LOK-Series can ideally be combined with cable ties up to 9 mm cable tie width.



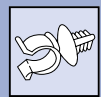
LOK01 fixing base (front view)

LOK05 fixing base (front view)

LOK01 pushed into a wall bore hole.

TYPE	Length (L)	Width (W)	Length (L2)	Length (L3)	Ø D	Strap Width max. (G)	Hole Ø (FH)	Material	Colour	Article-No.
LOK01B	30.0	12.0	6.5	2.5	7.2	9.0	6,0	PA6HIR	Black (BK)	151-80500
LOK01S	34.0	12.0	6.5	2.5	9.2	9.0	7,0 - 8,0	PA6HIR	Black (BK)	151-80600
LOK01	44.0	12.0	6.5	2.5	9.2	9.0	7,0 - 8,0	PA11	Black (BK)	151-01277
	44.0	12.0	6.5	2.5	9.2	9.0	7,0 - 8,0	PA6HIR	Black (BK)	151-80110
LOK05	49.0	12.0	12.5	2.5	9.2	9.0	7,0 - 8,0	PA6HIR	Black (BK)	151-80700

All dimensions in mm. Subject to technical changes.



Dual Clamp Ties

Dual Clamp Ties

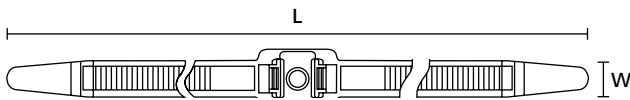
HellermannTyton's Dual-Clamp Ties are designed to provide parallel separation between hoses, wires, cables, and tubing to protect them from abrasion. These ties have an optional mounting hole for securing bundles along the chassis of trucks, trailers, and heavy duty equipment. The unique one-piece design features the dual head centered on the strap.

Features and Benefits

- Provides dual separation between bundles to prevent abrasion.
- High tensile strength delivers reliable performance for heavy duty applications.
- Wide strap is designed to minimize pinching of soft hoses and convoluted tubing.



Dual Clamp Tie, DCT90HIRH1.



PART NO.	Length (L)	Width (W)	Bundle Ø max.	N	Stud Ø	Material	Colour	Pack Qty	Article-No.
DCT9	330.2	12.7	33.0	667	M6	PA66HIRHSUV	Black (BK)	50 pcs.	115-30900
DCT11-50	487.7	12.7	58.0	667	M6	PA66HIRHSUV	Black (BK)	50 pcs.	115-31100
DCT11-500	487.7	12.7	58.0	667	M6	PA66HIRHSUV	Black (BK)	500 pcs.	115-31101

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Dual Clamp Ties

Stand Off Mounting Dual Clamp Tie

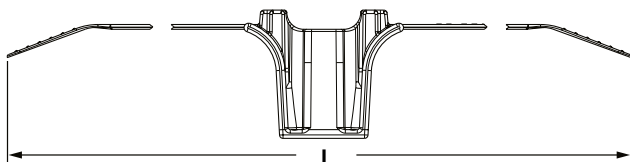
HellermannTyton's Stand Off Dual Clamp Ties offer the same features as the standard dual clamp tie, with a standoff mount that secures the bundle away from the surface. This protects the bundles from bolts and other protrusions.

Features and Benefits

- Wide strap minimizes pinching of soft hoses and convoluted tubing.
- Locking stud mount pawls allow for easy hand insertion.
- Nut or weld nesting counterbore provides flush mounting at the base.



Standoff Mounting Dual Clamp Tie, SDCTR312.



PART NO.	Length (L)	Width (W)	Bundle Ø max.	N	Stud Ø	Material	Colour	Pack Qty	Article-No.
SDCTR312	510.5	12.7	58.4	445	M8	PA66HIRHSUV	Black (BK)	250 pcs.	117-00012
SDCTL	663.0	12.7	86.4	445	M8	PA66HIRHSUV	Black (BK)	250 pcs.	157-00060

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Dual Swivel Saddle Spacers

DSWS4 Series

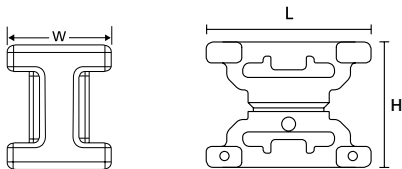
These saddle spacers are installed between two bundles (such as wires, cables, hoses, tubing, conduit, etc.) to separate and prevent chafing and wear. The mounts can be easily rotated by hand, allowing the bundles to be crossed and rotated at any angle. Cable ties, which secure the bundles, are used with the mounts. The dual swivel saddle spacers accommodate cable ties up to 12.7mm wide.

Features and Benefits

- H-profile of the saddles allows for broad surface contact with the bundle, which minimizes pinching and crushing of the bundle.
- Swivels in 360-degree motion to accommodate any area.
- Accommodates T50–T250 ties to handle both light-duty and heavy-duty applications.



DSWS4 - The spacers can be easily rotated by hand, allowing the bundles to be crossed and rotated at any angle.



PART NO.	Length (L)	Width (W)	Height (H)	Bundle Ø min.	Bundle Ø max.	Cable Tie Series	Material	Colour	Pack Qty	Article-No.
DSWS4-50	23.6	20.3	18.0	6.0	76.0	T50 - T250	PA66HS, POM	Black (BK)	50 pcs.	151-00644
DSWS4-2200	23.6	20.3	18.0	6.0	76.0	T50 - T250	PA66HS, POM	Black (BK)	2200 pcs.	151-06500

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Dual Swivel Saddle Spacers

DSWS5 Series

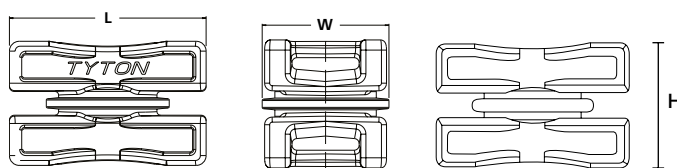
These saddle spacers are installed between two bundles (such as wires, cables, hoses, tubing, conduit, etc.) to separate and prevent chafing and wear. The mounts can be easily rotated by hand, allowing the bundles to be crossed and rotated at any angle. Cable ties, which secure the bundles, are used with the mounts. The dual swivel saddle spacers accommodate cable ties up to 12.7mm wide.

Features and Benefits

- H-profile of the saddles allows for broad surface contact with the bundle, which minimizes pinching and crushing of the bundle.
- Swivels in 360-degree motion to accommodate any area.
- Accommodates T50–T250 ties to handle both light-duty and heavy-duty applications.

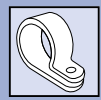


DSWS5 provides a 23.6mm separation between bundles.



PART NO.	Length (L)	Width (W)	Height (H)	Bundle Ø min.	Bundle Ø max.	Cable Tie Series	Material	Colour	Pack Qty	Article-No.
DSWS5	40.6	25.4	23.6	16.0	152.0	T50 - T250	PA66HS	Black (BK)	50 pcs.	151-06502

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Plastic P-Clips

HP-Series

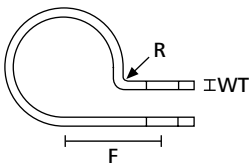
For permanent, or semi-permanent, cable fixings this range of P-Clips can be used in many industries, their light weight makes them particularly suitable for use in areas such as aircraft and aerospace where minimising weight, but retaining a strong fixing, is vitally important.

Features and Benefits

- Manufactured from Polyamide
- Good temperature resistance and high strength
- Wide range of sizes for every application



P-Clips H1P - H18P in different dimensions.



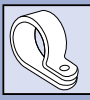
P-Clip H1P - H18P (side view)



P-Clip H1P - H18P (plan view)

TYPE	Width (W)	Wall (WT)	Hole Ø (FH)	Bundle Ø max.	Fixing Hole Centres (F)	Radius (R)	Material	Colour	Article-No.
H1P	10.0	0.80	4,2	3.2	8.5	0.5	PA66	Natural (NA)	211-60019
	10.0	0.80	4,2	3.2	8.5	0.5	PA66HS	Black (BK)	211-60000
H2P	10.0	1.00	4,2	5.0	9.5	1.0	PA66	Natural (NA)	211-60029
	10.0	1.00	4,2	5.0	9.5	1.0	PA66HS	Black (BK)	211-60001
H3P	10.0	1.00	4,2	6.5	10.0	1.0	PA66	Natural (NA)	211-60039
	10.0	1.00	4,2	6.5	10.0	1.0	PA66HS	Black (BK)	211-60002
H4P	10.0	1.20	4,2	8.0	10.0	1.0	PA66	Natural (NA)	211-60049
	10.0	1.20	4,2	8.0	10.0	1.0	PA66HS	Black (BK)	211-60003
H5P	10.0	1.20	4,2	9.5	11.0	1.0	PA66	Natural (NA)	211-60059
	10.0	1.20	4,2	9.5	11.0	1.0	PA66HS	Black (BK)	211-60004
H6P	10.0	1.20	4,2	11.0	13.0	1.0	PA66	Natural (NA)	211-60069
	10.0	1.20	4,2	11.0	13.0	1.0	PA66HS	Black (BK)	211-60005
H7P	10.0	1.20	4,2	12.5	14.0	1.5	PA66	Natural (NA)	211-60079
	10.0	1.20	4,2	12.5	14.0	1.5	PA66HS	Black (BK)	211-60006
H8P	10.0	1.50	4,2	14.0	15.0	1.5	PA66	Natural (NA)	211-60089
	10.0	1.50	4,2	14.0	15.0	1.5	PA66HS	Black (BK)	211-60007
H9P	10.0	1.50	4,2	16.0	16.0	1.5	PA66	Natural (NA)	211-60099
	10.0	1.50	4,2	16.0	16.0	1.5	PA66HS	Black (BK)	211-60008
H10P	10.0	1.50	4,2	17.5	17.0	1.5	PA66	Natural (NA)	211-60109
	10.0	1.50	4,2	17.5	17.0	1.5	PA66HS	Black (BK)	211-60009
H11P	10.0	1.50	4,2	19.0	18.0	2.0	PA66	Natural (NA)	211-60119
H12P	10.0	1.50	4,2	20.5	19.0	2.0	PA66	Natural (NA)	211-60129
H13P	12.0	1.50	5,2	22.0	20.5	2.0	PA66	Natural (NA)	211-60139
H14P	12.0	1.50	5,2	24.0	21.5	2.0	PA66	Natural (NA)	211-60149
H15P	12.0	1.50	5,2	25.5	23.0	2.5	PA66	Natural (NA)	211-60159
H16P	12.0	1.50	5,2	28.5	24.0	2.5	PA66	Natural (NA)	211-60169
H17P	12.0	1.50	5,2	31.5	26.0	2.5	PA66	Natural (NA)	211-60179
H18P	12.0	1.50	5,2	35.0	27.5	2.5	PA66	Natural (NA)	211-60189

All dimensions in mm. Subject to technical changes.



Snapper Hose Clips for Tubes and Harnesses

SNP-Series

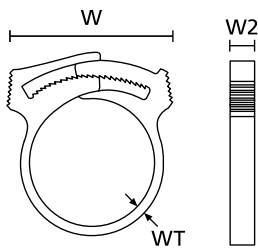
SNP range may replace metal hose clamps. Snapper can be used in markets as diverse as automotive, agriculture, white goods, venting systems, pumps and hydraulic systems to medical engineering.

Features and Benefits

- Releasable and reusable plastic hose clamps
- Self-locking
- Releasable by giving a lateral movement to the 'head'
- Installation by hand possible
- Installation with processing tool for a secure tensioning
- For higher operating temperatures: Glass Filled PA66



SNP - Snapper Hose Clips range.



SNP - Snapper Hose Clip
(front view)

SNP Clip
(side view)

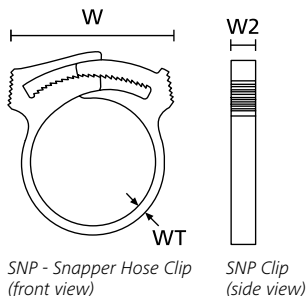
TYPE	Bundle Ø min.	Bundle Ø max.	Width (W) min.	Width (W) max.	Width (W2)	Wall (WT)	Material	Colour	Article-No.
SNP1	6.0	6.5	8.33	11.73	3.8	1.00	POM	White (WH)	190-00022
	6.0	6.8	8.56	11.79	3.8	1.00	PA66GF13	Black (BK)	192,6,10010
SNP1.25	7.1	7.7	10.57	12.62	3.8	1.10	PA66GF13	Black (BK)	190-00029
SNP1.5	7.8	9.2	13.00	17.00	3.7	1.40	PA66GF15	Black (BK)	193-00150
SNP2(E)	8.7	10.0	17.00	21.00	6.0	1.50	POM	Natural (NA)	191-10029
SNP2	9.3	10.5	12.22	17.48	5.9	1.70	PA66GF13	Black (BK)	192,6,10020
SNP3(E)	10.0	11.4	19.00	25.00	6.0	1.80	POM	Natural (NA)	191-10039
SNP4	10.4	11.7	13.39	19.15	5.9	1.70	PA66GF13	Black (BK)	192,6,10040
SNP4(E)	10.8	12.3	19.00	23.00	6.0	1.80	POM	Natural (NA)	191-10049
SNP7	11.4	13.7	18.62	28.73	5.9	1.70	PA66GF13	Black (BK)	192,6,10070
SNP6	11.7	13.3	14.71	21.54	5.9	1.70	PA66GF13	Black (BK)	192,6,10060
SNP6(E)	12.0	13.7	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10069
SNP8	13.1	15.0	16.69	24.89	5.7	1.70	PA66GF13	Black (BK)	192,6,10080
SNP8(E)	13.7	15.3	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10089
SNP10	14.5	16.6	17.60	26.90	5.9	1.80	PA66GF13	Black (BK)	192,6,10100
SNP10(E)	15.0	16.8	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10109
SNP12A	15.9	18.2	20.96	29.90	5.9	1.80	PA66GF13	Black (BK)	190-00254
SNP12(E)	16.8	18.4	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10129
SNP14(E)	18.1	19.9	19.00	24.00	6.0	1.80	POM	Natural (NA)	191-10149
SNP14A	18.5	21.0	20.90	30.10	5.9	1.80	PA66GF13	Black (BK)	190-00300
SNP16	19.1	21.7	19.89	30.81	5.8	1.50	PA66GF13	Black (BK)	192,6,10160
SNP16(E)	19.9	21.7	19.00	24.00	6.0	1.90	POM	Natural (NA)	191-10169
SNP18A	19.9	23.6	24.03	35.51	5.9	1.80	PA66GF13	Black (BK)	190-00258
SNP18(E)	21.4	23.0	16.00	22.00	6.0	1.90	POM	Natural (NA)	191-10189
SNP19	22.3	25.3	22.30	36.09	5.9	1.80	PA66GF13	Black (BK)	190-00090

All dimensions in mm. Subject to technical changes.



Snapper Hose Clips for Tubes and Harnesses

SNP-Series



SNP - Snapper Hose Clip
(front view)

SNP Clip
(side view)

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W) min.	Width (W) max.	Width (W2)	Wall (WT)	Material	Colour	Article-No.
SNP20(E)	22.7	24.7	20.00	26.00	6.0	1.80	POM	Natural (NA)	191-10209
SNP22	23.7	27.4	23.90	37.69	6.0	1.80	PA66GF13	Black (BK)	192,6,10220
SNP22(E)	25.3	27.3	20.00	26.00	6.0	1.60	POM	Natural (NA)	191-10229
SNP24	25.8	29.2	26.49	39.40	7.3	1.70	PA66GF13	Black (BK)	192,6,10240
SNP24(E)	26.5	28.6	26.50	39.40	7.4	2.50	POM	Natural (NA)	191-10249
SNP28	29.1	33.6	25.91	41.81	7.3	1.70	PA66GF13	Black (BK)	190-00127
SNP32(E)	30.3	33.1	27.00	34.00	7.5	2.00	POM	Natural (NA)	191-10329
SNP32	31.2	35.8	27.33	44.40	7.3	1.80	PA66GF13	Black (BK)	192,6,10320
SNP34(E)	32.5	35.1	27.00	34.00	7.5	2.00	POM	Natural (NA)	191-10349
SNP36(E)	34.8	37.1	27.00	34.00	7.5	2.00	POM	Natural (NA)	191-10369
SNP38(E)	36.7	38.9	27.00	34.00	7.5	2.00	POM	Natural (NA)	191-10389
SNP36	37.8	44.0	32.41	43.99	7.3	1.70	PA66GF13	Black (BK)	192,6,10360
SNP42(E)	41.0	44.2	32.00	45.00	7.5	2.00	POM	Natural (NA)	191-10429
SNP38	41.0	48.1	35.61	57.51	7.3	1.80	PA66GF13	Black (BK)	192,6,10380
SNP42N	44.5	52.2	35.10	58.93	7.3	1.70	PA66GF13	Black (BK)	191-00005
SNP50(E)	48.8	52.0	32.00	45.00	7.5	2.00	POM	Natural (NA)	191-10509
SNP50	52.2	58.6	36.50	60.40	7.3	1.70	PA66GF13	Black (BK)	192,6,10500
SNP58(E)	56.7	59.2	31.00	39.00	7.5	2.00	POM	Natural (NA)	191-10589

All dimensions in mm. Subject to technical changes.



Cable Ties and Fixings

Product Selection

MOUNTS

1	S3STM500HIRHSF1	Fir Tree Saddle Mount Elevates bundles from frame rails • 12.7 mm mounting hole • 200 pounds extraction force • Works with cable ties up to 0.5" wide
2	SAOM820HIRHSH1	Axial Oval Mount Stands off bundles from frame rails and cross members • 8.0 mm mounting hole • Works with cable ties up to 0.5" wide
3	151-00978	Axial Mount Stands off bundles from frame rails and cross members • Metal bushing allows high impact installation • Available for 8.0, 10.0 and 13.0 mm hole diameters
4	S2HM250HIRHSH1	Two-Way Saddle Mount Separates two bundles • 0.25" stud diameter • Works with cable ties up to 0.5" wide
5	132-00009	Button Head Tie Harnesses bundles without additional fasteners • Serrations on both sides • Holds bundles up to 4.3" in diameter
6	MSBT1200HIRHSH1	Saddle Mount for Button Head Tie Secures up to three bundles • 0.5" mounting hole • For panel thicknesses 0.075" - 0.5"
7	HDM250HIRC2	Heavy Duty Mount Eliminates need for multiple sized p-clamps • Provides 115 inch pounds of torque • Available for 5.0, 6.0 and 8.0 mm hole diameters
8	HDM400BHIHSUVH4	Heavy Duty Mount w/ Metal Bushing Eliminates need for multiple sized p-clamps • Provides 114 foot pounds of torque • Available for 8.0, 9.5 and 12.7 mm hole diameters
9	WSM60IMHSUVH1	Weld Stud Mount Welds to painted frame rails without the need to grind surface • Secures bundles up to 6.0" • 0.25" stud diameter
10	151-00663	Bundling Clip Works with cables ties or tape • Available for mounting hole diameters 6.2 - 6.8 mm • For panel thicknesses 0.7 - 5.75 mm
11	151-00813	H-Mount Fastens onto bolts and secures up to three bundles • Installs quickly with drill and HBIT • Available in 0.375", 0.5", 0.625" and 0.75" hole diameters
12	151-01122	Low Profile Mount Low profile design for tight spaces • Mounts and separates bundles • 0.25" mounting hole diameter
13	133-00993	HC Clamp Separates and secures two or three bundles • Secures bundles up to 1.0" in diameter
14	151-01231	Heavy Duty Hinge Clamp Separates and secures bundles • Hinge and snap features allow quick and easy installation • High heat resistance up to 275°F
15	151-01390	Ratchet P Clamp Offered in four clamp sizes ranging from ¼" to 2.0" and several mounting configurations • One-piece adjustable clamp closes to the desired diameter • Non-destructive, releasable design
16	151-01857	Wide Strap Adhesive Mount Provides stability when securing bundles • For use with 120 pound wide-strap cable ties • Features 3M™ VHB™ (Very High Bond) adhesive





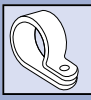
FASTENERS

17 SR255X0HIHSUVH1	Heavy Duty Releasable Tie Designed for easy removal and reuse • 250 pound tensile strength • Available in 9.0" and 14.0" length
18 MBT8S	Stainless Steel Tie Excellent resistance to salt and chemicals • Withstands temperatures up to 1,000°F • 202 pound tensile strength • Available in various lengths and tensile strengths
19 FT9A0IMHSUVH4 20 FT9B0IMHSUVH4	Heavy Duty Fir Tree For use with heavy duty cable ties • Fits mounting hole diameters 8.75 - 9.25 mm • Works on panel thicknesses 1.0 - 6.5 mm or 1.0 - 15.8 mm
21 111-12302	Heavy Duty Wide Strap Cable Tie Heavy duty 120 pound tensile strength • Wide 0.5" strap to prevent pinching • Available in 9.0", 12.0" and 15.0" lengths
22 111-85871	Fir Tree with Cable Tie Provides low insertion force with high extraction force • Serves as a locating feature in blind assembly applications • Disc provides additional stability in high vibration applications • Available in various hole sizes and cable tie lengths
23 156-00539	Edge Clip with Cable Tie Fastens onto plastic or metal sheets without a mounting hole • Provides low insertion force and high extraction force • Clip slides up and down tie to allow proper orientation • Available in various orientations and thickness
24 157-00097	Fir Tree Mount Cable Tie One piece design for fast and simple application • Disc feature covers holes to minimize ingress of water and dirt • Mount slides up and down tie to allow proper orientation • Available in various hole sizes
25 111-01670	PAEK Cable Tie Extreme heat resistance up to 392° F (200° C) • 100 pound tensile strength in small footprint • Available in various lengths
26 157-00286	Wide Strap Stud Mount Cable Tie Mount provides low insertion and high extraction forces • Thinner strap provides increased flexibility for improved ergonomics • Tie utilizes a strong hinge between the stud mount and strap head to provide superior holding ability
27 151-01566	Wedge Clip Edge clip for use with heavy duty cable ties • Closes with adjustable ratcheting action that creates extreme hold • Fits edge and rail thicknesses up to 51 mm • Available in three sizes

SEPARATORS

28 DSWS50SH1 29 151-06500	Dual Swivel Saddle Spacer "H" saddle-style profile minimizes pinching and crushing of bundles • Swivels 360 degrees to accommodate any orientation • Works with cable ties up to 0.5" wide
30 DCT110HIRK2	Dual Clamp Tie Separates two parallel bundles • 150 pound tensile strength • Available in 13.0" and 19.0" lengths
31 117-00012	Standoff Mounting Dual Clamp Tie Stands off and separates two parallel bundles • 150 pound tensile strength • Available in 20.0" and 26.0" lengths
32 ISO4X250H1	Isolator Aligns and separates up to four 1/4" tubes or brake lines • Dampens vibration • TPV material withstands temperatures up to 329°F





Edge Clips

Heavy Duty Wedge Clips

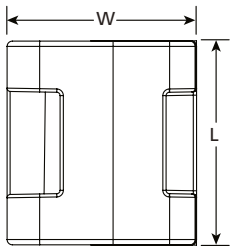
The Wedge Clip, paired with any HellermannTyton heavy duty Cable Tie, routes cables along a frame or rail in vertical or horizontal applications. A robust design and durable materials make it ideal for extreme-duty applications. The integrated wedge mechanism slides along a stepped grade until snug against the mounting surface. Inside the clip is a 3M™ VHB™ (Very High Bond) adhesive pad, which actually builds strength over time. This holds the clip to the work surface instantly, enabling installers to place it into position without worrying about it falling off prior to fastening. The combination of adhesive and the clip's vice-like compression result in incredible extraction force without the need to drill holes. The Wedge Clip is offered in three sizes.



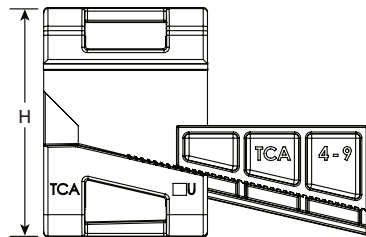
The Wedge Clip is offered in three sizes.

Features and Benefits

- Two-piece ratcheting wedge design allows for easy, positive-locking size adjustment.
- Peel and stick 3M™ VHB™ adhesive inside clip increases grip and enables one-hand installation.
- Heat-stabilized, glass-filled PA66 assembly delivers remarkable extraction force without drilling.
- Three sizes cover a wide range of mounting thicknesses, reducing part inventory.
- 4-way, wide slot accommodates our heavy-duty and Wide-Strap Series Cable Ties.



Wedge Clip, Side view



Wedge Clip, Front view

TYPE	Length (L)	Width (W)	Height (H)	Panel Thickness	Material	Colour	Article-No.
BCAA	30.8	28.6	43.1	0.0 - 5.0	PA66HSGF30	Black (BK), Green (GN)	151-01565
BCBLGA	30.8	28.6	43.1	4.0 - 9.0	PA66HSGF30	Black (BK)	151-01566
BCCLGA	30.8	28.6	43.1	8.0 - 13.0	PA66HSGF30	Black (BK), Gray (GY)	151-01567

All dimensions in mm. Subject to technical changes.

Rugged Bundle Management for Heavy Duty Applications

Comprehensive brochure
available on request.



The Ratchet P-Clamp's patent-pending design makes it extremely versatile for managing wire harnesses and cables. Its rugged construction and specialized materials are perfect for heavy duty applications, indoors and out.

Offered in four sizes and in several mounting configurations, the reusable design minimizes part inventory, speeds fastening and simplifies maintenance. Ratchet P-Clamp is available with zinc-plated or stainless steel mounting plates, options that make it ideal even when conditions are extremely harsh or dissimilar metals are used.



How to Choose a Ratchet P-Clamp

STEP 1: Determine bundle diameter

Match the bundle diameter range to the wire bundles you use.

SIZE	BUNDLE DIAMETER RANGE
A	0.24" - 0.54" (6.2mm - 13.7mm)
B	0.50" - 0.77" (12.7mm - 19.5mm)
C	0.76" - 1.42" (19.4mm - 36.0mm)
D	1.42" - 2.0" (36.0mm - 51.0mm)

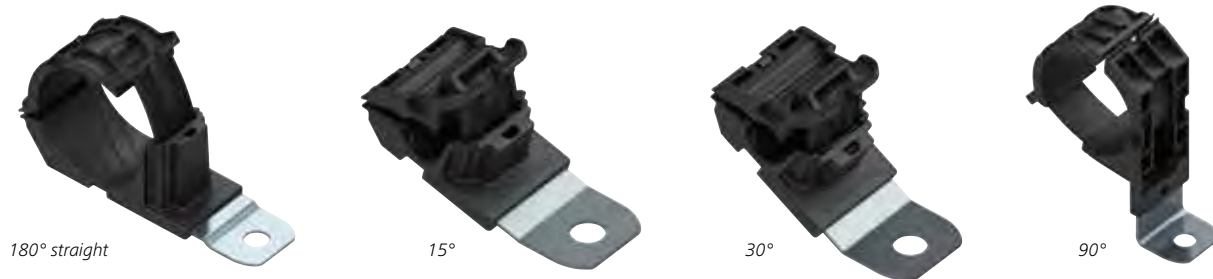


STEP 2: Select mounting plate material

The coated, high-grade steel mounting plate is suited for most applications. Opt for the stainless steel mounting plate when conditions are exceptionally severe or galvanic corrosion is possible.

STEP 3: Choose routing orientation/variant

Choose from 180° straight, 15°, 30° or 90° angles.



STEP 4: Specify the length of the mounting plate

We designed the mounting plate specification to be equal to the distance from center of clamp to center of mounting hole. (Some angles/variants are not offered in all three lengths.)



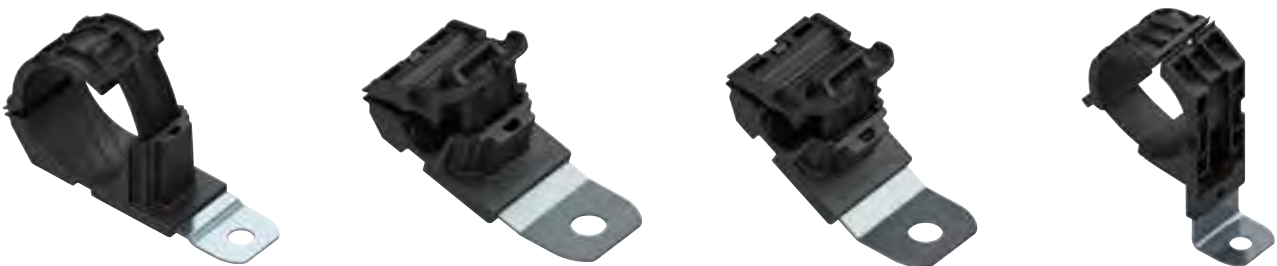
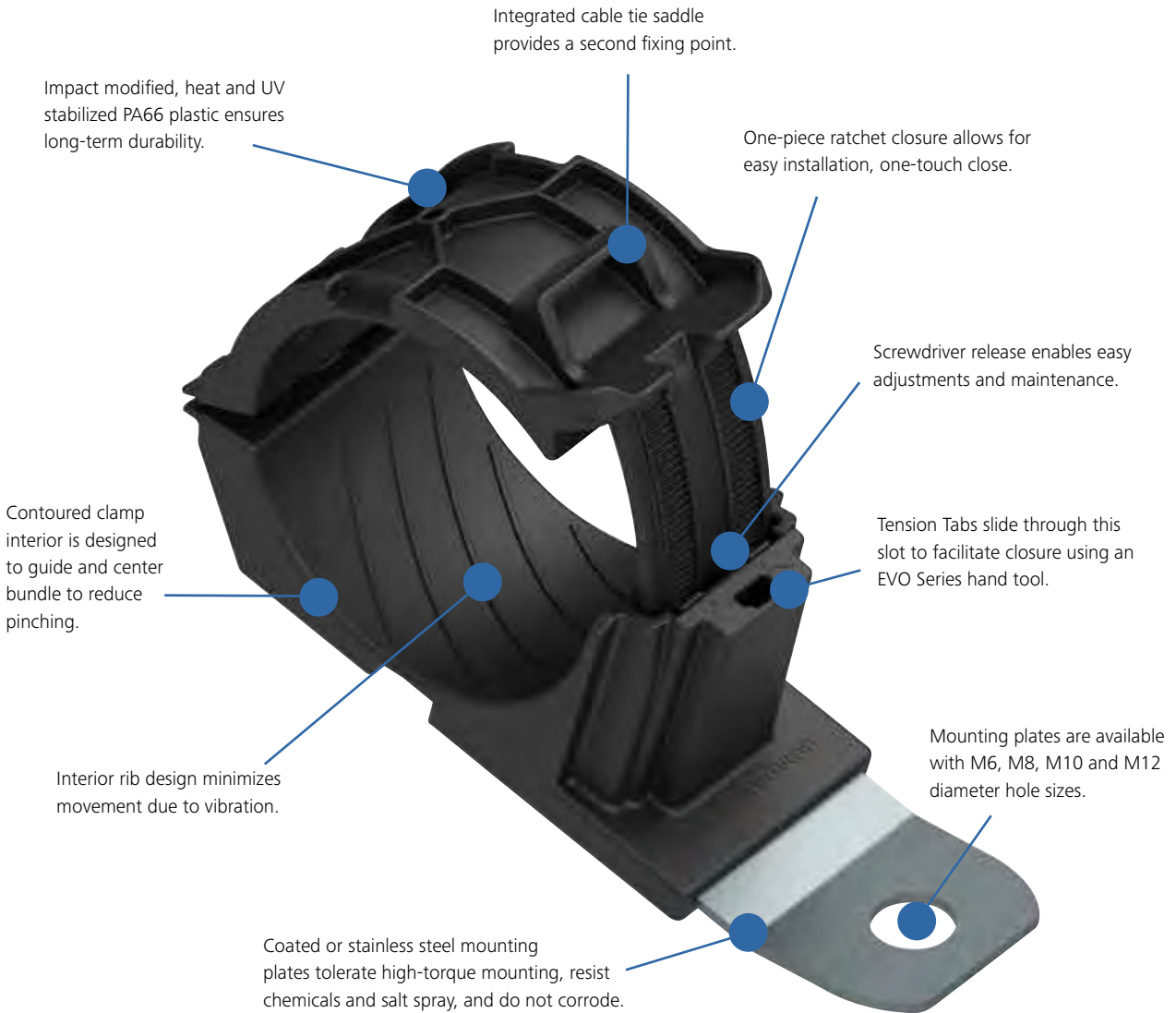
STEP 5: Choose bolt size/mounting hole diameter

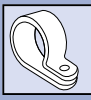
Each mounting plate option is offered in four different mounting hole diameters to accommodate the most common bolt sizes: M6 (6mm), M8 (8mm), M10 (10mm) and M12 (12mm).





Features





Ratchet P-Clamp

For bundle diameters from 6.2 mm to 51.0 mm

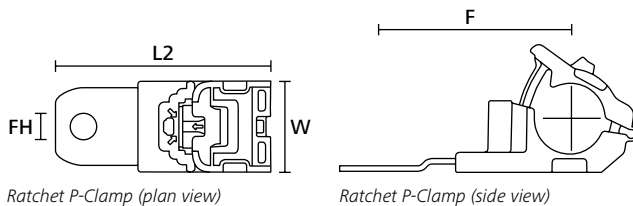
The Ratchet P-Clamp family offers versatility when managing wires, cables and hoses. The robust design and durable materials make it ideal for heavy duty applications, both in- and outdoors. The one-piece adjustable clamp can be closed by hand to the desired diameter. The release feature provides easy and nondestructive removal of cables simply by using a flat-head screwdriver. This nondestructive release allows the clamp to be reused without removing or replacing any bolts or screws. The Ratchet P-Clamp is offered in four sizes and multiple mounting configurations.

Features and benefits

- One-piece ratchet closure design allows for easy installation during pre- or final assembly
- Multiple configurations handle a wide range of diameters and applications, reducing part inventory
- Clamp interior is designed to guide and center bundle to reduce pinching
- Easy release feature allows for quick adjustments and maintenance
- Impact modified, heat and UV stabilized PA66 provides long-term durability, in- and outdoors
- Steel mounting plate tolerates high torque mounting and is treated to resist chemicals and salt spray



Ratchet P-Clamps in multiple configurations to handle a wide range of diameters and applications.



Ratchet P-Clamp (plan view)

Ratchet P-Clamp (side view)



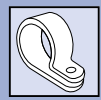
One Step to the Web!

For bundle diameters from 6.2 mm to 13.7 mm

PART NO.	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCA90SM6	101.9	34.9	6.2	13.7	M6	24.9	90° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01643
RCA180SM6	116.2	34.9	6.2	13.7	M6	50.5	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01637
RCA180SM8	116.2	34.9	6.2	13.7	M8	50.5	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01416
RCA180SM10	116.2	34.9	6.2	13.7	M10	50.5	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01417
RCA180SM12	116.2	34.9	6.2	13.7	M12	50.5	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01418
RCA90LM6	129.9	34.9	6.2	13.7	M6	24.9	90° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01644
RCA90LM8	129.9	34.9	6.2	13.7	M8	24.9	90° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01437
RCA180MM6	138.2	34.9	6.2	13.7	M6	72.5	180° Medium	PA66HIRHSUV, ST, ZN	Black (BK)	151-01638
RCA180MM8	138.2	34.9	6.2	13.7	M8	72.5	180° Medium	PA66HIRHSUV, ST, ZN	Black (BK)	151-01419
RCA180LM6	167.2	34.9	6.2	13.7	M6	101.5	180° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01639

All dimensions in mm. Subject to technical changes. Available in packs of 10.





Ratchet P-Clamp

For bundle diameters from 12.7 mm to 19.5 mm

PART NO.	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCB90SM6	101.9	34.9	12.7	19.5	M6	26.7	90° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01651
RCB90SM8	101.9	34.9	12.7	19.5	M8	26.7	90° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01457
RCB180SM6	116.2	34.9	12.7	19.5	M6	52.8	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01645
RCB180SM8	116.2	34.9	12.7	19.5	M8	52.8	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01440
RCB180SM10	116.2	34.9	12.7	19.5	M10	52.8	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01390
RCB180SM12	116.2	34.9	12.7	19.5	M12	52.8	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01441
RCB90LM6	129.9	34.9	12.7	19.5	M6	26.7	90° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01652
RCB90LM8	129.9	34.9	12.7	19.5	M8	26.7	90° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01460
RCB180MM6	138.2	34.9	12.7	19.5	M6	74.8	180° Medium	PA66HIRHSUV, ST, ZN	Black (BK)	151-01646
RCB180LM6	167.2	34.9	12.7	19.5	M6	103.8	180° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01647

All dimensions in mm. Subject to technical changes. Available in packs of 10.

For bundle diameters from 19.4 mm to 36.0 mm

PART NO.	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCC90SM6	141.8	34.9	19.4	36.0	M6	39.9	90° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01659
RCC90SM8	141.8	34.9	19.4	36.0	M8	39.9	90° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01492
RCC180SM6	156.1	34.9	19.4	36.0	M6	62.3	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01653
RCC180SM8	156.1	34.9	19.4	36.0	M8	62.3	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01474
RCC180SM10	156.1	34.9	19.4	36.0	M10	62.3	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01475
RCC180SM12	156.1	34.9	19.4	36.0	M12	62.3	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01476
RCC90LM6	169.8	34.9	19.4	36.0	M6	39.9	90° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01660
RCC90LM8	169.8	34.9	19.4	36.0	M8	39.9	90° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01495
RCC180MM6	178.1	34.9	19.4	36.0	M6	84.3	180° Medium	PA66HIRHSUV, ST, ZN	Black (BK)	151-01654
RCC180LM6	207.1	34.9	19.4	36.0	M6	113.3	180° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01655

All dimensions in mm. Subject to technical changes. Available in packs of 10.

For bundle diameters from 36.0 mm to 51.0 mm

PART NO.	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCD180SM8	181.5	34.9	36.0	51.0	M8	70.0	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01499
RCD180SM10	181.5	34.9	36.0	51.0	M10	70.0	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01501
RCD180SM12	181.5	34.9	36.0	51.0	M12	70.0	180° Short	PA66HIRHSUV, ST, ZN	Black (BK)	151-01502
RCD90LM8	195.2	34.9	36.0	51.0	M8	42.4	90° Long	PA66HIRHSUV, ST, ZN	Black (BK)	151-01521

All dimensions in mm. Subject to technical changes.

Accessories

PART NO.	Variant	Material	Colour	Article-No.
RCTT	No Serration	PA66HIRHSUV	Black (BK)	151-01529
RCINSERTA	Rubber profile	TPE	Black (BK)	151-01530
RCINSERTB	Rubber profile	TPE	Black (BK)	151-01531
RCINSERTC	Rubber profile	TPE	Black (BK)	151-01532
RCINSERTD	Rubber profile	TPE	Black (BK)	151-01533

All dimensions in mm. Subject to technical changes. Available in packs of 10.



Heavy Duty Metal Edge Clip

MSC2

HellermannTyton's Heavy Duty Metal Edge Clip provides an excellent alternative to managing wire and PV cables where plastic fasteners are not the preferred method. Designed for effortless insertion, the Metal Edge Clip has a high extraction force that tolerates extreme environments and provides assurance that the cables are secure on a panel. The Metal Edge Clip is simple to install and can easily be removed with a flathead screwdriver.

Features and Benefits

- Integrated design allows for easy insertion by hand.
- 1–3mm panel thickness range allows for multiple applications.
- Double-compression design that accommodates various sizes of wire and cable.
- Presents a high extraction force for withstanding extreme conditions.



MSC2 fitted onto a metal panel to hold a cable bundle.

MATERIAL	Stainless Steel (SS304)
Operating Temperature	-80 °C to 538 °C

RoHS

PART NO.	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	Panel Thickness	Material	Colour	Pack Qty	Article-No.
MSC2SS	24.0	13.0	5.0	7.6	1.0 - 3.0	SS304	Metal (ML)	100 pcs.	151-00982

All dimensions in mm. Subject to technical changes.

90° Metal Edge Clip

MSC90

Designed for more confined areas, HellermannTyton's Low Profile Metal Edge Clip provides an excellent alternative to managing wire and PV cables where plastic fasteners are not the preferred method. Designed for effortless insertion, the Metal Edge Clip has a high extraction force that tolerates extreme environments and provides assurance that the cables are secure on a panel. The Metal Edge Clip is simple to install and can easily be removed with a flathead screwdriver.

Features and Benefits

- Integrated design allows for easy insertion by hand.
- 1.5–2.0mm panel thickness range allows for multiple applications.
- Double-compression design that accommodates various sizes of wire and cable.
- Presents a high extraction force for withstanding extreme conditions.



MSC2LP fitted onto a metal panel.

MATERIAL	Stainless Steel (SS304)
Operating Temperature	-80 °C to 538 °C

RoHS

PART NO.	Length (L)	Width (W)	Bundle Ø min.	Bundle Ø max.	Panel Thickness	Material	Colour	Pack Qty	Article-No.
MSC90SS	18.44	11.57	4.1	7.0	1.5 - 2.0	SS304	Metal (ML)	100 pcs.	151-02189
MSC90SS	18.44	11.57	4.1	7.0	1.5 - 2.0	SS304	Metal (ML)	5,000 pcs.	151-02291
MSC2LP/SS	17.0	9.5	4.1	7.0	1.5 - 2.0	SS304	Metal (ML)	100 pcs.	151-01699

All dimensions in mm. Subject to technical changes.



Solar Edge Clip and Cable Tie Assemblies

Solar EdgeClip Family

These cable ties and EdgeClip assemblies are made up of a proprietary reinforced HIRHSUV to ensure years of reliable performance in any weather. The clip delivers high extraction force due to the integrated metal clamp, eliminating the need for mounting holes or adhesives, which can fail under temperature extremes. This combination part is perfect for routing one to eight cables along any solar module edge or similar application.

Features and Benefits

- EdgeClip attaches without the need for a mounting hole, for quick non-destructive mounting
- Two-piece assembly allows mount to slide along the strap, ensuring proper orientation
- EdgeClip provides low insertion force and high extraction force - ideal for assembly and reliable performance
- Reinforced material designed for harsh weather



T50REC4B for application on thin edges.

PART NO.	Drawing	Length (L)	Width (W)	Bundle Ø max.	N	Panel Thickness	Material Cable Tie	Material Foot Part	Pack Qty	Article-No.
T50REC5A		202.0	4.6	50.8	225	1.0 - 3.0	PA66HIRHSUV	PA66HIRHSUVR5	100 pcs.	156-02226
		202.0	4.6	50.8	225	1.0 - 3.0	PA66HIRHSUV	PA66HIRHSUVR5	500 pcs.	156-02227
T50REC5B		202.0	4.6	50.8	225	1.0 - 3.0	PA66HIRHSUV	PA66HIRHSUVR5	100 pcs.	156-02224
		202.0	4.6	50.8	225	1.0 - 3.0	PA66HIRHSUV	PA66HIRHSUVR5	500 pcs.	156-02225
T50REC4A		202.0	4.6	50.8	225	1.0 - 3.0	PA66HIRHSUV	PA66HIRHSUVR5	100 pcs.	156-02230
		202.0	4.6	50.8	225	1.0 - 3.0	PA66HIRHSUV	PA66HIRHSUVR5	500 pcs.	156-02231
T50REC4B		202.0	4.6	50.8	225	1.0 - 3.0	PA66HIRHSUV	PA66HIRHSUVR5	100 pcs.	156-02228
		202.0	4.6	50.8	225	1.0 - 3.0	PA66HIRHSUV	PA66HIRHSUVR5	500 pcs.	156-02229
T50REC23		202.0	4.6	50.8	225	3.0 - 6.0	PA66UV	PA66HIRHSUV	500 pcs.	156-00592
T50REC24		202.0	4.6	50.8	225	3.0 - 6.0	PA66UV	PA66HIRHSUV	100 pcs.	156-00593
T50REC19		202.0	4.6	50.8	225	3.0 - 6.0	PA66UV	PA66HIRHSUV	100 pcs.	156-00590
T50REC20		202.0	4.6	50.8	225	3.0 - 6.0	PA66UV	PA66HIRHSUV	100 pcs.	156-00591

All dimensions in mm. Subject to technical changes.



Which is Better: Plastic or Metal?

There was a time when metal rivaled available plastics in withstanding the harsh conditions delivered by Mother Nature. Today, however, we're making highly sophisticated plastics for the most extreme industrial applications, including heavy equipment, military, aerospace – and yes, solar. Which is better depends on your application and, just as important, your supplier. Metal offers long service life, and so do the engineered plastics HellermannTyton makes for solar. Metal is conductive, and plastic is not. If a cable becomes nicked by the fastener, metal can cause a short. Our metal fasteners have coined edges to reduce the chances of this happening. Plastic is softer than metal and less likely to slice through a cable jacket. When opting for plastic, controlling O&M costs requires choosing a material engineered for tough solar conditions. Climate and site conditions will determine which products make the most sense for a given application.

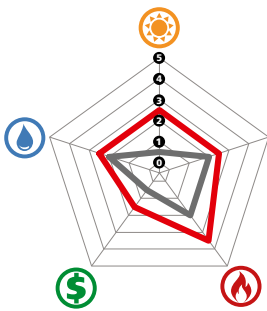
How Our Materials Compare

Consider the environmental factors working against the wire management in a PV system. Temperatures alone routinely reach 150 degrees Fahrenheit at the module – and 170 F at the racking. Fasteners must be able to consistently withstand exposure to UV light, moisture, chemicals and more, and only those engineered for the harshest weather will suffice. Extreme cold also takes its toll on wire management products. Fasteners can become brittle and dry, leading to premature failure.

UV exposure can be an issue even on the back of a panel. Up to 40 percent of the sunlight hitting the front of the panel can be deflected off the ground, especially where there is bright sand, soil or a lack of vegetation.

PA66HIRHSUV

As a base material, PA66 is a weak UV resistant material. HellermannTyton's unique blend includes an added UV stabilizer, high-impact resin and heat stabilizers. This material offers excellent cost savings while withstanding the everyday wear and tear in most solar applications.



POMUV

Also known as Polyacetal, a crystalline copolymer. With added UV stabilizers, this material delivers predictable, long-term performance over a wide range of temperatures. It has good chemical resistance with increased strength and rigidity.



Nylon 12

This material absorbs minimal moisture, even in environments with frequent humidity cycling. Basic PA12 provides strong resistance to chemicals, oils and salts, while providing excellent UV resistance. We add UV and heat stabilizers to enhance strength and durability.



PVDF

Our fluoropolymer-based material provides some of the highest UV, chemical and thermal resistance of any plastic resin. Tough and extraordinarily long lasting, PVDF is designed to virtually eliminate wire management failure over the life of a PV system.



Moisture Resistance



UV Resistance



Chemical Resistance



Cost



Temperature Range



Featured Solar Tie Material

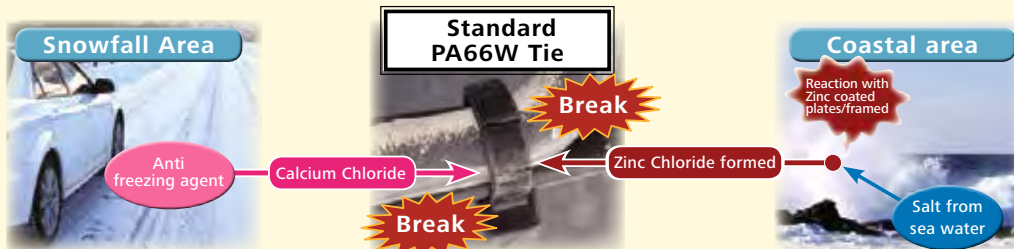


PA66 Cable Tie



Why are GalvaLok ties necessary?

Most polyamide 66 (PA66) cable ties are affected by zinc chloride, calcium chloride, and other chemical substances (corrosive agents). Polyamide 66 cable ties have low resistance to certain chemical substances and may deteriorate or break when solvent cracking occurs*.

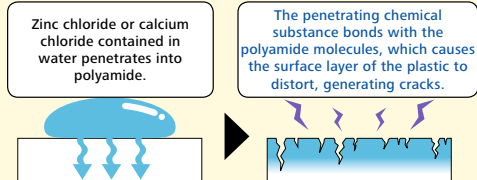


When the zinc of a zinc coated steel sheet and the salt in seawater react, zinc chloride is generated, which causes a polyamide 66 cable tie to deteriorate and break in a short time. Calcium chloride, the main ingredient in snow-melting and de-icing agents used in snowy areas and mountainous areas, also causes polyamide 66 cable ties to deteriorate and break.

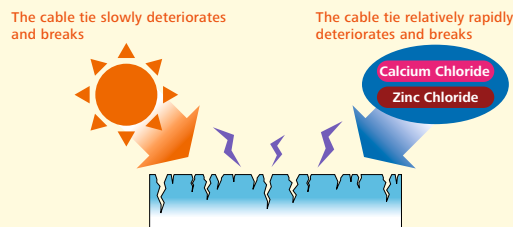
Risk of solvent cracking

*Solvent cracking

A phenomenon called environmental stress cracking or chemical cracking that causes a plastic material to generate cracks when a chemical substance penetrates into the plastic.

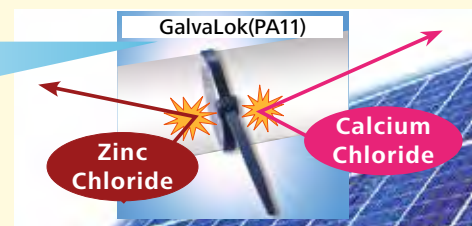


There are two main reasons for polyamide 66 cable ties breaking: solvent cracking due to the effect of salt damage and breaking because of the deterioration of their weather resistance due to ultraviolet rays.



GalvaLok is Promising!!

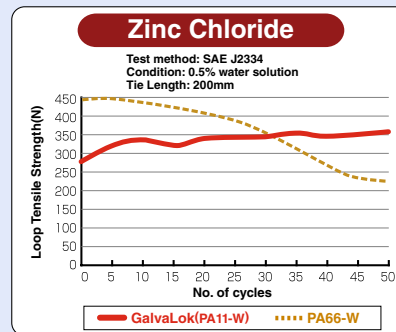
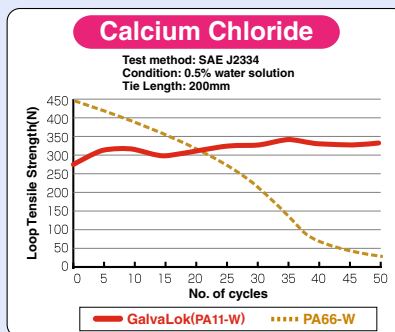
GalvaLok, which is made of polyamide11(PA11), will maintain its strength for a long period of time without being affected by corrosion organisms such as calcium chloride and zinc chloride.



Salt damage resistance: Combined cycle test

While the strength of a conventional polyamide 66 cable tie dropped sharply, GalvaLok maintained its initial strength, demonstrating excellent salt damage resistance.

Generally, the salt damage resistance / corrosion resistance evaluation performed by a combined cycle test is considered to be the closest to use in an actual outdoor environment in coastal areas.

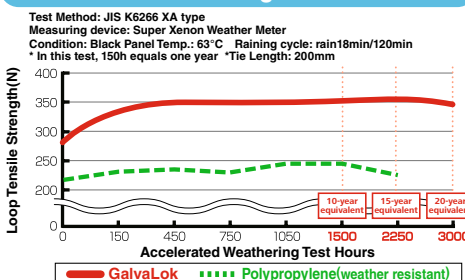


Accelerated weathering test

GalvaLok showed almost no deterioration of strength even after an accelerated weathering test equivalent to approximately 20 years of weather exposure.

GalvaLok has exceedingly superior mechanical strength and weather resistance compared to polypropylene cable ties with the same salt damage resistance as polyamide 11 GalvaLok.

Accelerated Weathering Test: 3000Hours(20 years)



Caution: The specified data are measured values and are not guaranteed. Note that they are reference data obtained under certain conditions and they do not indicate the durability (service life) in actual use.



Cable Ties for bundling wires in solar power systems

GalvaLok-Series in PA11 black

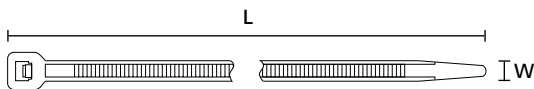
GalvaLok® is a cable tie that has excellent weather resistance, salt damage resistance, and mechanical strength, making it perfect for cabling work around solar panel base frames and galvanized steel plates.

Features and Benefits

- Manufactured from polyamide 11
- High UV resistance for long-term outdoor applications
- Measures against salt damage
- Protection from calcium chloride contained in snow-melting and de-icing agents
- Stable technical performance even at very low temperatures
- Demonstrated almost no deterioration of strength even after an accelerated weathering test equivalent to approximately 20 years of exposure to the elements.




GalvaLok-Series cable ties - ideally suited for solar panel cabling work.



Galvalok-Series



Material specification please see page 14.

PART NO.	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
GL100	100	2.5	22.0	80	PA11	Black (BK)	100 pcs.	111-01565
GL150	153	3.5	36.0	130	PA11	Black (BK)	100 pcs.	111-01546
GL200	202	4.7	50.0	200	PA11	Black (BK)	100 pcs.	111-01264
GL250	252	4.8	65.0	250	PA11	Black (BK)	100 pcs.	111-01265
GL300	301	4.8	80.0	250	PA11	Black (BK)	100 pcs.	111-01266
GL380	383	4.8	105	135	PA11	Black (BK)	100 pcs.	111-01641
GL460	465	9.6	130	480	PA11	Black (BK)	100 pcs.	111-02052
GL600	605	9.6	175	480	PA11	Black (BK)	100 pcs.	111-02053
T50RPA11	200	4.6	50.0	225	PA11	Black (BK)	100 pcs.	N/A
T50IPA11	300	4.6	85.0	225	PA11	Black (BK)	100 pcs.	N/A

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties with release mechanism

GalvaLok Repeat Tie (Releasable Type)

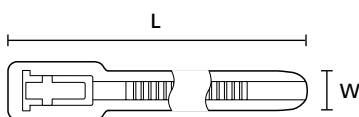
With this product, you can release the lock by pressing the lever after tying the cable. It save you money because you can use it over and over again. Use this product when you want to remove the cable after routing wires and then tie it again.


Features and Benefits

- Manufactured from polyamide 11
- Releasable and reusable cable tie
- Bear loads of up to 200 N



Releasable and reusable cable tie, ECO250RF-W.



TYPE	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
ECO250RF-W	250	7.4	72.0	200	PA11	Black (BK)	100 pcs.	115-00109

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

1-Piece Fixing Ties with Arrowhead, with wings, releasable, for round holes

GalvaLok Pushmount Tie

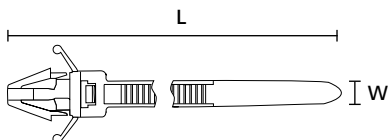
By inserting this product to the hole of solar panel base frame, you can easily secure cables. Its polyamide 11 housing with insulating properties has excellent weather resistance, salt damage resistance, and chemical resistance.


Features and Benefits

- Easy to assemble without the need for a tool
- Cable tie head always situated in defined position
- Arrowhead simply locks into place
- Supporting legs provide a secure and firm fixing in areas where space is limited
- Releasable and therefore reusable
- "Ladder style" types are very flexible



The arrowhead design allows fixing tie to be used in areas with limited space.



TYPE	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
ECO250RF-W	250	7.4	72.0	200	PA11	Black (BK)	100 pcs.	115-00109

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



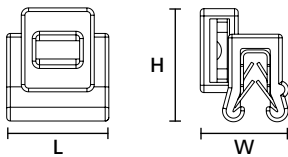
2-Piece Fixing Ties for Edges

GalvaLok® Edge Clip

By simply clipping this product to the edge of a base frame, you can easily secure a GalvaLok cable tie. Its polyamide 11 housing with insulating properties has excellent weather resistance, salt damage resistance, and chemical resistance. Eliminating the need to make holes and tighten screws, this product improves your work efficiency. You can insert GalvaLok cable ties into a GalvaLok Edge Clip from any direction.

Features and Benefits

- GalvaLok cable ties can be inserted into the Edge Clip from any direction that make cable management more flexible.



GLEC5-S



GLEC5-S — the cable bundle runs parallel with the edge.

TYPE	Length (L)	Width (W)	Height (H)	Panel Thickness	Applicable GalvaLok Ties	Material	Colour	Pack Qty	Article-No.
GLEC5-S	14.0	12.0	15.5	1.0 - 3.0	GL100 - GL300	PA11	Black (BK)	100 pcs.	151-01181
GLEC1640-S	153	3.5	36.0	1.6 - 4.0	GL100 - GL380	PA11	Black (BK)	100 pcs.	151-01590

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

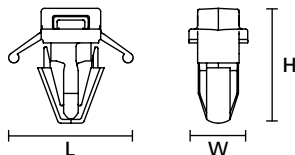
Push-Mount Arrowhead Type

GalvaLok® Push Mount

This product is an aligned type that is used by inserting it into a hole in the mount frame, allowing a cable to be fixed stably right above the mounting hole. When used with up to the GL380 size GalvaLok, this product can support small to large diameter cables.

Features and Benefits

- Wiring fixture that can be installed stably on the panel surface with the support of the wings.
- Can secure the wiring directly above the panel mounting hole.



GLPM7



GLPM7.

TYPE	Length (L)	Width (W)	Height (H)	Panel Hole Ø	Panel Thickness	Material	Colour	Pack Qty	Article-No.
GLPM7	18.2	8.5	16.6	6.0 - 7.5	1.0 - 2.6	PA11	Black (BK)	100 pcs.	151-01340

All dimensions in mm. Subject to technical changes.



Cable Ties Inside Serrated

POMUV (Polyacetal) Solar Ties

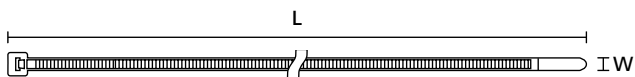
Made of non-hygroscopic acetal, these Solar Ties are extremely UV and chemical resistant. Because the acetal material is non-hygroscopic, meaning it will not absorb or lose moisture, these ties are ideal for use in areas with extremely dry or humid conditions, as the material will remain stable and performance will not be affected over time.

Features and Benefits

- Available in a wide range of materials and sizes
- High tensile strength with very low insertion force
- Ergonomic bent tail offers quick and simple installation
- Easy application either manually or with an application tool




POMUV Solar Ties.



T-Series



Material specification please see page 14.

TYPE	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
T50R	202	4.6	50.0	220	POM	Black (BK)	1,000 pcs.	111-01569
T50L	390	4.6	110	220	POM	Black (BK)	1,000 pcs.	111-01571
T150M	530	8.9	150	667	POM	Black (BK)	25 pcs.	111-01572

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Endless Strap

EL-TY®

With its superior strength, this reel strap type cable tie is perfect for firmly fixing large diameter trunk cables and pipes. This product is made of waterproof polyacetal, which shows almost no deterioration of strength even after an accelerated weathering test equivalent to approximately 20 years of weather exposure. As this product is a reel strap, you can use it by cutting it into pieces of any desired length.

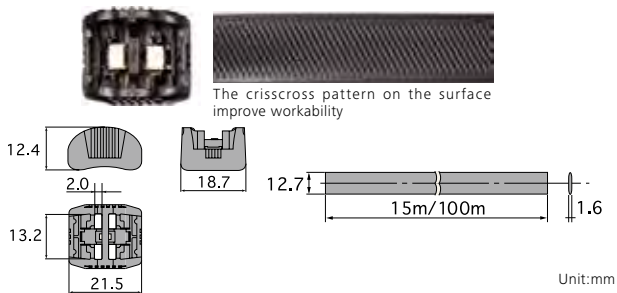
Features and Benefits

- Consists of a smooth strap and a separate, compact plastic head
- Encloses a copper alloy gripper
- Strength properties retained even after 20 years of outdoor exposure
- Combine with Reel Cable Tie strap
- Excellent durability and workability
- Weather resistance feature withstand long-term outdoor use

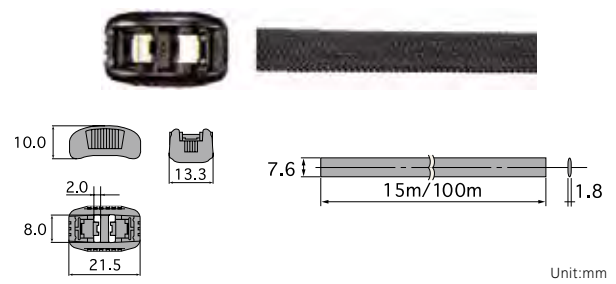


Reel strap cable tie, EL-R2-15.

EL-TY (Wide width type)



Small EL-TY (Slim width type)



Locking Head

TYPE		Material	Pack Qty	Article-No.
EL-H3	1,110	POM	25 pcs.	111-01450

Locking Head

PART NO.		Material	Pack Qty	Article-No.
SEL-H2	780	POM	25 pcs.	111-01451

Reel Strap

TYPE	Length	Material	Pack Qty	Article-No.
EL-R2-15	15m	POM	10	111-01445
EL-R2-100	100m	POM	5	111-01444

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Reel Strap

PART NO.	Length	Material	Pack Qty	Article-No.
SEL-R1-15	15m	POM	10	111-01446
SEL-R1-100	100m	POM	5	111-01447

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties Inside Serrated

PVDF Solar Ties

HellermannTyton is the solar industry's only manufacturer to offer 25-year-rated plastic wire management products. These extraordinarily tough cable ties are manufactured from Polyvinylidene fluoride and feature some of the highest UV, chemical and thermal resistance of any plastic resin. PVDF is designed to virtually eliminate wire management failure over the life of a PV system. The tie strap has smooth edges to prevent bundle damage.

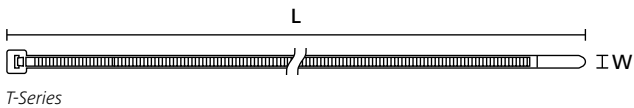
Features and Benefits

- Available in a wide range of materials and sizes
- High tensile strength with very low insertion force
- Ergonomic bent tail offers quick and simple installation
- Easy application either manually or with an application tool




PVDF Solar Ties.

MATERIAL	Polyvinylidene Fluoride (PVDF)
Operating Temperature	-40 °C to 140 °C
Flammability	UL 94 V0



Material specification please see page 14.

TYPE	Length (L)	Width (W)	Bundle Ø max.		Material	Colour	Pack Qty	Article-No.
T50R	202	4.6	50.0	225	PVDF	Grey (GY)	100 pcs.	111-02390
T120R	387	7.6	105	535	PVDF	Grey (GY)	100 pcs.	111-02391

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Cable Ties Inside Serrated

PA12 Solar Ties

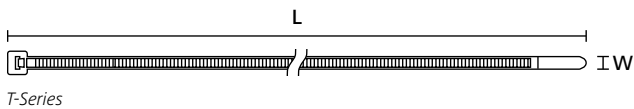
These inside serrated Solar Ties are manufactured from Polyamide 12, which provides excellent UV, chemical and moisture resistance, allowing a longer lifespan in outdoor use. Polyamide 12 material absorbs slightly less moisture than Polyamide 11, yet is equally resistant to metal oxides. The bent tail allows for quick and simple installation through the head of the tie. The tie strap has smooth edges to prevent bundle damage.

Features and Benefits

- Available in a wide range of materials and sizes
- High tensile strength with very low insertion force
- Ergonomic bent tail offers quick and simple installation
- Easy application either manually or with an application tool



PA12 Solar Ties



Material specification please see page 14.

TYPE	Length (L)	Width (W)	Bundle Ø max.	N	Material	Colour	Pack Qty	Article-No.
T50R	202	4.6	50.0	220	PA12	Black (BK)	100 pcs.	111-01560
	202	4.6	50.0	220	PA12	Black (BK)	1,000 pcs.	111-01564
T50L(US)	390	4.6	110	220	PA12	Black (BK)	100 pcs.	111-01562
	390	4.6	110	220	PA12	Black (BK)	1,000 pcs.	111-01561
T50XL(US)	467.6	4.8	134	220	PA12	Black (BK)	100 pcs.	111-01563
T150M	530	8.9	150	780	PA12	Black (BK)	25 pcs.	111-01752

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Nylon Cable Glands

NG Series

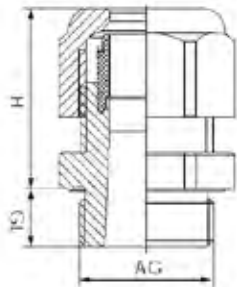
Features and Benefits

- Black material for exterior use
- Working Temperature -40°C to 100°C
- Instantaneous heat up to 120°C
- IP68 rating
- 5 bar pressure
- High torque tightening
- Large cable range
- Long metric thread
- EPDM rubber Washer



Nylon Cable Glands, NG25.

AG: Thread Diameter
GL: Thread Length
H: Height



MATERIAL	Nylon 66
Operating Temperature	-40 °C to 100 °C
Colour	Black (BK)
Protection	IP68
Properties	UV Stabilised Vibration Resistant
Packaging	Gland complete with rubber gasket Lock Nuts included

PART NO.	Cable Size	Nut Size (AG)	Thread Length (GL)	Thread Dia.	Height (H)	Pack Qty.
NG12	3 - 6.5	22	8	M12	25	100 pcs.
NG16	5 - 10	22	15	M16	25	50 pcs.
NG20	10 - 14	27	15	M20	28	40 pcs.
NG25	13 - 18	33	15	M25	31	20 pcs.
NG32	18 - 25	42	15	M32	39	15 pcs.
NG40	22 - 32	53	18	M40	48	6 pcs.
NG50	32 - 38	60	18	M50	49	3 pcs.
NG63	37 - 44	65/68	18	M63	49	2 pcs.

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

Inspired by Paul Hellermann

Heat-shrinkable tubes have always made it easy to repair cables and pipes. Strictly speaking, however, Paul Hellermann used rubber bike valves to bring the insulation of damaged household cables to a mass market from 1935. The idea is the only thing that our modern heat-shrinkable tubes have in common with these simple chloroprene sleeves. Take SA47, which was specially developed in line with customer specifications and offers outstanding protection against moisture and corrosion, thus enabling vehicles to retain their functionality.



SA47-L



2.1 Heat Shrinkable Tubing 93



2.2 Heat Shrinkable Moulded Shapes 101



Overview of Applications for Heat Shrink Tubing

When selecting the correct heat shrink tubing size, it is important to bear in mind the 80:20 rule. The heat shrink tubing must shrink by at least 20 % and not more than 80 % of its complete shrinkage capacity to achieve the right result. In our overview of applications you will find the best heat shrink tube for every cable diameter. The 80:20 rule has of course been taken into account in the table.

Heat Shrinkable Tubing with a shrink ratio of 2:1

HFT-A, TL27, TF21, TF24, VITON®-E, TK20, TK29, TFE-2, TR27, TCN20, SE28

Shrink ratio 2:1 Size mm		Cable/Wire Diameter
1,2/0,6		0,7 mm
		1,1 mm
3,2/1,6	2,4/1,2	1,4 mm
		1,9 mm
		2,2 mm
6,4/3,2	4,8/2,4	2,9 mm
		3,8 mm
		4,3 mm
12,7/6,4	9,5/4,7	5,7 mm
		5,8 mm
		7,7 mm
		8,6 mm
25,4/12,7	19,1/9,5	11,4 mm
		15,2 mm
		17,2 mm
50,8/25,4	38,1/19,1	22,9 mm
		30,5 mm
		34,3 mm
101,6/50,8	76,2/38,1	45,7 mm
		61,0 mm
		68,6 mm
		91,4 mm

Heat Shrinkable Tubing with a shrinkage ratio of 3:1

With the optimal shrinkage ratio of 3:1, you can cover a wide range of applications with just a few sizes. This leads to reduced stock expenditure and requires less space. 3:1 heat shrink tubes: TF34, TF31, EPS-300, TCN20 overexpanded, TA32, TA37

Shrink ratio 3:1 Size mm		Cable/Wire Diameter
1,5/0,5		0,7 mm
		1,3 mm
6/2	3/1	1,4 mm
		2,6 mm
		2,8 mm
18/6	12/4	5,2 mm
		5,6 mm
		8,4 mm
40/13	24/8	10,4 mm
		11,2 mm
		15,6 mm
		18,4 mm
		20,8 mm
		34,6 mm

Conversion from imperial to metric

Inch	1/32"	3/64"	1/16"	5/64"	3/32"	1/8"	3/16"	1/4"	3/8"
mm	0,8	1,2	1,6	2,0	2,4	3,2	4,8	6,4	9,5
Inch	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"	3"	4"
mm	12,7	15,9	19,1	25,4	31,8	38,1	50,8	76,2	101,6

VITON® is a registered trademark of DuPont.



Heat Shrinkable Tubing up to 4:1 - 1.2 m lengths

MA47 - medium wall adhesive lined

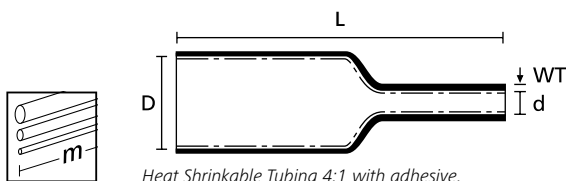
Insulation and protection of low voltage cable joints and terminations above and below ground.

Features and Benefits

- Medium walled tubing with robust insulation characteristics
- Shrink tubing for above and underground cable applications
- Protects cable joints and terminations in low voltage applications
- Coated inside with thermoplastic adhesive
- Protects against humidity and other environmental impacts after shrinking
- UV-resistant



Medium wall tubing - lined or unlined.



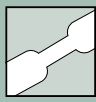
Heat Shrinkable Tubing 4:1 with adhesive.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal change after shrinkage	-10 % max.
Dielectric Strength	20 kV/mm
Flammability	not flame retarded
Insulation Class	A (VDE 0530)



PART NO.	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Pack Qty
MA47-12/3-BK	12.0	3.0	2.00	1.2 m	Black (BK)	5
MA47-22/6-BK	22.0	6.0	2.50	1.2 m	Black (BK)	EA
MA47-30/8-BK	30.0	8.0	2.50	1.2 m	Black (BK)	EA
MA47-40/12-BK	40.0	12.0	2.50	1.2 m	Black (BK)	EA
MA47-55/16-BK	55.0	16.0	2.70	1.2 m	Black (BK)	EA
MA47-65/19-BK	65.0	19.0	2.80	1.2 m	Black (BK)	EA
MA47-75/22-BK	75.0	22.0	3.00	1.2 m	Black (BK)	EA
MA47-95/30-BK	95.0	30.0	3.00	1.2 m	Black (BK)	EA
MA47-115/34-BK	115.0	34.0	3.00	1.2 m	Black (BK)	EA
MA47-140/42-BK	140.0	42.0	3.00	1.2 m	Black (BK)	EA

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Heat Shrinkable Cable Repair Sleeves - 1 m lengths

RMS

RMS sleeves are wrapped around the cable and closed with a steel channel. The inside of the sleeve is adhesive lined and will effectively seal the cable after shrinkage. RMS sleeves provide fast, watertight and reliable insulation.

Features and Benefits

- Fast, moisture proof and permanent repair of cable jackets
- Only 6 sizes for a wide range of cable diameters: from 15 mm up to 160 mm
- Available in 4 standard lengths and also available in custom lengths.
- Each RMS kit is ready for use and comes with instruction sheet, abrasive strip and cleaning sachet.
- The metal closure is made of 316 stainless steel for high overall corrosion resistance.
- Weather resistant and halogen free
- TCP (thermo chromatic paint) spots indicate the sleeve has been sufficiently heated



Application video: RMS

MATERIAL	Polyolefin, chemically cross linked (PO-X)
Shrink Ratio	up to 4.5:1
Operating Temperature	-40 °C to +120 °C
Min. Shrink Temperature	+110 °C
Softening Point Adhesive	+105 °C
Longitudinal change after shrinkage	-10 % max.
Dielectric Strength	30 kV/mm
Flammability	not flame retarded



HF ✓

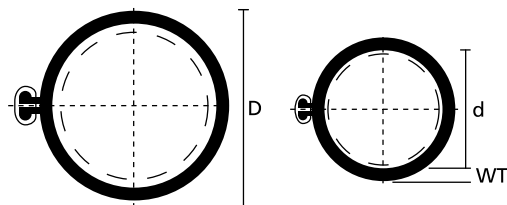
RoHS ✓



RMS wrap-around sleeves for rapid and secure cable repair on site.



RMS: Repair sleeve, steel closure, abrasive strip, cleaning sachet, instruction sheet.



Cable Repair Sleeve RMS with adhesive

PART NO.	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Suitable for Cable Ø from/to	Length (L)	Colour	Article-No.
RMS 43-10-1000BK	43	10.0	2.30	15 - 35	1,000.0	Black (BK)	450-20002
RMS 52-15-1000BK	52	15.0	2.30	20 - 45	1,000.0	Black (BK)	450-20012
RMS 76-22-1000BK	76	22.0	2.50	28 - 65	1,000.0	Black (BK)	450-20022
RMS 100-30-1000BK	100	30.0	2.54	35 - 85	1,000.0	Black (BK)	450-20031
RMS 139-38-1000BK	139	38.0	2.77	45 - 120	1,000.0	Black (BK)	450-20041
RMS 185-55-1000BK	185	55.0	2.74	65 - 160	1,000.0	Black (BK)	450-20050

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Heat Shrinkable Tubing 2:1 - Elastomer

SE28

SE28 is used for long-term protection of cables and wire harnesses in military equipment, motor sports and aviation.

Features and Benefits

- Flexible, high performance elastomeric heat shrink tubing
- Used in aerospace, defence, railway and automotive applications
- Resistant to diesel fuel, aviation and hydraulic fluids
- Provides a reliable protection against abrasion and mechanical damage
- Very suitable for protecting cables and wire harnesses



SE28 tubing.

MATERIAL	Elastomer, cross-linked (POA)
Shrink Ratio	2:1
Operating Temperature	-75 °C to +150 °C
Min. Shrink Temperature - °C	+170 °C
Longitudinal change after shrinkage	-10 % max.
Dielectric Strength	20 kV/mm
Flammability	VG 95343

RoHS ✓



SE28 is mainly used in high performance applications.

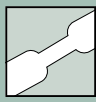


Heat Shrinkable Tubing 2:1

PART NO.	Size (imperial)	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Designation as per VG-Norm	Article-No.
SE28-1/8	1/8 "	3.2	1.6	0.70	150 m	Black (BK)	VG 95343 T05 D 001 A	342-20000
SE28-3/16	3/16 "	4.8	2.4	0.80	60 m	Black (BK)	VG 95343 T05 D 002 A	342-20010
SE28-1/4	1/4 "	6.4	3.2	0.90	60 m	Black (BK)	VG 95343 T05 D 003 A	342-20020
SE28-3/8	3/8 "	9.5	4.8	1.00	60 m	Black (BK)	VG 95343 T05 D 004 A	342-20030
SE28-1/2	1/2 "	12.7	6.4	1.20	60 m	Black (BK)	VG 95343 T05 D 005 A	342-20040
SE28-3/4	3/4 "	19.0	9.5	1.40	30 m	Black (BK)	VG 95343 T05 D 006 A	342-20050
SE28-1	1 "	25.4	12.7	1.80	30 m	Black (BK)	VG 95343 T05 D 007 A	342-20060
SE28-1-1/2	1-1/2 "	38.0	19.0	2.40	30 m	Black (BK)	VG 95343 T05 D 008 A	342-20070
SE28-2	2 "	51.0	25.4	2.80	30 m	Black (BK)	VG 95343 T05 D 009 A	342-20080
SE28-3	3 "	76.0	38.0	3.20	15 m	Black (BK)	VG 95343 T05 D 010 A	342-20090
SE28-4	4 "	102.0	51.0	3.50	10 m	Black (BK)	VG 95343 T05 D 011 A	342-20100

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.





Heat shrinkable tubing 2:1 - flexible and coloured

HS-1.2m

Features and benefits

- Thin wall, flexible polyolefin tubing
- Fast shrinking and low shrink temperature
- Meets and exceeds lots of industrial standards
- Big variety of different colours and sizes
- Flame retarded and UL224 VW1 listed



Available in a wide range of colours and sizes.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+70 °C
Longitudinal change after shrinkage	+/-5 %
Dielectric Strength	32 kV/mm
Flammability	ASTM D2671, UL22
Voltage Rating	600V

RoHS



PART NO.	LV Heatshrink 2:1 Polyolefin 1.2 Metre Lengths	Wall (WT)	Colour	Pack Qty
HS1.5BK/L	HEATSHRINK 1.5MM BLACK x 1.2m	0.32	Black (BK)	10
HS1.5BL/L	HEATSHRINK 1.5MM BLUE x 1.2m	0.32	Blue (BU)	10
HS1.5CL/L	HEATSHRINK 1.5MM CLEAR x 1.2m	0.32	Clear (CL)	10
HS1.5GN/L	HEATSHRINK 1.5MM GREEN x 1.2m	0.32	Green (GN)	10
HS1.5RD/L	HEATSHRINK 1.5MM RED x 1.2m	0.32	Red (RD)	10
HS1.5WH/L	HEATSHRINK 1.5MM WHITE x 1.2m	0.32	White (WH)	10
HS1.5YL/L	HEATSHRINK 1.5MM YELLOW x 1.2m	0.32	Yellow (YE)	10
HS2.5RD/L	HEATSHRINK 2.5MM RED x 1.2m	0.44	Red (RD)	10
HS2.5WH/L	HEATSHRINK 2.5MM WHITE x 1.2m	0.44	White (WH)	10
HS2.5BL/L	HEATSHRINK 2.5MM BLUE x 1.2m	0.44	Blue (BU)	10
HS2.5BK/L	HEATSHRINK 2.5MM BLACK x 1.2m	0.44	Black (BK)	10
HS2.5YG/L	HEATSHRINK 2.5MM YELLOW/GREEN x 1.2m	0.44	Yellow-Green (YEGN)	10
HS3.5RD/L	HEATSHRINK 3.5MM RED x 1.2m	0.44	Red (RD)	10
HS3.5WH/L	HEATSHRINK 3.5MM WHITE x 1.2m	0.44	White (WH)	10
HS3.5BL/L	HEATSHRINK 3.5MM BLUE x 1.2m	0.44	Blue (BU)	10
HS3.5BK/L	HEATSHRINK 3.5MM BLACK x 1.2m	0.44	Black (BK)	10
HS3.5YG/L	HEATSHRINK 3.5MM YELLOW/GREEN x 1.2m	0.44	Yellow-Green (YEGN)	10
HS3.5CL/L	HEATSHRINK 3.5MM CLEAR x 1.2m	0.44	Clear (CL)	10

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.

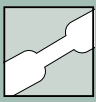


For product specific approvals and specifications please refer to the Appendix.



PART NO.	LV Heatshrink 2:1 Polyolefin 1.2 Metre Lengths	Wall (WT)	Colour	Pack Qty
HS5BK/L	HEATSHRINK 5MM BLACK x 1.2m	0.56	Black (BK)	10
HS5BL/L	HEATSHRINK 5MM BLUE x 1.2m	0.56	Blue (BU)	10
HS5CL/L	HEATSHRINK 5MM CLEAR x 1.2m	0.56	Clear (CL)	10
HS5GN/L	HEATSHRINK 5MM GREEN x 1.2m	0.56	Green (GN)	10
HS5RD/L	HEATSHRINK 5MM RED x 1.2m	0.56	Red (RD)	10
HS5WH/L	HEATSHRINK 5MM WHITE x 1.2m	0.56	White (WH)	10
HS5YL/L	HEATSHRINK 5MM YELLOW x 1.2m	0.56	Yellow (YE)	10
HS5YG/L	HEATSHRINK 5MM YELLOW/GREEN x 1.2m	0.56	Yellow-Green (YEGN)	10
HS7CL/L	HEATSHRINK 7MM CLEAR x 1.2m	0.56	Clear (CL)	5
HS7GN/L	HEATSHRINK 7MM GREEN x 1.2m	0.56	Green (GN)	5
HS7RD/L	HEATSHRINK 7MM RED x 1.2m	0.56	Red (RD)	5
HS7WH/L	HEATSHRINK 7MM WHITE x 1.2m	0.56	White (WH)	5
HS7BK/L	HEATSHRINK 7MM BLACK x 1.2m	0.56	Black (BK)	5
HS7BL/L	HEATSHRINK 7MM BLUE x 1.2m	0.56	Blue (BU)	5
HS7YL/L	HEATSHRINK 7MM YELLOW x 1.2m	0.56	Yellow (YE)	5
HS7YG/L	HEATSHRINK 7MM YELLOW/GREEN 1.2m	0.56	Yellow-Green (YEGN)	5
HS10BK/L	HEATSHRINK 10MM BLACK x 1.2m	0.56	Black (BK)	5
HS10BL/L	HEATSHRINK 10MM BLUE x 1.2m	0.56	Blue (BU)	5
HS10CL/L	HEATSHRINK 10MM CLEAR x 1.2m	0.56	Clear (CL)	5
HS10GN/L	HEATSHRINK 10MM GREEN x 1.2m	0.56	Green (GN)	5
HS10RD/L	HEATSHRINK 10MM RED 1.2m	0.56	Red (RD)	5
HS10WH/L	HEATSHRINK 10MM WHITE x 1.2m	0.56	White (WH)	5
HS10YL/L	HEATSHRINK 10MM YELLOW x 1.2m	0.56	Yellow (YE)	5
HS10YG/L	HEATSHRINK 10MM YELLOW/GREEN x 1.2m	0.56	Yellow-Green (YEGN)	5
HS13BK/L	HEATSHRINK 13MM BLACK x 1.2m	0.56	Black (BK)	5
HS13BL/L	HEATSHRINK 13MM BLUE x 1.2m	0.56	Blue (BU)	5
HS13CL/L	HEATSHRINK 13MM CLEAR x 1.2m	0.56	Clear (CL)	5
HS13GN/L	HEATSHRINK 13MM GREEN x 1.2m	0.56	Green (GN)	5
HS13RD/L	HEATSHRINK 13MM RED 1.2m	0.56	Red (RD)	5
HS13WH/L	HEATSHRINK 13MM WHITE x 1.2m	0.56	White (WH)	5
HS13YL/L	HEATSHRINK 13MM YELLOW x 1.2m	0.56	Yellow (YE)	5
HS13YG/L	HEATSHRINK 13MM YELLOW /GREEN x 1.2m	0.56	Yellow-Green (YEGN)	5
HS20BK/L	HEATSHRINK 20MM BLACK x 1.2m	0.76	Black (BK)	5
HS20BL/L	HEATSHRINK 20MM BLUE x 1.2m	0.76	Blue (BU)	5
HS20CL/L	HEATSHRINK 20MM CLEAR x 1.2m	0.76	Clear (CL)	5
HS20GN/L	HEATSHRINK 20MM GREEN x 1.2m	0.76	Green (GN)	5
HS20RD/L	HEATSHRINK 20MM RED x 1.2m	0.76	Red (RD)	5
HS20WH/L	HEATSHRINK 20MM WHITE x 1.2m	0.76	White (WH)	5
HS20YL/L	HEATSHRINK 20MM YELLOW x 1.2m	0.76	Yellow (YE)	5
HS20YG/L	HEATSHRINK 20MM YELLOW/GREEN x 1.2m	0.76	Yellow-Green (YEGN)	5
HS25BK/L	HEATSHRINK 25MM BLACK x 1.2m	0.86	Black (BK)	5
HS25BL/L	HEATSHRINK 25MM BLUE x 1.2m	0.86	Blue (BU)	5
HS25CL/L	HEATSHRINK 25MM CLEAR x 1.2m	0.86	Clear (CL)	5
HS25GN/L	HEATSHRINK 25MM GREEN x 1.2m	0.86	Green (GN)	5
HS25RD/L	HEATSHRINK 25MM RED x 1.2m	0.86	Red (RD)	5
HS25WH/L	HEATSHRINK 25MM WHITE x 1.2m	0.86	White (WH)	5
HS25YL/L	HEATSHRINK 25MM YELLOW x 1.2m	0.86	Yellow (YE)	5
HS25YG/L	HEATSHRINK 25MM YELLOW/GREEN x 1.2m	0.86	Yellow-Green (YEGN)	5

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



PART NO.	LV Heatsrink 2:1 Polyolefin 1.2 Metre Lengths	Wall (WT)	Colour	Pack Qty
HS40BK/L	HEATSHRINK 40MM BLACK x 1.2m	0.97	Black (BK)	5
HS40BL/L	HEATSHRINK 40MM BLUE x 1.2m	0.97	Blue (BU)	5
HS40CL/L	HEATSHRINK 40MM CLEAR x 1.2m	0.97	Clear (CL)	5
HS40GN/L	HEATSHRINK 40MM GREEN x 1.2m	0.97	Green (GN)	5
HS40RD/L	HEATSHRINK 40MM RED x 1.2m	0.97	Red (RD)	5
HS40WH/L	HEATSHRINK 40MM WHITE x 1.2m	0.97	White (WH)	5
HS40YL/L	HEATSHRINK 40MM YELLOW x 1.2m	0.97	Yellow (YE)	5
HS40YG/L	HEATSHRINK 40MM YELLOW/GREEN x 1.2m	0.97	Yellow-Green (YEGN)	5
HS50BK/L	HEATSHRINK 50MM BLACK x 1.2m	0.97	Black (BK)	1
HS50BL/L	HEATSHRINK 50MM BLUE x 1.2m	0.97	Blue (BU)	1
HS50CL/L	HEATSHRINK 50MM CLEAR x 1.2m	0.97	Clear (CL)	1
HS50GN/L	HEATSHRINK 50MM GREEN x 1.2m	0.97	Green (GN)	1
HS50RD/L	HEATSHRINK 50MM RED x 1.2m	0.97	Red (RD)	1
HS50WH/L	HEATSHRINK 50MM WHITE x 1.2m	0.97	White (WH)	1
HS50YL/L	HEATSHRINK 50MM YELLOW x 1.2m	0.97	Yellow (YE)	1
HS50YG/L	HEATSHRINK 50MM YELLOW GREEN x1.2m	0.97	Yellow-Green (YEGN)	1
HS76BK/L	HEATSHRINK 76MM BLACK x 1.2m	1.17	Black (BK)	1
HS76BL/L	HEATSHRINK 76MM BLUE x 1.2m	1.17	Blue (BU)	1
HS76GN/L	HEATSHRINK 76MM GREEN x 1.2m	1.17	Green (GN)	1
HS76RD/L	HEATSHRINK 76MM RED x 1.2m	1.17	Red (RD)	1
HS76WH/L	HEATSHRINK 76MM WHITE x 1.2m	1.17	White (WH)	1
HS76YL/L	HEATSHRINK 76MM YELLOW x 1.2m	1.17	Yellow (YE)	1

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



Heat shrinkable tubing 2:1 - flexible and coloured

HS-Reels

Features and benefits

- Thin wall, flexible polyolefin tubing
- Fast shrinking and low shrink temperature
- Meets and exceeds lots of industrial standards
- Big variety of different colours and sizes
- Flame retarded and UL224 VW1 listed



Available in a wide range of colours and sizes.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+70 °C
Longitudinal change after shrinkage	+/-5 %
Dielectric Strength	32 kV/mm
Flammability	ASTM D2671, UL22
Voltage Rating	600V

RoHS



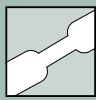
Heat Shrinkable Tubing 2:1

PART NO.	LV Heatshrink 2:1 Polyolefin Reels	Wall (WT)	Colour	Reel Length
HS1.5RD/R300	HEATSHRINK 1.5MM RED REEL OF 300METRES	0.32	Red (RD)	300m
HS1.5WH/R300	HEATSHRINK 1.5MM WHITE REEL OF 300METRES	0.32	White (WH)	300m
HS1.5BL/R300	HEATSHRINK 1.5MM BLUE REEL OF 300METRES	0.32	Blue (BU)	300m
HS1.5BK/R300	HEATSHRINK 1.5MM BLACK REEL OF 300METRES	0.32	Black (BK)	300m
HS1.5CL/R300	HEATSHRINK 1.5MM CLEAR REEL OF 300METRES	0.32	Clear (CL)	300m
HS2.5RD/R200	HEATSHRINK 2.5MM RED REEL OF 200METRES	0.44	Red (RD)	200m
HS2.5WH/R200	HEATSHRINK 2.5MM WHITE REEL OF 200METRES	0.44	White (WH)	200m
HS2.5BL/R200	HEATSHRINK 2.5MM BLUE REEL OF 200METRES	0.44	Blue (BU)	200m
HS2.5BK/R200	HEATSHRINK 2.5MM BLACK REEL OF 200METRES	0.44	Black (BK)	200m
HS2.5CL/R200	HEATSHRINK 2.5MM CLEAR REEL OF 200METRES	0.44	Clear (CL)	200m
HS2.5YG/R200	HEATSHRINK 2.5MM YELLOW/GREEN REEL OF 200METRES	0.44	Yellow-Green (YEGN)	200m
HS3.5RD/R150	HEATSHRINK 3.5MM RED REEL OF 150METRES	0.44	Red (RD)	150m
HS3.5WH/R150	HEATSHRINK 3.5MM WHITE REEL OF 150METRES	0.44	White (WH)	150m
HS3.5BL/R150	HEATSHRINK 3.5MM BLUE REEL OF 150METRES	0.44	Blue (BU)	150m
HS3.5BK/R150	HEATSHRINK 3.5MM BLACK REEL OF 150METRES	0.44	Black (BK)	150m
HS3.5CL/R150	HEATSHRINK 3.5MM CLEAR REEL OF 150METRES	0.44	Clear (CL)	150m

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



For product specific approvals and specifications please refer to the Appendix.



PART NO.	LV Heatshrink 2:1 Polyolefin Reels	Wall (WT)	Colour	Reel Length
HS3.5YG/R150	HEATSHRINK 3.5MM YELLOW/GREEN REEL OF 150METRES	0.44	Yellow-Green (YEGN)	150m
HS5RD/R150	HEATSHRINK 5MM RED REEL OF 150METRES	0.56	Red (RD)	150m
HS5WH/R150	HEATSHRINK 5MM WHITE REEL OF 150METRES	0.56	White (WH)	150m
HS5BL/R150	HEATSHRINK 5MM BLUE REEL OF 150METRES	0.56	Blue (BU)	150m
HS5BK/R150	HEATSHRINK 5MM BLACK REEL OF 150METRES	0.56	Black (BK)	150m
HS5CL/R150	HEATSHRINK 5MM CLEAR REEL OF 150METRES	0.56	Clear (CL)	150m
HS5YG/R150	HEATSHRINK 5MM YELLOW/GREEN REEL OF 150METRES	0.56	Yellow-Green (YEGN)	150m
HS7RD/R150	HEATSHRINK 7MM RED REEL OF 150METRES	0.56	Red (RD)	150m
HS7WH/R150	HEATSHRINK 7MM WHITE REEL OF 150METRES	0.56	White (WH)	150m
HS7BL/R150	HEATSHRINK 7MM BLUE REEL OF 150METRES	0.56	Blue (BU)	150m
HS7BK/R150	HEATSHRINK 7MM BLACK REEL OF 150METRES	0.56	Black (BK)	150m
HS7CL/R150	HEATSHRINK 7MM CLEAR REEL OF 150METRES	0.56	Clear (CL)	150m
HS7YG/R150	HEATSHRINK 7MM YELLOW/GREEN REEL OF 150METRES	0.56	Yellow-Green (YEGN)	150m
HS10RD/R50	HEATSHRINK 10MM RED REEL OF 50METRES	0.56	Red (RD)	50m
HS10WH/R50	HEATSHRINK 10MM WHITE REEL OF 50METRES	0.56	White (WH)	50m
HS10BL/R50	HEATSHRINK 10MM BLUE REEL OF 50METRES	0.56	Blue (BU)	50m
HS10BK/R50	HEATSHRINK 10MM BLACK REEL OF 50METRES	0.56	Black (BK)	50m
HS10CL/R50	HEATSHRINK 10MM CLEAR REEL OF 50METRES	0.56	Clear (CL)	50m
HS10YG/R50	HEATSHRINK 10MM YELLOW/GREEN REEL OF 50METRES	0.56	Yellow-Green (YEGN)	50m
HS13RD/R50	HEATSHRINK 13MM RED REEL OF 50METRES	0.56	Red (RD)	50m
HS13WH/R50	HEATSHRINK 13MM WHITE REEL OF 50METRES	0.56	White (WH)	50m
HS13BL/R50	HEATSHRINK 13MM BLUE REEL OF 50METRES	0.56	Blue (BU)	50m
HS13BK/R50	HEATSHRINK 13MM BLACK REEL OF 50METRES	0.56	Black (BK)	50m
HS13CL/R50	HEATSHRINK 13MM CLEAR REEL OF 50METRES	0.56	Clear (CL)	50m
HS13YG/R50	HEATSHRINK 13MM YELLOW/GREEN REEL OF 50METRES	0.56	Yellow-Green (YEGN)	50m
HS20RD/R50	HEATSHRINK 20MM RED REEL OF 50METRES	0.76	Red (RD)	50m
HS20WH/R50	HEATSHRINK 20MM WHITE REEL OF 50METRES	0.76	White (WH)	50m
HS20BL/R50	HEATSHRINK 20MM BLUE REEL OF 50METRES	0.76	Blue (BU)	50m
HS20BK/R50	HEATSHRINK 20MM BLACK REEL OF 50METRES	0.76	Black (BK)	50m
HS20CL/R50	HEATSHRINK 20MM CLEAR REEL OF 50METRES	0.76	Clear (CL)	50m
HS20YG/R50	HEATSHRINK 20MM YELLOW/GREEN REEL OF 50METRES	0.76	Yellow-Green (YEGN)	50m
HS25RD/R50	HEATSHRINK 25MM RED REEL OF 50METRES	0.86	Red (RD)	50m
HS25WH/R50	HEATSHRINK 25MM WHITE REEL OF 50METRES	0.86	White (WH)	50m
HS25BL/R50	HEATSHRINK 25MM BLUE REEL OF 50METRES	0.86	Blue (BU)	50m
HS25BK/R50	HEATSHRINK 25MM BLACK REEL OF 50METRES	0.86	Black (BK)	50m
HS25CL/R50	HEATSHRINK 25MM CLEAR REEL OF 50METRES	0.86	Clear (CL)	50m
HS25YG/R50	HEATSHRINK 25MM YELLOW/GREEN REEL OF 50METRES	0.86	Yellow-Green (YEGN)	50m
HS40RD/R25	HEATSHRINK 40MM RED REEL OF 25METRES	0.97	Red (RD)	25m
HS40WH/R25	HEATSHRINK 40MM WHITE REEL OF 25METRES	0.97	White (WH)	25m
HS40BL/R25	HEATSHRINK 40MM BLUE REEL OF 25METRES	0.97	Blue (BU)	25m
HS40BK/R25	HEATSHRINK 40MM BLACK REEL OF 25METRES	0.97	Black (BK)	25m
HS40CL/R25	HEATSHRINK 40MM CLEAR REEL OF 50METRES	0.97	Clear (CL)	25m
HS40YG/R25	HEATSHRINK 40MM YELLOW/GREEN REEL OF 25METRES	0.97	Yellow-Green (YEGN)	25m
HS50RD/R25	HEATSHRINK 50MM RED REEL OF 25METRES	0.97	Red (RD)	25m
HS50WH/R25	HEATSHRINK 50MM WHITE REEL OF 25METRES	0.97	White (WH)	25m
HS50BL/R25	HEATSHRINK 50MM BLUE REEL OF 25METRES	0.97	Blue (BU)	25m
HS50BK/R25	HEATSHRINK 50MM BLACK REEL OF 25METRES	0.97	Black (BK)	25m
HS50CL/R25	HEATSHRINK 50MM CLEAR REEL OF 25METRES	0.97	Clear (CL)	25m
HS50YG/R25	HEATSHRINK 50MM YELLOW/GREEN REEL OF 25METRES	0.97	Yellow-Green (YEGN)	25m

All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content.



End Caps

Helashrink HSEC, low voltage with adhesive coating

End caps are suitable for use on both polymeric and paper insulated, lead jacketed cables which may include aluminium or steel armouring.

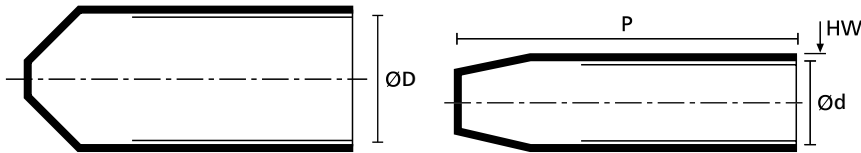
Features and benefits

- Seal cables during storage or transportation
- Insulating cap for live LV cables (0.6/1kV)
- Adhesive lining for excellent environmental seal
- High shrink ratio to minimise number of sizes needed



The appropriate end cap for every cable diameter, and cable types.

MATERIAL	Polyolefin, cross-linked (PO-X)
Colour	Black (BK)
Shrink Ratio	up to 3:1
Min. Shrink Temperature	+135 °C
Operating Temperature	-55 °C to +80 °C
Dielectric Strength	15 kV/mm
Flammability	ASTM D638



a: Expanded form (supplied)

b: Fully recovered form (after heating)

PART NO.	ØD min. a	Ød max. b	P ± 10 %	HW ± 10 %	Pack Qty
HSEC105	12.0	4.0	38.0	2.6	EA
HSEC110	14.0	5.0	47.0	2.6	EA
HSEC115	20.0	6.0	65.0	2.8	EA
HSEC120	25.0	8.5	75.0	2.8	EA
HSEC135	40.0	15.0	95.0	3.3	EA
HSEC140	55.0	23.0	114.0	3.5	EA
HSEC150	75.0	36.0	132.0	4.0	EA
HSEC160	105.0	52.0	153.0	4.0	EA
HSEC170	120.0	60.0	155.0	4.0	EA
HSEC180	145.0	60.0	160.0	4.0	EA
HSEC190	160.0	82.0	160.0	4.0	EA

All dimensions in mm. Subject to technical changes.



You expect tailormade products
We offer you best-fit solutions

Heat Shrinkable moulded shapes solutions that meet your special demands

HellermannTyton heat shrinkable moulded shapes combine the advantages of quick, easy installation with high electric strength, mechanical toughness and superior chemical and environmental resistance.

Our products offer important functional and cost saving benefits for electrical and electronic applications ranging from insulation and protection of individual components to fabrication of complete inter-connecting cable harness assemblies.

Strain-relieving boots, transitions and connector backshell covers, as well as other specialised shapes, are available in a wide range of sizes and options. HellermannTyton's extensive product line includes low profile, bulbous and lipped types for use on circular and D-type connectors as well as complex multiway transitions. Only a minimum number of shapes are needed to cover a full range.

Your One-Stop-Cable-Management-Source: HellermannTyton

Applications

The use of our heat shrinkable moulded shapes in conjunction with our specialist heat shrinkable tubings makes it easy to ensure the proper degree of mechanical support, strain relief and environmental protection. Encapsulating the complete harnessing and interconnection system to the desired configuration is easily and neatly accomplished, with minimum weight and bulk.

Choice of Materials

A range of specially formulated materials is available to meet a variety of performance requirements.



Low Profile Convolute Boots




End Caps



Right Angle Shapes

Comprehensive brochure
available on request.





Inspired by efficiency

Applying protective covers to cables and wiring can be time consuming — removing them for maintenance or modifications even more so. Reduction in the time needed to remove and reapply cable covers inspired us to develop Helawrap. This flexible cable-bundling solution is quick and easy to apply with a simple zipper-like action. Specially designed gaps in the overlapping cover mean installers can safely branch off cables at any point. Whether used in the office, factory, wind or solar installations, we ensure that all our cable protection solutions score highly on their usability and quality — and maximum efficiency.



3.1 Protective Tubing and Spiral Binding 106



3.2 Protective Sleeves 107



Polyethylene spiral binding

SBPE

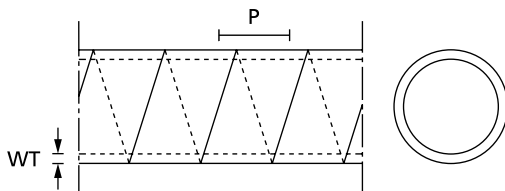
SBPE spiral binding is suitable for standard electrical applications and panel building and plant engineering. Sizes 4 and 9 are also available in practical 5 metre lengths.

Features and Benefits

- Organises and protects cables and hoses
- Suitable for retro-fitting
- Cables branch out at any point
- Wide range of diameters and colours



One Step to the Web!



Spiral binding



Spiral binding SBPE.

MATERIAL	Polyethylene (PE)
Operating Temperature	-60 °C to +80 °C, intermittent +120 °C
Flammability	UL94 HB

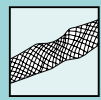


TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPE1.5	1.5	0.8	6.0	1.6	8	Black (BK)	30 m	161-41001
	1.5	0.8	6.0	1.6	8	Natural (NA)	30 m	161-41000
SBPE4	4	1.0	7.8	5	20	Natural (NA)	30 m	161-41100
	4	1.0	7.8	5	20	Black (BK)	30 m	161-41101
SBPE9	9	1.4	12.5	10	100	Black (BK)	30 m	161-41201
	9	1.4	12.5	10	100	Natural (NA)	30 m	161-41200
SBPE16	16	1.6	16.0	20	150	Black (BK)	30 m	161-41301
	16	1.6	16.0	20	150	Natural (NA)	30 m	161-41300

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPE4D	4	1.0	7.8	5	20	Black (BK)	5 m	161-41104
	4	1.0	7.8	5	20	Natural (NA)	5 m	161-41103
SBPE9D	9	1.4	12.5	10	100	Black (BK)	5 m	161-41204
	9	1.4	12.5	10	100	Natural (NA)	5 m	161-41203

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Flame-retardant polyester braided sleeving

HFRV0

HFRV0 braided sleeving is used wherever fire protection is important such as in railway vehicles, machine tools, robotics and automatic equipment.

Features and Benefits

- Made of sturdy polyester
- Self-extinguishing according to UL94 V0 for enhanced fire protection
- Highly flexible
- High abrasion resistance
- High surface coverage



Braided sleeving.

MATERIAL	Polyester (PBT)
Operating Temperature	-50 °C to +150 °C, intermittent +200 °C
Melting Point	+225 °C
Flammability	UL94 V0, FMVSS 302



PART NO.	Description	Colour	Reel Length
HFR003BK	Von V0 sleeving 3mm (Expanded 1 to 6mm)	Black	500 m
HFR006BK	Von V0 sleeving 6mm (Expanded 3 to 9mm)	Black	200 m
HFR008BK	Von V0 sleeving 8mm (Expanded 5 to 16mm)	Black	100 m
HFR010BK	Von V0 sleeving 10mm (Expanded 7 to 19mm)	Black	100 m
HFR012BK	Von V0 sleeving 12mm (Expanded 8 to 24mm)	Black	100 m
HFR016BK	Von V0 sleeving 16mm (Expanded 10 to 27mm)	Black	100 m
HFR019BK	Von V0 sleeving 19mm (Expanded 14 to 30mm)	Black	50 m
HFR025BK	Von V0 sleeving 25mm (Expanded 18 to 35mm)	Black	50 m
HFR032BK	Von V0 sleeving 32mm (Expanded 20 to 50mm)	Black	25 m
HFR038BK	Von V0 sleeving 38mm (Expanded 30 to 55mm)	Black	25 m
HFR045BK	Von V0 sleeving 45mm (Expanded 35 to 75mm)	Black	25 m
HFR050BK	Von V0 sleeving 50mm (Expanded 40 to 80mm)	Black	25 m
HEGPV050-BK	Highly flexible Von V0 sleeving (Expanded 40 to 60mm)	Black	50 m
KD8-3	Hot knife for end sleeve 70W upto 800 deg °C	-	-

All dimensions in mm. Subject to technical changes. Colour grey available on request. Cuts in any lengths. Minimum Order Quantity (MOQ) may differ from package content.



Inspired by reliability

One of the best ways to keep your customers happy is to provide them with products that make their job easier. At construction sites everywhere, we keep seeing skilled electrical engineers losing time and having a tough time connecting cables. Simply because there wasn't a product on the market that allowed them to do their job safely, reliably and faster. That's where the story of RELICON cable joints begins. What they do is link maximum protection and reliability in just a fraction of the time. Our high-quality, efficient and safe RELICON cable joints and other installation products can be used in industrial buildings, outdoors, underground or submerged.

Join the ranks of satisfied electrical engineers and find the right connection for your needs in our separate RELICON catalogue at www.HellermannTyton.com/RELICON2019cat





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HelaTape

HellermannTyton offers a comprehensive range of Vinyl and Rubber Tapes for bundling, insulating, fixing, sealing and marking applications around all kinds of electrical applications. Vinyl electrical tapes are designed for low voltage applications and available in different dimensions and colours.

Vinyl Electrical Tapes - General Purpose Vinyl Electrical Tape

HelaTape Flex15 (0.15mm x 18mm x 20m)

Features and Benefits

- Flame retardant
- Vinyl electrical tape in many different colours
- Used for insulation, protection, fixing, maintenance, colour coding and more
- Good resistance to abrasion, sunlight, moisture, chemicals, and varying weather conditions
- Highly flexible with outstanding adhesion performance
- Harnessing of wires and cables
- Suitable for mechanical and electrical applications up to 1 kV
- VDE approved according to IEC 60454-3-1-6/F-PVCP/90



Highly flexible and with good adhesion levels HelaTape Flex 15 can be used in several applications.



MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	40 kV/mm (Wet)
Adhesion to Steel	2.2 N/cm
Adhesion to Backing	2.0 N/cm
Elongation at break	200 %
Tensile Strength	28 N/cm
Operating Temperature	+90 °C

Test method used IEC 60454-2.



PART NO.	Thickness (mm)	Length (M)	Width (mm)	Colour	EAN bar code	Pack Qty	Article-No.
FLEX15BK	0.15	20.0	18.0	Black	4031026479880	10 pcs.	710-00155
FLEX15RD	0.15	20.0	18.0	Red	4031026479859	10 pcs.	710-00152
FLEX15BU	0.15	20.0	18.0	Blue	4031026479842	10 pcs.	710-00151
FLEX15WT	0.15	20.0	18.0	White	4031026479897	10 pcs.	710-00156
FLEX15GN	0.15	20.0	19.0	Green	4031026 479873	10 pcs.	710-00154
FLEX15YE	0.15	20.0	19.0	Yellow	40312026479866	10 pcs.	710-00153
FLEX15GNYE	0.15	20.0	18.0	Green yellow	4031026479903	10 pcs.	710-00157
FLEX15RP	0.15	20.0	18.0	Rainbow pack	4031026550541	10 pcs.	710-00165

All dimensions in mm. Subject to technical changes.





Vinyl Electrical Tapes - Industrial Grade Vinyl Electrical Tape

HelaTape Flex18 (0.18mm x 18mm x 20m)

Features and Benefits

- Flame retardant
- Used as primary insulation for splices up to 600 volts
- Provides a protective outer jacket to splices at higher voltages
- Wrapping wire harnesses and insulating degaussing coils
- Colour coding electrical circuits
- Lead-free
- Resistant to sun, water, acids, alkalis, corrosive chemicals



HelaTape Flex18 for general splicing purposes.



Material	Polyvinylchloride (PVC)
Dielectric Strength	51 kV/mm
Adhesion to Steel	2.6 N/cm
Adhesion to Backing	2.6 N/cm
Elongation at break	250 %
Tensile Strength	28 N/cm
Operating Temperature	+80 °C

Test method used ASTM-D-1000.



PART NO.	Thickness (mm)	Length (M)	Width (mm)	Colour	EAN bar code	Pack Qty	Article-No.
FLEX18BK	0.18	20.0	18.0	Black	4031026402079	10 pcs.	710-00201
FLEX18WT	0.18	20.0	18.0	White	4031026436678	10 pcs.	710-00209
FLEX18RD	0.18	20.0	18.0	Red	4031026402086	10 pcs.	710-00206
FLEX18BU	0.18	20.0	18.0	Blue	4031026436647	10 pcs.	710-00200
FLEX18GN	0.18	20.0	19.0	Green	6005242040177	10 pcs.	710-00208
FLEX18YE	0.18	20.0	19.0	Yellow	6005242040207	10 pcs.	710-00207
FLEX18GNYE	0.18	20.0	18.0	Green yellow	4031026436685	10 pcs.	710-00210
FLEX18RP	0.18	20.0	18.0	Rainbow pack	4031026573618	10 pcs.	710-00215

All dimensions in mm. Subject to technical changes.





HelaTape Flex – Premium vinyl electrical tapes

HelaTape Flex1000+ (0.18mm x 19mm x 20m)

Features and Benefits

- Flame retardant
- All-weather, professional grade, self-adhesive vinyl insulating tape
- Excellent performance and durability from -18°C to +105°C
- Used for insulation, protection, fixing, maintenance, colour coding
- Pressure sensitive high quality rubber based adhesive
- Performs continuously at low temperature environment
- Excellent resistance to abrasion, water, chemicals, corrosion and sun
- Used as primary insulation for splices up to 600 volts
- Protective jacketing for low–high voltage splices and repairs
- Harnessing of wires and cables
- For indoor and outdoor applications



HelaTape Flex 1000+ provides excellent performance over a wide range of temperatures.



HelaTape Flex 1000+.

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	70 kV/mm (black)
Adhesion to Steel	3,0 N/cm
Adhesion to Backing	2,7 N/cm
Elongation at break	300 %
Tensile Strength	35 N/cm
Operating Temperature	-18 °C to +105 °C

Test method used ASTM-D-1000.



PART NO.	Thickness (mm)	Length (M)	Width (mm)	Colour	EAN bar code	Pack Qty	Article-No.
FLEX1000BK	0.18	20	19.0	Black	4031026548586	Each	710-10602
FLEX1000RD	0.18	20	19.0	Red	4031026548609	Each	710-10604
FLEX1000BL	0.18	20	19.0	Blue	4031026548593	Each	710-10603
FLEX1000WT	0.18	20	19.0	White	4031026548630	Each	710-10607

All dimensions in mm. Subject to technical changes.



Self-amalgamating Tapes - Electrical Insulation Mastic

HelaTape Power 31 (1.27mm x 51mm x 2.6m)

Features and Benefits

- For jacket repair and restoration on mine trailing cable
- Used in buried power cable, and communication cable
- Sealing and repairing cable conduit
- Excellent abrasion and flame resistance
- UV resistant
- Oil and chemical resistant
- Excellent moisture seal
- No heat required
- Will not corrode copper or aluminum



HelaTape Power 31 jacket repair mining tape.

PART NO.	Thickness (mm)	Length (M)	Width (W)	Colour	Pack Qty
POWER31	1.27	2.6	51.0	Black (BK)	Each

Self-amalgamating Tapes – Silicone Rubber Tape

HelaTape Power 800 (0.51mm x 25mm x 9.1m)

Features and benefits

- Self-amalgamating and self-cleaning, chemically cross-linked silicone rubber tape
- Triangular cross-section with centre line for precise half-overlapping
- Resistant to creepage and surface erosion
- Fuses into solid mass after application
- Weather, UV and oil resistant
- Recommended use for high temperature silicone insulated cables and outdoor machinery and transformers



HelaTape Power 800 is a silicone rubber tape with triangular cross-section.

MATERIAL	Silicone (SI)
Operating Temperature	+180 °C
Tensile Strength	7 N/mm ²
Elongation at break	400 %
Volume Resistance	10 ¹⁴ Ω cm
Dielectric Strength	23.5 kV/mm

HF ✓

RoHS ✓

HelaTape Power 800

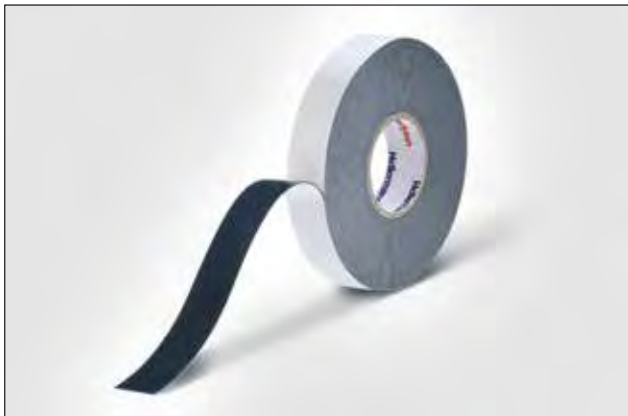
HTAU PART NO.	Thickness (mm)	Length (M)	Width (W)	Colour	Pack Qty	Article-No.
POWER800	0.51	9.1	25.0	Grey (GY)	Each	711-10400

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Self-amalgamating Tapes - High Voltage Rubber Tape

HelaTape Power 810 (EPR) (0.76mm x 19mm x 9.1m)



HelaTape Power 810 for primary insulation up to 69 kV.

Features and Benefits

- Self-amalgamating tape for insulating and jacketing splices up to 69 kV
- Halogen-free with outstanding corona, ozone and UV-resistance
- Ideal for sealing of terminations, electrical connections, and cable jacket repair
- Void-free, electrically stable layering
- Protects bus bar components
- Excellent moisture, corrosion and chemical resistance
- Compatible with all extruded cable insulations

MATERIAL	Ethylene Propylene Rubber (EPR)
Operating Temperature	+90 °C
Intermittent Operating Temperature	+130 °C
Water Absorption	0.06 %
Tensile Strength	2,4 N/mm ²
Elongation at break	750 %
Volume Resistance	10 ¹⁶ Ω cm
Dielectric Strength	30 kV/mm

HF ✓

RoHS ✓

Self-amalgamating Tapes – Medium Voltage Rubber Tape

HelaTape Power 700 (PIBR) (0.5mm x 19mm x 10m)



HelaTape Power 700 is a self-amalgamating medium voltage rubber tape.

Features and benefits

- Polyisobutylene-based self-amalgamating medium voltage tape
- Insulating and jacketing power cables up to 46 kV
- Provides electrical stability and permanent moisture sealing
- Perfect stretching properties allows fast and uniform application
- Excellent UV, moisture, corrosion and chemical resistance
- Temperature range from -40 °C to +90 °C
- Compatible with all extruded cable insulation materials

MATERIAL	Polyisobutylene Rubber (PIBR)
Operating Temperature	+90 °C
Water Absorption	0.02 %
Tensile Strength	2.4 N/mm ²
Elongation at break	700 %
Volume Resistance	10 ¹³ Ω cm
Dielectric Strength	35 kV/mm

HF ✓

RoHS ✓

HelaTape Power 810 (EPR)

HTAU PART NO.	Thickness (mm)	Length (M)	Width (W)	Colour	EAN bar code	Pack Qty	Article-No.
POWER810	0.76	9.1	19.0	Black	4031026548852	Each	711-10401

All dimensions in mm. Subject to technical changes.

HelaTape Power 700 (PIBR)

HTAU PART NO.	Thickness (mm)	Length (M)	Width (W)	Colour	Pack Qty	Article-No.
POWER700	0.50	10.0	19.0	Black (BK)	Each	711-00308

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Vinyl Electrical Tapes – Vinyl Tape for Corrosion Protection

HelaTape Wrap 25 (0.25mm x 50mm x 30m)



HelaTape Wrap 25 protects against all types of corrosion.

Features and benefits

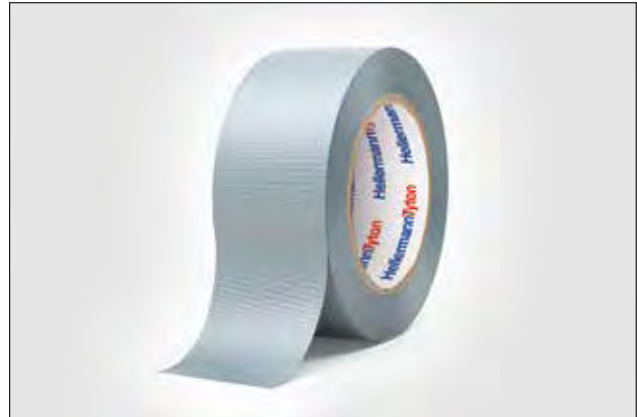
- Special adhesive with excellent protection against corrosion
- Complete environmental, mechanical and electrical protection
- Highly resistant to UV, water, oil, most chemicals, bacteria and fungus
- Used for pipes, tubes, and conduits in outside and underground applications

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	40 kV/mm
Adhesion to Steel	2.4 N/10 mm
Adhesion to Backing	2.0 N/10 mm
Elongation at break	250 %
Breaking Strength	48 N/10 mm
Operating Temperature	-10 °C to +90 °C

RoHS ✓

Duct Tape

HelaTape Wrap 13 (0.13mm x 48mm x 30m)



HelaTape Wrap 13 Duct Tape.

Features and benefits

- Flame retardant
- Weather resistant
- Lead free

MATERIAL	Polyvinylchloride (PVC)
Dielectric Strength	5 kV/mm
Adhesion to Steel	1.5 N/10 mm
Adhesion to Backing	1.5 N/10 mm
Elongation at break	200 %
Operating Temperature	-10 °C to +90 °C

RoHS ✓

HelaTape Wrap 25

PART NO.	Thickness (mm)	Length (M)	Width (mm)	Colour	Pack Qty	Article-No.
WRAP25	0.25	30	50.0	Black (BK)	Each	710-10802

All dimensions in mm. Subject to technical changes.

HelaTape Wrap 13

PART NO.	Thickness (mm)	Length (M)	Width (mm)	Colour	Pack Qty
WRAP13	0.13	30	48.0	Grey (GY)	Each

All dimensions in mm. Subject to technical changes.



Wire Harness Tape – Strong, High Temperature Cloth Tape

HelaTape Protect 250 (0.25mm x 19mm x 25m)



HelaTape Protect 250 is designed for cable harnessing and offers a very high temperature resistance.

Features and benefits

- High temperature Polyester Fabric harnessing tape
- Special acrylate-based adhesive offers very good heat and media resistance
- Very high temperature stability from -40 °C to +150 °C
- Temperature and humidity resistance tested according to LV312
- Very good resistance against abrasion
- Material is very flexible and easy to handle
- Excellent ageing resistance, stable against rotting

MATERIAL	Polyester (PET)
Operating Temperature	-40 °C to +150 °C
Adhesion to Steel	2.5 N/10 mm
Adhesion to Backing	2 N/10 mm
Elongation at break	15 %
Breaking Strength	180 N/10 mm

HF ✓

RoHS ✓

Wire Harness Tape – Soft and Flexible Fleece Tape

HelaTape Protect 300 (0.3mm x 19mm x 25m)



HelaTape Protect 300 provides high noise reduction and media resistance.

Features and benefits

- Soft Polyester Fleece harnessing tape
- High noise reduction and very high resistance against abrasion
- Synthetic rubber based adhesive offers good heat and media resistance
- High temperature stability from -40 °C to +105 °C
- Material is very flexible and tearable by hand
- Excellent ageing resistance and stable against rotting

MATERIAL	Polyester (PET)
Operating Temperature	-40 °C to +105 °C
Adhesion to Steel	2 N/10 mm
Adhesion to Backing	2 N/10 mm
Elongation at break	10 %
Breaking Strength	30 N/10 mm

HF ✓

RoHS ✓

HelaTape Protect 250

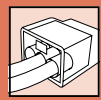
PART NO.	Thickness (mm)	Length (M)	Width (W)	Colour	Pack Qty	Article-No.
PROTECT250	0.25	25.0	19.0	Black (BK)	Each	712-10003

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

HelaTape Protect 300

PART NO.	Thickness (mm)	Length (M)	Width (W)	Colour	Pack Qty	Article-No.
PROTECT300	0.30	25.0	19.0	Black (BK)	Each	712-10001

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Connectors - For Solid and Stranded Wires

HelaCon Plus Mini

HelaCon connectors are used for fast, easy and reliable connection and distribution of cable and conductors in electrical installation applications. The new generation of HelaCon Plus Mini wire connectors can be applied tool-free using the push-in technology. HelaCon Plus Mini uses a double spring which is approved for solid and stranded wires.

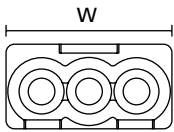
Features and benefits

- Wire range: 0.5 to 2.5 mm²
- 40% smaller – Space saving design
- Low insertion force – Easy to use, saves time on installation
- Easy access to voltage test entry and innovative port shape design
- Correct installation can be visually checked through transparent housing
- Different colour codes for easy identification of size
- Allows different conductor diameters in each entry
- Safe application, installation and maintenance
- Practical Variobox with 350 pcs. of selected HCPM wire connectors available (148-90046)

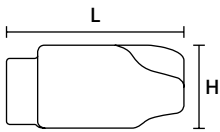


Connectors of the HelaCon Plus Mini family offering multiple sizes and colours.

MATERIAL	Polycarbonate (PC)
Max Current	24 A
Max Voltage	600 V
Wire Range (VDE)	0.5 to 2.5 mm ² solid wires / 1.0 to 2.5 mm ² stranded wires
Stripping Length	11 mm
Flammability	UL94 V0
Operating Temperature	-30 °C to +85 °C
Specifications	2006/65/EC, ANSI/UL 486-A, ANSI/ UL 486-B, ANSI/UL 486-C, cULus, EN 60998-2-2:2004, EN 60998-2-2:201, ENEC



HelaCon Plus Mini front view



HelaCon Plus Mini side view



One Step to the Web!



TYPE	Drawing	Number of Conductors	Colour	Width (W)	Height (H)	Length (L)	Pack Cont.	Article-No.
HCPM-2		2	Yellow (YE)	10.8	7.7	16.5	150 pcs.	148-90036
HCPM-3		3	Orange (OG)	15.1	7.7	16.5	100 pcs.	148-90037
HCPM-4		4	Transparent (CL)	19.4	7.7	16.5	100 pcs.	148-90038
HCPM-5		5	Blue (BU)	23.7	7.7	16.5	75 pcs.	148-90039
HCPM-6		6	Violet (VT)	28.0	7.7	16.5	50 pcs.	148-90040
HCPM-8		8	Black (BK)	36.6	7.7	16.5	50 pcs.	148-90041
HCPM Variobox 350		-	Transparent (CL)	-	7.7	16.5	350 pcs.	148-90046

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



For product specific approvals and specifications please refer to the Appendix.



The HellermannTyton range of pre-insulated terminals feature:

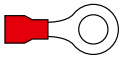
- Single Grip with standard single crimp (use YYT1 crimper)
- Double Grip with special double crimp for use in high vibration areas (use YYT7 crimper)
- Three piece manufacturing process
- Colour coded vinyl insulated for easier identification of cable sizes
- Temperature rating on vinyl is +75°C, our Nylon range is rated at +105°C
- Resealable bags

Terminal colour	RD	BL	YW
Conductor range (mm ²)	0.5-1.5	1.5-2.5	4.0-6.0
Strip length for terminals (mm)	4-5	5-6	6-7
Strip length for inline splice (mm)	7-8	7-8	7-8

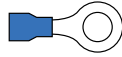


Packaging for double grip pre-insulated terminals.

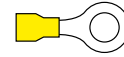
DOUBLE GRIP RING TERMINALS



PART NO.	Stud (mm)	Colour	Pack Qty
RD1-3	3.2	RD	100
RD1-4	4.3		
RD1-5	5.3		
RD1-6	6.4		
RD1-8	8.4		
RD1-10	10.5		



PART NO.	Stud (mm)	Colour	Pack Qty	
RD2-3	3.2	BL	100	
RD2-4	4.3			
RD2-5	5.3			
RD2-6	6.4			
RD2-8	8.4			
RD2-10	10.5			
RD2-12	13.0			50



PART NO.	Stud (mm)	Colour	Pack Qty
RD5-3	3.2	YW	100
RD5-4	4.3		
RD5-5	5.3		
RD5-6	6.4		
RD5-8	8.4		
RD5-10	10.5		50
RD5-12	13.0		

DOUBLE GRIP SPADES/FORKS



PART NO.	Stud (mm)	Colour	Pack Qty
SD1-3	3.2	RD	100
SD1-3.5	3.7		
SD1-4	4.3		
SD1-5	5.3		
SD1-6	6.4		



PART NO.	Stud (mm)	Colour	Pack Qty
SD2-3	3.2	BL	100
SD2-3.5	3.7		
SD2-4	4.3		
SD2-5	5.3		
SD2-6	6.4		



PART NO.	Stud (mm)	Colour	Pack Qty
SD5-3	3.7	YW	50
SD5-4	4.3		
SD5-5	5.3		
SD5-6	6.4		

DOUBLE GRIP PIN CONNECTORS



PART NO.	Pin (mm)	Colour	Pack Qty
PD1	9	RD	100



PART NO.	Pin (mm)	Colour	Pack Qty
PD2	9	BL	100



PART NO.	Pin (mm)	Colour	Pack Qty
PD5	14	YW	50



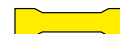
Double Grip Butt Splices



PART NO.	Length (mm)	Colour	Pack Qty
BS1	26	RD	100



PART NO.	Length (mm)	Colour	Pack Qty
BS2	26	BL	100



PART NO.	Length (mm)	Colour	Pack Qty
BS5	27	YW	50

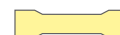
HEAT SHRINK DOUBLE GRIP BUTT SPLICES - WATERPROOF CONNECTIONS



PART NO.	Length (mm)	Colour	Pack Qty
BSW1	35	RD	100



PART NO.	Length (mm)	Colour	Pack Qty
BSW2	35	BL	100



PART NO.	Length (mm)	Colour	Pack Qty
BSW5	35	YW	50

DOUBLE GRIP FLAT BLADES



PART NO.	Pin (mm)	Colour	Pack Qty
FBD1-S	20	RD	100
FBD1-L	29		



PART NO.	Pin (mm)	Colour	Pack Qty
FBD2-S	20	BL	100
FBD2-L	29		



PART NO.	Pin (mm)	Colour	Pack Qty
FBD5-S	24	YW	50
FBD5-L	32		

DOUBLE GRIP LIP BLADES



PART NO.	Blade (mm)	Colour	Pack Qty
LBD1-N	3	RD	100
LBD1-W	5		



PART NO.	Blade (mm)	Colour	Pack Qty
LBD2-N	3	BL	100
LBD2-W	5		



PART NO.	Blade (mm)	Colour	Pack Qty
LBD5-N	3	YW	50
LBD5-W	5		

DOUBLE GRIP QC DISCONNECTS MALE FUNNEL ENTRY



PART NO.	Tab (mm)	Colour	Pack Qty
QDM1-6	6.4x0.8	RD	100



PART NO.	Tab (mm)	Colour	Pack Qty
QDM2-6	6.4x0.8	BL	100



PART NO.	Tab (mm)	Colour	Pack Qty
QDM5-6	6.4x0.8	YW	50

DOUBLE GRIP QC FULLY INSULATED FEMALE FUNNEL ENTRY



PART NO.	Tab (mm)	Colour	Pack Qty
QDF1-5F/5	4.8x0.5	RD	100
QDF1-5F/8	4.8x0.8		



PART NO.	Tab (mm)	Colour	Pack Qty
QDF2-5F/5	4.8x0.5	BL	100
QDF2-5F/8	4.8x0.8		



DOUBLE GRIP NYLON 105°C FULLY INSULATED FEMALE FUNNEL ENTRY



PART NO.	Tab (mm)	Colour	Pack Qty
QDF1-6F	6.4x0.8	RD	100



PART NO.	Tab (mm)	Colour	Pack Qty
QDF2-6F	6.4x0.8	BL	100



PART NO.	Tab (mm)	Colour	Pack Qty
QDF5-6F	6.4x0.8	YW	50

DOUBLE GRIP QC FEMALE FUNNEL ENTRY



PART NO.	Tab (mm)	Colour	Pack Qty
QDF1-3/5	2.8x0.5	RD	100
QDF1-3/8	2.8x0.8		
QDF1-5/5	4.8x0.5		
QDF1-5/8	4.8x0.8		
QDF1-6	6.4x0.8		



PART NO.	Tab (mm)	Colour	Pack Qty
QDF2-3/5	2.8x0.5	BL	100
QDF2-3/8	2.8x0.8		
QDF2-5/5	4.8x0.5		
QDF2-5/8	4.8x0.8		
QDF2-6	6.4x0.8		



PART NO.	Tab (mm)	Colour	Pack Qty
QDF5-6	6.4x0.8	YW	50
QDF5-9	9.4x1.0		

DOUBLE GRIP QC PIGGY BACKS FUNNEL ENTRY



PART NO.	Tab (mm)	Colour	Pack Qty
QDF1-6P	6.4x0.8	RD	50



PART NO.	Tab (mm)	Colour	Pack Qty
QDF2-6P	6.4x0.8	BL	50



PART NO.	Tab (mm)	Colour	Pack Qty
QDF5-6P	6.4x0.8	YW	25

NYLON FLAG QC FEMALE DISCONNECTS 105°C FULLY INSULATED FUNNEL ENTRY



PART NO.	Tab (mm)	Colour	Pack Qty
QDF1-6F90	6.4x0.8	RD	50



PART NO.	Tab (mm)	Colour	Pack Qty
QDF2-6F90	6.4x0.8	BL	50

DOUBLE GRIP FEMALE BULLETS FUNNEL ENTRY



PART NO.	Bullet (dia mm)	Colour	Pack Qty
FD1-4	4	RD	100



PART NO.	Bullet (dia mm)	Colour	Pack Qty
FD2-5	4	BL	50



PART NO.	Bullet (dia mm)	Colour	Pack Qty
FD5-5	5	YW	50

DOUBLE GRIP MALE BULLETS FUNNEL ENTRY



PART NO.	Bullet (dia mm)	Colour	Pack Qty
BDM1-4	4	RD	100



PART NO.	Bullet (dia mm)	Colour	Pack Qty
BDM2-5	4	BL	100



PART NO.	Bullet (dia mm)	Colour	Pack Qty
BDM5-5	5	YW	50



The HellermannTyton range of nylon & un-insulated bootlace ferrules feature:

- Precise terminations for applications of where fine stranded multi core cable is used
- Reduces the possibility of short circuiting
- Colour coded for easier identification
- Non-insulated range of bootlace ferrules are electro grade copper with electro tinned plated for high conductivity
- Resealable bags



Packaging for bootlace ferrules.

NYLON INSULATED BOOTLACE FERRULES



PART NO.	Description	Colour	Pack Qty
BL0.34	0.34mm ² pink bootlace ferrules	Pink	100
BL0.50	0.50mm ² white bootlace ferrules	White	100
BL0.50/500	0.50mm ² white bootlace ferrules (500pk)		500
BL0.75	0.75mm ² blue bootlace ferrules	Blue	100
BL0.75/500	0.75mm ² blue bootlace ferrules (500pk)		500
BL1.0	1.0mm ² red bootlace ferrules	Red	100
BL1.0/500	1.0mm ² red bootlace ferrules (500pk)		500
BL1.5	1.5mm ² black bootlace ferrules	Black	100
BL1.5/500	1.5mm ² black bootlace ferrules (500pk)		500
BL1.5-18	1.5mm ² x 18mm black bootlace ferrules		100
BL2.5	2.5mm ² grey bootlace ferrules	Grey	100
BL2.5/500	2.5mm ² grey bootlace ferrules (500pk)		500
BL2.5-18	2.5mm ² x 18mm grey bootlace ferrules		100
BL4	4.0mm ² orange bootlace ferrules	Orange	100
BL4/500	4.0mm ² orange bootlace ferrules (500pk)		500
BL4-18	4.0mm ² x 18mm orange bootlace ferrules		100
BL6	6.0mm ² green bootlace ferrules	Green	50
BL6/500	6.0mm ² green bootlace ferrules (500pk)		500
BL6-18	6.0mm ² x 18mm green bootlace ferrules		50
BL10	10.0mm ² brown bootlace ferrules	Brown	50
BL10-18	10.0mm ² x 18mm brown bootlace ferrules		50
BL16	16.0mm ² ivory bootlace ferrules	Ivory	50
BL16-18	16.0mm ² x 18mm ivory bootlace ferrules		50
BL25	25mm ² black bootlace ferrules	Black	10
BL25-22	25mm ² x 22mm black bootlace ferrules		10
BL35	35.0mm ² red bootlace ferrules	Red	10
BL35-25	35.0mm ² x 25mm red bootlace ferrules		10
BL50	50.0mm ² blue bootlace ferrules	Blue	10
BL70	70.0mm ² yellow bootlace ferrules	Yellow	5
BL95	95.0mm ² red bootlace ferrules	Red	5
BL120	120.0mm ² blue bootlace ferrules	Blue	5



NYLON INSULATED TWIN BOOTLACE FERRULES



PART NO.	Description	Colour	Pack Qty
BLT0,50	Twin white 2 x 0.5mm ² bootlace ferrules	White	100
BLT0,75	Twin blue 2 x 0.75mm ² bootlace ferrules	Blue	100
BLT1,0	Twin red 2 x 1.0mm ² bootlace ferrules	Red	100
BLT1,5	Twin black 2 x 1.5mm ² bootlace ferrules	Black	100
BLT2,5	Twin grey 2 x 2.5mm ² bootlace ferrules	Grey	100
BLT4	Twin orange 2 x 4.0mm ² bootlace ferrules	Orange	50
BLT6	Twin green 2 x 6.0mm ² bootlace ferrules	Green	25

UN-INSULATED BOOTLACE FERRULES



PART NO.	Description	Pack Qty
BLU0,50	Un-insulated 0.50mm ² bootlace ferrules	100
BLU0,75	Un-insulated 0.75mm ² bootlace ferrules	
BLU1,0	Un-insulated 1.0mm ² bootlace ferrules	
BLU1,5	Un-insulated 1.5mm ² bootlace ferrules	
BLU2,5	Un-insulated 2.5mm ² bootlace ferrules	
BLU4,0	Un-insulated 4.0mm ² bootlace ferrules	50
BLU6	Un-insulated 6.0mm ² bootlace ferrules	
BLU10	Un-insulated 10.0mm ² bootlace ferrules	
BLU16	Un-insulated 16.0mm ² bootlace ferrules	10
BLU25	Un-insulated 25.0mm ² bootlace ferrules	
BLU50	Un-insulated 50.0mm ² bootlace ferrules	
BLU70	Un-insulated 70.0mm ² bootlace ferrules	5
BLU95	Un-insulated 95.0mm ² bootlace ferrules	
BLU120	Un-insulated 120.0mm ² bootlace ferrules	

CLOSED END CONNECTORS



PART NO.	Description	Pack Qty
CE1	Closed end connector 0.5 - 1.5mm ²	50
CE2	Closed end connector 1.5 - 2.5mm ²	
CE5	Closed end connector 4.0 - 6.0mm ²	25

The HellermannTyton range meets all the conformant standards.





SINGLE GRIP LIP BLADES



PART NO.	Blade (mm)	Colour	Pack Qty
1HB3	3	RD	100
1HB	5		

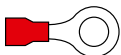


PART NO.	Blade (mm)	Colour	Pack Qty
2HB3	3	BL	100
2HB	5		

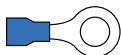


Packaging for single grip pre-insulated terminals.

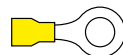
SINGLE GRIP RING TERMINALS



PART NO.	Stud (mm)	Colour	Pack Qty
1R3	3.2	RD	100
1R4	4.3		
1R5	5.3		
1R6	6.4		
1R8	8.4		
1R10	10.5		
1R12	13		



PART NO.	Stud (mm)	Colour	Pack Qty
2R3	3.2	BL	100
2R4	4.3		100
2R5	5.3		100
2R6	6.4		50
2R8	8.4		50
2R10	10.5		50
2R12	13		50



PART NO.	Stud (mm)	Colour	Pack Qty
3R3	3.2	YW	100
3R4	4.3		50
3R5	5.3		
3R6	6.4		
3R8	8.4		
3R10	10.5		
3R12	13		

SINGLE GRIP SPADES/FORKS



PART NO.	Stud (mm)	Colour	Pack Qty
1S3	3.2	RD	100
1S4A	4.3		
1S5A	5.3		
1S6A	6.4		



PART NO.	Stud (mm)	Colour	Pack Qty
2S3	3.2	BL	100
2S4A	4.3		
2S5A	5.3		
2S6	6.4		



PART NO.	Stud (mm)	Colour	Pack Qty
3S4A	4.3	YW	50
3S5	5.3		
3S6A	6.4		

SINGLE GRIP PIN CONNECTORS



PART NO.	Pin (mm)	Colour	Pack Qty
1P10	9	RD	100



PART NO.	Pin (mm)	Colour	Pack Qty
2P10	9	BL	100



PART NO.	Pin (mm)	Colour	Pack Qty
3P13	14	YW	25

SINGLE GRIP FLAT BLADES



PART NO.	Pin (mm)	Colour	Pack Qty
1FB14	20	RD	50
1FB18	29		100



PART NO.	Pin (mm)	Colour	Pack Qty
2FB13	20	BL	100
2FB18	29		



PART NO.	Pin (mm)	Colour	Pack Qty
3FB10	24	YW	50
3FB14	32		

SINGLE GRIP BUTT SPLICES



PART NO.	Length (mm)	Colour	Pack Qty
1UT	26	RD	100



PART NO.	Length (mm)	Colour	Pack Qty
2UT	26	BL	100



PART NO.	Length (mm)	Colour	Pack Qty
3UT	27	YW	50



Copper Cable Lug

Copper Lug Series

Copper cable lugs are used to terminate the ends of battery cable and welding cable so they can be connected to other electrical equipment such as starters, fuse blocks, distribution blocks, etc. Cable lugs are highly conductive and can handle very high currents. Our range of Copper Lugs/Links complies to Australian & New Zealand standard AS/NZS4325 Part 1:1995.

Features and Benefits

- Heat cycle certification available on request
- Wide range of sizes
- Can be crimped using cable lug crimper or hammer style crimper
- Easy insertion of cable



Copper Lug Series.



Long Barrel Short Palm Series



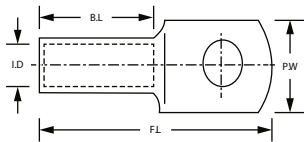
Long Barrel Long Palm Series



Bell Mouth Copper Lug Series



Bimetal Series



MATERIAL	Copper Grade C11000
Conductive Material	Copper 99.9% pure Oxygen content 30 p.p.m Max. Tensile strength 205 Mpa Min Ductile rating 40% Final metal state fully annealed Electroplating material tin 99.9% pure Other metals lead + antimony Thickness 5 -10 microns
Conformant Standards	AS/NZS4325 Part 1:1995
General Electrical Properties	Total conductivity 99.9% IACS Total resistivity: 1.72 micro-ohm cm
Operating Temperature	-55°C to 155°C due to oxygen-free copper

COPPER LUGS



HTAU PART NO.	Conductor Size (mm ²)	Stranding metric	Stud	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty
CL1.5-4	1.5	7/0.50	M4	1.8	8	7	18	-	100
CL1.5-5			M5		8	7	18		
CL1.5-6			M6		10	7	19		

All dimensions in mm. Subject to technical changes.

Note: Copper lugs 95mm² and larger are available in single pack.





HTAU PART NO.	Conductor Size (mm ²)	Stranding metric	Stud	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty	
CL2.5-4	2.5	7/0.67	M4	2.4	8	8	19	-	100	
CL2.5-5			M5		8		19			
CL2.5-6			M6		10		21			
CL2.5-8			M8		12	7	24			
CL4-5	4	7/0.85	M5	3.1	10	9	22	-	100	
CL4-6			M6		12		27			
CL4-8			M8		10	27				
CL4-10			M10			32				
CL6-5	6	7/1.04	M5	3.8	10	9	23	4.4	100	
CL6-6			M6		12		27			
CL6-8			M8		10	27				
CL6-10			M10			32				
CL10-5			M5		15	32				
CL10-6	10	7/1.35	M6	4.7	12	10	27	5.7	100	
CL10-8			M8		14		29			
CL10-10			M10		15		32			
CL10-12			M12		18	11	38			
CL16-6	16	7/1.70	M6	5.5	11	19	39	6.3	50	
CL16-8			M8		14		41			
CL16-10			M10		16		46			
CL16-12			M12		18		46			
CL25-6	25	19/1.35	M6	7.1	13.5	21	41	7.7	50	
CL25-8			M8				44			
CL25-10			M10		16		48			
CL25-12			M12		18		48			
CL35-6	35	19/1.53	M6	8.4	16	21	45	9.2	50	
CL35-8			M8							18
CL35-10			M10		20		22			51
CL35-12			M12		20		22			51
CL50-6	50	19/1.78	M6	9.5	18	22	46	10.4	50	
CL50-8			M8							21
CL50-10			M10		21		22			52
CL50-12			M12		21		22			52
CL70-6	70	19/2.14	M6	11.3	21	24	54	11.5	25	
CL70-8			M8							
CL70-10			M10							
CL70-12			M12							
CL70-16			M16							
CL95-8	95	37/1.78	M8	13.5	25	27	60	14.2	25	
CL95-10			M10							
CL95-12			M12				64			
CL95-16			M16				64			
CL120-8	120	37/2.03	M8	15.6	30	30	64	16.5	25	
CL120-10			M10							
CL120-12			M12				70			
CL120-16			M16				70			

All dimensions in mm. Subject to technical changes.
Note: Copper lugs 95mm² and larger are available in single pack.





HTAU PART NO.	Conductor Size (mm ²)	Stranding metric	Stud	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty
CL150-10	150	37/2.25	M10	16.7	32	30	71	18.3	20
CL150-12			M12				75		
CL150-16			M16						
CL150-B			Blank				1		
CL185-10	185	37/2.52	M10	18.4	36	32	74	20	20
CL185-12			M12				79		
CL185-16			M16						
CL240-10	240	61/2.25	M10	21.2	41	38	92	23.1	10
CL240-12			M12						
CL240-16			M16						
CL240-B			Blank						
CL300-10	300	61/2.52	M10	23.8	46	42	101	26	5
CL300-12			M12						
CL300-16			M16						
CL300-B			Blank						
CL400-12	400	61/2.85	M12	26.8	50	44	114	28.1	1
CL400-16			M16						
CL400B			Blank						
CL500-10	500	61/3.20	M10	30	56	50	119	31	1
CL500-12			M12						
CL500B			Blank						
CL630-12	630	127/2.52	M12	34	64.4	58	139	37	1
CL630-16			M16						
CL630B			Blank						

All dimensions in mm. Subject to technical changes.

Note: Copper lugs 95mm² and larger are available in single pack.

LONG BARREL SHORT PALM



HTAU PART NO.	Conductor Size (mm ²)	Stud	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty
CL16-6LB	16	M6	5.5	11	35	60	6.3	1
CL16-8LB		M8		14				1
CL25-8LB	25	M8	7.1	13.5		62	7.7	1
CL35-10LB	35	M10	8.4	18	44	65	9.2	1
CL35-12LB	35	M12		20				1
CL50-10LB	50	M10	9.5	18		77	10.4	1
CL70-10LB	70	M10	11.3	21	48	81	11.5	1
CL70-12LB		M12		21				1
CL95-10LB	95	M10	13.5	25	54	88	14.2	1
CL95-12LB		M12						1
CL120-10LB	120	M10	15.6	20.6	60	98	16.5	1
CL120-12LB		M12						1
CL150-12LB	150	M12	16.7	22.2		110	18.3	1
CL630LB	630	Blank	34.00	64.4	115	193	37	1

All dimensions in mm. Subject to technical changes.



LONG BARREL LONG PALM



PART NO.	Conductor Size (mm ²)	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty
CL16LPB	16	5.5	18.0	21	82	6.3	1
CL25LPB	25	7.1	18.0	29	95	7.7	1
CL35LPB	35	8.4	20.0	35	112	9.2	1
CL50LPB	50	9.5	21.0	44	130	10.4	1
CL70LPB	70	11.3	26.0	48	154	11.5	1
CL95LPB	95	13.5	26.0	54	161	14.2	1
CL120LPB	120	15.6	30.0	60	168	16.5	1
CL150LPB	150	16.7	32.0	60	169	18.3	1
CL185LPB	185	18.4	36.0	64	174	20	1
CL240LPB	240	21.2	41.0	80	180	23.1	1
CL300LPB	300	23.8	46.0	90	190	26	1
CL400LPB	400	26.8	50.0	100	200	28.1	1
CL500LPB	500	30.0	56.0	105	205	31	1
CL630LPB	630	34.0	64.4	115	215	37	1

All dimensions in mm. Subject to technical changes.

BELL MOUTH COPPER LUGS



PART NO.	Conductor Size (mm ²)	Stud	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty	
CL10-5BM	10	M5	4.7	12	10	27	5.7	100	
CL10-6BM		M6		14		11			29
CL10-8BM		M8							32
CL10-10BM		M10		15	38				
CL10-12BM		M12		18	38				
CL16-6BM	16	M6	5.5	11	19	39	6.3	50	
CL16-8BM		M8		14		41			
CL16-10BM		M10		16		46			
CL16-12BM		M12		18		46			
CL25-6BM	25	M6	7.1	13.5	21	41	7.7	50	
CL25-8BM		M8		16		21			44
CL25-10BM		M10							48
CL25-12BM		M12		18		48			
CL35-6BM	35	M6	8.4	15	21	41	9.2	50	
CL35-8BM		M8							
CL35-10BM		M10							
CL35-12BM		M12							
CL50-6BM	50	M6	9.5	15	22	46	10.4	50	
CL50-8BM		M8		19		49			
CL50-10BM		M10		21		24			54
CL50-12BM		M12							
CL70-6BM	70	M6	11.3	17	24	45	11.5	25	
CL70-8BM		M8							
CL70-10BM		M10		19		24			51
CL70-12BM		M12							
CL70-16BM		M16							

All dimensions in mm. Subject to technical changes.





PART NO.	Conductor Size (mm ²)	Stud	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty
CL95-8BM	95	M8	13.5	19	27	51	14.2	25
CL95-10BM		M10				55		
CL95-12BM		M12				55		
CL120-10BM	120	M10	15.6	19	30	61	16.5	25
CL120-12BM		M12						
CL120-16BM		M16						
CL150-10BM	150	M10	16.7	19	30	66	18.3	20
CL150-12BM		M12				75		
CL185-10BM	185	M10	18.4	24.5	32	74	20	20
CL185-12BM		M12				79		
CL240-10BM	240	M10	21.2	31	38	82	23.1	10
CL240-12BM		M12						
CL240-16BM	300	M16	23.8	31	42	81	26	5

All dimensions in mm. Subject to technical changes.

Note: Bell mouth lugs from 95mm² are available in each.

BELL MOUTH CIRCUIT BREAKER LUGS NARROW PALM



PART NO.	Conductor Size (mm ²)	Stud	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty
CLB35-6	35	M6	8.4	15	21	41	9.2	50
CLB50-6	50	M6	9.5	15	22	43	10.4	50
CLB50-10		M10		19		44		
CLB70-6	70	M6	11.3	17	24	55	11.5	25
CLB70-10		M10		19		51		
CLB95-8	95	M8	13.5	19	27	51	14.2	25
CLB95-10		M10						
CLB120-8	120	M8	15.6	19	30	61	16.5	25
CLB120-10		M10						
CLB150-10	150	M10	16.7	19	30	66	18.3	20
CLB185-10	185	M10	18.4	24.5	32	74	20	20
CLB240-10	240	M10	21.2	28.5	38	82	23.1	10
CLB240-12		M12						
CLB300-10	300	M10	23.8	31	42	81	26	5

All dimensions in mm. Subject to technical changes.

Note: Bell mouth circuit breaker lugs from 95mm² are available in each.

COPPER CRIMP LINKS



PART NO.	Conductor Size (mm ²)	Stranding metric	ID Size	Full Length	A/F Hex	Pack Qty
CS1.5	1.5	1/0.50	1.8	22	-	100
CS2.5	2.5	7/0.67	2.4	22	-	100
CS4	4	7/0.85	3.1	22	-	100
CS6	6	7/1.04	3.8	22	4.4	100
CS10	10	7/1.35	4.7	22	5.7	100

All dimensions in mm. Subject to technical changes.



PART NO.	Conductor Size (mm ²)	Stranding metric	ID Size	Full Length	A/F Hex	Pack Qty
CS16	16	7/1.70	5.5	44	6.3	50
CS25	25	19/1.35	7.1	47	7.7	50
CS35	35	19/1.53	8.4	47	9.2	50
CS50	50	19/1.78	9.5	47	10.4	50
CS70	70	19/2.14	11.3	50	11.5	25
CS95	95	37/1.78	13.4	54	14.2	25
CS120	120	37/2.03	15.6	65	16.5	25
CS150	150	37/2.25	16.7	65	18.3	20
CS185	185	37/2.52	18.4	65	20	20
CS240	240	61/2.25	21.2	90	23.1	10
CS300	300	61/2.52	23.8	90	26	5
CS400	400	61/2.82	26.8	90	28.1	1
CS500	500	61/3.20	30	112	30.1	1
CS630	630	127/2.52	34	112	34	1

All dimensions in mm. Subject to technical changes.
 Note: Copper crimp links from 95mm² are available in each.

BI-METAL



PART NO.	Conductor Size (mm ²)	Stud	ID Size	Palm Width	Barrel Length	Full Length	A/F Hex	Pack Qty		
BML16-10	16	10	5.5	20	32	75	9	1		
BML25-10	25	10	7.5					1		
BML25-12		12	7.5					1		
BML35-10	35	10	8.5					1		
BML35-12		12	8.5	1						
BML50-10	50	10	9.5	24			60	115	13.2	1
BML50-12		12	9.5							1
BML70-10	70	10	11.5							1
BML70-12		12	11.5		1					
BML95-10	95	10	13.5	30	70	120			17.3	1
BML95-12		12	13.5							1
BML120-10	120	10	15.5							1
BML120-12		12	15.5							1
BML150-10	150	10	16.5	35			135	28.4	22	1
BML150-12		12	16.5							1
BML185-10	185	10	18.5							1
BML185-12		12	18.5							1
BML240-10	240	10	22	36	165	39			43.2	1
BML240-12		12	22							1
BML300-10	300	10	23.5							1
BML300-12		12	23.5							1
BML300		0								1
BML400	400	0	26.5	50			70	165	39	1
BML630	630	0	34	60			70	175	43.2	1

All dimensions in mm. Subject to technical changes.



RELICON - Innovative Cast Resin and Gel Technology

For Reliable Cable Connections

We believe in our products. The promise they deliver is anchored in our brand name: RELICON stands for "reliable connection". You can trust RELICON to make reliable connections between today's needs and tomorrow's possibilities. A reliable connection between companies' goals and the interest of the environment. A reliable connection between efficient manufacture and optimal use.



Comprehensive brochure
available on request.



RELICON SF technology: safe and easy filling

The special “Safe Filling” (SF) system makes RELICON cast resin joint products a pleasure to work with. When followed correctly, SF ensures that any hazardous contact with the cast resin can be avoided and the fitter has visual control of the mixing and filling steps at all times.

Resin and hardener are mixed in a transparent double-chamber pouch. The mixture can be easily poured into the joint sleeve once the supplied nozzle is securely pressed onto the adapter ring in the pouch. The transparent cable joint parts guarantee that the fitter can visually control the entire filling process. The hydrophobic (dewatering) cast resin is environmentally safe. The mixture can be disposed of as regular household waste.

Excellent hydrolytic stability makes RELICON cast resins particularly suitable for reliable long-term applications.



Transparent 2-chamber pouch for a optimized visual inspection of the mixing process.



The middle cold seal between the resin and harder component opens by means of pressure.



Simple mixing of the two components.



The patented color change gives the correct mixing process.



Automatic and leakproof opening of the pouch through installation of the filling nozzle.



The filling nozzle in combination with the adapter makes filling the joint very easy and efficient.



*Application video:
RELICON cable jointing*



Straight-through joint without connectors

RELICON i-Line SF

RELICON straight-through joints are made for installations in low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- Safe-Filling system (SF)
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water

Content of Set / Kit

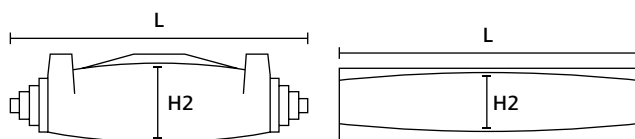
- Cast resin PUR 33 or PUR 771
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape PVC insulating tape
- Spacer for max. 5 core cable (i-1 to i-4)



Straight-through joint i-Line SF (safe filling).

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS ✓



i-Line (i-0 - i-6)

i-Line (i-7)

i Without connector!



One Step to the Web!

TYPE	Ø Main Cable	Main Cable mm ² min - max		Length (L)	Height (H2)	Resin Quantity	Material	Article-No.
i-0 / SF	7-16	3 x 1.5	5 x 2.5	182.0	25.0	95 ml / 130 g	PUR33	435-00080
i-1 / SF	8-24	3 x 1.5	4 x 10 / 5 x 6	190.0	36.0	165 ml / 226 g	PUR33	435-00081
i-1.5 / SF	8-24	3 x 1.5	4 x 16 / 5 x 10	215.0	39.0	220 ml / 301 g	PUR33	435-00088
i-2 / SF	14-30	5 x 1.5	4 x 25 / 5 x 16	276.0	49.0	400 ml / 548 g	PUR33	435-00082
i-3 / SF	23-35	5 x 10	4 x 50 / 5 x 35	360.0	54.0	655 ml / 897 g	PUR33	435-00083
i-4 / SF	28-47	4 x 25	4 x 95	400.0	69.0	1140 ml / 1562 g	PUR33	435-00084
i-5 / SF	33-55	4 x 50	4 x 150	520.0	100.0	2 x 1450 ml / 1987 g	PUR33	435-00085
i-6 / SF	48-70	4 x 150	4 x 240	700.0	128.0	4 x 1640 ml / 2247 g	PUR33	435-00086
i-7 / SF	55-77	4 x 185	4 x 400	870.0	140.0	5 x 1950 ml / 2672 g	PUR33	435-00087

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Straight-through joint with connectors

RELICON i-Line Premium SF

RELICON Premium straight-through joints are provided with an integrated connector block and made for low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

Application: Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- Safe-Filling system (SF)
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water
- Connectors for aluminium and copper conductors
- Safe connection for up to 5 core cables

Content of Set / Kit

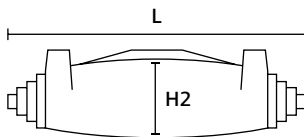
- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape PVC insulating tape
- Connector block with 5 screw connectors incl. allen key



Straight-through joint i-Line SF (safe filling).

MATERIAL	Polyurethane resin 33 (PUR33) or Polyurethane resin 771 (PUR771)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS ✓



i-Line Premium

i With connector!

TYPE	Ø Main Cable	Main Cable mm ² min - max		Length (L)	Height (H2)	Resin Quantity	Material	Article-No.
i-1 Premium PUR33	8-24	3 x 1.5	5 x 6	190.0	36.0	165 ml / 226 g	PUR33	435-12060
i-2 Premium PUR33	14-30	5 x 1.5	5 x 16	276.0	49.0	400 ml / 548 g	PUR33	435-12061
i-3 Premium PUR33	23-35	5 x 6	5 x 35	360.0	54.0	655 ml / 897 g	PUR33	435-12062

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Branch joints

RELICON Y-Line SF

RELICON branch joints are made for installations in low-voltage electrical networks. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR and utility cables.

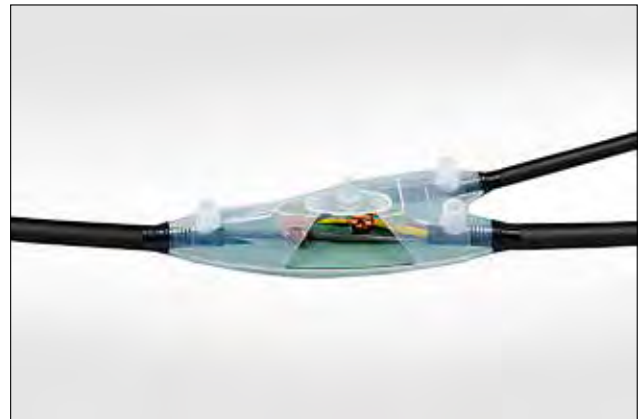
Application: Underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

- Two-part, impact-proof, transparent moulding shells
- Compact, optimized dimensions
- Standard cable diameters indicated on the shells
- SF-system
- Immediately ready for use
- Longitudinally and transversely watertight
- Joint can be cast under influence of water

Content of Set / Kit

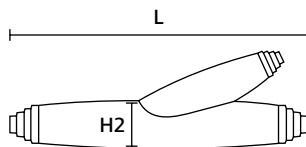
- Cast resin PUR 33
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape PVC insulating tape



Branch joint Y-Line SF (safe filling).

MATERIAL	Polyurethane resin 33 (PUR33) or Polyurethane resin 771 (PUR771)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

RoHS



Y-Line

i Without branch connector!

TYPE	Ø Main Cable	Main Cable mm ² min - max		Ø Branch Cable	Angle	Branch Cable mm ² min - max		Length (L)	Height (H2)	Resin Quantity	Material	Article-No.
Y-0 / SF	10-24	3 x 1.5	4 x 10	10-24	30 °	3 x 1.5	4 x 4	190.0	60.0	240 ml / 329 g	PUR33	435-12063
Y-1 / SF	8-22	3 x 1.5	5 x 10	10-22	30 °	3 x 1.5	5 x 6	205.0	70.0	490 ml / 671 g	PUR33	435-12064
Y-2 / SF	25-33	4 x 16	5 x 25	15-30	20 °	4 x 6	5 x 16	350.0	98.0	1445 ml / 1980 g	PUR33	435-12065
Y-3 / SF	10-40	4 x 16	5 x 16	13-28	20 °	4 x 10	5 x 10	330.0	90.0	955 ml / 1308 g	PUR33	435-12066
Y-6 / SF	30-55	4 x 95	4 x 185	17-40	20 °	4 x 10	4 x 70	430.0	130.0	-	PUR33	435-12068

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



RELICON: expertise based on experience

Innovative cast resin and gel systems for reliable connections.

HellermannTyton is one of the leading suppliers of products for fastening, fixing, identifying and protecting cables and their connecting components.

We also develop pioneering systems in the field of data and network technology.

Our corporate philosophy focuses on customers and their need for the best possible solutions around cable management. RELICON branded cast resin and gel systems are highly innovative premium products designed to fulfil the highest expectations. RELICON products extend HellermannTyton's insulation and protection portfolio with leading cable connection technology. RELICON products deliver outstanding performance with quality you can rely on.

Part of what makes HellermannTyton a market leader is our pioneering spirit coupled with the technical expertise to continuously anticipate future demands and to answer these challenges with optimal product solutions.



Two-component polyurethane cast resin

RELICON PUR 33

The RELICON PUR 33 cast resin has been created for the electrical insulation and mechanical protection of cable connections in low-voltage electrical networks. Also suitable as mechanical and moisture protection on medium-voltage cable connections.

Application: For indoor and outdoor use.

Features and Benefits

- In a practical, transparent two-chamber pouch
- Colour changes from blue to green whilst mixing
- Safe-Filling system (SF)
- Excellent flow properties, low volume shrinkage
- Cold curing and very hydrophobic, to cast under the influence of water
- High hydrolytic stability and good curing at low temperatures
- UV, ageing and weather resistant
- Outstanding impact strength and resistance to moisture and atmospheric corrosion
- Excellent adhesion to polymeric cables and wires made of PVC, XLPE, PE, EPR
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free



Two-component polyurethane cast resin PUR 33.

MATERIAL	Polyurethane resin 33 (PUR33)
Colour	Green (GN)
Operating Temperature	-25 °C to +120 °C
Mixing Ratio (weight)	100:26
Exothermicity max.	+71 °C
Gel Time	48 min. 5 °C, 20 min. 23 °C, 9 min. 40 °C
Pot Life	43 min. 5 °C, 15 min. 23 °C, 8 min. 40 °C
Dielectric Strength	38 kV/mm
Viscosity	4500 mPa*s, 5 °C (EN ISO 2555), 3000 mPa*s, 23 °C (EN ISO 2555)
Impact Strength	26 kJ/m ²
Shore Hardness D	65±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months



TYPE	Resin Quantity	Article-No.
Resin-33-SF-N	95 ml / 130 g	435-12112
	165 ml / 226 g	435-12113
	240 ml / 329 g	435-12114
	400 ml / 548 g	435-12115
	455 ml / 623 g	435-12116
	490 ml / 671 g	435-12117
	655 ml / 897 g	435-12118
	955 ml / 1308 g	435-12119
	1140 ml / 1562 g	435-12120
	1450 ml / 1987 g	435-12121
	1950 ml / 2672 g	435-12122

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Gel cable joint with connector

RELICON Reliseal

Reliseal gel cable joints are suitable for cable connections under extreme conditions, outdoors and underground. They are universal straight-through joints with a protection class IP68 and consist of a solid polypropylene shell (PP) filled with RELICON gel. They can be used for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR, etc. Reliseal fulfils the highest requirements for electrical installations and offers mechanical protection, insulation and sealing in one work step. The installer saves time and requires no special installation tools.

Application: In low-voltage electrical networks as straight-through joint. Underground, submerged, outdoor, indoor and in wiring ducts.

Features and Benefits

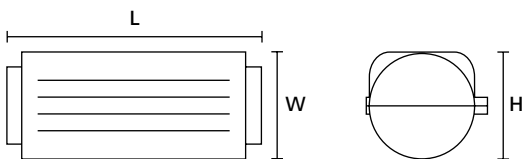
- Moulding shell: one piece, re-openable, impact-proof, flame retardant (UL94 V0)
- Perfect strain relief provided by patented cable gland system
- Protection class IP68, 10 m
- Filled with RELICON non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- With connector, ready to assembly
- Certified according to :
 - DIN EN 60529 protection classes through outer sleeve shell
 - DIN EN 50393 type approval tests for cable accessories
 - DIN EN 60695-2-11 glow-wire test for flammability of end products

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Cable gland system for strain relief and transverse waterproofing
- Adapter seal for different cable diameters
- Installation instructions
- Connector

i With connector!

i IP68, 10 meter



Reliseal V



Reliseal gel cable joint, available in three sizes.



Gel cable joint Reliseal V 56.



Gel cable joint Reliseal V 510.



Gel cable joint Reliseal V 525.

MATERIAL	Polypropylene (PP), Silicone Rubber (SIR)
Colour	Green (GN)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited

RoHS ✓

TYPE	Main Cable mm ² min - max		Length (L)	Width (W)	Height (H)	Article-No.
Reliseal V56	3 x 2.5	5 x 6	190.0	60.0	47.0	435-01660
Reliseal V510	3 x 4	5 x 10	235.0	69.0	49.0	435-01661
Reliseal V525	3 x 10	5 x 25	310.0	88.0	60.0	435-01662

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Gel cable joint with connector

RELICON Relilight

Relilight gel cable joints are designed for light installations, especially LED lighting. They are tested according to DIN EN 60998-2-1: 2004 and offer IP68 protection class. The moulding shells are also flame retardant according to UL94 V0. Depending on the connector type, Relilight can be used either for straight-through or as branch joints. They are suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR etc. The silicone-based RELICON gel in the Relilight cable joints provides insulation, sealing and mechanical protection in one step. Furthermore, they reduce the workload and total cost of installation.

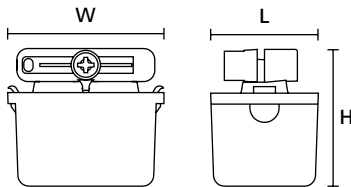
Application: In low-voltage electrical networks as straight-through or branch joints, e.g. for outdoor light installations, underground, submerged, outdoor, indoor and in wiring ducts.

Features and Benefits

- Moulding shell: two piece, black, re-openable, with strain relief, flame retardant (UL94 V0), protection class IP68, 1.3 m
- Filled with Relicon non-toxic gel, high dielectric strength >1kV,
- No mixing, ready to assembly
- UV, ageing and weather resistant
- Compact dimensions, with connector
- Unlimited shelf life
- Certified according to DIN EN 60998-2-1:2004

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief (not for No. 435-01650)
- Installation instructions, connector block, screws
- Wire guide (only No. 435-01654)



Relilight gel cable joint.

MATERIAL	Polyamide 6.6 V0 (PA66V0), Silicone Rubber (SIR)
Colour	Black (BK)
Operating Temperature	-30 °C to +130 °C
Shelf Life	Unlimited
Flammability	UL94 V0

RoHS

With connector block!

IP68, 1.3 meter

TYPE	Ø Main Cable	Main Cable mm ² min - max		Branch Cable mm ² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
Relilight V2.75 I1	4.8-6	2 x 0.35	2 x 0.75	-	-	250V, 6A	44.0	18.0	17.5	435-01650
Relilight V32.5 I2	6.5-12	3 x 0.5	3 x 2.5	-	-	250V, 16A	100.0	24.0	29.0	435-01651
Relilight V32.5 P1	6.5-12	3 x 0.5	3 x 2.5	3 x 0.5	3 x 2.5	250V, 16A	105.0	44.0	24.0	435-01655
Relilight V41.5 P1	6.5-12	4 x 0.5	4 x 1.5	4 x 0.5	4 x 1.5	250V, 16A	105.0	44.0	24.0	435-01656
Relilight V61.5 I2	6.5-12	6 x 0.5	6 x 1.5	-	-	12V - 24V	100.0	24.0	29.0	435-01652

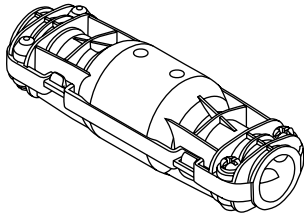
All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



RELICON Relilight V 32.5 I2

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 3 x 0.5 mm² to 3 x 2.5 mm²
- Screws



Relilight V 61.5 I2



Gel cable joint Relilight V 32.5 I2.

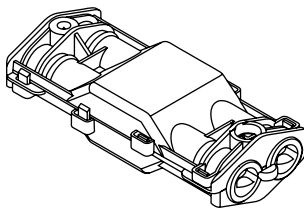
TYPE	Ø Main Cable	Main Cable mm ² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
		3 x 0.5	3 x 2.5					
Relilight V32.5 I2	6.5-12	3 x 0.5	3 x 2.5	250V, 16A	100.0	24.0	29.0	435-01651

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

RELICON Relilight V 32.5 P1

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 3 x 0.5 mm² to 3 x 2.5 mm²
- Screws



Relilight V 32.5 P1



Gel cable joint Relilight V 32.5 P1.

TYPE	Ø Main Cable	Main Cable mm ² min - max		Branch Cable mm ² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
		3 x 0.5	3 x 2.5	3 x 0.5	3 x 2.5					
Relilight V32.5 P1	6.5-12	3 x 0.5	3 x 2.5	3 x 0.5	3 x 2.5	250V, 16A	105.0	44.0	24.0	435-01655

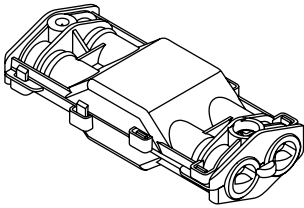
All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



RELICON Relilight V 41.5 P1

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 4 x 0.5 mm² to 4 x 1.5 mm²
- Screws



Relilight V 41.5 P1



Gel cable joint Relilight V 41,5 P1.

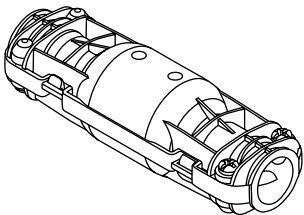
TYPE	Ø Main Cable	Main Cable mm ² min - max		Branch Cable mm ² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
		4 x 0.5	4 x 1.5	4 x 0.5	4 x 1.5					
Relilight V41.5 P1	6.5-12	4 x 0.5	4 x 1.5	4 x 0.5	4 x 1.5	250V, 16A	105.0	44.0	24.0	435-01656

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

RELICON Relilight V 61.5 I2

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Adapter for strain relief
- Installation instructions
- Connector block 6 x 0.5 mm² to 6 x 1.5 mm²
- Screws



Relilight V 61.5 I2



Gel cable joint Relilight V 61.5 I2.

TYPE	Ø Main Cable	Main Cable mm ² min - max		Voltage range	Length (L)	Width (W)	Height (H)	Article-No.
		6 x 0.5	6 x 1.5					
Relilight V61.5 I2	6.5-12	6 x 0.5	6 x 1.5	12V - 24V	100.0	24.0	29.0	435-01652

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.

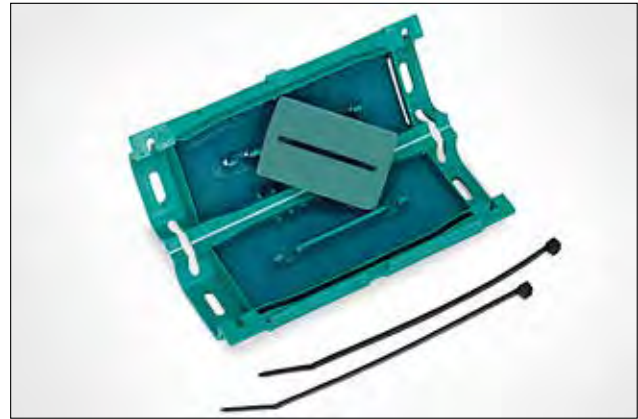


Gel cable joint without connector

RELICON Relifix

RELICON Relifix gel technology offers several advantages. It is quick and easy to install. The moulding shells are provided with a film hinge and are made from thick-walled, tough and impact resistant polypropylene (PP). The Relicon gel in the shells insulates and seals the complete connection as the joint is closed. Depending on the connector type, Relifix can be used as a universal straight-through or branch joint. It is suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR etc.

Application: In low-voltage electrical networks as straight-through and/or branch joint, e.g. underground, submerged, outdoor, indoor and wiring ducts.



Gel cable joint Relifix 410, 416.

Features and Benefits

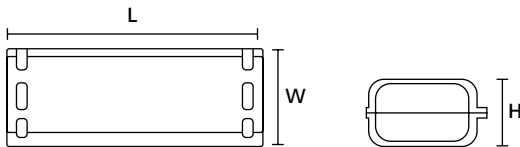
- Moulding shell: One piece, coloured, re-openable, impact-proof, flame retardant (UL94 V0)
- Filled with Relicon non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- Certified according to:
- DIN EN 50393 (corresponds to DIN VDE 0278-393)
- DIN EN 60695-2-11 (corresponds to VDE 0471-2-11)

MATERIAL	Polypropylene (PP), Silicone Rubber (SIR)
Colour	Green (GN)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited



Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Separator plate
- Cable ties



Relifix 410, 416

i Without connector block!

TYPE	Ø Main Cable	Main Cable mm ² min - max		Branch Cable mm ² min - max		Length (L)	Width (W)	Height (H)	Article-No.
Relifix 410	9-20	3 x 1.5	4 x 10	3 x 1.5	4 x 2.5	146.0	55.0	35.0	435-00652
Relifix 416	9-22	3 x 1.5	4 x 16	3 x 1.5	4 x 4	180.0	69.0	40.0	435-00653

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Gel cable joint with connector

RELICON Relifix V

RELICON Relifix gel technology offers several advantages. It is quick and easy to install. The moulding shells are provided with a film hinge and are made from thick-walled, tough and impact resistant polypropylene (PP). The Relicon gel in the shells insulates and seals the complete connection as the joint is closed. Depending on the connector type, Relifix can be used as a universal straight-through or branch joint. It is suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR etc.

Application: In low-voltage electrical networks as straight-through and/or branch joint, e.g. underground, submerged, outdoor, indoor and wiring ducts.

Features and Benefits

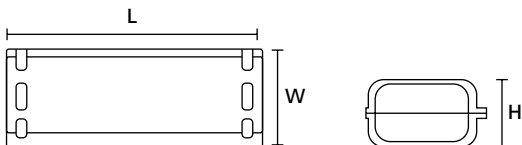
- Moulding shell: One piece, coloured, re-openable, impact-proof, flame retardant (UL94 V0)
- Filled with Relicon non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- With connector, ready for assembly
- Certified according to:
 - DIN EN 50393 (corresponds to DIN VDE 0278-393)
 - DIN EN 60695-2-11 (corresponds to VDE 0471-2-11)

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Connector
- Cable ties
- Allen key (not for type V31,5)



With connector block!



Relifix V



Relicon Relifix V gel cable joints.



Gel cable joint Relifix V 31,5.



Gel cable joint Relifix V 150.



Gel cable joint Relifix V 56, V516.



Gel cable joint Relifix V 525.

MATERIAL	Polypropylene (PP), Silicone Rubber (SIR)
Colour	Green (GN)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited

RoHS ✓

TYPE	Ø Main Cable	Main Cable mm ² min - max		Branch Cable mm ² min - max		Length (L)	Width (W)	Height (H)	Article-No.
Relifix V150	9-16	1 x 10	1 x 50	1 x 2.5	1 x 6	86.0	47.0	27.0	435-00651
Relifix V31.5	9-16	3 x 0.5	3 x 2.5	-	-	86.0	47.0	27.0	435-00650
Relifix V56	9-20	3 x 1.5	5 x 6	-	-	146.0	55.0	35.0	435-00654
Relifix V516	9-22	3 x 6	5 x 16	-	-	180.0	69.0	40.0	435-00655
Relifix V525	9-30	3 x 16	5 x 25	-	-	240.0	75.0	48.0	435-00656

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Gel cable joint with connector

RELICON Relifix VY

RELICON Relifix gel technology offers several advantages. It is quick and easy to install. The moulding shells are provided with a film hinge and are made from thick-walled, tough and impact resistant polypropylene (PP). The Relicon gel in the shells insulates and seals the complete connection as the joint is closed. Depending on the connector type, Relifix can be used as a universal straight-through or branch joint. It is suitable for jointing on polymeric cables and wires made of PVC, XLPE, PE, EPR etc.

Application: In low-voltage electrical networks as straight-through and/or branch joint, e.g. underground, submerged, outdoor, indoor and wiring ducts.



Relicon Relifix VY gel cable joint.

Features and Benefits

- Moulding shell: One piece, coloured, re-openable, impact-proof, flame retardant (UL94 V0)
- Filled with Relicon non-toxic gel, high dielectric strength
- No mixing, easy to install
- UV, ageing and weather resistant
- Unlimited shelf life
- With connector, ready for assembly
- Certified according to:
 - DIN EN 50393 (corresponds to DIN VDE 0278-393)
 - DIN EN 60695-2-11 (corresponds to VDE 0471-2-11)

Content of Set / Kit

- Moulding shells filled with RELICON gel
- Installation instructions
- Connector
- Cable ties
- Allen key



Gel cable joint Relifix V 135Y.



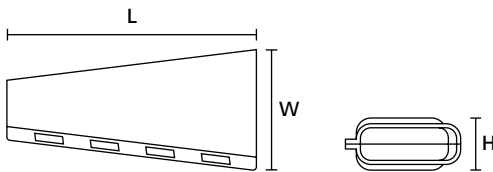
Gel cable joint Relifix V 506Y.



Gel cable joint Relifix V 525Y.



With connector block!



Relifix VY

MATERIAL	Polypropylene (PP), Silicone Rubber (SIR)
Colour	Green (GN)
Operating Temperature	-20 °C to +90 °C
Shelf Life	Unlimited

RoHS ✓

TYPE	Ø Main Cable	Main Cable mm ²		Branch Cable mm ²		Length (L)	Width (W)	Height (H)	Article-No.
		min - max	min - max	min - max	min - max				
Relifix V 506Y	9-20	3 x 6	5 x 6	3 x 2.5	5 x 6	220.0	110.0	53.0	435-00658
Relifix V 525Y	9-30	3 x 16	5 x 25	3 x 2.5	5 x 25	260.0	130.0	65.0	435-00659

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Two-component gel

RELICON KH 100

RELICON KH 100 is a transparent, removable, saltwater resistant, flexible two-component gel based on hydrocarbon resins in trade standard cartridges. It is especially suitable for use with junction boxes in the low-voltage range, located in a humid area or in the ground. After curing, RELICON KH 100 is characterised by its excellent resistance to moisture and very good insulating properties as well as good chemical resistance.

Application: Electrical insulation and moisture protection for the low-voltage networks. Particularly suitable for filling of cable junction boxes.

Features and Benefits

- Cartridge with mixing nozzle for use with standard cartridge applicator gun
- Excellent flow properties
- Soft elastic, vibration absorbing, removable
- Outstanding insulating properties
- Cures without developing heat
- Saltwater resistant
- Non-toxic, free of silicone and isocyanate
- SVHC-free, contains no hazardous substances, the cured product can be disposed of with house hold waste
- Halogen free



Silicon free!



Two-component gel KH 100.

MATERIAL	Gel KH100 (KH100)
Colour	Transparent (CL)
Operating Temperature	-40 °C to +90 °C
Mixing Ratio (weight)	1:1
Pot Life	40 min. 23 °C
Density	0.95 g/cm ³ , 20 °C (DIN EN ISO 2811-2)
Dielectric Strength	>20 kV/mm
Viscosity	2000 mPa*s, 5 °C (EN ISO 2555), 1500 mPa*s, 23 °C (EN ISO 2555)
Storage Temperature	+4 °C to +40 °C
Shelf Life	18 months

HF ✓

RoHS ✓

TYPE	Pack Qty	Article-No.
Gel-100 Mixing-Nozzle	10 pcs.	435-00806
Gel-100	250 ml	435-00835
	600 ml	435-00837

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



Connector blocks

RELICON Premium

The connector block is made of transparent polymeric material and assembled with 5 mechanical connectors inside. An allen key is included. The three different sizes are adapted to the right core cross sections and spaces that are needed for each joint. All connectors are suitable for aluminium and copper conductors as well. This makes the connection reliable and easy.

Features and Benefits

- Transparent, polymeric material
- 5 mechanical connectors including allen key
- 3 sizes available
- For Al and Cu conductors



SV-Connector blocks.




TYPE	Conductor Size Range mm ²	Article-No.
SV1	1.5 - 6	435-01407
SV2	1.5 - 16	435-01408
SV3	6 - 35	435-01409

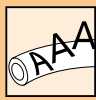
All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content.



E041991A1



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Identification tags for cable bundle, thermal transfer

TIPTAG HF - Limited Fire Hazard Tiptags, Halogen free

The Tiptag HF cable markers have been designed to identify larger wires and cable bundles not only in the electronics and general cabling environments but also in the railway industry. Tiptag HF is halogen free and its material properties show low smoke propagation, density and toxicity. Tiptags are presented in a special perforated format which include fastening slots for cable ties. They are also suitable for retrofit purposes.

Print from HellermannTyton's premium range of thermal transfer printers and ribbons from optimum print quality and longevity.

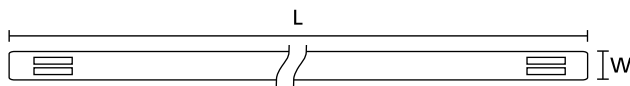
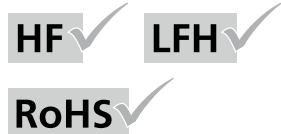
Features and Benefits

- Ideal for marking larger wire and cable bundles
- Halogen free
- Low smoke propagation and toxicity
- Perforated format that includes fastening slots for cable ties
- Available in various colours



TIPTAG - High performance cable bundle marking.

MATERIAL	Polyolefin (PO)
Operating Temperature	-40 °C to +90 °C
Flammability	Limited Fire Hazard, low generation of toxic gases and corrosive acid, low smoke generation, halogen free
Recommended Ribbon Type	TTDTHOUT



TYPE	Length (L)	Width (W)	Pack Qty	Colour	Article-No.
TIPTAG11X65BU	65.0	11.0	190 pcs.	Blue (BU)	556-20066
TIPTAG11X65RD	65.0	11.0	190 pcs.	Red (RD)	556-20062
TIPTAG11X65WH	65.0	11.0	190 pcs.	White (WH)	556-20069
TIPTAG11X65YE	65.0	11.0	190 pcs.	Yellow (YE)	556-20064
TIPTAG15X65WH	65.0	15.0	190 pcs.	White (WH)	556-21069
TIPTAG15X65YE	65.0	15.0	190 pcs.	Yellow (YE)	556-21064
TIPTAG11X100BU	100.0	11.0	120 pcs.	Blue (BU)	556-20080
TIPTAG11X100RD	100.0	11.0	120 pcs.	Red (RD)	556-20091
TIPTAG11X100WH	100.0	11.0	120 pcs.	White (WH)	556-20079
TIPTAG11X100YE	100.0	11.0	120 pcs.	Yellow (YE)	556-20074
TIPTAG15X100RD	100.0	15.0	120 pcs.	Red (RD)	556-21096
TIPTAG15X100WH	100.0	15.0	120 pcs.	White (WH)	556-21079
TIPTAG15X100YE	100.0	15.0	120 pcs.	Yellow (YE)	556-21074

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

EN 45545-2

Identification tags for cable bundle, thermal transfer

TIPTAG - UV-stabilised Tiptags, Polyurethane

The Tiptag PU cable markers consist of a robust and flexible polyurethane material. It is especially suited for harsh environments where the material is exposed to chemical, fluids or abrasion. Tiptag PUs are presented in a special perforated format which include fastening slots for easy fitting with cable ties. They are also suitable for retrofit purposes.

Print from the reel with HellermannTyton's premium range of thermal transfer printers.

A special ribbon has been developed for Tiptag PU to create a "tattoo" effect so that the marking cannot be rubbed off and is particularly durable and resistant to harsh abrasion.

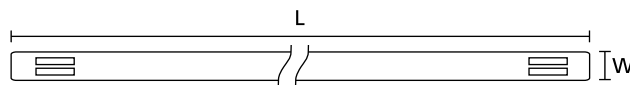
Features and benefits

- Durable and robust polyurethane material
- For large cable bundles and wires
- Flame retardant
- Weather resistant
- Abrasion resistant
- Good resistance to chemicals
- Available in white and yellow as standard
- Perforated format with fastening slots for cable ties



TIPTAG PU - The printed mark has a tattoo-like permanency.

MATERIAL	Polyurethane (PUR)
Operating Temperature	-65 °C to +120 °C, intermittent +150 °C
Flammability	self-extinguishing, UL 94 V0 (3mm)
Recommended Ribbon Type	TTRC+
Thermal Transfer Printer	TT430, TT4030



TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TTAGPU11X65WH	65.0	11.0	190 pcs.	White (WH)	556-25012
TTAGPU11X65YE	65.0	11.0	190 pcs.	Yellow (YE)	556-25019
TTAGPU15X65WH	65.0	15.0	190 pcs.	White (WH)	556-25007
TTAGPU15X65YE	65.0	15.0	190 pcs.	Yellow (YE)	556-25011
TTAGPU11X100WH	100.0	11.0	125 pcs.	White (WH)	556-25021
TTAGPU11X100YE	100.0	11.0	125 pcs.	Yellow (YE)	556-25020
TTAGPU15X100WH	100.0	15.0	125 pcs.	White (WH)	556-25006
TTAGPU15X100YE	100.0	15.0	125 pcs.	Yellow (YE)	556-25010

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.



Cable ties complete with integrated RFID transponder

T50RFID - Low Frequency (LF) and High Frequency (HF)

RFID cable ties provide an innovative solution for clear and rapid product identification. The nylon cable ties are equipped with an RFID transponder and therefore combine the numerous advantages of a regular cable tie with RFID technology. The ties are especially suited for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

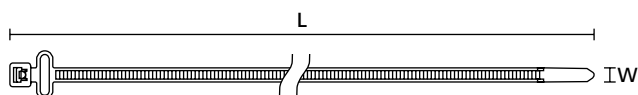
Features and Benefits

- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- Robust and resistant to harsh environments and cleaning processes
- Low frequency (LF – 125 kHz) - Read only
- High frequency (HF – 13.56 MHz) - Rewritable
- Special colours are possible on request



T50RFID – Cable ties with RFID transponder.

MATERIAL	Polyamide 6.6 (PA66)
Idle Temperature	-40 °C to +85 °C
Operating Temperature	-25 °C to +85 °C
Flammability	UL94 V2



T50RFID, MCTRFD

PART NO.	Frequency	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)	N	Colour	Pack Qty	Article-No.
T50RFIDCLA-YE	125 kHz (LF)	1.5	50.0	4.6	200.0	225	Yellow (YE)	100 pcs.	111-01638
T50RFIDCHA-YE	13.56 MHz (HF)	1.5	50.0	4.6	200.0	225	Yellow (YE)	100 pcs.	111-01639
T50RFIDCHA-BK	13.56 MHz (HF)	1.5	50.0	4.6	200.0	225	Black (BK)	100 pcs.	111-01591
T50RFIDCHA-LBU	13.56 MHz (HF)	1.5	50.0	4.6	200.0	225	Light Blue (LTBU)	100 pcs.	111-01673

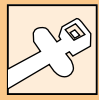
All dimensions in mm. Subject to technical changes. Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available. More colours on request.

N = Minimum Loop Tensile Strength for Cable Ties (Newton)

Comprehensive brochure available on request.



For product specific approvals and specifications please refer to the Appendix.



Stainless steel ties with RFID transponder

MBTRFID – High Frequency (HF) and Ultra High Frequency (UHF)

Stainless steel RFID cable ties are fitted with a slide-on carrier for a high frequency (HF) or an ultra-high frequency (UHF) RFID transponder. These ties are ideal for product identification in all areas of harsh environment where high tensile strength and durability is of importance. The ties are especially suited for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

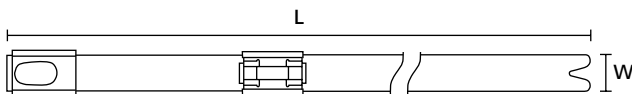
Features and benefits

- MBT stainless steel (316) tie complete with RFID transponder
- Especially suited for applications in harsh environments
- Patented non-releasable locking feature
- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- High frequency (HF – 13.56 MHz)
- Ultra high frequency (UHF – 869 MHz)
- Rewritable
- Standard colour red, black coating is also available as a special




MBTRFID – Stainless steel RFID cable ties for product identification in harsh environments.

MATERIAL	Stainless Steel (SS316), Polyester (SP)	
Frequency	13.56 MHz (HF)	869 MHz (UHF)
Idle Temperature	-25 °C to +70 °C	-40 °C to +85 °C
Operating Temperature	-25 °C to +70 °C	-40 °C to +85 °C
Flammability	non-burning (except coating)	



MBTRFID

PART NO.	Frequency	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)		Colour	Pack Qty	Article-No.
MBT8HF CRFID	13.56 MHz (HF)	12.0	17.0	7.9	201.0	1,020	Red (RD)	50 pcs.	156-01167
MBT14HF CRFID	13.56 MHz (HF)	17.0	102.0	7.9	362.0	1,020	Red (RD)	50 pcs.	111-01586
MBT20HF CRFID	13.56 MHz (HF)	17.0	152.0	7.9	521.0	1,020	Red (RD)	50 pcs.	111-01587
MBT27HF CRFID	13.56 MHz (HF)	17.0	203.0	7.9	681.0	1,020	Red (RD)	50 pcs.	111-01588
MBT33HF CRFID	13.56 MHz (HF)	17.0	254.0	7.9	838.0	1,020	Red (RD)	50 pcs.	111-01589
MBT8HHF RFID	869 MHz (UHF)	12.0	17.0	7.9	201.0	1,020	Red (RD)	50 pcs.	156-01565
MBT14HHF RFID	869 MHz (UHF)	12.0	102.0	7.9	362.0	1,020	Red (RD)	50 pcs.	156-01566
MBT20HHF RFID	869 MHz (UHF)	12.0	152.0	7.9	521.0	1,020	Red (RD)	50 pcs.	156-01567
MBT27HHF RFID	869 MHz (UHF)	12.0	203.0	7.9	681.0	1,020	Red (RD)	50 pcs.	156-01568
MBT33HHF RFID	869 MHz (UHF)	12.0	254.0	7.9	838.0	1,020	Red (RD)	50 pcs.	156-01569

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.

 = Minimum Loop Tensile Strength for Cable Ties (Newton)



Detectable cable ties with integrated RFID transponder

MCTRFID - Low Frequency (LF) and High Frequency (HF)

Metal content RFID cable ties offer an innovative solution for unique and fast product identification thanks to the fitting of a transponder directly to the cable tie. The metal content RFID cable ties are made with a percentage of a metallic trace element (magnet/X-Ray) and have been especially developed for industries where the potential for foreign body contamination is a problem. The ties can be used for securing, serialisation, tracking and identification of products e.g. in the food processing or pharmaceutical industry to support quality control effort.

Features and benefits

- Magnetic or X-Ray detectable RFID cable ties (detection level depending on specific application)
- Total metal dispersion throughout the tie
- For safe handling of production processes
- Blue colour for easy visual detection
- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- Robust and resistant to harsh environments and cleaning processes
- Low frequency (LF – 125 kHz) - Read only
- High frequency (HF – 13.56 MHz) - Rewritable

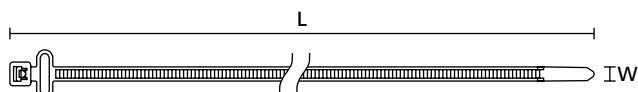


MCTRFID – Detectable cable ties (metal content) with RFID transponder.


MATERIAL	Polyamide 6.6, with metal particles (PA66MP)	
Frequency	125 kHz (LF)	13.56 MHz (HF)
Idle Temperature	-40 °C to +85 °C	
Operating Temperature	-40 °C to +85 °C	-25 °C to +85 °C
Flammability	UL94 HB	

HF ✓

RoHS ✓



T50RFID, MCTRFID

PART NO.	Frequency	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)		Colour	Pack Qty	Article-No.
MCTRFIDCLA	125 kHz (LF)	1.5	50.0	4.6	200.0	225	Blue (BU)	100 pcs.	111-01976
MCTRFIDCHA	13.56 MHz (HF)	1.5	50.0	4.6	200.0	225	Blue (BU)	100 pcs.	111-01676

All dimensions in mm. Subject to technical changes.

Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



= Minimum Loop Tensile Strength for Cable Ties (Newton)



For product specific approvals and specifications please refer to the Appendix.



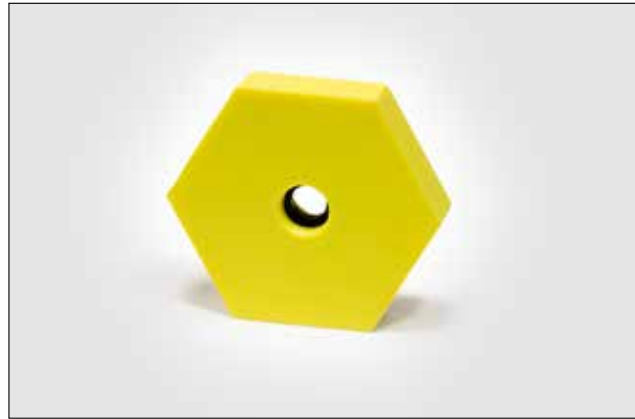
Accessories with RFID transponder

HEXTAG – High Frequency (HF)

The HEXTAG made from PA66 is equipped with a transponder of HF frequency. The central hole allows a simple mounting in applications where a RFID cable tie solution is not suitable. All HellermannTyton RFID products can be used for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

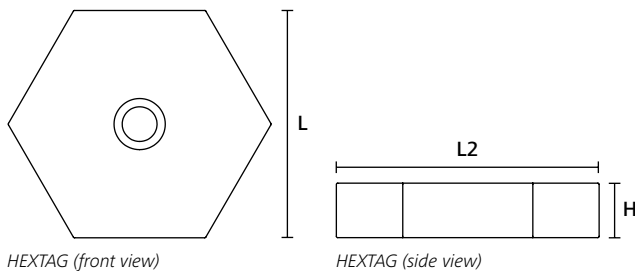
Features and benefits

- Can be fitted using a chosen fixing element through the centre hole
- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- Robust and resistant to harsh environments and cleaning processes
- High frequency (HF - 13.56 MHz)
- Rewritable
- Yellow colour for easy visual detection



RFID HEXTAG – For applications where a RFID cable tie solution is not suitable.

MATERIAL	Polyamide 6.6 (PA66)
Frequency	13.56 MHz (HF)
Idle Temperature	-40 °C to +85 °C
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2



HEXTAG (front view)

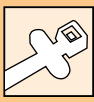
HEXTAG (side view)

PART NO.	Frequency	Height (H)	Length (L)	Length (L2)	Colour	Pack Qty	Article-No.
RFID HEXTAG	13.56 MHz (HF)	8.0	33.4	38.39	Yellow (YE)	100 pcs.	151-01582

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



For product specific approvals and specifications please refer to the Appendix.



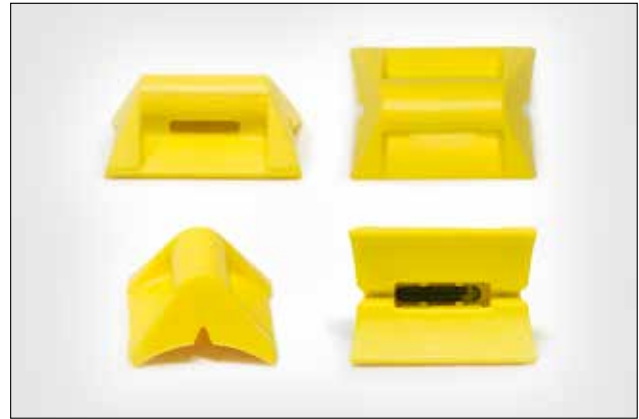
Accessories with RFID transponder

RFID CRADLE

The CRADLE equipped with a HF transponder can be used with standard HellermannTyton cable ties. All RFID products can be used for securing, serialisation, tracking and identification of products in the areas of resource management, electrical inspection, inventory, distribution and rental services as well as for easy management of maintenance and repair routines.

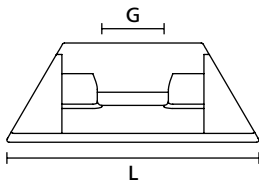
Features and benefits

- Cable tie slot to suit HellermannTyton's standard cable ties up to 7.9 mm wide
- Made from durable TPU and is suitable to be used in salt water conditions
- Flexible, contactless data communication
- Clear identification of objects through unique numbering
- Faster data management compared to paper solution
- More accurate documentation processes – prevention of human errors
- Robust and resistant to harsh environments and cleaning processes
- Date on RFID chip can be reprogrammed (HF) – no waste
- Yellow colour for easy visual detection
- Other colours and frequencies are available on request
- High frequency (HF – 13.56 MHz)
- Rewritable

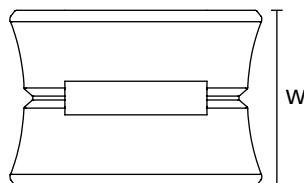


RFID CRADLE – Can be used with a standard HellermannTyton cable tie.

Operating Temperature	-25 °C to +60 °C
Interfaces	USB, HID
L x W x H	110 mm x 110 mm x 30 mm



CRADLE (front view)



CRADLE (rear view)



CRADLE (side view)

PART NO.	Frequency	Width (W)	Length (L)	Strap Width max. (G)	Colour	Pack Qty	Article-No.
RFID CRADLE	13.56 MHz (HF)	19.8	27.9	7.9	Yellow (YE)	100 pcs.	151-01472

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



RFID Readers

RFID Handheld Reader

The RFID-iOS is a key fob RFID handheld reader, used to read RFID transponders quickly and easily in any high frequency areas (HF 13.56 MHz). The usage of this reader is particularly recommended in combination with RFID cable ties and further accessories of HellermannTyton. Due to the ease of use, it is possible to read data with just only one press of a button. The data from the transponder is transmitted via Bluetooth to any iOS device equipped with this interface. The RFID- iOS Reader can operate as a normal desktop reader by simply connecting it to a PC via the USB port. RFID solutions can make a significant contribution to improving the process reliability and quality in a variety of industries.



RFID-iOS reader – handheld reader for high frequency (HF) transponders.

Features and benefits

- RFID handheld reader
- Also applicable as desktop RFID reader via an USB cable
- For high frequency range (HF – 13.56 MHz)
- Flexible applications due to wireless design
- Equipped with USB port
- Wireless transmission via Bluetooth
- Operator convenience
- Lightweight and handy design
- Compatibility with iOS-devices

Operating Temperature	-20 °C to +60 °C
Interfaces	USB, Bluetooth, HID
L x W x H	68 mm x 18 mm x 42 mm

TYPE	Frequency	Weight	Article-No.
RFID - IOS READER	13.56 MHz (HF)	127 g	556-00703

Subject to technical changes.

RFID Readers

RFID Desktop Reader

The RFID-DT22 desktop reader for stationary use has been designed to read and write from/to high frequency (HF 13.56 MHz) transponders fitted to HellermannTyton RFID cable ties and accessories. The reader acts as an interface to computer systems and databases. Radio waves transmit the data from the transponder to the reader, so that contactless reading of information is possible. RFID system solutions can make a significant contribution to improving the process reliability and quality in a variety of industries.



RFID-DT22 – Desktop reader for high frequency (HF) transponders.

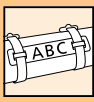
Features and benefits

- RFID desktop reader
- High frequency (HF - 13.56 MHz)
- For reading and writing of data
- USB, HID interface
- Operator convenience
- Lightweight and handy design

Operating Temperature	-25 °C to +60 °C
Interfaces	USB, HID
L x W x H	110 mm x 110 mm x 30 mm

TYPE	Frequency	Weight	Article-No.
RFID-DT22-HF	13.56 MHz (HF)	200 g	556-00702

Subject to technical changes.



Stainless steel printing system

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.

The raised surface of the embossed print ensures that the text remains visible even with dirt, grease, and paint cover the marker. The physical characteristics of the metal and the height of the embossed mark allows users to apply a stiff or metallic brush to the surface and remove excess layers of paint or grease without damaging the integrity of the text.

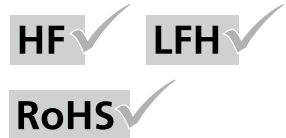
Features and Benefits

- Raised marking ensure text visibility even when covered in dust, debris, grease and oil
- Stainless steel grade SS316 is suited for use in harsh environments
- Marker plates are designed for use with stainless steel cable ties with a 4.6 mm strap width
- Apply ties with a MK9SST

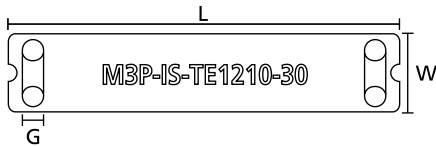


Marker plates designed to survive the harshest environments.

MATERIAL	Stainless Steel (SS316)
Operating Temperature	-80 °C to +538 °C



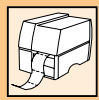
Application video:
M-BOSS Compact



MBML

TYPE	Strap Width max. (G)	Number of lines	Characters per line	Number of characters	Width (W)	Length (L)	Pack Qty	Article-No.
MBML10X45	4.6	1	8	8	10.0	45.0	1,000 pcs.	544-80101
MBML10X90	4.6	1	23	23	10.0	90.0	500 pcs.	544-80102
MBML20X45	4.6	3	8	24	20.0	45.0	1,000 pcs.	544-80201
MBML20X90	4.6	3	23	69	20.0	90.0	500 pcs.	544-80202

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Labelling software

TagPrint Pro 3.0

TagPrint Pro 3.0 is the easy-to-use label/marker design and printing software in the HellermannTyton printing. Compatible with Windows® 7, Vista and XP as well as future operating systems such as Windows® 8, TagPrint Pro 3.0 delivers an individualised, task-based experience that enables a user to easily develop print templates including bar codes, text and graphics to meet numerous applications. TagPrint Pro 3.0 streamlines labeling production by offering a user full control over the importing or entering of data, advanced security features, the option to group label designs under a single file name or job number, and the ability to batch print to either one or more printers at the same time.

Features and benefits

- Easy and intuitive label/marker template design
- WYSIWYG
- Print to multiple printers at one time
- Save jobs in a queue and print all at one time with "Print later" function
- Connect or import directly from other databases including Excel, Access, text files
- Text, graphics and barcode functionalities
- Full text editing functions
- Inverse, flip, and mirror image options for graphic images
- Print log available



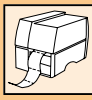
The easy to use software speeds up production of markers, labels and identification tags.

System Requirements	PC running Microsoft Windows XP SP3, Vista SP1 or later, Windows 7 .NET Framework 4, Windows 8 512 MB RAM (XP SP3) 1.0 GB RAM (Vista/Windows 7/Windows 8) 500 MB available hard disk space
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TYPE	Article-No.
TagPrint Pro 3.0 EMEA	556-00051

Subject to technical changes.



Thermal transfer printer

TT430, Small to medium volume printing

The TT430 thermal transfer printer is perfect for printing on HellermannTyton materials such as self-adhesive labels, shrinkable tubing and identification tags. Thanks to its low weight and compact construction, the TT430 integrates seamlessly into any workstation. It is easy to use due to its intuitive touch display and clear status messages which can be shown in multiple languages. The optional cutter and perforator make this printer ideal for a wide range of applications. 300 dpi resolution ensures that barcodes, warning symbols, logos and text are as sharp as they can be.

Features and benefits

- Medium volume single sided printing
- Print on HellermannTyton cable markers and labels
- Uses standard ribbons
- Barcodes: standard and 2D
- Print speed up to 125 mm/s (30mm/s recommended for Ladder Style products and tubing)
- Adjustable label sensor
- Multiple language selection
- Windows drivers: 32/64 bit for Windows XP, Windows Vista, Windows 7, 8, 10



One Step to the Web!



TT430 thermal transfer printer.

Print Method	Thermal transfer
Print Head Type	300 dpi, flat type
Print Speed	up to 125 mm/s
Max. Print Width	106 mm
Label Height Max (metric)	1,000 mm
Interfaces	USB 2.0, Ethernet 10/100 Base T
Supported Barcodes, Printer	Standard and 2D
Printer Memory	64 MB RAM
Dimensions W x H x D	253 mm x 189 mm x 322 mm
Weight	4 kg

RoHS

TYPE	Article-No.
TT430	556-00450

Subject to technical changes.

TYPE	Description	Article-No.
S430 Cutter	Cutter for TT430	556-00452
P430 Perforator	Perforator for TT430	556-00456
TT External Reel Holder	External Reel Holder	556-00451
TT430 300dpi Printhead	Printhead for TT430	556-00453
TT430 Print Roller	Print Roller for TT430	556-00454

Subject to technical changes.



For product specific approvals and specifications please refer to the Appendix.



Thermal printer ribbons for

Heatshrink and Tiptags

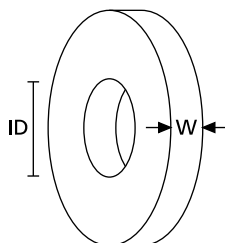
The thermal transfer print technology is based on heating up certain dots in the print head. This transfers the ink very precisely from the ribbon onto the surface of the printed material. All HellermannTyton ribbons consist of a special resin composition to maximise print performance. In combination with HellermannTyton printers the ribbons ensure the highest of print quality on all HellermannTyton thermal printable identification materials.

Features and benefits

- Thermal transfer ribbons for high quality print results on heat shrink tubing and Tiptag identification tags
- Ribbons are specifically designed to maximize print performance for the recommended material



Ribbons for printing on tubes and Tiptags.



ID: The standard inside core diameter is 25.4 mm.




TYPE	Recommended Material	Colour	Width (W)	Reel Length	Article-No.
TT822OUT8 110MM	TCGT/TULT	Silver (SR)	110.0	300 m	556-00161
TTRW 30MM	TCGT/TULT(DS)	White (WH)	30.0	300 m	556-00125
TTRW 60MM	TCGT/TULT(DS)	White (WH)	60.0	300 m	556-00137
TTDTHOUT 40MM	TCGT/TULT(DS)/TLFX(DS)/TDRT(DS)/TLFD DS/TIPTAG	Black (BK)	40.0	300 m	556-00139
TTDTHOUT 60MM	TCGT/TULT(DS)/TLFX(DS)/TDRT(DS)/TLFD DS/TIPTAG	Black (BK)	60.0	300 m	556-00140
TTDTHOUT 100MM	TCGT/TULT(DS)/TLFX(DS)/TDRT(DS)/TLFD DS/TIPTAG	Black (BK)	100.0	300 m	556-00141
TTRHTBK 70MM	THTT/THTT DS/TAGHT	Black (BK)	70.0	300 m	556-00204
TTRHTBK 100mm	THTT/THTT DS/TAGHT	Black (BK)	100.0	300 m	556-00210
TTRHTWH 70mm	THTT/THTT DS/TAGHT	White (WH)	70.0	300 m	556-00209
TTRHTWH 100mm	THTT/THTT DS/TAGHT	White (WH)	100.0	300 m	556-00211
TTRC+ 30MM	TIPTAG PU/TCGT/TULT	Black (BK)	30.0	300 m	556-00114
TTRC+ 60MM	TIPTAG PU/TCGT/TULT	Black (BK)	60.0	300 m	556-00115
TTRC+ 100MM	TIPTAG PU/TCGT/TULT	Black (BK)	100.0	300 m	556-00103

All dimensions in mm. Subject to technical changes.







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Manual Tensioning Tool Plastic Housing

EVO7 up to 4.8 mm strap width

At the heart of the EVO 7 lies revolutionary, patent-pending Tension/Lock/Cut (TLC) technology that dramatically changes how cable ties are cut. The key is TLC's ability to lock each tie in place at the desired tension prior to cutting. Because the tension is fixed at the trigger when squeezing begins, only a minimum of hand force and a shorter range of motion is required to cut through each tie.

A. Easy Blade Replacement

One-way blade installation makes on-site blade replacement a snap.

B. Long Narrow Nose

Allows you to cut cable ties in the tightest of spaces quickly and easily.

C. Trigger

Made from soft-grip, non-slip material, the contoured full-length trigger incorporates individual finger grips to accommodate multiple hand sizes.

D. Integrated Hangar Hook

Allows easy storage and accessibility.

E. Contoured Ergonomically-Engineered Handle

Crafted from soft-grip, non-slip material, the grip features an integrated air cushion that conforms to your hand for maximum comfort.



The EVO7: Maximum performance with minimum effort.

F. Tension Knob

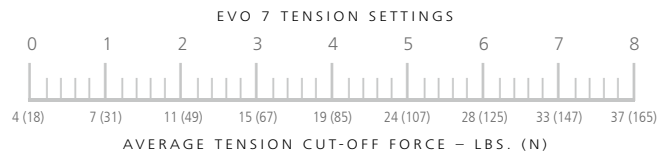
Rotate the knob to any of 33 precise pre-set tension settings.

G. Thumb Lock

To unlock the tension knob, slide the non-slip thumb lock forward, adjust to desired tension setting and release the thumb lock to lock in place.

H. Impact-Resistant Housing

Made from durable, light-weight composite, the EVO 7 weighs 9.7 oz. (0.275 kg), resists chemical contamination and is built to stand up to the toughest industrial environments.



TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO7	Standard hand span 3.5" (90mm)	4.8	1.5	0.28 kg	110-70129
EVO7SP	Short span 3.1" (80mm)	4.8	1.5	0.28 kg	110-70130
BLADEKIT	Blade replacement kit for EVO 7 and EVO7SP. Contains (1) Blade & (1) Nose piece screw	-	-	0.01 kg	110-70106
T8SD	T8 Star Driver for removal/insertion of tension lock out screw	-	-	-	110-70091
CALTOOL	Calibration Tool for removal of cap at the back of tension knob and for calibrating tool on site	-	-	-	110-70089
UC200	UC200 Tension Gauge for tensile read outs when calibrating tool on site	-	-	-	110-99000

All dimensions in mm. Subject to technical changes.



Manual Tensioning Tool Plastic Housing

EVO9 up to 13 mm strap width

The EVO9 is available in a standard grip span 90 mm (EVO9) or short grip span 80 mm (EVO9SP), for smaller hands. Both tools perform between 53N and 307N. The EVO9HT is the “high tension” version of the EVO9 family. Developed for maximum tensile strength this tool performs between 120N and more than 516N. The EVO9 family was designed to apply HellermannTyton cable ties with a maximum width of 13 mm.

Features and Benefits

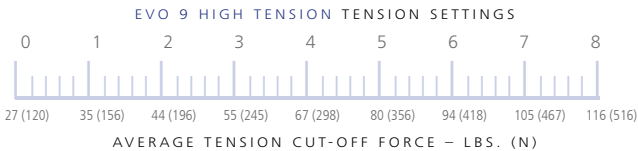
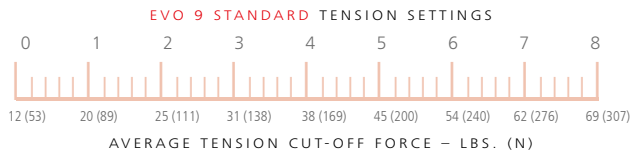
- Standard grip span (90 mm) and short grip span (80 mm) available
- Ergonomic, slip-proof handle for a comfortable and secure grip
- Extremely low maintenance
- Fast and precise application with minimum effort (TLC mechanism)
- Convenient and simple tension adjustment
- Integrated 3 position quick adjustment override
- Housing made of resilient and lightweight glass fibre-reinforced polyester



The EVO9 with TLC-Technology.



The EVO9HT with TLC-Technology.



One Step to the Web!

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO9	Standard hand span 90 mm	13.0	2.0	0.36 kg	110-80002
EVO9SP	Short grip span 80 mm	13.0	2.0	0.36 kg	110-80003
EVO9HT	EVO9 High Tension tool has the same design features as the EVO7 but offers an increased tension range.	13.0	2.0	0.36 kg	110-80017
Replacement Blade	Replacement blade for EVO9	-	-	0.01 kg	110-80037
T8SD	T8 Star Driver for removal/insertion of tension lock out screw	-	-	-	110-70091
CALTOOL	Calibration Tool for removal of cap at the back if tension knob and for calibrating tool on site	-	-	-	110-70089
UC200	UC200 Tension Gauge for tensile read outs when calibrating tool on site	-	-	-	110-99000

All dimensions in mm. Subject to technical changes.



For product specific approvals and specifications please refer to the Appendix.



Manual Tensioning Tool for Cable Ties, simple version

MK20 up to 4.8 mm strap width

Features and Benefits

- Lightweight, ergonomic tools
- For tensioning and cutting HellermannTyton standard cable ties 4.8 mm wide
- Ideal for on-site assembly
- Mounted and pretensioned ties are cut off by twisting tool



MK20



Apply.



Tension.



Twist to cut.

TYPE	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MK20	4.8	1.5	0.05 kg	110-20006

All dimensions in mm. Subject to technical changes.

Manual Tensioning Tool for Cable ties with low profile head

TG009 up to 9.5 mm strap width

Features and Benefits

- Ideal for easy handling of entire HellermannTyton RPE, PE series
- Tensions and cuts off prelooped cable ties flush at the head



MK10-SB.

TYPE	Strap Width max.	Strap Thickness max.	Weight
TG009	9.5	2.5	0.33 kg

All dimensions in mm. Subject to technical changes.



Manual Tensioning Tool For Cable Ties

TG008 - Steel Frame

Features and Benefits

- For nylon cable ties only with adjustable tensioning force
- This lightweight tool is ideal for heavy duty production work
- The TG008 can be used for T18, T30 and T50 series cable ties
- Metal Frame
- Maximum width of tie: 4.8mm



TG008 is suitable for use in high volume production.

Manual Tensioning Tool for Stainless Steel Ties MBT-Series

HT338 - Budget

Features and Benefits

- Fastens and automatically cut ties with adjustable bundling pressure
- Tension adjusting indicator
- Cable tie thickness up to 0.3mm. Width up to 7.9mm
- Suitable for HellermannTyton MBT cable ties MBT8, MBT14, MBT20 and MBT27



HT338.

Manual Tensioning Tool for Metal Ties MBT-Series

MK9SST up to 16.0 mm strap width

The MK9SST is constructed with heavy duty parts to ensure optimum performance. It is designed to apply our MBT cable ties with a strap width of up to 16 mm. The tool is ideally suited for use in most arduous environments such as found on board ships, oil rigs, constructions or in nuclear power stations.

Features and Benefits

- Glass-fibre-reinforced housing
- Ergonomic design
- Consistent tensioning and automatically cutting of metal ties MBT-series
- Infinitely adjustable tension force combined with two-step quick adjustment



MK9SST.

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
MK9SST	Adapted for use with stainless steel ties.	16.0	0.5	0.60 kg	110-95000
SP MK9SST replacement blade	Replacement Blade	-	-	0.01 kg	110-95273

All dimensions in mm. Subject to technical changes.



Manual Tensioning Tool for KR-Series

KR6/8

Application tool KR6/8 crimps the glass-fibre-reinforced locking pin of the KR seal and leads to plastic deformation of the tie ends. This produces a very proof permanent connection.

Features and Benefits

- Tough metal tool
- For applying KR-cable ties only
- For tensioning, fixing and cutting KR-cable ties
- Simply change the front plate to apply two different strap widths: 6 mm and 8 mm



The manual tensioning tool KR6/8 for KR-Series cable ties.

TYPE	Description	For Ties	Strap Width max.	Weight	Article-No.
KR6/8	KR6/8	KR6, KR8	8.0	0.52 kg	121-00680
SP KR6/8 replacement blade	-	KR6, KR8	-	0.01 kg	122-68019

All dimensions in mm. Subject to technical changes.

Hot cutting tool

KD8-3

The HSG0 hand tool is used to cut braided sleeving cleanly and without fraying.

Features and Benefits

- 240V AC
- Light and sturdy
- Heats up quickly with the press of button and cuts in seconds
- The yarn melts and fuses together
- No fraying of the sleeving



The KD8-3 hot cutting tool prevents the braided sleeving from fraying.

TYPE	Description	Weight	Colour
KD8-3	Hot cutting tool	1.15 kg	Blue (BU)

Subject to technical changes.



Gas powered Hot Air Tool

E4500

The E4500 hot air gun starter kit is ideal for working in cramped spaces or where there is no power supply. The kit includes a E4500 hot air tool with protective spring, gas cartridge P445, reflector nozzle Z2 and flat nozzle Z3. The hot air tool 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, drying, defrosting (of locks), heating and paint stripping.

Features and Benefits

- Cordless hot air gun works with special gas cartridge
- Does not need any power supply
- Suitable for outdoor use
- Designed for heat shrink tubing, end caps and moulded shapes
- Supplied with protective spring, two nozzles and a gas cartridge
- Allows precise working in any position even in restricted spaces
- Can be operated on its stand for hands free use
- Light weight tool
- Operating time of cartridge: approx. 1.5 hours
- With easy Piezo ignition



One Step to the Web!



E4500-H with heat protecting spring.



Practical hot air gun kit E4500 with accessories.



Gas cartridge P445.

TYPE	Description	Article-No.
E4500	Hot air gun with protective spring incl. gas cartridge, reflector nozzle Z2 and flat nozzle Z3	391-90002
P445	P445 Refill Gas Cartridge (Butane, Propane, Propene)	391-90101

Subject to technical changes.

Professional Steinel Heat Gun

HG2120E

Features and Benefits

- Output: 2200w
- Operation hours: 750
- Temperature rating: 80° C - 630°C
- Temperature indication: By thumbwheels, infinitely variable (indicated on thumbwheel in 9 steps)
- Temperature adjustments: Manual infinitely variable temperature adjustment
- Airflow rate: 150-500l/min
- Heating element: Ceramic heating element
- Thermal cutout
- Hanging ring
- Protection class (without each terminal): II
- Dimensions: 253 (L) x 86.5 (W) x 200 mm (H)
- Power supply: 220-230V
- Weight: 0.67kg



HG2120E - Professional Steinel Heat Gun

Optional Accessories



NOZREF
Reflector Nozzle
Perfect for soldering pipes, fitting shrink tubing, thawing frozen pipes and bending pipes







NOZSUR50
50mm Surface Nozzle
Evenly spreads air over a wide area. Ideal for evenly drying filler or stripping paint and removing films



NOZRED9
9mm Reduction Nozzle
Delivers hot air with pinpoint precision for desoldering and welding plastics with welding nozzle





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Crimp Tools

YYT1 — Pre-Insulated **Single Grip Terminal Crimper**

- **Range:** 2.5mm² — 10mm² (Red, Blue, Yellow)
- For insulated terminals
- Ratchet release
- Length: 254mm



YYT7 — Pre-Insulated Tension Adjustable **Double Grip Terminal Crimper**

- **Range:** 2.5mm² — 10mm² (Red, Blue, Yellow)
- For insulated terminals
- Ratchet release
- Length: 229mm



YAC5 — **Bootlace Ferrule Crimper**

- **Range:** 0.5mm² — 6mm²
- Ratchet release and pressure adjustment feature
- Length: 203mm



YAC6 - **Bootlace Ferrule Crimper**

- **Range:** 6.0mm² — 16.0mm²
- Ratchet release and pressure adjustment feature
- Length: 203mm



YAC17 - **Bootlace Ferrule Crimper**

- **Range:** 25mm², 35mm²
- Ratchet release and pressure adjustment feature
- Length: 203mm



YAC8 - **Bootlace Ferrule Crimper**

- **Range:** 0.25mm² — 6.0mm²
- Four point pressure adjustment screw & push to release lever
- Strong but lightweight glass fibre reinforced nylon handles
- Square (quad) profile
- Length: 175mm



YAC9 - **Bootlace Ferrule Crimper**

- **Range:** 0.08mm² — 6.0mm²
- Six point pressure adjustment screw & push to release lever
- Strong but lightweight glass fibre reinforced nylon handles
- Hexagonal profile
- Length: 175mm (L)



Note: Some images and specifications may differ from what is displayed in this brochure.



Crimp Tools

YYT8 - Uninsulated Terminal Crimper

- **Range:** 1.5mm², 2.5mm² - 4.0mm²
- Ratchet release feature
- Length: 266mm



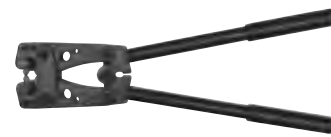
HD16L - Heavy Duty Crimper (Uninsulated Terminals)

- **Range:** 1.5mm² - 16.0mm²
- Ratchet release feature
- Length: 270mm



HD0650AU - Hex Crimper

- **Range:** 6/10/16/25/35/50mm²
- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Length: 390mm
- Dies included



HD06120AU - Hex Crimper

- **Range:** 6/10/16/25/35/50/70/95/120mm²
- Hexagonal crimper with movable and rotating dies
- For tubular cable lugs and connectors
- Length: 650mm
- Dies included



HYCP400 - Hand Hydraulic Crimper

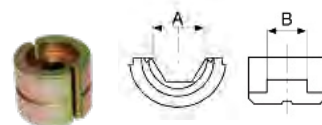
- **Range:** 16mm² - 300mm²
- Automatic low/high - pressure conversion with rapid/slow operating motion
- Heavy duty case included
- Pressure relief valve for overload protection
- Head rotates 180°
- Dimensions: 612 x 150mm
- Force at die face: 12 metric ton (700 bar)
- C-head opening: 32mm
- **Dies sold separately**



Hydraulic Die Specification and PART NO. (Dies sold separately)

PART NO.	Die Number	A	B
DIECU16	K12-C16AF6.3	6.3	17.57
DIECU25	K12-C25AF7.7	7.7	17.57
DIECU35	K12-C35AF9.2	9.2	17.57
DIECU50	K12-C50AF10.4	10.4	17.57
DIECU70	K12-C70AF11.5	11.5	17.57
DIECU95	K12-C95AF14.2	14.2	17.57
DIECU120	K12-C120AF16.5	16.5	14.14
DIECU150	K12-C150AF18.3	18.3	14.14
DIECU185	K12-C185AF20.0	20.0	14.14
DIECU240	K12-C240AF23.1	23.1	10.2
DIECU300	K12-C300AF26.0	26.0	10.2

All dimensions in mm. Subject to technical changes.





Crimp Tools

HYLEC32 - Battery Operated Hydraulic Crimper Kit

- Range: 16mm² - 300mm²
- 14,4 Volt Lithium-Ion battery powered
- Number of crimps per charge: 60
- 12.7 ton die force
- Head rotates 180°
- Dimensions: 385mm (L) x 307mm (H) x 74mm (W)
- Weight: 6.8Kg
- C-head opening: 32mm
- Dies sold separately
- Additional battery available (HYLEC32BATT)



*New 18V available Q2 2020

FH700FP - Hydraulic Foot Pump

- Length: 720mm
- Weight: 12.0 kg
- Two stage pumping action (700 bar)
- Complete with 2 metre hose



Pioneer 3000 coupling



HP700A - Hydraulic Hand Pump

- Length: 595mm
- Weight: 9 kg
- Two stage pumping action (700 bar)
- Complete with 2 metre hose



Pioneer 3000 coupling



HYCP400HE - Hydraulic Crimp Head

- Max output: 11.6 ton
- Range: 16mm² - 400mm²
- Dies sold separately (Refer to HYCP400 table for die part numbers)



Pioneer 3000 coupling

HYCP630HE - Hydraulic Crimp Head

- Max output: 22.5 ton
- Range: 16mm² - 630mm²
- Dies sold separately



Pioneer 3000 coupling

Die Code	Crimp Sizes
CP630400D	400mm ²
CP630500D	500mm ²
CP630630D	630mm ²

ADP630HE - Die Adapter

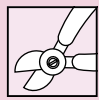
- Enables HYCP630HE to take dies of HYCP400 (Refer to HYCP400 table for die part numbers)



CEP15SS - Hydraulic Pump

- Length: 319mm
- Weight: 10.0 kg (with two 18V 4.0Ah batteries)
- 1.2 L / min at low pressure
- 0.3 L / min at high pressure
- Pressure and operation data of date display function
- Programming switch for crimping, cutting or lifting propose on the panel
- Warning function: Buzzer alert at long deep if crimping not complete and losing pressure when failure
- Display related pumping pressure and battery capacity

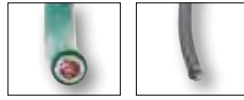




Cable Cutters and Core Cutters

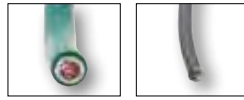
CC22 - Cable Cutter

- Cuts copper and aluminium
- Cuts up to 25mm²
- Length: 165mm



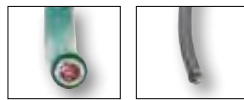
CC38 - Cable Cutter

- Cuts copper and aluminium
- Cuts up to 38mm²
- Length: 210mm



CC60 - Cable Cutter

- Cuts copper and aluminium
- Cuts up to 60mm²
- Length: 235mm



SCC60 - Cable Cutter

- For steel rod: 5mm max.
- Wire rope: 7mm max.
- Copper cable: 60mm²
- AWG 1/0 max.
- Length: 310mm



RCC325PH - Core Cutter

- Speedy cutting of copper cable
- Not for steel or hard copper
- Capacity: 380mm² diameter
- Length: 290mm



RCC500 - Core Cutter

- Speed and safer operation for cutting cables
- Not for steel or hard copper
- Spare blades available
- Capacity 500mm² diameter
- Length: 285mm



CC250 - Cable Cutter

- Copper cable: 250mm²
- Aluminium cable: 250mm²
- Length: 600mm



CC500 - Cable Cutter

- Copper cable: 500mm²
- Aluminium cable: 500mm²
- Length: 800mm
- Spare blades available on request (CC500BLD)



S25 - PVC Pipe Cutter

- 34mm PVC cutter
- Metal handle



Note: Some images and specifications may differ from what is displayed in this brochure.



Tools

ECOSET - 1000V Insulated Screwdriver Set

Features and Benefits

- 7 Piece including neon tester
- Flat blade and Phillips set
- Insulated - 1000V
- TUV and GS spec

ECOSET — 7 Piece Contents

Length (mm)		Length (mm)		Style
Overall	Head	Width	Thick	
140	65	3	0.5	(Neon) 
210	100	4	0.8	
235	125	5.5	1.0	
260	150	6.5	1.2	
165	75	3	#0	
210	100	4	#1	
210	100	6	#2	



ECOSET — 7 piece content.

Material	Metal (ML), Plastic (PL)
Description	Screwdriver Set 7-piece Insulated 1000V
Specification	GS, TÜV

Tools

Rack-a-Tier Dispensing Tool

This multi-purpose premium wire dispensing tool is lightweight and durable. It accommodates a wide range of cable sizes with loads up to 150kg. The one tool that does all: wire dispenser, pipe vise, saw horse, work bench, wall shelf or even a table.

Features and Benefits

- Lightweight
- Durable one piece construction
- Waterproof and easy to clean
- Made of recycled material
- Easy to store and transport
- Ease and speed of set up



Rack-a-Tier.

PART NO.	Description	Pack Qty.
RCT1	Rack-a-Tier Wire Dispensing Tool (pipe included)	1
RCT1-Pipe	Pipe for Rack-a-Tier	1

All dimensions in mm. Subject to technical changes.
Minimum Order Quantity (MOQ) may differ from package content. Other packaging options may also be available.



Rack-a-Tier application



Digital Multimeters

BM905s - Versatile Multimeter — Dual Display

- Hand Held Multimeter
- Rugged Rubber Case
- Dual Display
- 1000 Volt AC/DC
- 10 Amp AC/DC
- Non Contact Voltage Detection



BMTL20P2



CAT III 600V

DC Voltage	5 ranges 600mV to 1000V
AC Voltage	5 ranges 600mV to 1000V
DC Current	6 ranges 600µA to 10A (20A for 30sec per 5min)
AC Current	6 ranges 600µA to 10A (20A for 30sec per 5min)
Resistance	6 ranges 600Ω to 60MΩ
Capacitance	6 ranges 60nF to 3000µF for start & run motor capacitors
Frequency	Line-level Frequency (Dual Display) 4 ranges 9.99Hz to 50kHz
	Logic Level Frequency 6 ranges 5Hz to 300kHz
Safety Category	CAT II - 1000V CATIII - 600V CAT IV - 300V
BMTL20P2	CAT IV 1000V PVC Test Lead

BM231 - General Purpose Multimeter — 1000V AC/DC

- Compact Hand Held Multimeter
- Rugged rubber case
- True RMS
- 1000 Volt AC/DC
- 10 Amp AC/DC



BMTL20P2



CAT III 600V

DC Voltage	5 ranges 600mV to 1000V
AC Voltage	5 ranges 600mV to 1000V
DC Current	3 ranges 600µA to 10A (20A for 30sec per 5min)
AC Current	3 ranges 600µA to 10A (20A for 30sec per 5min)
Resistance	6 ranges 600Ω to 60MΩ
Capacitance	20nF to 10mF for start & run motor capacitors
Frequency	Line-level Frequency (Dual Display)
	4 ranges 99.99Hz to 50kHz
Safety Category	CAT II - 1000V CATIII - 600V CAT IV - 300V
BMTL20P2	CAT IV 1000V PVC Test Lead



Digital Multimeters



BMTL20P2Y



BMTLAC3



CAT III 600V

BM237R - General Purpose Multimeter — 3 Phase Rotation

- Hand Held True RMS Multimeter
- Rugged rubber case
- Phase Rotation
- 1000 Volt AC/DC
- 10 Amp AC/DC
- BeepLit™ Continuity
- Beep-jack™ input warning
- Non Contact Voltage Detection

DC Voltage	Ranges 600mV to 1000V
AC Voltage	Ranges 600mV to 1000V
DC Current	Ranges 6A to 10A (20A for 30sec per 5min) Ranges 200µA to 2000µA
AC Current	Ranges 6A to 10A (20A for 30sec per 5min) Ranges 200µA to 2000µA
Resistance	Ranges 600Ω to 60MΩ
Capacitance	Ranges 2000nF to 10mF for start & run motor capacitors
Frequency	Line-level Frequency (Dual Display) 4 ranges 9.99Hz to 50kHz
Safety Category	CAT II - 1000V CATIII - 600V CAT IV - 300V
BMTL20P2Y	Red, Black, Yello CAT IV 1000V Test Leads
BMTLAC3	Red, Black, Yellow Alligator Chip

BM829s - Professional CATIV Multimeter — Dual Display

- Hand Held True RMS Multimeter
- Rugged rubber case
- Bar Graph
- 1000 Volt AC/DC
- 10 Amp AC/DC
- AutoCheck™ Automatic Selection of LoZ DCV, LoZ ACV & Ωs
- Beep-jack™ input warning
- 2 Channel Temperature measurement
- Non Contact Voltage Detection



BMTL20P2



CAT IV 1000V

DC Voltage	Ranges 0.01mV to 1000V
AC Voltage	Ranges 0.01mV to 1000V
DC Current	Ranges 0.1µA to 10A (20A for 30sec per 5min)
AC Current	Ranges 0.1µA to 10A (20A for 30sec per 5min)
Resistance	Ranges 0.1Ω to 60MΩ
Capacitance	Ranges 0.01nF to 25mF
Frequency	Line-level Frequency 15Hz to 1kHz Logic Level Frequency 5Hz to 1MHz
Temperature	-50 °C to 1000 °C
Safety Category	CAT IV - 1000V
BMTL20P2	CAT IV 1000V PVC Test Lead



Digital Multimeters

BM878 - Multimeter — Insulation Combination

- Ultimate Hand Held 3 in 1 Multimeter, Insulation Tester + Earth continuity tester
- Rugged rubber case
- Bar Graph
- 1000 Volt AC/DC
- 10 Amp AC/DC
- PI (Polarization Index) and DAR
- Dielectric Absorption Ratio's Reatures
- Beep-jack™ input warning
- True RMS
- Temperature measurement



BMTL21S2



BMTLRP21S2



DC Voltage	Ranges 600mV to 1000V
AC Voltage	Ranges 600mV to 1000V
DC Current	Ranges 60mA to 600mA
AC Current	Ranges 60mA to 600mA
Insulation Resistance	Ranges 50, 100, 250, 500 and 1000 Volt
Capacitance	200mA @ 2 Ωs Range 90mA @ 20 Ωs Range Ranges 3μF to 30mF
Frequency	Line-level Frequency 10Hz to 100kHz
Safety Category	CAT III - 1000V - CAT IV - 600V
BMTL21S2	CAT IV 1000V Silicon Test Lead
BMTLRP21S2	Remote Probe For Insulation Measurement

BM031 - Clamp Meter — 600A AC

- True RMS AC Clamp meter
- Compact to Carry
- AmpTip™ for small conductor measurement
- 600 Amp AC
- 600 Volt AC/DC
- BeepLit™ Continuity and Diode testing feature
- Non Contact Voltage Detection



BMTL20CTP



DC Voltage	600V
AC Voltage	600V
AC Current	Ranges 60Amp (BeepTip™) or 600 Amp
Resistance	600Ω to 6kΩ
Safety Category	CAT II - 1000V CATIII - 600V CAT IV - 300V
BMTL20CTP	CAT IV 1000V PVC Test Leads



Digital Multimeters



BMTL20CTP



CAT III 600V

BM112M - Clamp Meter — 600A AC Dual Display

- Ultra Slim True RMS AC Clamp meter
- Compact to Carry
- Dual Screen for voltage and current measurement
- 600 Amp AC
- 600 Volt AC/DC

DC Voltage	600V
AC Voltage	600V
AC Current	0.01A to 600A
Resistance	0.1Ω to 40MΩ
Capacitance	100pF to 3000μF for start & run motor capacitors
Safety Category	CATIII - 600V
BMTL20CTP	CAT IV 1000V PVC Test Leads



BMTL20CTP



CAT III 600V

BM175D - Clamp Meter — 600A AC Dual Display Amptip

- Duo-Core AC Clamp meter
- Compact to Carry
- Dual Screen for voltage and current measurement
- AmpTip™ for small conductor measurement
- Non Contact Voltage Detection
- AutoCheck™ Automatic Selection of LoZ DCV, LoZ ACV & Ωs
- 600 Amp AC
- 600 Volt AC/DC
- VFD-V & Hz for Fundamental V/Hz of most variable frequency drives

DC Voltage	600V
AC Voltage	600V
AC Current	Ranges 60Amp (BeepTip™) or 600 Amp
Resistance	600Ω to 6000Ω
Capacitance	200μF to 2500μF for start & run motor capacitors
Temperature	-10 °C to 400 °C
Safety Category	CATIII - 600V
BMTL20CTP	CAT IV 1000V PVC Test Leads



Digital Multimeters



BMTL20CTP



BM117s - 2000A AC Large Clamp Meter

- AutoCheck™ AC Clamp meter
- Large U-shaped Clamp
- Ghost-Voltage-Buster & EF Detection
- Non Contact Voltage Detection
- 2000 Amp AC
- 600 Volt AC/DC

DC Voltage	600V
AC Voltage	600V
AC Current	0.01A to 2000A
Resistance	0.1Ω to 6MΩ
Capacitance	50nF to 2000μF
Safety Category	CATIII - 600V
BMTL20CTP	CAT IV 1000V PVC Test Leads



BMTL20CTP



BM062s - Clamp Meter — 400A AC/DC

- Compact 400A AC/DC Clamp meter
- Versatile and Handy
- High Speed Auto-Ranging
- Large Easy to read screen
- 600 Volt AC/DC

DC Voltage	600V
AC Voltage	600V
AC Current	0.01A to 400A
Resistance	0.1Ω to 40MΩ
Capacitance	5nF to 3000μF
Safety Category	CATIII - 600V
BMTL20CTP	CAT IV 1000V PVC Test Leads



BMTL20CTP



BM162s - Large Clamp Meter — 1000A AC/DC

- Large Jaw 1000A AC/DC Clamp meter
- True RMS
- Versatile and Handy
- High Speed Auto-Ranging
- Large Easy to read screen
- 600 Volt AC/DC

DC Voltage	600V
AC Voltage	600V
AC Current	0.01A to 800A
DC Current	0.01A to 1000A
Resistance	0.1Ω to 40MΩ
Capacitance	5nF to 3000μF
Safety Category	CATIII - 600V
BMTL20CTP	CAT IV 1000V PVC Test Leads



Digital Multimeters



BMTL21L

BMTL21SDLI


CAT IV 600V

BT-75EU — 1000A AC/DC Voltage Tester LED

- LED Voltage measurement without batteries
- (NCV) Non contact EV detection
- 1000 Volt AC/DC
- RCD function test
- Phase Rotation test
- AC detection when probe vibrates
- True RMS
- Water and Dust resistant to IP65

DC Voltage	12V to 1000V
AC Voltage	12V to 1000V
Resistance	Ranges 1.999k, 19.99k, 199.9k and 1000kΩ
Capacitance	199.9μF to 1999μF
Safety Category	CAT III - 1000V - CAT IV - 600V
BMTL21SDLI	Detachable IP2X Black Test Lead
BMTL21L	Screw-on Stationary IP2X Red Test Lead


LIFETIME WARRANTY
CAT III 500V

T1132 1000V Insulation Tester

- Audible and visual safety voltage tester
- Analog insulation and continuity tester as (Trained in Australia)
- Voltmeter (AC and DC)
- Insulation Scale has 1 Mohms at Mid-Scale for ease of readings and fast judgment
- Dual Continuity Scales 0-3 Ohms and 0-500 Ohms
- Zeroing of test leads and fuse resistances by Front Panel Adjustment knob
- Designed in Australia to use with latest AS-NZ 3000
- Discharge of Capacitive and Inductive circuits after insulation test
- Auto Discharge Decay can be observed on meter
- All Scales have the most important AS-NZ 3000 relevant Values

Test Voltages (DC) and Measuring Range	250V (0 - 100MΩ), 500V (0 - 200MΩ), 1000V (0 - 400MΩ)
AC Voltage (V)	0 to 600V
Ohm Meter (Ω)	0-3 Ω and 0-500Ω
Power Source	8 x 1.5V AA Alkaline Batteries
Standard Accessories	Test Leads, Pouch, Shoulder strape
Certificates	Certificate of Conformance

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