HellermannTyton

**Certified cable management –
from rolling stock to infrastructure**

Your partner with over 80 years' experience in cable management solutions for the rail industry

There is hardly any other industrial sector that puts such high demands on components and solutions as modern rail vehicle construction. The highest quality, maximum service life and compliance with the strictest safety criteria are absolute requirements.

More than 75,000 products, many years of **industry know-how** and a high degree of **development competence** make HellermannTyton one of the leading companies for sophisticated solutions in bundling, fastening, identifying, protecting and processing cables and wires in rail vehicle construction.

We're at home in 38 countries and speak your language.

■ Sales office
■ Manufacturing
■ Distribution centre
■ Development
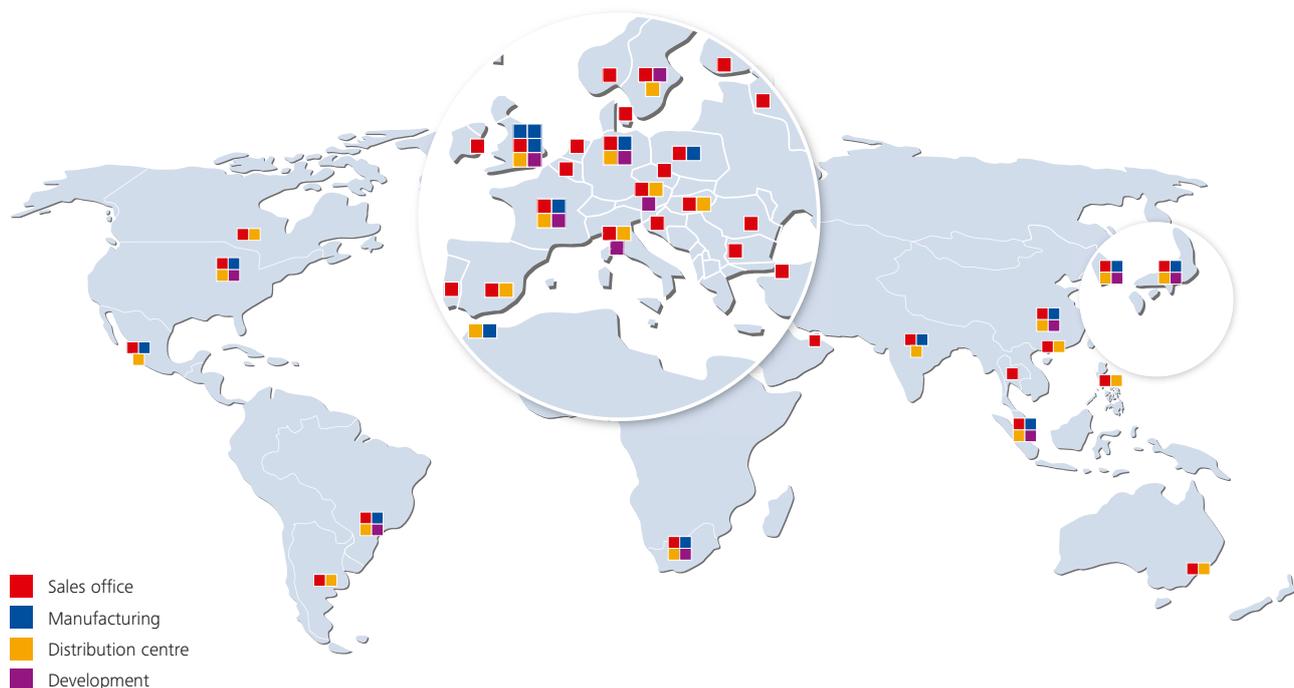
Global expertise: Find your local contact here

If you have any questions on specific solutions or would just like to receive more information, we are happy to help – with all our experience and with technical know-how.

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Reliability and safety in rail vehicles

EN 45545-2

The classification system defined in EN 45545-2 specifies requirements for the fire behaviour of materials and products used in rolling stock.
The thresholds for oxygen index, smoke density and toxicity are outlined in the requirement sets R22, R23 and R24.
HL3 – the most stringent of three Hazard Levels – indicates where material behaviour gives rail passengers the greatest chance of orientating themselves and not suffocating from toxic fumes in the event of fire.
To meet HL3, the oxygen index of a tested material must be above 32 percent, smoke density 300DS or lower and toxicity index of smoke below 0.75 CIT NLP.

CATEGORIES	Test method	Parameter and unit	Max or Min	Level		
				HL1	HL2	HL3
R22	EN ISO 4589-2	Oxygen index %	Min	28	28	32
	ISO 5659-2: 25 kW/m²	Ds max. (smoke opacity)	Max	600	300	150
	NF X 70-100-1 & -2, 600 °C	CIT (toxicity)	Max	1.2	0.9	0.75
R23	EN ISO 4589-2	Oxygen index %	Min	28	28	32
	ISO 5659-2: 25 kW/m²	Ds max. (smoke opacity)	Max	-	600	300
	NF X 70-100-1 & -2, 600 °C	CIT (toxicity)	Max	-	1.8	1.5
R24	EN ISO 4589-2	Oxygen index %	Min	28	28	32

Our tailor-made cable tie solutions for the special needs of the railway industry – certified according to EN 45545-2 and International Railway Industry Standard (IRIS)

In the rail industry, stringent safety legislation is decisive in terms of marketability. International certification is key in this regard. The IRIS (International Railway Industry Standard) is already firmly enshrined in HellermannTyton's procurement guidelines. As a long-standing manufacturer for the rail industry, we meet all requirements in this area and tailor our services to the needs of railway suppliers. In particular, the harmonious interplay between project management, configuration management and obsolescence management boosts the safety and efficiency of your operations.

As one of the world's leading manufacturers of products for fastening, fixing, installing, connecting, insulating, protecting and identifying electrical cables and data network infrastructure, HellermannTyton offers a wide range of fixing solutions for the railway business. Not only do we offer different raw materials. We also offer different designs that serve the special needs of the railway market.

Available products and designs:

- T-Series cable ties available in a wide range of sizes made of Polyamide 6.6 weather resistant and Polyamide 6.6 V0 (PA66W+PA66V0)

- KR-Series cable ties with its unique locking system. Very secure and vibration resistant fixing solution made of Polyamide 6.6 and Polyamide 6.6 weather resistant (PA66 NA+PA66W)

- OS-Series cable ties with smooth surface to the bundle made of Polyamide 6.6 weather resistant (PA66W) and Polyamide V0 (PA66V0) for low smoke emission or limited fire hazard

- Other series and materials like PA46, PA66HS, Tefzel® and PEEK and others available upon request

Are you looking for the right solution? We have it – quickly, easily and individually. Our product range.

Intensive analyses of the market and the competition make it possible for us to recognise processing and market trends at an early stage. The current result: more than 75000 items you can choose from today. As an IRIS devlopment partner, HellermannTyton also offers you bespoke solutions specifically for your needs in rail vehicle construction.
Our team of experts is happy to help out at any time.

Customer-specific product development

HellermannTyton is on the spot whenever new solutions are required. We develop products tailored to your specifications.
To do this we rely on state-of-the-art CAD and rapid prototyping systems. Through the use of advanced development tools,
our experienced designers guarantee a high level of quality in all our products.
The result: innovative solutions and the chance for you to benefit from these advantages.
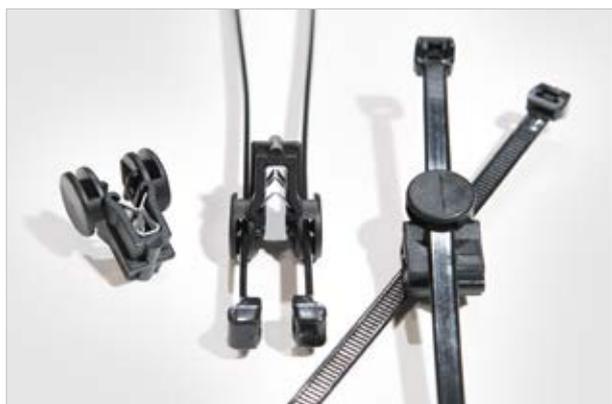
- Save development time
- Reduce weight
- Reduce component diversity
- Choose the right material

HellermannTyton

## Our products for rolling stock

We have a solution for all parts of rail vehicles. The toughest requirements are on the bogeys, on the roof and underbody. Vibration resistance is key. We conduct vibration tests on our products to make sure that they conform to the requirements (CEI 61373(1999 cat 2).

We have been supplying products to the railway sector since the 1950's. We have a long experience in fastening, protecting and identify cables with plastic or metal solutions.

We are conscious of the high standards that the railway industry needs to achieve. With a strong emphasis on quality, we can help you find the product or service need.

HellermannTyton has been serving leading rolling stock players for a long time. Our close relationship enable us to work together easily on specific challenges and we regularly develop innovative product solutions.

It is in our genes to create customised solutions for our customers. We adapt to your needs.
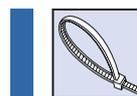
Rolling stock
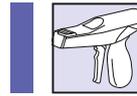
Cable Ties for outdoor use (UV-resistant)

T-Series in PA66W black

These inside serrated cable ties are made of UV resistant Polyamide 6.6 (PA66W) and thus suitable for outdoor applications. UV stabilised cable ties resist UV radiation for a considerably longer period compared to standard PA66 cable ties. They can easily be used for bundling and securing cables, pipes and hoses especially in outdoor areas.

Features and benefits

- UV 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 onto bundles
- Easy application either manually or with a processing tool
- Simply to insert due to bent tail

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

MATERIAL	Polyamide 6.6, UV-resistant (PA66W)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL2, R23 HL2

T-Series

HF ✓ **RoHS** ✓
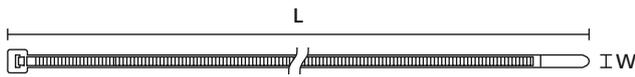
TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66W	Black (BK)	100 pcs.	2;4-6	111-01692
T18I	2.5	145.0	35.0	80	PA66W	Black (BK)	100 pcs.	2;4-6	111-01972
T18L	2.5	205.0	55.0	80	PA66W	Black (BK)	100 pcs.	2;4-6	111-01973
T30R	3.5	150.0	35.0	135	PA66W	Black (BK)	100 pcs.	2;4-6	111-01974
T30L	3.5	198.0	50.0	135	PA66W	Black (BK)	100 pcs.	2;4-6	111-01962
T30LL	3.5	290.0	80.0	135	PA66W	Black (BK)	100 pcs.	2;4-6	111-01963
T50R	4.6	200.0	50.0	225	PA66W	Black (BK)	100 pcs.	2-10	111-01964
T50I	4.6	300.0	85.0	225	PA66W	Black (BK)	100 pcs.	2-10	111-01975
T50L	4.6	390.0	110.0	225	PA66W	Black (BK)	100 pcs.	2-10	111-01965
T80R	4.7	210.0	55.0	355	PA66W	Black (BK)	100 pcs.	2-12	111-01695
T80I	4.7	300.0	85.0	355	PA66W	Black (BK)	100 pcs.	2-12	111-01694
T80L	4.7	390.0	110.0	355	PA66W	Black (BK)	100 pcs.	2-12	111-01693
T120I	7.6	300.0	80.0	535	PA66W	Black (BK)	100 pcs.	3;9-12	111-01968
T150R	7.6	365.0	100.0	670	PA66W	Black (BK)	100 pcs.	3;9-12	111-01696
T120R(E)	7.6	387.0	100.0	535	PA66W	Black (BK)	100 pcs.	3;9-12	111-01966
T120M	7.6	460.0	125.0	535	PA66W	Black (BK)	100 pcs.	3;9-12	111-01967
T120L	7.6	760.0	225.0	535	PA66W	Black (BK)	50 pcs.	3;9-12	111-01701

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

Recommended Tools

2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	EVO9	EVO9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2   **DAN**   **DNV·GL**

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

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Cable Ties for higher fire-protection

T-Series in PA66V0 white

T-Series cable ties for bundling and securing cables, pipes and hoses. These cable ties can be used for almost any type of application especially where safety regulations are high and the reduction of smoke and dangerous gases is required. PA66V0 products are most critically used within public sector areas – particularly in the rail, construction and defence industry.

Features and benefits

- White cable tie for higher fire-protection
- Conform to low smoke generation requirements (UL94 V0)
- Low evolution of toxic gases and corrosive acids in event of a fire
- PA66V0 cable ties are available in different sizes
- High safety rating due to low fire hazard

White T-Series cable ties for higher fire protection (PA66V0).

MATERIAL	Polyamide 6.6 V0 (PA66V0)
Operating Temperature	-40 °C to +85 °C, (+105 °C, 500 h)
Flammability	UL 94 V0
EN 45545-2 Classification	R22 HL2, R23 HL3

HF ✓   **LFH** ✓

RoHS ✓

T-Series

TYPE	Width (W)	Length (L)	Bundle Ø max.	(N)	Material	Colour	Pack Cont.	Tools	Article-No.
T18R	2.5	100.0	22.0	80	PA66V0	White (WH)	100 pcs.	2;4-6	111-91819
T18L	2.5	205.0	55.0	80	PA66V0	White (WH)	100 pcs.	2;4-6	111-01557
T30R	3.5	150.0	35.0	135	PA66V0	White (WH)	100 pcs.	2;4-6	111-93019
T50R	4.6	200.0	50.0	225	PA66V0	White (WH)	100 pcs.	2-10	111-95019
T50I	4.6	300.0	85.0	225	PA66V0	White (WH)	100 pcs.	2-10	111-00317
T50L	4.7	390.0	110.0	225	PA66V0	White (WH)	100 pcs.	2-10	111-05438
T120R(E)	7.6	387.0	100.0	535	PA66V0	White (WH)	100 pcs.	3;9-12	111-91210

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

Recommended Tools										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	EVO9	EVO9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

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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. Despite the railway industry these cable ties are used in the 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 limited fire hazard demand: Material PA66V0
• Easy application either manually or with a processing tool
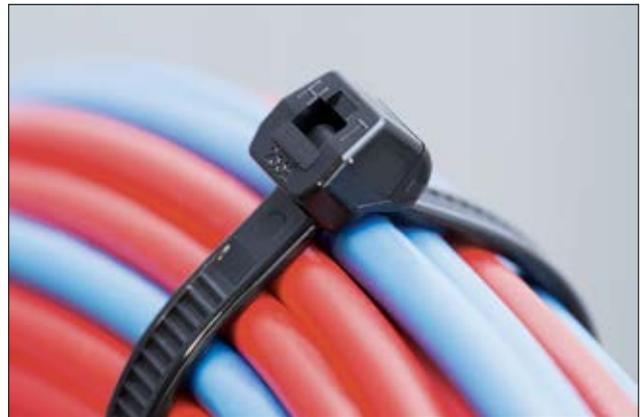
Outside serrated OS-Series cable tie with smooth surface to the bundle.

MATERIAL	Polyamide 6.6 V0 (PA66V0)
Operating Temperature	-40 °C to +85 °C, (+105 °C, 500 h)
Flammability	low generation of toxic gases and corrosive acid, low smoke generation, UL 94 V0
EN 45545-2 Classification	R22 HL2, R23 HL3
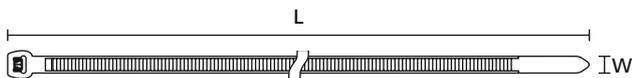
HF ✓   **LFH** ✓

RoHS ✓

OS-Series

The curved head design of the OS-Series

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18ROS	2.5	100.0	1.6	20.0	80	PA66V0	White (WH)	100 pcs.	2;4-6	118-00079
T30LOS	3.4	200.0	1.6	50.0	135	PA66V0	White (WH)	100 pcs.	2;4-6	118-00080
T50ROS	4.6	200.0	1.6	50.0	225	PA66V0	White (WH)	100 pcs.	2;4-8	118-00065
T50MOS	4.6	245.0	1.6	66.0	225	PA66V0	White (WH)	100 pcs.	2;4-8	118-00081
T120ROS	7.6	385.0	5.0	105.0	535	PA66V0	White (WH)	100 pcs.	3;9-12	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.

Recommended Tools										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	EVO9	EVO9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

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. Despite the railway industry these cable ties are used in the automotive and aircraft industry. OS ties made from material PA66W are suitable for indoor and outdoor applications.

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 design
- Easy insertion combined with high tensile strength
- PA66W material is perfectly suited for outdoor applications
- Easy application either manually or with a processing tool

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

MATERIAL	Polyamide 6.6, UV-resistant (PA66W)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL2, R23 HL2

HF ✓   RoHS ✓
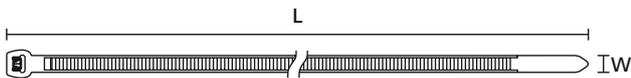
OS-Series

The curved head design of the OS-Series

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
T18ROS	2.5	100.0	1.6	20.0	80	PA66W	Black (BK)	100 pcs.	2;4-6	118-00125
T30LOS	3.4	200.0	1.6	50.0	135	PA66W	Black (BK)	100 pcs.	2;4-6	118-00126
T50ROS	4.6	200.0	1.6	50.0	225	PA66W	Black (BK)	100 pcs.	2;4-8	118-00127
T50MOS	4.6	245.0	1.6	66.0	225	PA66W	Black (BK)	100 pcs.	2;4-8	118-00128
T50LOS	4.6	384.0	1.6	110.0	225	PA66W	Black (BK)	100 pcs.	2;4-8	118-00129
T120ROS	7.6	385.0	5.0	105.0	535	PA66W	Black (BK)	100 pcs.	3;9-12	118-00130

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

Recommended Tools										
2	3	4	5	6	7	8	9	10	11	12
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	EVO9	EVO9HT	MK9P

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Cable Tie locked by glass fibre pin

KR-Series

This cable tie is distinguished by its smooth strap and unique locking mechanism. The chamfered head of the KR-Series allows for a firm fit around the bundled element. Due to its special design KR-Series cable ties can be used as a safety method to bundle any cable and to also secure bellows on steering racks, water hoses or vacuum lines. The endless strap version is fairly flexible and can be cut to any length required. Separate heads are available to fix the strap.

Features and benefits

• Unique cable tie system
• Cable tie without serration to avoid any damage to cables
• Strap is locked into place with a glass-fibre reinforced pin
• Very secure and vibration resistant fixing
• KR-ties up to 426 mm are made as one piece
• For assembly a special KR-tool is needed

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

| MATERIAL	Polyamide 6.6, UV-resistant (PA66W)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL2, R23 HL2

RoHS ✓
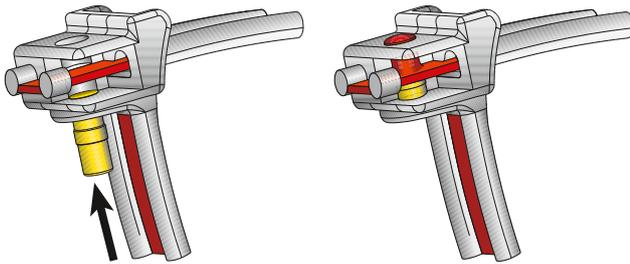
The unlocked head of a KR-tie.

The cable tie (red) is locked into place with the pin.
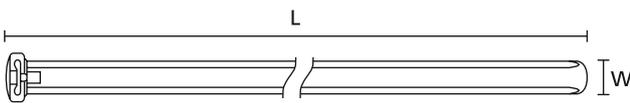
Cable tie KR-Series
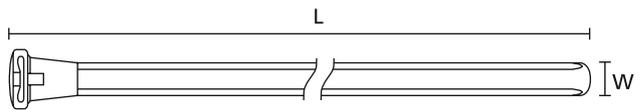
Cable tie KR-Series, ultrasonic welded

TYPE	Width (W)	Length (L)	Bundle Ø max.	N	Material	Colour	Pack Cont.	Tools	Article-No.
KR6/35	6.1	360.0	93.0	490	PA66W	Black (BK)	50 pcs.	13	121-63580
KR8/21	8.0	210.0	47.0	785	PA66W	Black (BK)	50 pcs.	13-14	121-82180
KR8/33	8.0	337.0	86.0	785	PA66W	Black (BK)	50 pcs.	13-14	121-83310
KR8/43	8.0	426.0	105.0	785	PA66W	Black (BK)	50 pcs.	13-14	121-84310
KR8/70-Set	8.0	700.0	216.0	785	PA66W	Black (BK)	100 pcs.	13-14	121-07070
KR8/C5	11.7	38.0	-	-	PA66W	Black (BK)	200 pcs.	13-14	121-58570

All dimensions in mm. Subject to technical changes.

Recommended Tools										
2	3	4	5	6	7	8	9	10	13	14
MK20	MK21	MK3SP	MK3PNSP2	EVO7	MK7HT	MK7P	MK6	EVO9	KR6/8	KR8PNSE

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2   DNV·GL   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

2-Piece Fixing Ties with Fir Tree, with Disc, for Round Holes

Fir Tree Parts FT8

Primarily designed for fixing cable harnesses in the automotive industry their simplicity, and ease of use, has seen these parts used in everything from aircraft, to switch-gear, to washing machines.

Features and benefits

• Pre-assembled 2-piece fixing tie with fir tree foot part
• Cable tie head can be moved after bundling
• Easy to assemble without the need for a tool
• Disc adjusts tie for pressure from various directions and minimises access of dust, dirt and water
• Fir tree foot part can be used for a variety of panel thicknesses
• Suitable for use within threaded holes
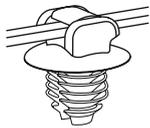
These fir tree fixings can also be used in threaded, blind holes.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, UV-resistant (PA66W)
EN 45545-2 Classification Footpart	R22 HL2, R23 HL2

RoHS ✓

T50RFT8GSD

| TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	⟨N⟩	Disc Ø	Material Cable Tie	Material Foot Part	Colour	Tools	Article-No.
T50ROSFT8GSD	M10	1.1 - 1.5	4.6	200.0	45.0	225	16	PA66	PA66	Black (BK)	2-10	156-01484

All dimensions in mm. Subject to technical changes.

2-Piece Fixing Ties with Arrowhead, with Disc

2-Piece Fixing Ties with Arrowhead, for oval holes

Primarily designed for fixing cable harnesses in the automotive industry, their simplicitiy and ease of use has resulted in these parts being used in other industries, for example aviation, switch gear manufacturer, white goods manufacturer.

Features and benefits

• Pre-assembled 2-piece fixing tie with arrowhead foot part
• Cable tie head can be moved after bundling
• Easy to assemble without the need for a tool
• Arrowhead simply locks into place
• Versions for oval holes feature anti-twist protection
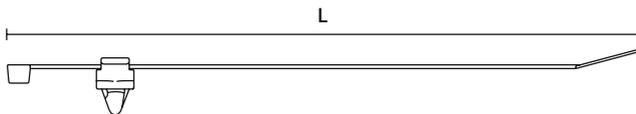
Being a two-piece assembly allows the tie head to be located in the most convenient position.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, UV-resistant (PA66W)
Operating Temperature	-40 °C to +85 °C, (+105 °C, 500 h)
EN 45545-2 Classification Footpart	R22 HL2, R23 HL2

RoHS ✓

L

T50RFT6

TYPE	Hole Ø (FH)	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	⟨N⟩	Colour	Article-No.
T50ROSSFT725	7.0 x 25.0	1.0 - 2.0	4.6	200.0	50.0	225	Black (BK)	156-01577

All dimensions in mm. Subject to technical changes.

EN 45545-2 Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

2-Piece Fixing Ties with EdgeClip

EdgeClip 1-3 mm

Many applications require cables to be run parallel to each other but seperated to avoid abrasion. These cable ties and EdgeClip assemblies are ideal for use where holes are not acceptable or where due to temperature problems adhesives will fail.

Features and benefits

- For paralell routing ob cables, hoses or harnesses
- Easy assembly, just clip on per hand
- For edges of 1-3 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

T50ROSCBTO2SET for parallel bundling.

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, UV-resistant (PA66W)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2
EN 45545-2 Classification Footpart	R22 HL2, R23 HL2

RoHS ✓

TYPE	Panel Thickness	Width (W)	Length (L)	Bundle Ø max.	N	Cable Tie	Foot Part	Colour	Tools	Article-No.
T50ROSCBTO2SET	1.0	4.6	200.0	45.0	225	Polyamide 6.6, heat stabilised (PA66HS)	Polyamide 6.6, UV-resistant (PA66W)	Black (BK)	4-6	156-00805

All dimensions in mm. Subject to technical changes.

Recommended Tools		
4	5	6
MK3SP	MK3PNSP2	EVO7

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

2-Piece Fixing Ties for Heavy Duty Applications, for Screws

These cable ties and heavy duty mounts (HDM) are used where a robust, secure and durable bundling is requestet and eliminates the needs for multiple sized fix diameter clamps.

Features and benefits

* Cable tie head can be moved after bundling
* Secure alignment to the bundle due to H-design
* Withstands vibrations and displacement forces
* High tightening torque through metal bushing

These HDM are suitable for assembling on screws.
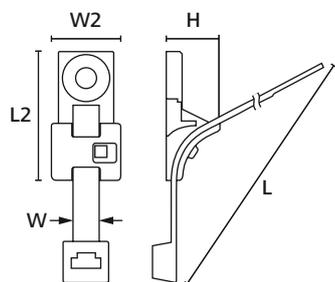
HDM with cable tie (L = length of the tie "flat")

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS), Polyamide 6.6, UV-resistant (PA66W)
EN 45545-2 Classification Footpart	R22 HL2, R23 HL2

RoHS✓

HDM-Series

| TYPE	Width (W)	Width (W2)	Length (L)	Length (L2)	Height (H)	Bundle Ø max.	Mounting Screw Type	Material	Colour	Article-No.
T120ROSHDMP6SET	7.6	20.0	385.0	37.5	16.0	105.0	M6	PA66HS, PA66W	Black (BK)	156-00980

All dimensions in mm. Subject to technical changes.

TYPE	Width (W)	Width (W2)	Length (L)	Length (L2)	Height (H)	Bundle Ø max.	Mounting Screw Type	Material	Colour	Article-No.
KR8/33HDMP6SET	8.0	20.0	337.0	37.5	15.5	86.0	M6	PA66W, PA66GF15	Black (BK)	156-02483

All dimensions in mm. Subject to technical changes.

TYPE	Width (W)	Width (W2)	Length (L)	Length (L2)	Height (H)	Bundle Ø max.	Mounting Screw Type	Material	Colour	Article-No.
KR8/33HDMP8SET	8.0	20.0	337.0	37.5	15.5	86.0	M8	PA66W, PA66GF15	Black (BK)	156-02484

All dimensions in mm. Subject to technical changes.

DHDM-Series

TYPE	Width (W)	Width (W2)	Length (L)	Length (L2)	Height (H)	Bundle Ø max.	Mounting Screw Type	Material	Colour	Article-No.
KR8/33DHDM6SET	8.0	20.0	337.0	59.4	15.5	86.0	M6	PA66W, PA66GF15	Black (BK)	156-02485

All dimensions in mm. Subject to technical changes.

TYPE	Width (W)	Width (W2)	Length (L)	Length (L2)	Bundle Ø max.	Mounting Screw Type	Material	Colour	Article-No.
KR8/33DHDM8SET	8.0	20.0	337.0	59.4	86.0	M8	PA66W, PA66GF15	Black (BK)	156-02486

All dimensions in mm. Subject to technical changes.

Ratchet P-Clamp

For bundle diameters from 6.2 mm up 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-Clamp - A more versatile way to mount and clamp cables.

MATERIAL	Polyamide 6.6 + Polyamide 6 V0 (PA666V0)
Flammability	UL 94 V0
EN 45545-2 Classification	R22 HL3, R23 HL3

RoHS✓

Application video: Ratchet P-Clamp
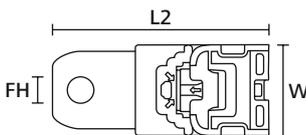
Ratchet P-Clamp (plan view)

TYPE	Width (W)	Length (L2)	Bundle Ø min.	Bundle Ø max.	Hole Ø (FH)	Fixing Hole Centres (F)	Variant	Material	Colour	Article-No.
RCB180SM6SS	34.9	83.1	12.7	19.5	6,5	52.8	Short	PA666V0	Black (BK)	151-02736
RCC180SM8SS	34.9	103.0	19.4	36.0	8,31	62.3	Short	PA666V0	Black (BK)	151-02737
RCD180SM8SS	34.9	115.5	36.0	51.0	8,31	70.0	Short	PA666V0	Black (BK)	151-02734
RCD180LM8SS	34.9	166.5	36.0	51.0	8,31	121.0	Long	PA666V0	Black (BK)	151-02735

All dimensions in mm. Subject to technical changes.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Paste Adhesive Mount

PMB-Series

PMB3 paste mount offers a fixing solution wherever screw fixing is not allowed. Due to the design the mount can even be installed onto uneven surfaces. PMB3 paste mount is used in the railway industry as well as in the renewable energy industry. Further applications are in the electrical industry and the production of switching cabinets. The PMB3 paste adhesive mount is suitable for fixings with paste/liquid adhesive.

Features and benefits

• PMB3 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
• Designed for use in confined spaces
• Made of flame-retardant material PA666V0
• Cost efficiency through reduced use of paste adhesive

PMB3 paste adhesive mount for fixing with paste/liquid adhesive

PMB5 and PMB3

MATERIAL	Polyamide 6.6 + Polyamide 6 V0 (PA666V0)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V0
EN 45545-2 Classification	R22 HL3, R23 HL3

RoHS ✓

TYPE	Width (W)	Length (L)	Height (H)	Material	Colour	Article-No.
PMB3	22.6	22.6	5.4	PA666V0	Black (BK)	151-02575

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

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Screw Fixing Mounts

NY 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 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
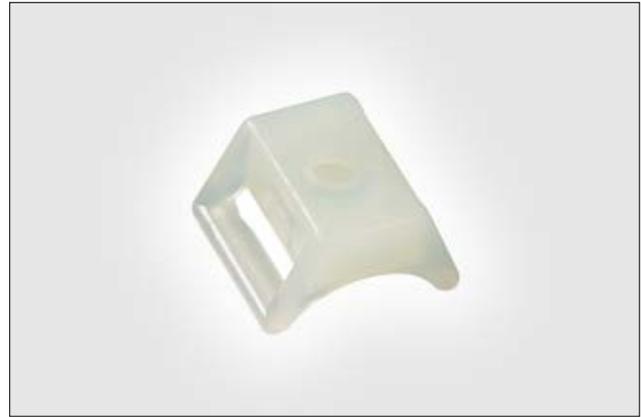
Cable Tie Mounts NY Series.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL2, R23 HL3

RoHS ✓
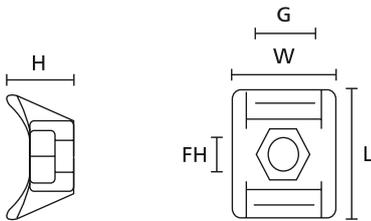
NY3256 (side view)   *NY3256 (plan view)*

TYPE	Drawing	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
NY3256		12.0	13.5	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.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

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
- Mounts are available in various sizes and materials

Cable Tie Mounts KR6G5, KR8G5 and CTM.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL3, R23 HL3

RoHS ✓
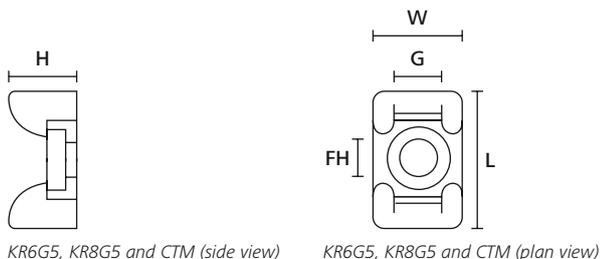
KR6G5, KR8G5 and CTM (side view)   *KR6G5, KR8G5 and CTM (plan view)*

TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
KR6G5	12.0	18.0	9.0	4,5	6.0	PA66	Natural (NA)	100 pcs.	151-24619
KR8G5	14.5	25.0	12.0	6,5	8.0	PA66	Natural (NA)	100 pcs.	151-24819

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   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton   19

Plastic P-Clamps

HP-Series

For permanent or semi-permanent cable fixings this range of plastic P-Clamps 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
- Can be used without cable ties

P-Clamps H1P - H18P in different dimensions.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL2, R23 HL3

RoHS ✓
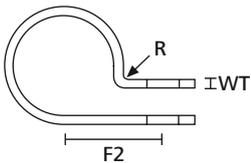
ALU P-Clamp (side view) *P-Clamp H1P - H18P (plan view)*

TYPE	Width (W)	Wall (WT)	Hole Ø (FH)	Bundle Ø max.	Fixing Hole Centres (F)	Radius (R)	Material	Colour	Article-No.
H6P	10.0	1.20	4.2	11.0	13.0	1.0	PA66	Natural (NA)	211-60069

All dimensions in mm. Subject to technical changes.

EN 45545-2 Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

Arrowhead Cradle

SFC

Offering simple and easy methods of securing cables or pipes, these fixing accessories have many applications within a wide range of industries.

Features and benefits
- Usable with cable ties up to 8 mm wide
- Ideal for space-saving applications with restricted access
- Arrowhead for very secure fixing

MATERIAL	Polyamide 6.6, UV-stabilised (PA66UV)
Operating Temperature	-40 °C to +85 °C, (+105 °C, 500 h)
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL2, R23 HL2
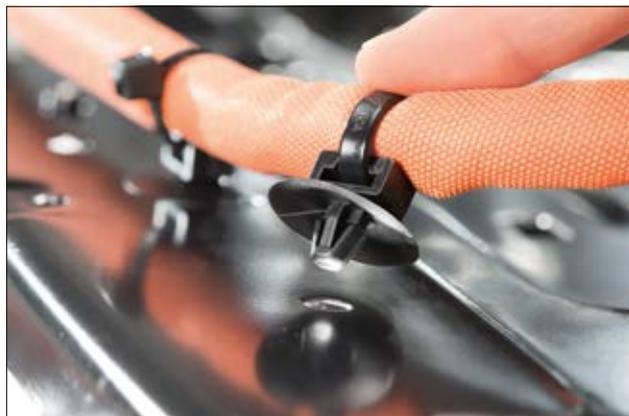
The SFC3 series for securely fixing and to route cables and pipes.

RoHS ✓

TYPE	Hole Ø (FH)	Panel Thickness	Strap Width max. (G)	Material	Colour	Article-No.
SFC3-F	6.4	2.0 - 3.3	6.5	PA66W	Black (BK)	151-00340

All dimensions in mm. Subject to technical changes.

Rivet Mount

TY5-Series

The TY Fixings are ideal for use where a high pull out force is required (eg. in the aircraft industry). The two piece 'wedge' ensures that once installed the mounts will not come away from the panel. Particularly designed for areas with restricted access.

Features and benefits
- Quick installation
- Two-piece wedge
- Easy insertion
- Firmly fixes wide variety of cable ties

Rivet Mount TY5 is usable with a wide variety of our cable ties.
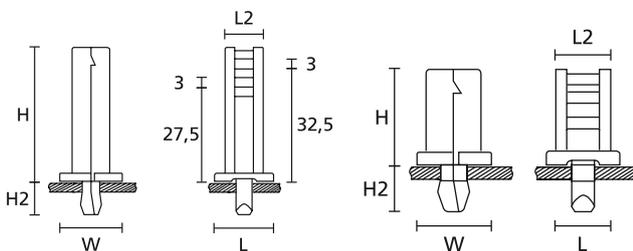
TY5K5 Rivet Mount *TY5K1 Rivet Mount*

MATERIAL	Polyamide 6.6, heat stabilised (PA66HS)
Operating Temperature	-40 °C to +105 °C
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL1, R23 HL2

RoHS ✓

TYPE	Width (W)	Length (L)	Length (L2)	Height (H)	Height (H2)	Strap Width max. (G)	Hole Ø (FH)	Panel Thickness	Material	Colour	Article-No.
TY5K2	12.0	14.0	10.0	7.8	9.5	5.5	4.9 - 5.3	1.0 - 5.0	PA66HS	Natural (NA)	152-11209

All dimensions in mm. Subject to technical changes.

EN 45545-2 Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

Cable Fixing Cradle

TM1SF for cable ties width up to 5.0 mm

Offering simple and easy methods of securing cables or pipes, these fixing accessories have many applications within a wide range of industries.

Features and benefits

- Ideal mount for space-saving applications with restricted access
- Arrowhead for very secure fixing

TM1SF for secure fixing of cables into pre-drilled or pre-punched holes.
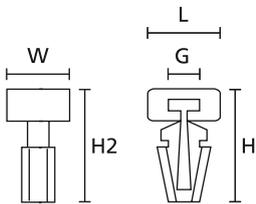
TM1SF Fixing Base

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-40 °C to +85 °C
Flammability	UL 94 V2
EN 45545-2 Classification	R22 HL2, R23 HL2

RoHS ✓

TYPE	Width (W)	Length (L)	Height (H)	Height (H2)	Hole Ø (FH)	Panel Thickness	Strap Width max. (G)	Material	Colour	Article-No.
TM1SF	10.2	15.8	4.6	4.6	6.35	3.3 - 3.4	5.0	PA66	White (WH)	151-40119

All dimensions in mm. Subject to technical changes.

EN 45545-2   ᶜ🆄🅻 US   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

Heat shrinkable tubing 2:1 – Flame retardant

TR27

TR27 is used in applications where toxic emissions evolved in a fire must be minimised, e.g. for heavily populated buildings or savety sensitive areas like tunnels, hospitals, schools, theatres, mass transit vehicles and computer centres.

Features and benefits
- Thin wall, flexible polyolefin tubing
- Optional available with adhesive or as thick wall version (SR27)
- Halogen free and excellent flame-retardant properties
- Meets various industrial standards

TR27 is ideal for safety sensitive areas.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-40 °C to +105 °C
Min. Shrink Temperature	+115 °C
Longitudinal change after shrinkage	+5 %/-10 % max.
Dielectric Strength	15 kV/mm according to IEC 684 P2
EN 45545-2 Classification	R22 HL3, R23 HL3
Flammability	Limited Fire Hazard, halogen free, low generation of toxic gases and corrosive acid, low smoke generation

HF ✓ **LFH** ✓

RoHS ✓

Heat Shrinkable Tubing 2:1

TYPE	Supplied Ø D min.	Size (imperial)	Recov. Ø d max.	Wall (WT)	Reel Length	Colour	Tools	Article-No.
TR27-3.2/1.6	3.2	1/8 "	1.6	0.51	150 m	Black (BK)	30-32	315-50320
TR27-4.8/2.4	4.8	3/16 „	2.4	0.51	60 m	Black (BK)	30-32	315-50480
TR27-6.4/3.2	6.4	1/4 „	3.2	0.64	60 m	Black (BK)	30-32	315-50640
TR27-9.5/4.8	9.5	3/8 „	4.8	0.64	60 m	Black (BK)	30-32	315-50950
TR27-12.7/6.4	12.7	1/2 „	6.4	0.64	60 m	Black (BK)	30-32	315-51270
TR27-19.1/9.5	19.1	3/4 „	9.5	0.76	60 m	Black (BK)	30-32	315-51900
TR27-25.4/12.7	25.4	1 „	12.7	0.51	60 m	Black (BK)	30-32	315-52540
TR27-38.1/19.1	38.1	1-1/2 "	19.1	1.02	60 m	Black (BK)	30-32	315-53810
TR27-50.8/25.4	50.8	2 "	25.4	1.14	60 m	Black (BK)	30-32	315-55100

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

Recommended Tools		
30	31	32
H5002	H5004	E4500

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2   **DEF STAN**

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Heat shrinkable tubing 3:1 – Flame retardant

TA37 – thin wall adhesive lined

TA37 shrink tubing has a low smoke index and excellent flame retardant properties to meet strict fire security standards in electrical insulation.

Features and benefits
- Thin wall adhesive lined heat shrink tubing
- Halogen free
- Flame retardant
- Combination of these three (halogen free, adhesive lined and flame retardant) product properties is unique

TA37 - adhesive lined tubing for safety sensitive areas.

One Step to the Web!

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-40 °C to +105 °C
Min. Shrink Temperature	+150 °C
Softening Point Adhesive	+85 °C
Longitudinal change after shrinkage	-15 % max.
EN 45545-2 Classification	R22 HL3, R23 HL3
Flammability	self-extinguishing

HF ✓ **LFH** ✓
RoHS ✓
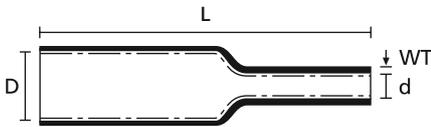
Heat Shrinkable Tubing 3:1 with adhesive
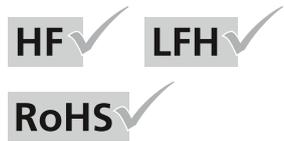
TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Colour	Tools	Article-No.
TA37 3-1	3.0	1.0	0.95	1.2 m	Black (BK)	30-32	315-13000
TA37 4.5-1.5	4.5	1.5	1.10	1.2 m	Black (BK)	30-32	315-13001
TA37 6-2	6.0	2.0	1.20	1.2 m	Black (BK)	30-32	315-13002
TA37 9-3	9.0	3.0	1.30	1.2 m	Black (BK)	30-32	315-13003
TA37 12-4	12.0	4.0	1.40	1.2 m	Black (BK)	30-32	315-13004
TA37 19-6	19.0	6.0	1.80	1.2 m	Black (BK)	30-32	315-13005
TA37 24-8	24.0	8.0	2.50	1.2 m	Black (BK)	30-32	315-13006
TA37 40-13	40.0	13.0	2.50	1.2 m	Black (BK)	30-32	315-13007
TA37 50-19	50.0	19.0	4.00	1.2 m	Black (BK)	30-32	315-13008
TA37 75-25	75.0	25.0	3.00	1.2 m	Black (BK)	-	315-13009
TA37 120-45	120.0	45.0	4.00	1.2 m	Black (BK)	-	315-13011

All dimensions in mm. Subject to technical changes.

Recommended Tools		
30	31	32
H5002	H5004	E4500

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2 ⓒⓈⓐ   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Heat shrinkable tubing up to 4:1, self-extinguishing, halogen-free – 1 m lengths

HR47 – thick-walled

The thick-walled heat shrinkable tubing HR47 is halogen-free, self-extinguishing and has a low smoke index. Therefore the product is extremely suitable for mechanical protection (e.g. anti-kink and abrasion protection) in public transportation applications such as trains, busses, planes, tunnels and elevators.

Features and benefits

- Thick-walled, rigid polyolefin heat shrinkable tubing
- Halogen-free
- Self-extinguishing
- Low smoke index
- DIN EN 45545-2 (HL3) approved
- High shrink ratio up to 4:1

The thick-walled HR47 has low smoke and toxic gas emissions.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Longitudinal Change After Shrinkage	10 % max.
Dielectric Strength	15 kV/mm
Flammability	self-extinguishing
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   RoHS ✓
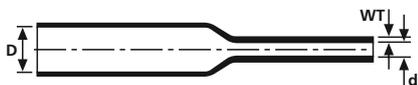
TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Colour	Article-No.
HR47-9/3	9.00	3.00	2.00	Black (BK)	321-40000
HR47-13/4	13.00	4.00	2.40	Black (BK)	321-40001
HR47-22/6	22.00	6.00	2.70	Black (BK)	321-40002
HR47-33/8	33.00	8.00	3.20	Black (BK)	321-40003
HR47-40/12	40.00	12.00	4.00	Black (BK)	321-40004
HR47-55/16	55.00	16.00	4.00	Black (BK)	321-40005
HR47-75/22	75.00	22.0	4.00	Black (BK)	321-40006
HR47-85/25	85.00	25.00	4.20	Black (BK)	321-40007
HR47-95/29	95.00	29.00	4.20	Black (BK)	321-40008
HR47-105/30	105.0	30.0	4.20	Black (BK)	321-40009
HR47-115/34	115.00	34.00	4.20	Black (BK)	321-40010
HR47-130/36	130.00	36.00	4.20	Black (BK)	321-40011
HR47-180/50	180.0	50.0	4.20	Black (BK)	321-40012

All dimensions in mm. Subject to technical changes.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Heat shrinkable tubing 2:1 – self-extinguishing, halogen-free and diesel resistant

TU28 - thin-walled

The thin-walled heat-shrinkable tubing TU28 is halogen-free, self-extinguishing, has a low smoke index and therefore is extremely suitable for installation in public transportation applications such as trains, busses, planes, tunnels and elevators.

Features and benefits
- Thin-walled, flexible polyolefin heat shrinkable tubing
- Halogen-free
- Self-extinguishing
- Low smoke index
- DIN EN 45545-2 (HL3) approved
- Diesel resistant

i **More colours on request. Please contact us.**
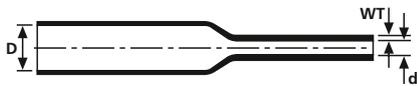
TU28 meets highest safety standards.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+120 °C
Longitudinal Change After Shrinkage	+/-5 %
Dielectric Strength	19.7 kV/mm
Flammability	self-extinguishing
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   **RoHS** ✓

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Colour	Article-No.
TU28-2.4/1.2	2.59	1.20	0.49	Black (BK)	300-06001
TU28-3.2/1.6	3.41	1.60	0.51	Black (BK)	300-06002
TU28-4.8/2.4	5.01	2.40	0.54	Black (BK)	300-06003
TU28-6.4/3.2	6.64	3.20	0.56	Black (BK)	300-06004
TU28-9.5/4.8	9.88	4.80	0.59	Black (BK)	300-06005
TU28-12.7/6.4	13.14	6.40	0.60	Black (BK)	300-06006
TU28-19.1/9.5	19.70	9.60	0.62	Black (BK)	300-06007
TU28-25.4/12.7	26.25	12.70	0.63	Black (BK)	300-06008
TU28-38.1/19.1	39.29	19.10	0.64	Black (BK)	300-06009
TU28-50.8/25.4	52.44	25.40	0.64	Black (BK)	300-06010

All dimensions in mm. Subject to technical changes.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.
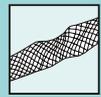
Standard polyester braided sleeving

Helagaine HEGP

Helagaine HEGP braided sleeving is made of polyester provides superior abrasion protection in the rail, automotive and machine building industries.

Features and benefits
- Made of sturdy polyester
- Highly flexible
- High abrasion resistance
- Very high surface coverage

Helagaine HEGP braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C, intermittent +220 °C
Melting Point	+250 °C
Flammability	UL 94 V2, FMVSS 302
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGP03	1	5	Black (BK)	200 m	45	170-10300
HEGP04	2	7	Black (BK)	200 m	45	170-10400
HEGP05	3	9	Black (BK)	200 m	45	170-10500
HEGP06	4	11	Black (BK)	100 m	45	170-10600
HEGP08	5	12	Black (BK)	100 m	45	170-10800
HEGP10	7	15	Black (BK)	100 m	45	170-11000
HEGP12	8	17	Black (BK)	100 m	45	170-11200
HEGP15	10	20	Black (BK)	100 m	45	170-11500
HEGP20	14	26	Black (BK)	50 m	45	170-12000
HEGP25	18	34	Black (BK)	50 m	45	170-12500
HEGP30	20	40	Black (BK)	50 m	45	170-13000
HEGP40	30	50	Black (BK)	50 m	45	170-14000
HEGP50	40	66	Black (BK)	50 m	45	170-15000

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.

Recommended Tools
45
HSG0

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

High-expansion polyester braided sleeving
Helagaine HEGPX

Helagaine HEGPX is used wherever a higher expansion rate is required. It is particularly suitable for use in the rail, automotive and machine building industries.

Features and benefits
- Made of sturdy polyester
- Highly flexible
- Expands to 3x nominal diameter
- Easy to apply over irregular shapes
- Good abrasion resistance

Helagaine HEGPX braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C, intermittent +220 °C
Melting Point	+250 °C
Flammability	UL 94 V2, FMVSS 302
EN 45545-2 Classification	R22 HL2, R23 HL2

HF ✓   RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGPX06	3	10	Black (BK)	200 m	45	170-00060
HEGPX09	5	16	Black (BK)	100 m	45	170-00090
HEGPX12	6	19	Black (BK)	100 m	45	170-00120
HEGPX20	13	32	Black (BK)	100 m	45	170-00200
HEGPX30	19	45	Black (BK)	50 m	45	170-00300
HEGPX40	32	70	Black (BK)	50 m	45	170-00400

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.

Recommended Tools
45
HSG0

For detailed information on Application Tooling
please refer to our Main Catalogue or the Internet.

EN 45545-2   UL®   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Flame-retardant polyester braided sleeving

Helagaine HEGPETFR

HEGPETFR has excellent flame-retardant properties. It is particularly recommended for applications for instance in public transport, aircraft and telecommunications.

Features and benefits
- Made of sturdy polyester
- Self-extinguishing according to UL94 V0 for enhanced fire protection
- Highly flexible
- Easy to apply over irregular shapes
- Good abrasion resistance

Helagaine HEGPETFR braided sleeving.

MATERIAL	Polyester (PET)
Operating Temperature	-50 °C to +150 °C, intermittent +220 °C
Melting Point	+250 °C
Flammability	FMVSS 302, Type B, halogen free
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
HEGPETFR03	2	5	Black with Grey Identification Yarn (BKIDGY)	100 m	170-81000
HEGPETFR04	3	7	Black with Grey Identification Yarn (BKIDGY)	100 m	170-81001
HEGPETFR05	4	9	Black with Grey Identification Yarn (BKIDGY)	100 m	170-81002
HEGPETFR06	5	11	Black with Grey Identification Yarn (BKIDGY)	100 m	170-81003
HEGPETFR08	7	13	Black with Grey Identification Yarn (BKIDGY)	100 m	170-81004
HEGPETFR10	9	15	Black with Grey Identification Yarn (BKIDGY)	50 m	170-81005
HEGPETFR12	11	17	Black with Grey Identification Yarn (BKIDGY)	50 m	170-81006
HEGPETFR15	13	20	Black with Grey Identification Yarn (BKIDGY)	50 m	170-81007
HEGPETFR20	18	25	Black with Grey Identification Yarn (BKIDGY)	50 m	170-81008
HEGPETFR25	22	30	Black with Grey Identification Yarn (BKIDGY)	50 m	170-81009
HEGPETFR30	27	40	Black with Grey Identification Yarn (BKIDGY)	50 m	170-81010
HEGPETFR40	35	50	Black with Grey Identification Yarn (BKIDGY)	50 m	170-81011
HEGPETFR50	45	60	Black with Grey Identification Yarn (BKIDGY)	50 m	170-81012

All dimensions in mm. Subject to technical changes.

EN 45545-2   NF F   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

Abrasion-resistant polyamide braided sleeving

Helagaine HEGPA66

Helagaine HEGPA66 offers especially high abrasion resistance and surface coverage.

Features and benefits

- Made from heavy-duty polyamide yarn
- Excellent abrasion resistance
- Highly flexible
- Easy to apply over irregular shapes
- Eases application by expanding when compressed
- Very high surface covering

Helagaine HEGPA66 braided sleeving.

MATERIAL	Polyamide 6.6 (PA66)
Operating Temperature	-60 °C to +150 °C, intermittent +200 °C
Melting Point	+255 °C
Flammability	UL 94 V2, FMVSS 302
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   **RoHS** ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Tools	Article-No.
HEGPA6604	3	6	Black (BK)	200 m	45	170-40400
HEGPA6606	4	8	Black (BK)	100 m	45	170-40600
HEGPA6608	5	10	Black (BK)	100 m	45	170-40800
HEGPA6610	7	12	Black (BK)	100 m	45	170-41000
HEGPA6612	8	14	Black (BK)	100 m	45	170-41200
HEGPA6616	12	18	Black (BK)	50 m	45	170-41600
HEGPA6620	15	23	Black (BK)	50 m	45	170-42000
HEGPA6625	18	28	Black (BK)	50 m	45	170-42500
HEGPA6630	25	32	Black (BK)	50 m	45	170-43000
HEGPA6640	30	44	Black (BK)	50 m	45	170-44000
HEGPA6650	40	55	Black (BK)	50 m	45	170-45000
HEGPA6660	50	65	Black (BK)	50 m	45	170-46000

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.

Recommended Tools
45
HSG0

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Self-closing, flame-retardent polyester sleeving
Helagaine Twist-In-FRX

Helagaine Twist-In-FRX is used wherever fire protection is essential, such as in the railway, aerospace and shipbuilding industries.

Features and benefits
- Self-closing sleeve made from polyester
- Optimal fire protection
- Easy and quick installation and removal
- Ideal for retro-fitting
- Allows access to bundle for assembly, inspection and maintenance
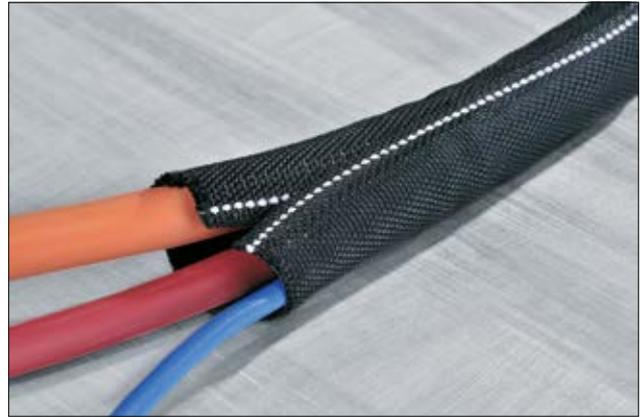
Helagaine Twist-In-FRX is used wherever fire safety is important.

MATERIAL	Polyester (PET)
EN 45545-2 Classification	R22 HL3, R23 HL3

RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
Twist-In-FRX 13	13	14	Black with White Identification Yarn (BKIDWH)	50 m	170-01153
Twist-In-FRX 19	19	20	Black with White Identification Yarn (BKIDWH)	25 m	170-01154
Twist-In-FRX 25	25	27	Black with White Identification Yarn (BKIDWH)	25 m	170-01155
Twist-In-FRX 29	29	31	Black with White Identification Yarn (BKIDWH)	25 m	170-01156
Twist-In-FRX 32	32	34	Black with White Identification Yarn (BKIDWH)	25 m	170-01157
Twist-In-FRX 38	38	40	Black with White Identification Yarn (BKIDWH)	25 m	170-01158
Twist-In-FRX 50	50	52	Black with White Identification Yarn (BKIDWH)	25 m	170-01159

All dimensions in mm. Subject to technical changes.

EN 45545-2

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Helawrap Cable Cover

HWPAV0 flame-retardant and abrasion-resistant

Helawrap HWPAV0 is easily and rapidly applied over pre-mounted cables. It has excellent flame-retardant properties and is halogen-free.

Features and benefits

• Ideal solution for bundling, protecting and fixing cables
• Quick and effortless to apply
• Self-extinguishing according to UL94 V0
• Very good abrasion protection
• Special profile enables branching off cable at any point
• Can be removed and reapplied often
• Handy applicator tool included
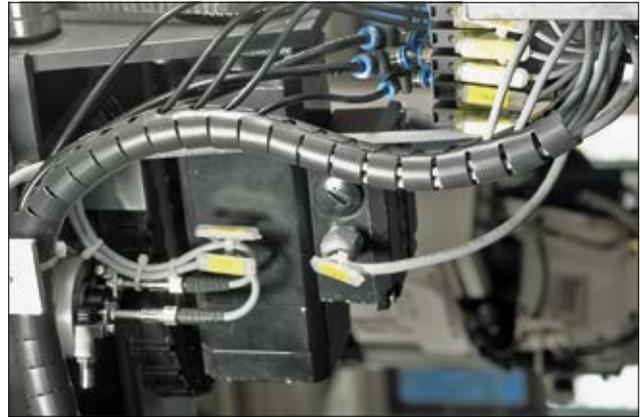
Cables can be branched off at any point for better, more flexible protection.

Application video: Helawrap

MATERIAL	Polyamide 6 V0 (PA6V0)
Operating Temperature	-40 °C to +90 °C, intermittent +120 °C
Flammability	UL 94 V0
EN 45545-2 Classification	R22 HL2, R23 HL2

HF ✓   RoHS ✓

TYPE	Bundle Ø max.	Colour	Reel Length	Application Tool	Article-No.
HWPAV08	9	Black (BK)	25 m	HAT8	161-63101
HWPAV016	16	Black (BK)	25 m	HAT16	161-63201
HWPAV020	21	Black (BK)	25 m	HAT20	161-63301
HWPAV025	27	Black (BK)	25 m	HAT25	161-63401
HWPAV030	32	Black (BK)	25 m	HAT30	161-63501

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

Insert one or more cables into the insertion slot of the HAT applicator tool.

Place the HAT applicator tool in one end of the Helawrap cable cover.

Simply slide the HAT applicator tool through the Helawrap cover.

EN 45545-2   Ⓤ®

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

## Flame-retardant polyamide spiral binding

SBPAV0

Due to its excellent flame protection properties, SBPAV0 spiral binding is particularly suitable for the rail and aviation industries as well as public buildings.

Features and benefits

- Organises and protects cables and hoses
- Self-extinguishing according to UL94 V0
- Very good protection against abrasion
- Suitable for retro-fitting
- Cables branch out at any point
- Wide range of diameters
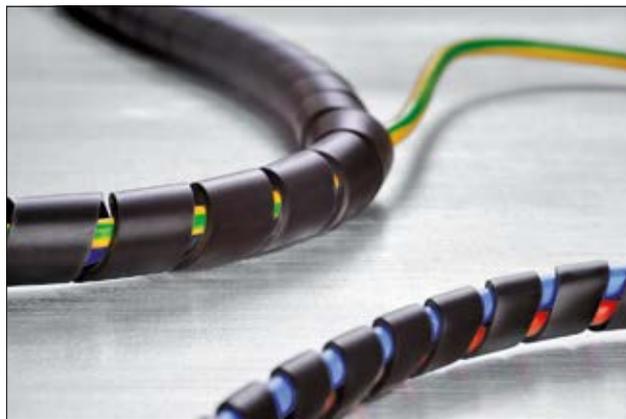
Spiral binding SBPAV0.
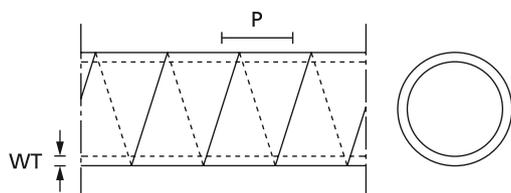
Spiral binding

MATERIAL	Polyamide 6 V0 (PA6V0)
Operating Temperature	-40 °C to +90 °C, (+160 °C, for 200 h)
Flammability	UL 94 V0
EN 45545-2 Classification	R22 HL2, R23 HL2

HF ✓   **RoHS** ✓

TYPE	Nominal Ø	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour	Reel Length	Article-No.
SBPAV01.5	1.5	0.4	6.0	1.6	8	Black (BK)	30 m	161-44000
SBPAV04	4	0.6	7.8	5	20	Black (BK)	30 m	161-44100
SBPAV09	9	1.0	12.5	10	100	Black (BK)	30 m	161-44200
SBPAV016	16	1.2	16.0	20	150	Black (BK)	30 m	161-44300

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

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Cable Protection Systems
Wiring Ducts
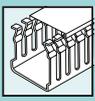
Halogen-free wiring ducts
HelaDuct HTWD-HF

HelaDuct HTWD-HF wiring ducts are used to route and protect wires in control panels and switching systems where there are high demands on personal or material safety in case of fire, such as in public transport, tunnels, data-processing centers or public buildings.

Features and benefits

- Excellent fire-safety characteristics
- Narrow slots suitable for small-diameter wires
- Smooth, burr-free edges protect installers from injury and wires from damage
- Fingers can be removed with no sharp edges at pre-notched snap-off points
- Further pre-notched snap-off point at base of sidewall allow cutting out and removing sections of sidewall with no sharp edges
- Duct covers hold securely even in a vertical position and under vibration
- Cover is flush with side of duct, allowing for tight, contiguous placement of duct
- Base perforation according to DIN EN 50085

The HelaDuct HTWD-HF halogen-free wiring ducts meet the highest requirements of fire safety.

MATERIAL	Acrylonitrile Butadiene Styrene alloyed with Polycarbonate (PC/ABS)
Colour	Grey (GY)
Length (L)	2 m
Operating Temperature	-25 °C to +90 °C, intermittent +100 °C
Flammability	UL 94 V0
EN 45545-2 Classification	R22 HL2, R23 HL2

HF ✓   RoHS ✓
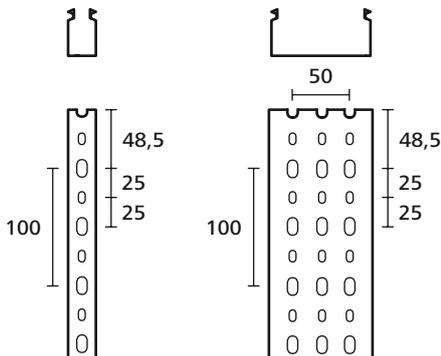
Width 25-60   *Width 80-120*

TYPE	Width (W)	Height (H)	Width (W2)	Width (W3)	Pack Cont.	Article-No.
HTWD-HF-25X25	25	25	6	6.5	50 m	183-22525
HTWD-HF-25X40	25	40	6	6.5	48 m	183-22540
HTWD-HF-25X60	25	60	6	6.5	60 m	183-25060
HTWD-HF-25X80	25	80	6	6.5	20 m	183-22580
HTWD-HF-40X25	40	25	6	6.5	48 m	183-24025
HTWD-HF-40X40	40	40	6	6.5	50 m	183-24040
HTWD-HF-40X60	40	60	6	6.5	40 m	183-24060
HTWD-HF-40X80	40	80	6	6.5	20 m	183-24080

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

EN 45545-2   c UL US   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

Halogen-free wiring ducts

HelaDuct HTWD-HF

TYPE	Width (W)	Height (H)	Width (W2)	Width (W3)	Pack Cont.	Article-No.
HTWD-HF-60X40	60	40	6	6.5	40 m	183-26040
HTWD-HF-60X60	60	60	6	6.5	24 m	183-26060
HTWD-HF-60X80	60	80	6	6.5	20 m	183-26080
HTWD-HF-60X100	60	100	6	6.5	12 m	183-26010
HTWD-HF-80X40	80	40	6	6.5	20 m	183-28040
HTWD-HF-80X60	80	60	6	6.5	20 m	183-28060
HTWD-HF-80X80	80	80	6	6.5	12 m	183-28080
HTWD-HF-80X100	80	100	6	6.5	10 m	183-28010
HTWD-HF-100X40	100	40	6	6.5	20 m	183-22040
HTWD-HF-100X60	100	60	6	6.5	16 m	183-21060
HTWD-HF-100X80	100	80	6	6.5	12 m	183-21080
HTWD-HF-100X100	100	100	6	6.5	8 m	183-21010
HTWD-HF-120X60	120	60	6	6.5	12 m	183-21260
HTWD-HF-120X80	120	80	6	6.5	16 m	183-21280

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

EN 45545-2

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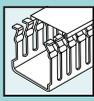
HellermannTyton

Halogen-free wiring ducts

HelaDuct HTWD-HF (DIN sizes)

HellermannTyton HTWD-HF halogen-free ducts are used wherever there are high demands on personal or material safety, such as public transport, tunnels, lifts and data processing centres.

Note: Halogen-free PC+ABS is not resistant to all oils and greases.

Features and benefits

- Excellent fire-safety characteristics
- Narrow slots suitable for small-diameter wires
- Smooth, burr-free edges protect installers from injury and wires from damage
- Fingers can be removed with no sharp edges at pre-notched snap-off points
- Further pre-notched snap-off point at base of sidewall allow cutting out and removing sections of sidewall with no sharp edges
- Duct covers hold securely even in a vertical position and under vibration
- Cover is flush with side of duct, allowing for tight, contiguous placement of duct
- Base perforation according to DIN EN 50085

The HelaDuct HTWD-HF halogen-free wiring ducts meet the highest requirements of fire safety.

MATERIAL	Acrylonitrile Butadiene Styrene alloyed with Polycarbonate (PC/ABS)
Operating Temperature	-25 °C to +90 °C, intermittent +100 °C
Colour	Grey RAL 7035 (RAL7035)
Length (L)	2 m
Flammability	UL 94 V0
EN 45545-2 Classification	R22 HL2, R23 HL2

HF ✓   RoHS ✓

TYPE	Width (W)	Height (H)	Width (W2)	Width (W3)	Pack Cont.	Colour	Article-No.
HTWD-HF-25X25	25	25	5.0	7.5	48	RAL7035	183-12525
HTWD-HF-25X37.5	25	37.5	5.0	7.5	54	RAL7035	183-12537
HTWD-HF-25X50	25	50	5.0	7.5	44	RAL7035	183-12550
HTWD-HF-25X75	25	75	5.0	7.5	36	RAL7035	183-22575
HTWD-HF-37.5X37.5	37.5	37.5	5.0	7.5	40 m	RAL7035	183-13737
HTWD-HF-37.5X50	37.5	50	5.0	7.5	32	RAL7035	183-13750
HTWD-HF-37.5X75	37.5	75	5.0	7.5	24	RAL7035	183-13775
HTWD-HF-50X37.5	50	37	5.0	7.5	32	RAL7035	183-05037
HTWD-HF-50X50	50	50	5.0	7.5	42 m	RAL7035	183-15050
HTWD-HF-50X75	50	75	5.0	7.5	28	RAL7035	183-15075
HTWD-HF-75X50	75	50	5.0	7.5	28	RAL7035	183-17550
HTWD-HF-75X75	75	75	5.0	7.5	24	RAL7035	183-17575
HTWD-HF-100X50	100	50	5.0	7.5	20	RAL7035	183-11050
HTWD-HF-100X75	100	75	5.0	7.5	16	RAL7035	183-11075
HTWD-HF-125X75	125	75	5.0	7.5	16	RAL7035	183-12257

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

EN 45545-2   NF F

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.
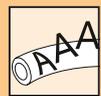
Shrinkable markers „Continuous Tube", thermal transfer

TLFX – 2:1 Rail Limited Fire Hazard

TLFX is a halogen free European rail approved 2:1 heat shrink marker material supplied as a continuous tube and printable on both sides. Special material properties show low smoke propagation, density and toxicity. The tubing has been especially prepared so that print performance is excellent at all times. HellermannTyton's printer range allow users to create a high quality print. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

Features and benefits
- Shrink ratio 2:1
- Halogen Free
- Low smoke propagation, density and toxicity
- High Oxygen Index value (36.5 %)
- Available in yellow or white
- Cable range 50.8 mm to 1.2 mm
- Delivery in convenient storage boxes

TLFX- high performance halogen free heat shrink tube.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +105 °C
Min. Shrink Temperature	+100 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT430, TT4030, TrakMark DS
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓ **LFH** ✓

RoHS ✓
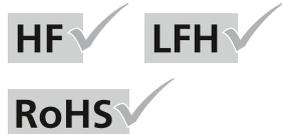
TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX24WH	2.4	1.2	0.57	144 m	White (WH)	554-51000
TLFX24YE	2.4	1.2	0.57	144 m	Yellow (YE)	554-51001
TLFX32WH	3.2	1.6	0.58	126 m	White (WH)	554-51100
TLFX32YE	3.2	1.6	0.58	126 m	Yellow (YE)	554-51101
TLFX48WH	4.8	2.4	0.61	108 m	White (WH)	554-51200
TLFX48YE	4.8	2.4	0.61	108 m	Yellow (YE)	554-51201
TLFX64WH	6.4	3.2	0.61	90 m	White (WH)	554-51300
TLFX64YE	6.4	3.2	0.61	90 m	Yellow (YE)	554-51301
TLFX95WH	9.5	4.8	0.66	72 m	White (WH)	554-51400
TLFX95YE	9.5	4.8	0.66	72 m	Yellow (YE)	554-51401
TLFX127WH	12.7	6.4	0.68	54 m	White (WH)	554-51500
TLFX127YE	12.7	6.4	0.68	54 m	Yellow (YE)	554-51501
TLFX190WH	19.0	9.5	0.69	30 m	White (WH)	554-51600
TLFX190YE	19.0	9.5	0.69	30 m	Yellow (YE)	554-51601
TLFX254WH	25.4	12.7	0.69	30 m	White (WH)	554-51700
TLFX254YE	25.4	12.7	0.69	30 m	Yellow (YE)	554-51701
TLFX381WH	38.1	19.0	0.70	13 m	White (WH)	554-51800
TLFX381YE	38.1	19.0	0.70	13 m	Yellow (YE)	554-51801
TLFX508WH	50.8	25.4	0.73	10 m	White (WH)	554-50900
TLFX508YE	50.8	25.4	0.73	10 m	Yellow (YE)	554-50901

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

EN 45545-2 **NF F** Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Shrinkable markers „Ladder Style", thermal transfer

TLFX DS – 2:1 Rail Limited Fire Hazard „Ladder Style"

TLFX DS is a halogen free European rail approved 2:1 heat shrink marker material supplied pre-cut and formatted into a convenient „ladder" system. Special material properties show low smoke propagation, density and toxicity. This pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. Special material properties show low smoke propagation, density and toxicity. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range.

Features and benefits

• Shrink ratio 2:1
• Halogen Free
• Low smoke propagation, density and toxicity
• High Oxygen Index value (35.4%)
• 50 mm, 25 mm and 16 mm pre-cut marker options as standard, other lengths available on request
• Available in yellow or white
• Cable range 38.1 mm to 1.2 mm
• Delivery in convenient storage boxes

One Step to the Web!

Shrinkable rail approved markers TLFX DS.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +105 °C
Min. Shrink Temperature	+100 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT430, TT4030, TrakMark DS
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   **LFH** ✓

RoHS ✓

L ⟶ WT
D **2:1** d
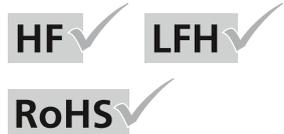
TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFX24DS-2x25YE	2.4	1.2	25.0	0.52	10,000 pcs.	Yellow (YE)	553-60029
TLFX24DS-1x50YE	2.4	1.2	50.0	0.52	5,000 pcs.	Yellow (YE)	553-60010
TLFX32DS-2X25YE	3.2	1.6	25.0	0.64	2,000 pcs.	Yellow (YE)	553-60121
TLFX32DS-2x25YE	3.2	1.6	25.0	0.64	10,000 pcs.	Yellow (YE)	553-60030
TLFX32DS-1X50YE	3.2	1.6	50.0	0.64	1,000 pcs.	Yellow (YE)	553-60125
TLFX32DS-1x50YE	3.2	1.6	50.0	0.64	5,000 pcs.	Yellow (YE)	553-60011
TLFX48DS-2x25YE	4.8	2.4	25.0	0.64	10,000 pcs.	Yellow (YE)	553-60031
TLFX48DS-1x50YE	4.8	2.4	50.0	0.64	5,000 pcs.	Yellow (YE)	553-60012
TLFX64DS-2x25YE	6.4	3.2	25.0	0.73	6,000 pcs.	Yellow (YE)	553-60032
TLFX64DS-1x50YE	6.4	3.2	50.0	0.73	3,000 pcs.	Yellow (YE)	553-60013
TLFX95DS-2x25YE	9.5	4.8	25.0	0.70	5,000 pcs.	Yellow (YE)	553-60033
TLFX95DS-1x50YE	9.5	4.8	50.0	0.70	2,500 pcs.	Yellow (YE)	553-60014
TLFX127DS-2x25YE	12.7	6.4	25.0	0.70	3,000 pcs.	Yellow (YE)	553-60034
TLFX127DS-1x50YE	12.7	6.4	50.0	0.70	1,500 pcs.	Yellow (YE)	553-60015
TLFX190DS-2x25YE	19.0	9.5	25.0	0.78	3,000 pcs.	Yellow (YE)	553-60035
TLFX190DS-1x50YE	19.0	9.5	50.0	0.78	1,500 pcs.	Yellow (YE)	553-60016
TLFX254DS-2x25YE	25.4	12.7	25.0	0.93	2,000 pcs.	Yellow (YE)	553-60036
TLFX254DS-1x50YE	25.4	12.7	50.0	0.93	1,000 pcs.	Yellow (YE)	553-60017
TLFX381DS-2x25YE	38.1	19.1	25.0	0.98	1,000 pcs.	Yellow (YE)	553-60037
TLFX381DS-1x50YE	38.1	19.1	50.0	0.98	500 pcs.	Yellow (YE)	553-60018

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

EN 45545-2 **ASTM** **NF F** **UNI CEI**

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Shrinkable markers „Continuous Tube", thermal transfer

TDRT - 2:1 Rail Diesel Resistant

TDRT is a diesel resistant 2:1 heat shrink material which is rail approved. It is supplied as a continuous tube and printable on both sides.

The TDRT material is ideal where resistance to diesel, organic fluids, common fuels, lubricants and solvents properties are required, e.g. in mass transit, aerospace, marine and industrial installations. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range. In addition it is possible to either perforate the tubing at pre-determined lengths or fully sever the markers.

The material is also especially formulated to be printable with laser beam printers.

Certified diesel resistant heatshrink markers TDRT.

Features and benefits
- Shrink ratio 2:1
- Resistant to diesel and common fluids
- Available in yellow as standard and white on request
- Delivery in convenient storage boxes

Railway-specific products offer best solutions.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+120 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT430, TT4030, TrakMark DS

LFH ✓ **RoHS** ✓
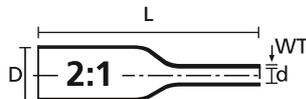
TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Colour	Article-No.
TDRT2.4YE	2.79	1.18	0.49	110 m	Yellow (YE)	553-62020
TDRT3.2YE	3.64	1.59	0.51	110 m	Yellow (YE)	553-62021
TDRT4.8YE	5.26	2.36	0.54	110 m	Yellow (YE)	553-62022
TDRT6.4YE	6.92	3.18	0.56	110 m	Yellow (YE)	553-62023
TDRT9.5YE	10.20	4.75	0.59	72 m	Yellow (YE)	553-62024
TDRT12YE	13.5	6.35	0.60	54 m	Yellow (YE)	553-62030
TDRT18YE	20.1	9.53	0.62	26 m	Yellow (YE)	553-62031
TDRT25YE	26.7	12.7	0.63	26 m	Yellow (YE)	553-62032
TDRT38YE	39.8	19.1	0.64	13 m	Yellow (YE)	553-62033
TDRT51YE	53.0	25.4	0.64	10 m	Yellow (YE)	553-62034

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

Shrinkable markers „Ladder Style", thermal transfer

TDRT DS - 2:1 Rail Diesel Resistant „Ladder Style"

TDRT DS is a diesel resistant 2:1 heat shrink material which is rail approved. The material is pre-cut and formatted into a convenient „ladder" system that allows printing on both sides of the marker.

The TDRT DS material is ideal where resistance to diesel, organic fluids, common fuels, lubricants and solvents properties are required, e.g. in mass transit, aerospace, marine and industrial installations. This pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range.

The material is also especially formulated to be printable with laser beam printers.

Shrinkable rail diesel resistant markers TDRT DS.

Features and benefits
- Shrink ratio 2:1
- Resistant to diesel and common fluids
- 50 mm and 25 mm lengths are standard, other lengths available on request
- Available in yellow as standard and white on request
- Delivery in convenient storage boxes

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+120 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT430, TT4030, TrakMark DS

LFH ✓ **RoHS** ✓
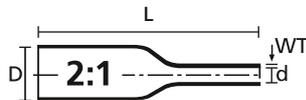
TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TDRT2.4DS-2X25YE	2.79	1.18	25.0	0.49	10,000 pcs.	Yellow (YE)	553-70101
TDRT2.4DS-1X50YE	2.79	1.18	50.0	0.49	5,000 pcs.	Yellow (YE)	553-70100
TDRT3.2DS-2X25YE	3.64	1.59	25.0	0.51	10,000 pcs.	Yellow (YE)	553-70103
TDRT3.2DS-1X50YE	3.64	1.59	50.0	0.51	5,000 pcs.	Yellow (YE)	553-70102
TDRT4.8DS-2X25YE	5.26	2.36	25.0	0.54	10,000 pcs.	Yellow (YE)	553-70105
TDRT4.8DS-1X50YE	5.26	2.36	50.0	0.54	5,000 pcs.	Yellow (YE)	553-70104
TDRT6.4DS-2X25YE	6.92	3.18	25.0	0.56	6,000 pcs.	Yellow (YE)	553-70107
TDRT6.4DS-1X50YE	6.92	3.18	50.0	0.56	3,000 pcs.	Yellow (YE)	553-70106
TDRT9.5DS-2X25YE	10.20	4.75	25.0	0.59	5,000 pcs.	Yellow (YE)	553-70109
TDRT9.5DS-1X50YE	10.20	4.75	50.0	0.59	2,500 pcs.	Yellow (YE)	553-70108
TDRT12DS-2X25YE	13.50	6.35	25.0	0.60	3,000 pcs.	Yellow (YE)	553-70111
TDRT12DS-1X50YE	13.50	6.35	50.0	0.60	1,500 pcs.	Yellow (YE)	553-70110
TDRT18DS-2X25YE	20.10	9.53	25.0	0.62	3,000 pcs.	Yellow (YE)	553-70113
TDRT18DS-1X50YE	20.10	9.53	50.0	0.62	1,500 pcs.	Yellow (YE)	553-70112
TDRT25DS-2X25YE	26.70	12.70	25.0	0.63	2,000 pcs.	Yellow (YE)	553-70115
TDRT25DS-1X50YE	26.70	12.70	50.0	0.63	1,000 pcs.	Yellow (YE)	553-70114
TDRT38DS-2X25YE	39.80	19.10	25.0	0.64	1,000 pcs.	Yellow (YE)	553-70117
TDRT38DS-1X50YE	39.80	19.10	50.0	0.64	500 pcs.	Yellow (YE)	553-70116
TDRT51DS-2X25YE	53.80	25.40	25.0	0.64	1,000 pcs.	Yellow (YE)	553-70119
TDRT51DS-1X50YE	53.80	25.40	50.0	0.64	500 pcs.	Yellow (YE)	553-70118

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

Shrinkable markers „Ladder Style", thermal transfer

TLFD DS – 2:1 Rail Limited Fire Hazard, fluid resistant „Ladder Style"

TLFD DS is an innovative 2:1 heat shrink marker which is halogen free, low fire hazard and fluid resistant. This rail and EN approved material is supplied pre-cut and formatted into a convenient „ladder" system.

The TLFD DS marker's material properties are ideal for applications where fire protection is of great importance. TLFD DS shows low smoke propagation, density and toxicity and is also ideal for applications where resistance to organic fluids, common fuels, lubricants and solvents properties are required.

The pre-cut format not only allows printing on both sides of the marker but the user can also easily choose and pick each required marker. The tubing has been especially prepared so that the print performance is excellent at all times using HellermannTyton's printer range.

Features and benefits

- Shrink ratio 2:1
- Halogen free and fluid resistant
- Low smoke propagation and toxicity
- Fluid resistant
- „Ladder Style" format for ease of use
- Available in yellow and white
- 50 mm and 25 mm pre-cut markers as standard

TLFD DS shrinkable markers for more safety and clarity in the switchboard.
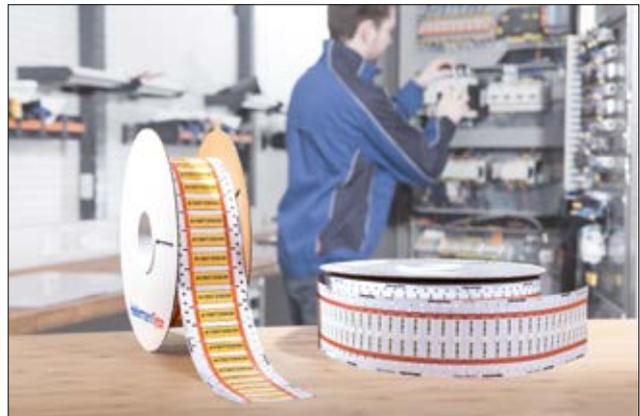
TLFD DS „ladder style" markers for demanding applications.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+120 °C
Shrink Ratio	2:1
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT430, TT4030, TrakMark DS
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   **LFH** ✓

RoHS ✓
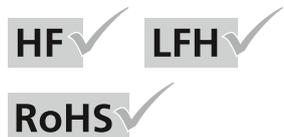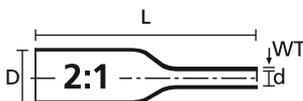
TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFD24DS-2X25WH	2.59	1.2	25.0	0.49	10,000 pcs.	White (WH)	533-65001
TLFD24DS-2X25YE	2.59	1.2	25.0	0.49	10,000 pcs.	Yellow (YE)	533-65019
TLFD24DS-1X50WH	2.59	1.2	50.0	0.49	5,000 pcs.	White (WH)	533-65000
TLFD24DS-1X50YE	2.59	1.2	50.0	0.49	5,000 pcs.	Yellow (YE)	533-65018

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

EN 45545-2   **EN 50343 App. H**

Please note! Not all products listed on this page may have this approval.
Please check our website for latest approvals.

Shrinkable markers „Ladder Style", thermal transfer

**TLFD DS – 2:1 Rail Limited Fire Hazard,
fluid resistant „Ladder Style"**
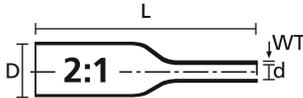
TYPE	Supplied Ø D min.	Recov. Ø d max.	Length (L)	Wall (WT)	Pack Cont.	Colour	Article-No.
TLFD32DS-2X25WH	3.41	1.6	25.0	0.51	10,000 pcs.	White (WH)	533-65003
TLFD32DS-2X25YE	3.41	1.6	25.0	0.51	10,000 pcs.	Yellow (YE)	533-65021
TLFD32DS-1X50WH	3.41	1.6	50.0	0.51	5,000 pcs.	White (WH)	533-65002
TLFD32DS-1X50YE	3.41	1.6	50.0	0.51	5,000 pcs.	Yellow (YE)	533-65020
TLFD48DS-2X25WH	5.01	2.4	25.0	0.54	10,000 pcs.	White (WH)	533-65005
TLFD48DS-2X25YE	5.01	2.4	25.0	0.54	10,000 pcs.	Yellow (YE)	533-65023
TLFD48DS-1X50WH	5.01	2.4	50.0	0.54	5,000 pcs.	White (WH)	533-65004
TLFD48DS-1X50YE	5.01	2.4	50.0	0.54	5,000 pcs.	Yellow (YE)	533-65022
TLFD64DS-2X25WH	6.64	3.2	25.0	0.56	6,000 pcs.	White (WH)	533-65007
TLFD64DS-2X25YE	6.64	3.2	25.0	0.56	6,000 pcs.	Yellow (YE)	533-65025
TLFD64DS-1X50WH	6.64	3.2	50.0	0.56	3,000 pcs.	White (WH)	533-65006
TLFD64DS-1X50YE	6.64	3.2	50.0	0.56	3,000 pcs.	Yellow (YE)	533-65024
TLFD95DS-2X25WH	9.88	4.8	25.0	0.59	5,000 pcs.	White (WH)	533-65009
TLFD95DS-2X25YE	9.88	4.8	25.0	0.59	5,000 pcs.	Yellow (YE)	533-65027
TLFD95DS-1X50WH	9.88	4.8	50.0	0.59	2,500 pcs.	White (WH)	533-65008
TLFD95DS-1X50YE	9.88	4.8	50.0	0.59	2,500 pcs.	Yellow (YE)	533-65026
TLFD127DS-2X25WH	13.14	6.4	25.0	0.60	3,000 pcs.	White (WH)	533-65011
TLFD127DS-2X25YE	13.14	6.4	25.0	0.60	3,000 pcs.	Yellow (YE)	533-65029
TLFD127DS-1X50WH	13.14	6.4	50.0	0.60	1,500 pcs.	White (WH)	533-65010
TLFD127DS-1X50YE	13.14	6.4	50.0	0.60	1,500 pcs.	Yellow (YE)	533-65028
TLFD190DS-2X25WH	19.70	9.6	25.0	0.62	3,000 pcs.	White (WH)	533-65013
TLFD190DS-2X25YE	19.70	9.6	25.0	0.62	3,000 pcs.	Yellow (YE)	533-65031
TLFD190DS-1X50WH	19.70	9.6	50.0	0.62	1,500 pcs.	White (WH)	533-65012
TLFD190DS-1X50YE	19.70	9.6	50.0	0.62	1,500 pcs.	Yellow (YE)	533-65030
TLFD254DS-2X25WH	26.25	12.7	25.0	0.63	2,000 pcs.	White (WH)	533-65015
TLFD254DS-2X25YE	26.25	12.7	25.0	0.63	2,000 pcs.	Yellow (YE)	533-65033
TLFD254DS-1X50WH	26.25	12.7	50.0	0.63	1,000 pcs.	White (WH)	533-65014
TLFD254DS-1X50YE	26.25	12.7	50.0	0.63	1,000 pcs.	Yellow (YE)	533-65032
TLFD381DS-2X25WH	39.29	19.1	25.0	0.64	1,000 pcs.	White (WH)	533-65017
TLFD381DS-2X25YE	39.29	19.1	25.0	0.64	1,000 pcs.	Yellow (YE)	533-65035
TLFD381DS-1X50WH	39.29	19.1	50.0	0.64	500 pcs.	White (WH)	533-65016
TLFD381DS-1X50YE	39.29	19.1	50.0	0.64	500 pcs.	Yellow (YE)	533-65034

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

EN 45545-2   EN 50343 App. H

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton
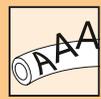
Identification tags for cable bundle, thermal transfer

TIPTAG HF – Rail Limited Fire Hazard, Halogen free

The Tiptag HF cable markers have 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 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 and ribbons for 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
Thermal Transfer Printer	TT430, TT4030
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   LFH ✓

RoHS ✓
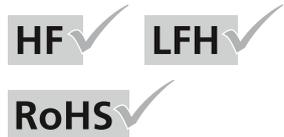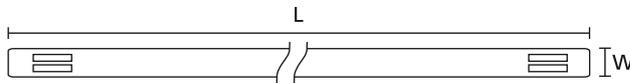
TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TIPTAG11X65BU	65.0	11.0	190 pcs.	Blue (BU)	556-20066
TIPTAG11X65GN	65.0	11.0	190 pcs.	Green (GN)	556-20065
TIPTAG11X65OG	65.0	11.0	190 pcs.	Orange (OG)	556-20063
TIPTAG11X65RD	65.0	11.0	190 pcs.	Red (RD)	556-20062
TIPTAG11X65WH	65.0	11.0	190 pcs.	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
TIPTAG11X105RD	105.0	11.0	115 pcs.	Red (RD)	556-20072
TIPTAG15BUX105S	105.0	15.0	115 pcs.	Blue (BU)	556-21076
TIPTAG15X105GN	105.0	15.0	115 pcs.	Green (GN)	556-21075

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.

EN 45545-2   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Identification tags for cable bundle „Ladder Style", thermal transfer

TAGLF – Rail - Limited Fire Hazard Tiptags

TAGLF is a halogen free cable marker for mass transit applications specifically in the railway industry or for all areas where limited fire hazard material is needed. TAGLF's material properties show low smoke propagation, density and toxicity. They are supplied pre-cut and have been formatted into a convenient „ladder" system. Simply print and press out the required TAGLF and apply with cable ties, they are also suitable for retrofit purposes.

Print with HellermannTyton's premium range of thermal printers and ribbons or a laser beam marking device.

Features and benefits
- Limited fire hazard cable marker
- Halogen free
- For larger cables and wires, bundles
- Thermal transfer or laser beam printable
- Good mechanical strength and highly flexible
- Delivered on reel in convenient storage boxes

Limited fire hazard identification tags TAGLF.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-40 °C to +105 °C
Flammability	self-extinguishing
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT430, TT4030
Oxygen Index	34.4 %
EN 45545-2 Classification	R22 HL3, R23 HL3

HF ✓   RoHS ✓

TAG10x51-4   TAG20x51-4   TAG20x51-6
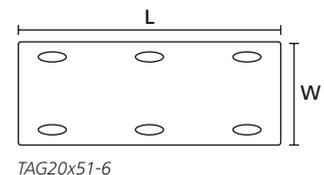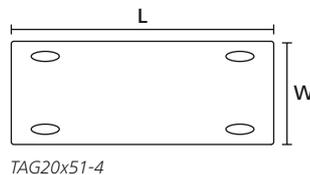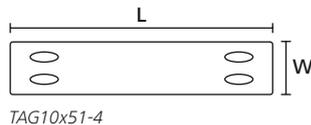
TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TAGLF10X51-4WH	51.0	10.0	400 pcs.	White (WH)	556-83006
	51.0	10.0	2,000 pcs.	White (WH)	556-83000
TAGLF10X51-4YE	51.0	10.0	400 pcs.	Yellow (YE)	556-83007
	51.0	10.0	2,000 pcs.	Yellow (YE)	556-83001
TAGLF20X51-4WH	51.0	20.0	200 pcs.	White (WH)	556-83008
	51.0	20.0	1,000 pcs.	White (WH)	556-83002
TAGLF20X51-4YE	51.0	20.0	200 pcs.	Yellow (YE)	556-83009
	51.0	20.0	1,000 pcs.	Yellow (YE)	556-83003
TAGLF20X51-6WH	51.0	20.0	200 pcs.	White (WH)	556-83010
	51.0	20.0	1,000 pcs.	White (WH)	556-83004
TAGLF20X51-6YE	51.0	20.0	200 pcs.	Yellow (YE)	556-83011
	51.0	20.0	1,000 pcs.	Yellow (YE)	556-83005

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

EN 45545-2   MIL   SAE

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.
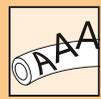
Identification tags for cable bundle „Ladder Style", thermal transfer

TAGDR – Rail - Diesel Resistant Tiptags

TAGDR is a cable marker designed for environments where identification is exposed to organic fluids and oils for long periods at high temperatures. The diesel resistant marker is ideal for rail applications. They are supplied pre-cut and have been formatted into a convenient „ladder" system. Simply print and press out the required TAGDR and apply to cables and harness assemblies with cable ties, they are also suitable for retrofit purposes.

Print with HellermannTyton's premium range of thermal printers and ribbons or a laser beam marking device.

Features and benefits
- Fluid resistant cable marker
- For larger cables and wires, bundles
- Thermal transfer or laser beam printable
- Good mechanical strength and highly flexible
- Delivered on reel in convenient storage boxes

Diesel resistant identification tags TAGDR.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +135 °C
Flammability	ASTM D2671 B
Recommended Ribbon Type	TTDTHOUT
Thermal Transfer Printer	TT430, TT4030

RoHS✓

TAG10x51-4   TAG20x51-4   TAG20x51-6
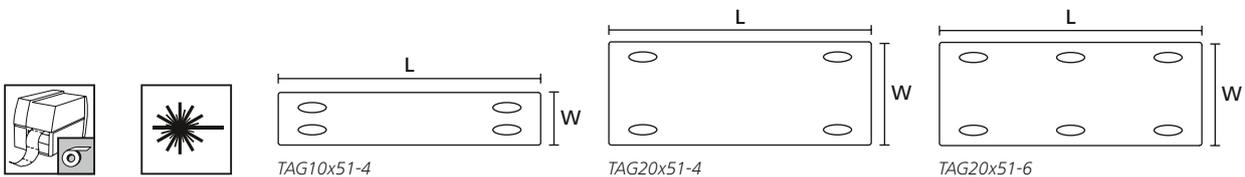
TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TAGDR10X51-4WH	51.0	10.0	2,000 pcs.	White (WH)	556-83500
TAGDR10X51-4YE	51.0	10.0	2,000 pcs.	Yellow (YE)	556-83501
TAGDR20X51-4WH	51.0	20.0	1,000 pcs.	White (WH)	556-83504
TAGDR20X51-4YE	51.0	20.0	1,000 pcs.	Yellow (YE)	556-83505
TAGDR20X51-6WH	51.0	20.0	1,000 pcs.	White (WH)	556-83502
TAGDR20X51-6YE	51.0	20.0	1,000 pcs.	Yellow (YE)	556-83503

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

MIL NF F SAE.   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Thermal transfer printer

TrakMark DS, Double Sided

The TrakMark DS is a high-performance printer for double-sided printing. This printer is perfect for double-sided printing on HellermannTyton shrinkable tubing. With two print heads mounted one on top of the other, the TrakMark DS prints onto both sides of the material at the same time. High reliability and multiple peripherals enable applications and solutions tailored to specific customer requirements. It is easy to use thanks to its display and clear status messages which can be shown in multiple languages. 300 dpi resolution ensures that barcodes, warning symbols, logos and text are as sharp as they can be.

Features and benefits
- High volume double sided printing
- Prints perfectly on HellermannTyton heat shrink ladder style products
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 125 mm/s (30 mm/s recommended for ladder style products and tubing)
- Multiple language selection
- Windows drivers: 32/64 bit for Windows XP, Windows Vista, Windows 7, 8, 10

TrakMark DS printer.

Print Method	Thermal transfer
Print Head Type	300 dpi, flat type
Print Speed	30, 40, 50, 75, 100, 125 mm/s
Max. Print Width	105.6 mm
Label Height Max (metric)	2,000 mm
Interfaces	RS232 C, USB 2.0, Ethernet 10/100 Base T
Supported Barcodes, Printer	Standard, 2D
Printer Memory	64 MB RAM
Dimensions W x H x D	248 mm x 395 mm x 554 mm
Weight	21 kg

One Step to the Web!

RoHS ✓

📄 **Software TagPrint Pro 3.0 for troublefree printing see page 78.**

TYPE	Article-No.
TrakMark DS	556-05000

Subject to technical changes.

TYPE	Description	Article-No.
S4000 Cutter	S4000 Cutter for TT4000+ and TrakMark DS	556-04025
P4000 Perforator	Perforator for TT4000+ and TrakMark DS	556-04024
TT External Reel Holder	External Reel Holder	556-00451

Subject to technical changes.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

Thermal transfer ribbons for heat shrink and Tiptags

TTDTHOUT – Smudge, Scratch, Oil, Benzene and Alcoholic Solvent Resistant

The TTDTHOUT ribbon consists of a special resin composition. In combination with our identification materials the printing is high resistant against high temperatures, scratches and chemicals. 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.

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 tubing and Tiptags.
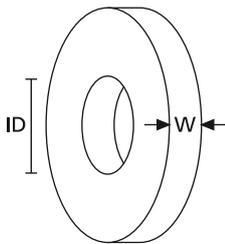
ID: The standard inside core diameter is 25.4 mm.

TYPE	Recommended Material	Colour	Width (W)	Reel Length	Article-No.
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

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

HF ✓   **RoHS** ✓

HellermannTyton

Even big things have small beginnings.

You have to work with what you've got – and that was exactly what our company founder Paul Hellermann did back in 1935. Inspired by the small rubber tube in bicycle valves, he developed a process for binding electric cables with rubber: the Hellermann grommet and three-pronged pliers. The first two of the hundreds of patents filed since then.

MADE FOR REAL⊕

Manual tensioning tool plastic housing

EVO7 up to 4.8 mm strap width

HellermannTyton's EVO7 mechanical hand tool was ergonomically designed to reduce the risks of repetitive stress injuries to operators while concurrently increasing productivity. The EVO7 Tension/Lock/Cut Technology delivers performance, safety and comfort for the operators. Available in a standard grip span (EVO7) or short grip span (EVO7SP), for smaller hands. Additional accessories are available

Features and benefits
• 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
• Extended, slim nose for use in narrow spaces
• Housing made of resilient and lightweight glass fibre-reinforced polyester
• Standard grip span (90 mm) and short grip span (80 mm) available

The EVO7: Maximum performance with minimum effort.

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO7	EVO7	4.8	1.5	0.688 kg	110-70129
EVO7SP	EVO7SP	4.8	1.5	0.672 kg	110-70130
BLADEKIT	Blade-Kit	-	-	0.016 kg	110-70106

All dimensions in mm. Subject to technical changes.

Manual tensioning tool plastic housing

EVO9 up to 13.5 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 (high tension) was designed to apply HellermannTyton cable ties from 120N until 516N with a maximum width of 13.5 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-technology)
• Convenient and simple tension adjustment
• Integrated 3 position quick adjustment override (EVO9/EVO9SP/EVO9HT)
• Housing made of resilient and lightweight glass fibre-reinforced polyester

The EVO9 with TLC technology.

TYPE	Description	Strap Width max.	Strap Thickness max.	Weight	Article-No.
EVO9	EVO9	13.5	2.0	0.719 kg	110-80002
EVO9SP	EVO9SP	13.5	2.0	0.719 kg	110-80003
EVO9HT	EVO9HT	13.5	2.0	0.719 kg	110-80017
Replacement Blade	EVO9 Blade	-	-	-	110-80037

All dimensions in mm. Subject to technical changes.

HellermannTyton

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. In combination with KR cable ties this system offers high vibration resistance. One reason for customers in the railway and automotive industry to take this system as a preferred solution.

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 6 mm or 8 mm straps

The manual tensioning tool KR6/8 for KR-Series cable ties.

TYPE	Description	Article-No.
KR6/8	KR6/8	121-00680
SP KR6/8 replacement blade	Replacement blade	122-68019

All dimensions in mm. 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 cartridige: approx. 1.5 hours
• With easy Piezo ignition

One Step to the Web!

E4500 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.

Hellermann Tyton

HellermannTyton

Our product range for railway infrastructure

We offer a wide range of solutions to help you create or maintain the railway infrastructure. We adapt your needs and supply products that conform to your requirements. Whether you need to identify cables in a metro station or under extreme conditions outdoors, we can supply you with the solution that fits. Halogen free, flame retardant, low or high temperature, plastic or metal, we will be more than happy to help you select the right product for your application.

Our products for Infrastructure
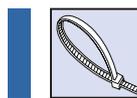
Cable Ties and Fixings
Page 54

Insulation
Page 59

Identification Systems
Page 67

Cable ties with ball-lock

MBT-Series, stainless steel 304

Metal ties are ideal for all applications that require high strength, reliability and fire resistance. The MBT 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. MBT ties are also suitable for machine building, construction and in the outside area of radio technology. Additionally MBT ties are ideal for securing lighting in theatres and exhibition halls.

Features and benefits

- Cable ties MBT, made from stainless steel 304
- Non-releasable locking feature
- Corrosion resistant
- Weather resistant
- Outstanding chemical resistance
- High temperature resistant
- Non-burning

Stainless steel cable ties, uncoated, MBT_SS, MBT_HS.

MATERIAL	Stainless Steel (SS304)
Operating Temperature	-80 °C to +538 °C
Flammability	non-burning
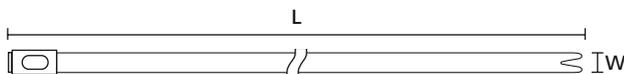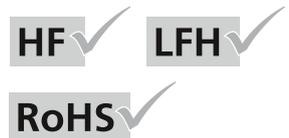
HF ✓ LFH ✓

RoHS ✓

MBT-Series 4.6 mm and 7.9 mm width
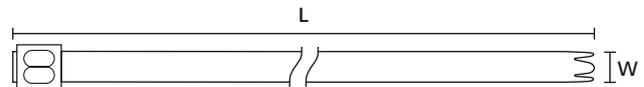
MBT-Series 12.3 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT5SS	4.6	127.0	12.0	25.0	900	SS304	100 pcs.	15-18	111-93058
MBT8SS	4.6	201.0	17.0	50.0	900	SS304	100 pcs.	15-18	111-93088
MBT14SS	4.6	362.0	17.0	102.0	900	SS304	100 pcs.	15-18	111-93148
MBT20SS	4.6	521.0	17.0	152.0	900	SS304	100 pcs.	15-18	111-93208
MBT14HS	7.9	362.0	17.0	102.0	2,000	SS304	50 pcs.	15-18	111-94148
MBT20HS	7.9	521.0	17.0	152.0	2,000	SS304	50 pcs.	15-18	111-94208
MBT33HS	7.9	838.0	17.0	254.0	2,000	SS304	50 pcs.	15-18	111-94338

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

Recommended Tools			
15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Cable ties with ball-lock

MBT-Series, stainless steel 316

Metal ties are predestined for all areas with requirements for high holding force, reliability and fire resistance. The MBT range of stainless steel cable ties can be used in chemical industry and on oil platform as well as in mass transit, shipbuilding and mining industry. MBT ties are also suitable for machine building, apparatus construction and in the outside area of radio technology. Additionally MBT ties are a good solution to fix lighting in theatres and exhibition halls.

Features and benefits

• MBT cable ties made from stainless steel 316
• Non-releasable locking feature
• Corrosion resistant
• Weather resistant
• Outstanding chemical resistance
• High temperature resistant
• Non-burning

Stainless steel cable ties, uncoated, MBT_S, MBT_H.

| MATERIAL	Stainless Steel (SS316)
Operating Temperature	-80 °C to +538 °C
Flammability	non-burning

HF ✓   **LFH** ✓

RoHS ✓
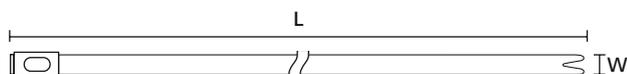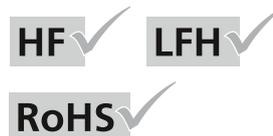
MBT-Series 4.6 mm and 7.9 mm width
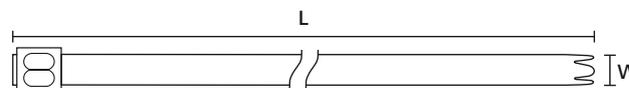
MBT-Series 12.3 mm width

TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	[N]	Material	Pack Cont.	Tools	Article-No.
MBT5S	4.6	127.0	12.0	25.0	900	SS316	100 pcs.	15-18	111-93059
MBT8S	4.6	201.0	12.0	50.0	900	SS316	100 pcs.	15-18	111-93089
MBT14S	4.6	362.0	12.0	102.0	900	SS316	100 pcs.	15-18	111-93149
MBT20S	4.6	521.0	12.0	152.0	900	SS316	100 pcs.	15-18	111-93209
MBT14H	7.9	362.0	12.0	102.0	2,000	SS316	50 pcs.	15-18	111-94149
MBT20H	7.9	521.0	12.0	152.0	2,000	SS316	50 pcs.	15-18	111-94209
MBT27H	7.9	685.0	12.0	203.0	2,000	SS316	50 pcs.	15-18	111-94279
MBT33H	7.9	838.0	12.0	254.0	2,000	SS316	50 pcs.	15-18	111-94339
MBT14XH	12.3	362.0	12.0	102.0	2,700	SS316	50 pcs.	15-18	111-95149

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

Recommended Tools			
15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

ABS FOUNDED 1862   BUREAU VERITAS   **DNV·GL**

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Cable ties with ball-lock and coating

MBT-FC-Series, stainless steel 316

The MBT range of stainless steel cable ties can be used in the most arduous of conditions or where the additional security, strength and fire resistance of a metal fixing is required. Used in all industries from mass transit, ship building, oil rigs, mining and chemical 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. Fully coated ties can also be used to avoid any reflection. An important consideration for instance in the defence industry.

Features and benefits

• Fully coated MBT, made from type 316 stainless steel with polyester coating
• Non-releasable locking feature
• Coated cable tie with smooth edges
• Comfortable handling and installation
• Eliminates contact corrosion between dissimilar materials during application

Stainless steel cable ties, coated, MBT_SFC, MBT_HFC.

MATERIAL	Stainless Steel (SS316), Polyester (SP)
Operating Temperature	-80 °C to +538 °C
Operating Temperature Coating	-50 °C to +150 °C
Flammability	non-burning (except coating)
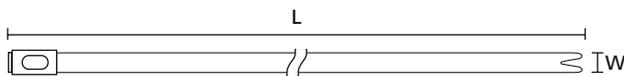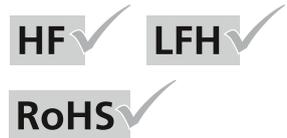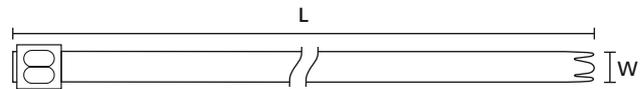
HF ✓   LFH ✓

RoHS ✓

MBT-Series 4.6 mm and 7.9 mm width

MBT-Series 12.3 mm width

| TYPE	Width (W)	Length (L)	Bundle Ø min.	Bundle Ø max.	N	Material	Pack Cont.	Tools	Article-No.
MBT5SFC	4.6	127.0	15.0	25.0	540	SS316, SP	100 pcs.	15-18	111-00288
MBT8SFC	4.6	201.0	17.0	50.0	540	SS316, SP	100 pcs.	15-18	111-00289
MBT14SFC	4.6	362.0	17.0	102.0	540	SS316, SP	100 pcs.	15-18	111-00290
MBT20SFC	4.6	521.0	17.0	152.0	540	SS316, SP	100 pcs.	15-18	111-00291
MBT8HFC	7.9	201.0	17.0	50.0	1,020	SS316, SP	50 pcs.	15-18	111-00294
MBT14HFC	7.9	362.0	17.0	102.0	1,020	SS316, SP	50 pcs.	15-18	111-00295
MBT20HFC	7.9	521.0	17.0	152.0	1,020	SS316, SP	50 pcs.	15-18	111-00296
MBT27HFC	7.9	681.0	17.0	203.0	1,020	SS316, SP	50 pcs.	15-18	111-00297
MBT33HFC	7.9	838.0	17.0	254.0	1,020	SS316, SP	50 pcs.	15-18	111-00298

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

Recommended Tools			
15	16	17	18
MK9SST	MK9PSST	HDT16	KST-STG200

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

HellermannTyton

Protective channel for stainless steel ties

LFPC-Series

When used in conjunction with the MBT, MST, MLT and AMT range of stainless steel cable ties this channel gives the cable protection against chafing, vibration and shock. Ideal for use in arduous conditions such as those found on board ships, oil rigs or in nuclear power stations.

Features and benefits

- LFPC channel, manufactured from Polyolefin
- Works with MBT-, MST-, MLT- and AMT-Series
- Smooth surface protects bundle against chafing caused by vibrations and shocks
- Can be cut from roll to any length
- Halogenfree
- Flame retardant

Protective channel LFPC, polyolefin, black.

MATERIAL	Polyolefin (PO)
Colour	Black (BK)
Operating Temperature	-40 °C to +90 °C, (+160 °C, for 200 h)
Flammability	UL 94 V0

HF ✓   LFH ✓

RoHS ✓
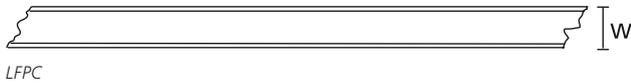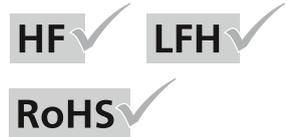
LFPC

TYPE	Width (W)	For Ties	Material	Pack Cont.	Article-No.
LFPC70	7.0	MBTS	PO	25 m	111-93000
LFPC83	8.3	MBTH	PO	25 m	111-00257
LFPC103	10.3	MBTH	PO	25 m	111-94000
LFPC129	12.9	MBTXH	PO	50 m	111-00253
LFPC132	13.2	MBTXH	PO	25 m	111-00254
LFPC150	15.0	MBTXH	PO	25 m	111-95000

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

DEF STAN   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Screw Fixing Mounts

Stainless Steel 316 mounts

Suitable for the secure fixing of cables, tubing, conduits and pipes within the most arduous of environments. Providing a complete fastening and fixing solution when used in conjunction with stainless steel ties up to 10.0 mm width. SSPC metal cable tie mounts are ideal for use within shipbuilding, oil and gas (offshore), industrial machinery and vehicles, food and beverage, power, renewable energy or process industries.

Features and benefits
- 2-way fixing for metal cable ties
- High performance stainless steel 316 material
- Heavy duty design
- Robust and durable solution
- Resistant to a range of chemicals in challenging environments
- Quick and easy to install
- Safe and secure solution for cables, tubing, conduits and pipes

Stainless Steel P-Mount SSPC for use in arduous environments.

MATERIAL	Stainless Steel (SS316)
Operating Temperature	-80 °C to +538 °C
Flammability	non-burning

HF ✓   LFH ✓

RoHS ✓
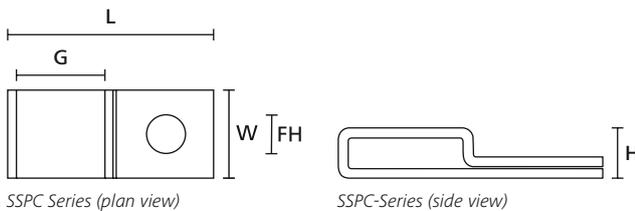
SSPC Series (plan view)

SSPC-Series (side view)

One Step to the Web!

TYPE	Width (W)	Length (L)	Height (H)	Hole Ø (FH)	Strap Width max. (G)	Material	Colour	Pack Cont.	Article-No.
SSPC4	10.2	23.0	4.5	4,2	10.0	SS316	Metal (ML)	100 pcs.	151-00837
SSPC5	10.2	23.0	4.5	5,3	10.0	SS316	Metal (ML)	100 pcs.	151-00838
SSPC6	10.2	23.0	4.5	6,3	10.0	SS316	Metal (ML)	100 pcs.	151-00839

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

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	MK9SST	16.0	0.5	0.64 kg	110-95000
SP MK9SST replacement blade	Replacement Blade	-	-	0.01 kg	110-95273

All dimensions in mm. Subject to technical changes.

Heat shrinkable straight-through joint with mechanical connectors

LVK-C - adhesive lined

LVK-C is a heat shrinkable straight-through joint for universal connecting of unarmoured polymeric cables or conductors insulated with PVC, PE and XLPE. With mechanical connectors for aluminium or copper cables. Voltage level 0.6/1.0 (1.2) kV.

Features and benefits
- Universally suitable to connect cables and conductors
- Immediately ready for use
- Using a high-quality thermoplastic inner adhesive
- Good corrosion protection properties with excellent abrasion resistance and weather resistance
- TCP (thermo chromatic paint) spots indicate the sleeve has been sufficiently heated
- Resistant to chemical agents and alkaline earths
- Excellent shrink behavior
- High UV resistance
- With mechanical connectors
- Halogen free

Content of Set / Kit
Outer sleeve, inner sleeves, mechanical connectors, cleaning cloth, emery cloth, installation instructions

LVK-C - Heat shrinkable straight-through joint with connectors.

MATERIAL	Polyolefin, cross-linked (PO-X)
Colour	Black (BK)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+105 °C
Longitudinal Change After Shrinkage	-10 % max.
Dielectric Strength	20 kV/mm according to ASTM D 2671

HF ✓   RoHS ✓
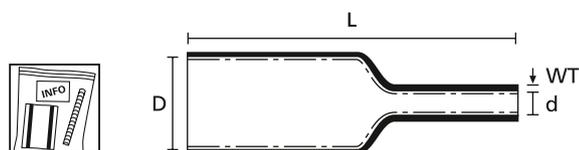
Heat Shrinkable Tubing 4:1 with adhesive

i LVK without connectors!

TYPE	No. of Inner sleeves	Conductor Size Range mm²	Inner Tubing Supplied Ø D min.	Inner Tubing Recov. Ø d max.	Inner Tubing Length (L)	Outer Tubing Supplied Ø D min.	Outer Tubing Recov. Ø d max.	Outer Tubing Length (L)	Article-No.
LVK-4x16-50	4	16-50	22.0	6.0	170.0	55.0	16.0	550.0	380-04008
LVK-C-4x16-50	4	16-50	22.0	6.0	170.0	55.0	16.0	550.0	380-04016
LVK-4x25-150	4	25-150	33.0	8.0	250.0	105.0	25.0	800.0	380-04010
LVK-C-4x25-150	4	25-150	33.0	8.0	250.0	105.0	25.0	800.0	380-04018
LVK-4x25-95	4	25-95	33.0	8.0	250.0	75.0	20.0	800.0	380-04009
LVK-C-4x25-95	4	25-95	33.0	8.0	250.0	75.0	20.0	800.0	380-04017
LVK-4x95-300	4	95-300	40.0	12.0	280.0	130.0	35.0	900.0	380-04011
LVK-5x1.5-16	5	1,5-16	19.0	3.2	125.0	48.0	12.0	450.0	380-04006
LVK-C-5x1.5-16	5	1,5-16	19.0	3.2	125.0	48.0	12.0	450.0	380-04014
LVK-5x1.5-6	5	1,5-6	12.0	3.0	70.0	48.0	12.0	250.0	380-04005
LVK-C-5x1.5-6	5	1,5-6	12.0	3.0	70.0	48.0	12.0	250.0	380-04013
LVK-5x6-25	5	6-25	22.0	6.0	125.0	55.0	16.0	500.0	380-04007
LVK-C-5x6-25	5	6-25	22.0	6.0	125.0	55.0	16.0	500.0	380-04015

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

Heat shrinkable cable repair sleeves

RMS

RMS wrap-around sleeves are closed with a steel channel. 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 in custom lengths on request
- 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

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

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 retardant

HF ✓   RoHS ✓
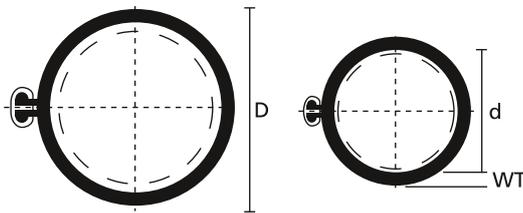
Cable Repair Sleeve RMS with adhesive

Application video: RMS

TYPE	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Suitable for Cable Ø from/to	Length (L)	Colour	Article-No.
RMS 43-10	43.0	10.0	2.30	15 - 35	250.0	Black (BK)	450-20000
	43.0	10.0	2.30	15 - 35	500.0	Black (BK)	450-20001
	43.0	10.0	2.30	15 - 35	750.0	Black (BK)	450-20004
	43.0	10.0	2.30	15 - 35	1,000.0	Black (BK)	450-20002
RMS 52-15	52.0	15.0	2.30	20 - 45	250.0	Black (BK)	450-20010
	52.0	15.0	2.30	20 - 45	500.0	Black (BK)	450-20011
	52.0	15.0	2.30	20 - 45	750.0	Black (BK)	450-20014
	52.0	15.0	2.30	20 - 45	1,000.0	Black (BK)	450-20012
RMS 76-22	76.0	22.0	2.50	28 - 65	500.0	Black (BK)	450-20021
	76.0	22.0	2.50	28 - 65	750.0	Black (BK)	450-20024
	76.0	22.0	2.50	28 - 65	1,000.0	Black (BK)	450-20022
RMS 100-30	100.0	30.0	2.54	35 - 85	500.0	Black (BK)	450-20030
	100.0	30.0	2.54	35 - 85	1,000.0	Black (BK)	450-20031
RMS 139-38	139.0	38.0	2.77	45 - 120	1,000.0	Black (BK)	450-20041
RMS 185-55	185.0	55.0	2.74	65 - 160	1,000.0	Black (BK)	450-20050

All dimensions in mm. Subject to technical changes.

HellermannTyton

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: Connections in industrial buildings, power supply in the ground, outdoors and in the water.

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
- Two-chamber pouch, transparent
- Moulding shells, transparent
- SF-system and nozzle
- Protective gloves, emery cloth, installation instructions
- HelaTape vinyl electrical 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 ✓
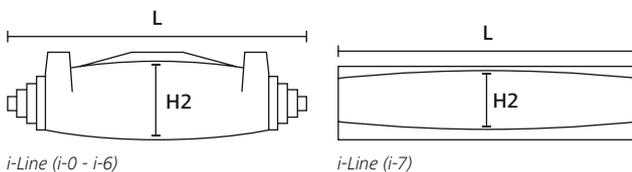
Without connector!

Application video: RELICON cable jointing

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

i-Line (i-7)

TYPE	Ø Main Cable	Main Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Article-No.
i-0 / SF EMEA	7-16	3 x 1.5	5 x 2.5	182.0	25.0	95 ml/130 g	435-12019
i-1 / SF EMEA	8-24	3 x 1.5	4 x 10 / 5 x 6	190.0	36.0	165 ml/226 g	435-12000
i-1.5 / SF EMEA	8-24	3 x 1.5	4 x 16 / 5 x 10	215.0	39.0	220 ml/301 g	435-12001
i-2 / SF EMEA	14-30	5 x 1.5	4 x 25 / 5 x 16	276.0	49.0	400 ml/548 g	435-12002
i-3 / SF EMEA	23-35	5 x 10	4 x 50 / 5 x 35	360.0	54.0	655 ml/897 g	435-12003
i-4 / SF EMEA	28-47	4 x 25	4 x 95	400.0	69.0	1140 ml/1562 g	435-12004
i-5 / SF EMEA	33-55	4 x 50	4 x 150	520.0	100.0	2 x 1450 ml/1987 g	435-12005
i-6 / SF EMEA	48-70	4 x 150	4 x 240	700.0	128.0	4 x 1640 ml/2247 g	435-12006
i-7 / SF EMEA	55-77	4 x 185	4 x 400	870.0	140.0	5 x 1950 ml/2672 g	435-12007

All dimensions in mm. Subject to technical changes.

Infrastructure

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 vinyl electrical tape
- Connector block with 5 screw connectors incl. allen key

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

SV-Connector blocks.

i	**With connector!**

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-Linie Premium

TYPE	Ø Main Cable	Main Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Article-No.
i-1 Premium SF EMEA	8-24	3 x 1.5	5 x 6	190.0	36.0	165 ml/226 g	435-12020
i-2 Premium SF EMEA	14-30	5 x 1.5	5 x 16	276.0	49.0	400 ml/548 g	435-12021
i-3 Premium SF EMEA	23-35	5 x 6	5 x 35	360.0	54.0	655 ml/897 g	435-12022

All dimensions in mm. Subject to technical changes.

HellermannTyton

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 vinyl electrical tape

Branch joint Y-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	**Without branch connector!**
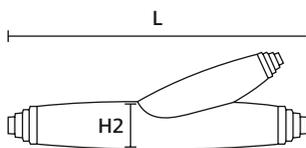
Y-Line

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Angle	Branch Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Article-No.
Y-1 / SF EMEA	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	435-12009
Y-0 / SF EMEA	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	435-12008
Y-3 / SF EMEA	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	435-12023
Y-2 / SF EMEA	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	435-12010
Y-6 / SF EMEA	30-55	4 x 95	4 x 185	17-40	20 °	4 x 10	4 x 70	430.0	130.0	2 x 1450 ml/ 1987 g	435-12012
Y-5 / SF EMEA	35-51	4 x 25	4 x 150	17-33	15 °	4 x 10	4 x 50	298.0	120.0	2045 ml/2802 g	435-12011

All dimensions in mm. Subject to technical changes.

Branch joints

RELICON T-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 vinyl electrical tape

Branch joint T-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✓
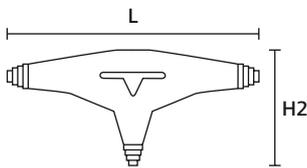
T-Line

ℹ Without branch connector!

TYPE	Ø Main Cable	Main Cable mm² min - max		Ø Branch Cable	Angle	Branch Cable mm² min - max		Length (L)	Height (H2)	Resin Quantity	Article-No.
T-1 / SF EMEA	16-26	5 x 1.5	5 x 10	10-24	90 °	3 x 1.5	5 x 6	276.0	177.0	455 ml/623 g	435-12024
T-2 / SF EMEA	25-32	5 x 6	5 x 16	18-25	90 °	5 x 1.5	5 x 10	380.0	225.0	2045 ml/2802 g	435-12025
T-3 / SF EMEA	29-40	5 x 10	5 x 50	20-30	90 °	5 x 6	5 x 16	520.0	205.0	2 x 1450 ml/1987 g	435-12026

All dimensions in mm. Subject to technical changes.

HellermannTyton

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/m²
Shore Hardness D	65±5
Storage Temperature	+4 °C to +40 °C
Shelf Life	48 months

HF✓   RoHS✓

TYPE	Resin Quantity	Article-No.
Resin-33-B-SF	95 ml/130 g	435-00250
	240 ml/329 g	435-00251
	490 ml/671 g	435-00252
	655 ml/897 g	435-00253
	955 ml/1308 g	435-00254
	1140 ml/1562 g	435-00255
	1445 ml/1980 g	435-00256
	1640 ml/2247 g	435-00257
	1950 ml/2672 g	435-00258
	2045 ml/2802 g	435-00259

All dimensions in mm. Subject to technical changes.

RELICON Religel Clear

Religel Clear

RELICON Religel Clear is a transparent, soft elastic two-component silicone gel. It is packed in practical bottles or canisters including measuring cup and mixing stick.

LED potting technology, Encapsulation of printed circuit boards, Installation of electrical connections, Belowground or submerged, Model-making and hobby applications

Features and benefits
- Optimal visual control through transparent material
- Crystal clear gel after curing, excellent insulating properties, suitable for LED applications
- Multiple use possible, mixing ratio 1:1
- Excellent flow and insulating properties
- Excellent moisture and chemical resistance
- Soft elastic, vibration absorbing and removable residue-free

RELICON Religel Clear, Transparent and heat-resistant two-component silicone gel

MATERIAL	Silicone gel Religel (SIG)
Colour	Transparent (CL)
Operating Temperature	-60 °C to +200 °C
Gel Time	20 min. 23 °C
Dielectric Strength	24,5 kV/mm
Shelf Life	Unlimited

HF ✓   RoHS ✓

TYPE	Pack Cont.	Article-No.
Religel Clear 500	500 ml	435-00757
Religel Clear 1.000	1,000 ml	435-00754
Religel Clear 10.000	10,000 ml	435-00755

RELICON Religel Plus

RELICON Religel Plus
Fast curing and heat resistant two-component silicone gel

Electrical insulation in low-voltage applications, Encapsulation of cables and wires in junction boxes, Building and household installations, Belowground, submerged

Features and benefits
- Timesaving due to fast curing time
- Stable up to 200 °C
- Visual control of the homogenous mixture indicated by green-coloured component B
- Multiple use possible, mixing ratio 1:1
- Excellent flow and insulating properties
- Excellent moisture and chemical resistance
- Soft elastic, vibration absorbing and removable residue-free

MATERIAL	Silicone gel Religel (SIG)
Colour	Green (GN), Transparent (CL)
Operating Temperature	-60 °C to +200 °C
Gel Time	10 min. 40 °C
Pot Life	5 min. 23 °C
Dielectric Strength	25,5 kV/mm
Shelf Life	Unlimited

HF ✓   RoHS ✓

TYPE	Pack Cont.	Article-No.
Religel Plus 500	500 ml	435-00756
Religel Plus 1.000	1,000 ml	435-00752
Religel Plus 10.000	10,000 ml	435-00753
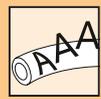
Identification tags for cable bundle, thermal transfer

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 – printed mark has a tattoo-like permanency.

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

RoHS✓
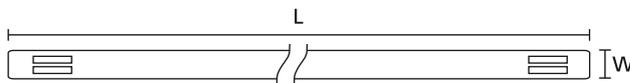
TYPE	Length (L)	Width (W)	Pack Cont.	Colour	Article-No.
TTAGPU11X65WH	65.0	11.0	190 pcs.	White (WH)	556-25012
TTAGPU11X65YE	65.0	11.0	190 pcs.	Yellow (YE)	556-25019
TTAGPU15X65WH	65.0	15.0	190 pcs.	White (WH)	556-25007
TTAGPU15X65YE	65.0	15.0	190 pcs.	Yellow (YE)	556-25011
TTAGPU11X100WH	100.0	11.0	125 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.

Self-laminating labels, thermal transfer

Helatag 1209 (White-Transparent)

These labels are ideal identifying cables and wire. They consist of a printable area plus a lamination function for protection of print text against humidity, dirt, debris and mechanical abrasion. Due to its flexibility these labels are also suitable for flat ribbon cables.

Features and benefits

- High-quality self-laminating labels
- Suitable for marking of wires and cables
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Rounded edge design gives additional bonding strength

Helatag 1209 offers an excellent protection against abrasion and environmental impact.

MATERIAL	Type 1209, Vinyl (PVC), white (WH), transparent (CL)
Operating Temperature	-20 °C to +80 °C
Curing Temperature	from 0 °C
Adhesive	Acrylic
Thickness of Foil	90 µm
Chem. Material Properties	Resistant to water, alcohol, most oils, greases, fuel, aliphatic solvents, weak acids, salts and alkalis.
Recommended Ribbon Type	TT932DOUT
Thermal Transfer Printer	TT430, TT4030
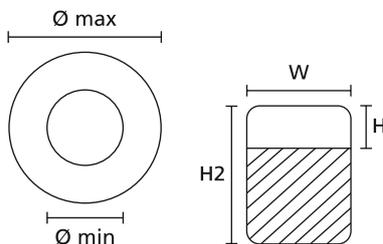
RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG51TD3-1209-WHCL	1.4	3.0	25.4	8.8	19.1	85.0	3 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-12091
TAG26TD6-1209-WHCL	1.5	3.0	12.7	9.5	19.1	85.0	6 pcs.	10,000 pcs.	White (WH), Transparent (CL)	596-12096
TAG36TD7-1209-WHCL	2.0	4.7	12.7	9.0	23.8	95.0	7 pcs.	10,000 pcs.	White (WH), Transparent (CL)	596-12097
TAG2TD6-1209-WHCL	3.5	7.6	12.7	12.7	36.5	82.0	6 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-61209
TAG22TD3-1209-WHCL	3.5	7.6	25.4	12.7	36.5	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-32091
TAG24TD1-1209-WHCL	3.5	7.6	50.8	12.7	36.5	55.0	1 pc.	1,000 pcs.	White (WH), Transparent (CL)	596-12094

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.

HellermannTyton

Self-laminating labels, thermal transfer
Helatag 1209 (White-Transparent)

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG23TD5-1209-WHCL	4.5	10.0	19.1	12.7	44.5	101.6	5 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-12095
TAG25TD3-1209-WHCL	4.5	10.0	25.4	12.7	44.5	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-51209
TAG9TD3-1209-WHCL	5.5	12.1	25.4	19.1	57.1	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-91209
TAG10TD2-1209-WHCL	5.5	12.1	49.5	19.1	57.1	101.6	2 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-12090
TAG91TD1-1209-WHCL	8.0	16.0	70.0	35.0	85.0	74.0	1 pc.	500 pcs.	White (WH), Transparent (CL)	596-41209
TAG1TD2-1209-WHCL	8.5	18.2	48.2	19.1	79.2	101.6	2 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-21209
TAG3TD3-1209-WHCL	10.0	22.2	25.4	25.4	95.3	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-31209
TAG6TD1-1209-WHCL	10.0	22.2	50.8	25.4	95.3	55.0	1 pc.	500 pcs.	White (WH), Transparent (CL)	596-11209
TAG107TD3-1209-WHCL	12.0	37.5	25.4	31.8	149.9	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-01209
TAG38TD3-1209-WHCL	20.8	47.5	25.4	38.1	187.2	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-12098
TAG07TD1-1209-WHCL	20.8	47.5	50.8	25.4	187.2	55.0	1 pc.	250 pcs.	White (WH), Transparent (CL)	596-71209

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.

Infrastructure

Self-laminating labels, thermal transfer
Helatag 323 (White-Transparent), high temperature

This self-laminating label consists of a printable area plus a lamination function for protection of print text against humidity, dirt, debris and mechanical abrasion. It is ideally suited for wire and cable marking in both high temperature and outside environments, particular used in industry as well as military technology.

Features and benefits
- High temperature self-laminating labels with an inscription field
- Extremely scratch and chemical resistant
- Protective laminating foil ensures optimal protection against humidity, dirt, debris, and mechanical abrasion
- Survives 5 years external weathering in central European climate

Easy marking of flexible, semi-rigid and rigid cables and wires.

MATERIAL	Type 323, Polyvinylidene Fluoride (PVDF)
Operating Temperature	-40 °C to +140 °C, intermittent +160 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	25 µm
Chem. Material Properties	Excellent resistance against water, UV radiation, weather influence and solvents based on petroleum.
Recommended Ribbon Type	TT932DOUT
Thermal Transfer Printer	TT430, TT4030
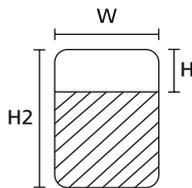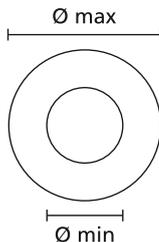
RoHS ✓

TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG51TD3-323-WHCL	1.4	3.0	25.4	8.8	19.1	85.0	3 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-51320
TAG26TD6-323-WHCL	1.5	3.0	12.7	9.5	19.1	85.0	6 pcs.	10,000 pcs.	White (WH), Transparent (CL)	596-26320
TAG36TD7-323-WHCL	2.0	4.7	12.7	9.0	23.8	95.0	7 pcs.	10,000 pcs.	White (WH), Transparent (CL)	596-36320
TAG24TD1-323-WHCL	3.5	7.6	50.8	12.7	36.5	55.0	1 pc.	1,000 pcs.	White (WH), Transparent (CL)	596-24320
TAG2TD6-323-WHCL	3.5	7.6	12.7	12.7	36.5	82.0	6 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-02320
TAG22TD3-323-WHCL	3.5	7.6	25.4	12.7	36.5	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-22320
TAG23TD5-323-WHCL	4.5	10.0	19.1	12.7	44.5	101.6	5 pcs.	5,000 pcs.	White (WH), Transparent (CL)	596-23320
TAG25TD3-323-WHCL	4.5	10.0	25.4	12.7	44.5	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-25320
TAG9TD3-323-WHCL	5.5	12.1	25.4	19.1	57.1	82.0	3 pcs.	2,500 pcs.	White (WH), Transparent (CL)	596-09320
TAG10TD2-323-WHCL	5.5	12.1	49.5	19.1	57.1	101.6	2 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-10320
TAG1TD2-323-WHCL	8.5	18.2	48.2	19.1	79.2	101.6	2 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-01320
TAG3TD3-323-WHCL	10.0	22.2	25.4	25.4	95.3	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-03320
TAG6TD1-323-WHCL	10.0	22.2	50.8	25.4	95.3	55.0	1 pc.	500 pcs.	White (WH), Transparent (CL)	596-06320
TAG107TD3-323-WHCL	12.0	37.5	25.4	31.8	149.9	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-10732
TAG38TD3-323-WHCL	20.8	47.5	25.4	38.1	187.2	82.0	3 pcs.	1,000 pcs.	White (WH), Transparent (CL)	596-38320
TAG07TD1-323-WHCL	20.8	47.5	50.8	25.4	187.2	55.0	1 pc.	250 pcs.	White (WH), Transparent (CL)	596-07320

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.

HellermannTyton
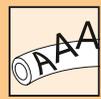
Self-laminating labels, manual marking

RiteOn, Starter Pack, Material 1401 Dispenser

A specially developed material for use in labels required to wrap around cables and wires. The conformable structure of the label ensures that once the label is applied to the wire it remains in place without lifting.

The SPRO200-1401-WH Starter Pack contains all you need to start work identifying your wires:

1 x RiteOn dispenser

1 x RO202 reel of 150 self-laminating labels for cable diameters ranging from 6 mm to 12 mm

1 x T82S-BK black indelible ink marker pen

Features and benefits

- Palm sized hand held self-laminating label dispenser
- Easy to write on and dispense labels
- Wide range of wire diameters covered as standard
- Ideal for low volume maintenance and repair work
- Write text with specially formulated fast-drying ink T82 pens

Easy to write and dispense labels with RiteOn label dispenser.

MATERIAL	Type 1401, Vinyl (PVC)
Operating Temperature	-40 °C to +80 °C
Curing Temperature	from +10 °C
Adhesive	Acrylic
Thickness of Foil	80 µm
Chem. Material Properties	Resistant to water, oil and many solvents.

RoHS✓
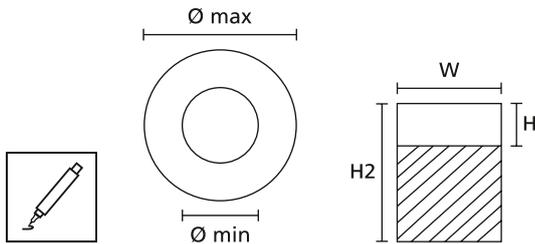
Application video: RiteOn

TYPE	Description	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Pack Cont.	Colour	Article-No.
RO201-1401-WH	Filled dispenser	4.0	8.1	12.7	12.7	38.1	200 pcs.	White (WH), Transparent (CL)	550-14011
RO202-1401-WH		6.1	12.1	19.1	12.7	50.8	150 pcs.	White (WH), Transparent (CL)	550-14012
RO203-1401-WH		9.1	18.2	19.1	25.4	76.2	100 pcs.	White (WH), Transparent (CL)	550-14013
RO201REF-1401-WH	Refill packs	4.0	8.1	12.7	12.7	38.1	200 pcs.	White (WH), Transparent (CL)	550-14014
RO202REF-1401-WH		6.1	12.1	19.1	12.7	50.8	150 pcs.	White (WH), Transparent (CL)	550-11401
RO203REF-1401-WH		9.1	18.2	19.1	25.4	76.2	100 pcs.	White (WH), Transparent (CL)	550-71401
SPRO200-1401-WH	Starter pack	6.1	12.1	19.1	12.7	50.8	150 pcs.	White (WH), Transparent (CL)	550-14010

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.

TYPE	Description	Pack Cont.	Colour	Article-No.
T82S-BK	Indelible Marker Pen	2 pcs.	Black (BK)	500-50820
T82R-RD	Indelible Marker Pen	2 pcs.	Red (RD)	500-50822

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

Self-laminating labels, manual marking

HELASIGN, Material 1402, Booklet

A quick and simple on-site solution, for either permanent or temporary marking of wires, cables and pipes.

Features and benefits

- Self-laminating labels supplied in handy pocket-sized booklets
- Booklet cover protects labels when stored
- Ideal for low volume maintenance and repair work
- Easy to write on and dispense labels
- Laminating function gives excellent protection against humidity and mechanical abrasion
- Applicator tool for clean application enclosed
- Write text with specially formulated fast-drying ink T82 pens

Always on hand: Labels in a convenient, pocket sized and lightweight booklet.

MATERIAL	Type 1402, Vinyl (PVC)
Operating Temperature	-40 °C to +80 °C
Curing Temperature	from +8 °C
Adhesive	Acrylic
Thickness of Foil	80 μm
Chem. Material Properties	Resistant to water, oil and many solvents.

RoHS ✓
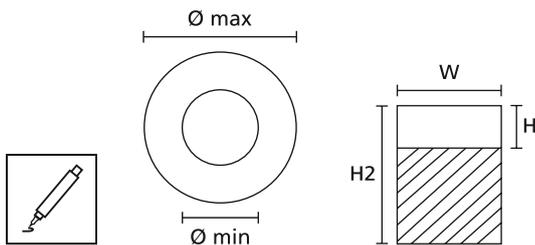
TYPE	Bundle Ø min.	Bundle Ø max.	Width (W)	Height (H)	Height (H2)	Pack Cont.	Colour	Article-No.
HSMB-C1-1402-WH	4.0	8.1	12.7	12.7	38.1	240 pcs.	White (WH), Transparent (CL)	598-14020
HSMB-C2-1402-WH	6.1	12.1	19.1	12.7	50.8	120 pcs.	White (WH), Transparent (CL)	598-14026
HSMB-C3-1402-WH	9.1	18.2	25.4	19.1	76.2	60 pcs.	White (WH), Transparent (CL)	598-21402
HSMB-C4-1402-WH	16.2	32.3	25.4	25.4	127.0	30 pcs.	White (WH), Transparent (CL)	598-40402
HSMB-C5-1402-WH	20.2	40.3	25.4	25.4	152.4	30 pcs.	White (WH), Transparent (CL)	598-50402

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.

TYPE	Description	Pack Cont.	Colour	Article-No.
T82S-BK	Indelible Marker Pen	2 pcs.	Black (BK)	500-50820
T82R-RD	Indelible Marker Pen	2 pcs.	Red (RD)	500-50822

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

HellermannTyton

Panel plate labels, thermal transfer

Helatag 1220 (White)

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. The white glossy colour is suited to industrial control panels, switchgear, data racks and general equipment labelling.

Create crisp and clear professional looking labels by printing with HellermannTyton thermal transfer printers and ribbons.

Simple label design creation is easily achieved using TagPrint Pro.

Features and benefits
- Cost-effective replacement for engraved plastic plates, no need for additional label holder
- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required
- Rounded corners ensure better long term durability of adhesion
- Print high contrast text and barcodes
- Print 'On Site' not order 'Off Site'
- Special sizes and colours are possible on request
- For outstanding chemical resistance use TT122OUT

Panel labels Helatag 1220 – high performance adhesive ensures optimal adhesion to uneven surfaces.

MATERIAL	Type 1220, Polyester (PET), white (WH)
Operating Temperature	-40 °C to +90 °C
Curing Temperature	from +4 °C
Adhesive	Acrylic
Thickness of Foil	625 µm
Chem. Material Properties	Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents.
Recommended Ribbon Type	TT122OUT, TT822OUT
Thermal Transfer Printer	TT430, TT4030

One Step to the Web!

RoHS ✓

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG13-07TDK1-1220-WH	13.0	7.0	21.0	1 pc.	1,000 pcs.	White (WH)	596-00560
TAG22-22TDK1-1220-WH	22.0	22.0	28.0	1 pc.	1,000 pcs.	White (WH)	596-00561
TAG27-08TDK1-1220-WH	27.0	8.0	33.0	1 pc.	1,000 pcs.	White (WH)	596-00562
TAG27-12.5TDK1-1220-WH	27.0	12.5	33.0	1 pc.	1,000 pcs.	White (WH)	596-00558
TAG27-15TDK1-1220-WH	27.0	15.0	33.0	1 pc.	1,000 pcs.	White (WH)	596-00563
TAG27-18TDK1-1220-WH	27.0	18.0	33.0	1 pc.	1,000 pcs.	White (WH)	596-00564
TAG27-27TDK1-1220-WH	27.0	27.0	33.0	1 pc.	1,000 pcs.	White (WH)	596-00565
TAG35-18TDK1-1220-WH	35.0	18.0	41.0	1 pc.	1,000 pcs.	White (WH)	596-00566
TAG45-15TDK1-1220-WH	45.0	15.0	51.0	1 pc.	1,000 pcs.	White (WH)	596-00567
TAG45-25TDK1-1220-WH	45.0	25.0	51.0	1 pc.	1,000 pcs.	White (WH)	596-00568
TAG60-30TDK1-1220-WH	60.0	30.0	66.0	1 pc.	500 pcs.	White (WH)	596-00569
TAG90-45TDK1-1220-WH	90.0	45.0	96.0	1 pc.	500 pcs.	White (WH)	596-00570
TAG100-30TDK1-1220-WH	100.0	30.0	106.0	1 pc.	250 pcs.	White (WH)	596-00571
TAG100-70TDK1-1220-WH	100.0	70.0	106.0	1 pc.	250 pcs.	White (WH)	596-00572

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

Infrastructure

Panel plate labels, thermal transfer

Helatag 1221 (Silver)

Panel labels are durable adhesive labels especially made from a thick material that is designed to replace traditional engraved plastic plates. The silver colour is suited to industrial control panels, switchgear, data racks and general equipment labelling.

Create crisp and clear professional looking labels by printing with HellermannTyton thermal transfer printers and ribbons.

Simple label design creation is easily achieved using TagPrint Pro.

Features and benefits
- Cost-effective replacement for engraved plastic plates, no need for additional label holder
- High performance adhesive and compressible foam backing ensures optimal adhesion to uneven surfaces if required
- Rounded corners ensure better long term durability of adhesion
- Print high contrast text and barcodes
- Print 'On Site' not order 'Off Site'
- Special sizes and colours are possible on request
- For outstanding chemical resistance use TT122OUT

Panel labels are an ideal replacement for engraved plates.

MATERIAL	Type 1221, Polyester (PET), silver (SR)
Operating Temperature	-40 °C to +90 °C
Curing Temperature	from +4 °C
Adhesive	Acrylic
Thickness of Foil	625 µm
Chem. Material Properties	Excellent resistance to ageing, weathering and UV-radiation. Extensive resistance to the influence of chemicals and solvents.
Recommended Ribbon Type	TT122OUT, TT822OUT
Thermal Transfer Printer	TT430, TT4030

RoHS ✓

TYPE	Width (W)	Height (H)	Width of Liner (WL)	Labels per Row	Pack Cont.	Colour	Article-No.
TAG13-07TDK1-1221-SR	13.0	7.0	21.0	1 pc.	1,000 pcs.	Silver (SR)	596-00573
TAG22-22TDK1-1221-SR	22.0	22.0	28.0	1 pc.	1,000 pcs.	Silver (SR)	596-00574
TAG27-08TDK1-1221-SR	27.0	8.0	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00575
TAG27-12.5TDK1-1221-SR	27.0	12.5	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00576
TAG27-15TDK1-1221-SR	27.0	15.0	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00577
TAG27-18TDK1-1221-SR	27.0	18.0	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00578
TAG27-27TDK1-1221-SR	27.0	27.0	33.0	1 pc.	1,000 pcs.	Silver (SR)	596-00579
TAG35-18TDK1-1221-SR	35.0	18.0	41.0	1 pc.	1,000 pcs.	Silver (SR)	596-00580
TAG45-15TDK1-1221-SR	45.0	15.0	51.0	1 pc.	1,000 pcs.	Silver (SR)	596-00581
TAG45-25TDK1-1221-SR	45.0	25.0	51.0	1 pc.	1,000 pcs.	Silver (SR)	596-00582
TAG60-30TDK1-1221-SR	60.0	30.0	66.0	1 pc.	500 pcs.	Silver (SR)	596-00583
TAG90-45TDK1-1221-SR	90.0	45.0	96.0	1 pc.	500 pcs.	Silver (SR)	596-00584
TAG100-30TDK1-1221-SR	100.0	30.0	106.0	1 pc.	250 pcs.	Silver (SR)	596-00585
TAG100-70TDK1-1221-SR	100.0	70.0	106.0	1 pc.	250 pcs.	Silver (SR)	596-00586

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

HellermannTyton

Infrastructure

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

Application video: RFID

T50RFID – cable ties with RFID transponder.

MATERIAL	Polyamide 6.6 (PA66)	Polyamide 6.6, UV-resistant (PA66W)
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	UL 94 V2	

HF ✓ RoHS ✓
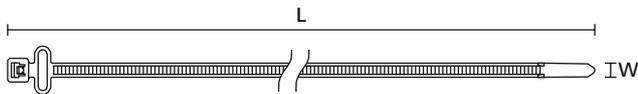
T50RFID, MCTRFID

TYPE	Frequency	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)	N	Colour	Pack Cont.	Material	Tools	Article-No.
T50RFIDCLA	125 kHz (LF)	1.5	50.0	4.6	200.0	225	Yellow (YE)	100 pcs.	PA66	6;54	111-01638
T50RFIDCHA	13.56 MHz (HF)	1.5	50.0	4.6	200.0	225	Yellow (YE)	100 pcs.	PA66	6;52-53	111-01639
	13.56 MHz (HF)	1.5	50.0	4.6	200.0	225	Black (BK)	100 pcs.	PA66	6;52-53	111-01591
	13.56 MHz (HF)	1.5	50.0	4.6	200.0	225	Black (BK)	100 pcs.	PA66W	6;52-53	111-02406
	13.56 MHz (HF)	1.5	50.0	4.6	200.0	225	Light Blue (LTBU)	100 pcs.	PA66	6;52-53	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.

N = **Minimum Loop Tensile Strength for Cable Ties (Newton)**

Recommended Tools			
6	52	53	54
EVO7	RFID-DT22-HF	RFID-HS9BT-HF	RFID-HS9BT-LF

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

CE Ex Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

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)	

HF ✓ **RoHS** ✓
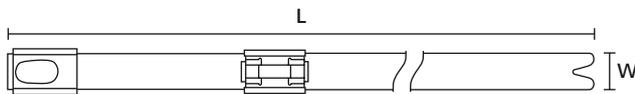
MBTRFID

TYPE	Frequency	Bundle Ø min.	Bundle Ø max.	Width (W)	Length (L)	N	Colour	Pack Cont.	Tools	Article-No.
MBT8HFCRFID	13.56 MHz (HF)	17.0	50.0	7.9	201.0	1,020	Red (RD)	50 pcs.	15-18;52-53	156-01167
MBT14HFCRFID	13.56 MHz (HF)	17.0	102.0	7.9	362.0	1,020	Red (RD)	50 pcs.	15-18;52-53	111-01586
MBT20HFCRFID	13.56 MHz (HF)	17.0	152.0	7.9	521.0	1,020	Red (RD)	50 pcs.	15-18;52-53	111-01587
MBT27HFCRFID	13.56 MHz (HF)	17.0	203.0	7.9	681.0	1,020	Red (RD)	50 pcs.	15-18;52-53	111-01588
MBT33HFCRFID	13.56 MHz (HF)	17.0	254.0	7.9	838.0	1,020	Red (RD)	50 pcs.	15-18;52-53	111-01589
MBT8HHFRFID	869 MHz (UHF)	17.0	50.0	7.9	201.0	1,020	Red (RD)	50 pcs.	15-18	156-01565
MBT14HHFRFID	869 MHz (UHF)	17.0	102.0	7.9	362.0	1,020	Red (RD)	50 pcs.	15-18	156-01566
MBT20HHFRFID	869 MHz (UHF)	17.0	152.0	7.9	521.0	1,020	Red (RD)	50 pcs.	15-18	156-01567
MBT27HHFRFID	869 MHz (UHF)	17.0	203.0	7.9	681.0	1,020	Red (RD)	50 pcs.	15-18	156-01568
MBT33HHFRFID	869 MHz (UHF)	17.0	254.0	7.9	838.0	1,020	Red (RD)	50 pcs.	15-18	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.

N = **Minimum Loop Tensile Strength for Cable Ties (Newton)**

Recommended Tools

15	16	17	18	52	53
MK9SST	MK9PSST	HDT16	KST-STG200	RFID-DT22-HF	RFID-HS9BT-HF

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

HellermannTyton
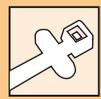
Accessories with RFID transponder

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
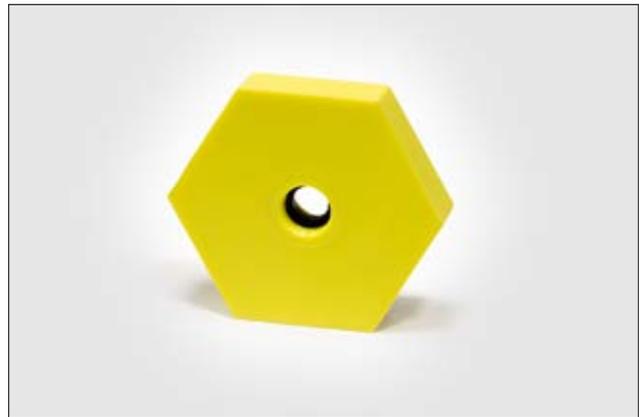
RFID HEXTAG – for applications where a RFID cable tie solution is not suitable.

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

HF ✓   **RoHS** ✓
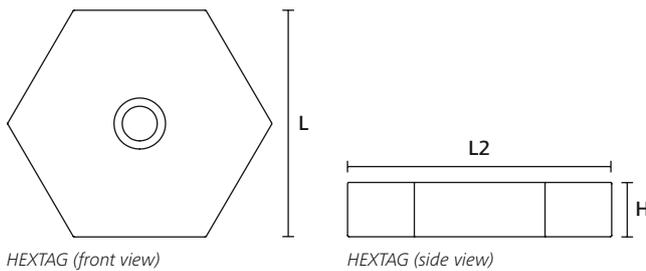
HEXTAG (front view)

HEXTAG (side view)

TYPE	Frequency	Height (H)	Length (L)	Length (L2)	Colour	Pack Cont.	Tools	Article-No.
RFID HEXTAG	13.56 MHz (HF)	8.0	33.4	38.39	Yellow (YE)	100 pcs.	52-53	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.

Recommended Tools	
52	53
RFID-DT22-HF	RFID-HS9BT-HF

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Accessories with RFID transponder

CRADLE – High Frequency (HF)

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
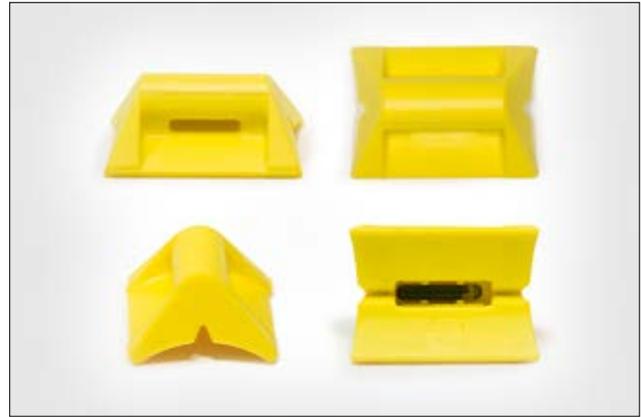
RFID CRADLE – can be used with a standard HellermannTyton cable tie.

MATERIAL	Thermoplastic Polyurethane (TPU)
Frequency	13.56 MHz (HF)
Idle Temperature	-40 °C to +85 °C
Operating Temperature	-25 °C to +85 °C
Flammability	UL 94 V2

HF ✓ RoHS ✓
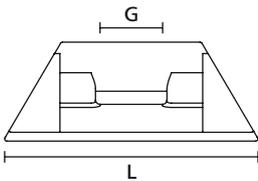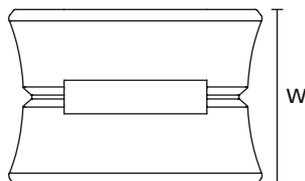
CRADLE (front view) *CRADLE (rear view)* *CRADLE (side view)*

TYPE	Frequency	Width (W)	Length (L)	Strap Width max. (G)	Colour	Pack Cont.	Tools	Article-No.
RFID CRADLE	13.56 MHz (HF)	19.8	27.9	7.9	Yellow (YE)	100 pcs.	52-53	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.

Recommended Tools	
52	53
RFID-DT22-HF	RFID-HS9BT-HF

For detailed information on Application Tooling please refer to our Main Catalogue or the Internet.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.
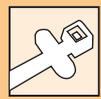
RFID Readers

RFID Handheld Reader

The HS9 handheld RFID readers are designed to read LF transponders and read/write to HF transponders fitted to HellermannTyton RFID cable ties and accessories. The readers act as an interface between the RFID transponder and computer systems or databases. Radio waves transmit the data from the RFID transponder to the reader, so that contactless reading and/or writing of information is possible. The HS9 reader is available for low frequency (LF, 125 kHz, read-only) and for high-frequency (HF, 13.56 MHz, read and write) transponders. RFID system solutions can make a significant contribution to improving the process reliability and quality in a variety of industries.

Features and benefits
- RFID handheld reader
- Write capability on request
- Low frequency (LF – 125 kHz)
- High frequency (HF – 13.56 MHz)
- USB, HID interface
- Wireless transmission via Bluetooth
- Operator convenience
- Lightweight and handy design
- Compatible with Android- and iOS-devices
- 9V alkaline battery included

RFID-HS9 – handheld readers for low frequency (LF) and high frequency (HF) transponders.

Operating Temperature	0 °C to +55 °C
Interfaces	USB, Bluetooth, HID
L x W x H	135.0 mm x 70.0 mm x 24.0 mm

RoHS ✓

TYPE	Frequency	Weight	Article-No.
RFID-HS9BT-LF	125 kHz (LF)	0.165 kg	556-00701
RFID-HS9BT-HF	13.56 MHz (HF)	0.185 kg	556-00700

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.

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

RFID-DT22 – desktop reader for high frequency (HF) transponders.

Operating Temperature	-25 °C to +60 °C
Interfaces	USB, HID
L x W x H	110.0 mm x 110.0 mm x 30.0 mm

RoHS ✓

TYPE	Frequency	Weight	Article-No.
RFID-DT22-HF	13.56 MHz (HF)	0.2 kg	556-00702

All dimensions in mm. Subject to technical changes.

Infrastructure
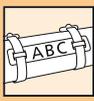
Stainless steel embossing system

M-BOSS Compact

M-BOSS Compact is a quiet easy-to-use metal plate embossing printer with a small production footprint. It is simple to install and operate and only needs a standard electrical supply and a PC. Texts are created with Tagprint Pro 3.0. Simply open the easy to use program to create print lists. Improved cooling system now ensures a continuous operation between 8-10 hours. Marker plates are attached to pipes and cables using 4.6 mm width MBT cable ties and a MK9SST hand tool.

Features and benefits

- Small and easy to use metal plate embosser
- Quiet embossing mechanism suited to production and office environments
- Embossed characters have been tested to withstand 1.5 million strikes each
- Improved cooling systems allows 8-10 hours continuous printing
- Use Tagprint Pro 3.0 labelling software with pre-loaded templates to simplify print jobs
- 45 piece character set as standard - can be upgraded to 60 characters
- Letters: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
- Numbers: 0 1 2 3 4 5 6 7 8 9
- Symbols: & - / . , ' Ä, Ö, Ü
- Other symbols available on request

A quiet, durable, and easy to use metal plate embossing printer.

Print Method	Embossing
Power Supply	AC 110V-240V, 45/65 Hz, 1.5A-3A
Cycle Time	1 second per character
Interfaces	USB 2.0
System Requirements	MS Windows XP SP3, Vista SP1, Win 7, 8, 10
Dimensions W x H x D	480 mm x 360 mm x 570 mm
Weight	41.0 kg

TYPE	Article-No.
M-BOSS Compact	544-20000

Subject to technical changes.

RoHS ✓

📄 **For problem-free printing we recommend TagPrint Pro, page 78.**

Stainless steel embossing system

M-BOSS Compact inlcuding Organiser

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

Features and benefits

- Ability to manage how the printed marker plates are organised
- Carousel system under the printer has 10 removable marker plate containers
- Flexible output means all marker plates or a set amount can be sent to each container
- Carousel system will hold up to 400 markers
- Each container can hold 40 marker plates

*A simple solution to managing your printer output.*

ℹ️ **1.5 million strikes per character without maintenance**

TYPE	Article-No.
M-BOSS Compact Organiser	544-21000

Subject to technical changes.

CE   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

Infrastructure
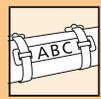
Stainless steel printing system

M-BOSS Compact Markers

M-BOSS Compact 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

*Application video:
M-BOSS Compact*

Marker plates designed to survive the harshest environments.
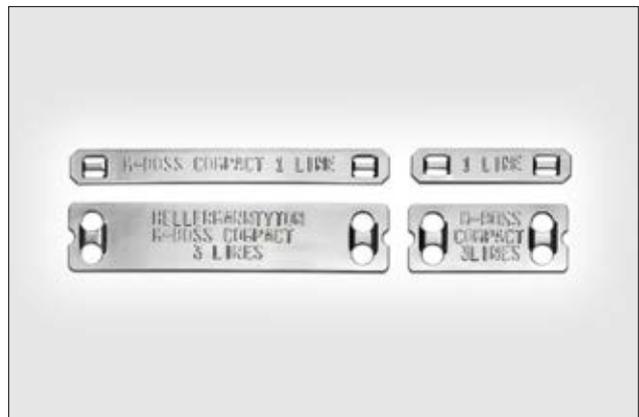
A range of metal plate sizes to suit your needs.

MATERIAL	Stainless Steel (SS316)
Operating Temperature	-80 °C to +538 °C

HF ✓ LFH ✓

RoHS ✓

L

M3P-IS-TE1210-30   W

G
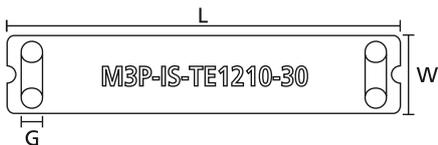
MBML

TYPE	Strap Width max. (G)	Number of lines	Characters per line	Number of characters	Width (W)	Length (L)	Pack Cont.	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	89.9	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	89.9	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	TagPrint Pro Standalone/TagPrint Pro Client PC running Microsoft Windows XP SP3, Vista SP1 or later, Windows 7, 8, 10 .NET Framework 4 512 MB RAM (XP SP3) 1.0 GB RAM (Vista/Windows 7, 8, 10) 500 MB available hard disk space.

TYPE	Article-No.
TagPrint Pro 3.0 EMEA	556-00051

Subject to technical changes.

HellermannTyton

Thermal transfer printer

TT431, Small to medium volume printing

The TT431 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 TT431 integrates seamlessly into any workstation. It is easy to use due to its intuitive colour LCD 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 150 mm/s (30mm/s recommended for „Ladder" products and tubing)
- Adjustable label sensor
- Multiple language selection
- Windows drivers: 32/64 bit for Windows Vista, Windows 7, 8 and 10

One Step to the Web!

TT431 thermal transfer printer for medium volume single sided printing.

Print Method	Thermal transfer
Print Head Type	300 dpi, flat type
Print Speed	up to 150 mm/s
Max. Print Width	105.70 mm
Label Height Max (metric)	4,000 mm
Interfaces	USB 2.0, Ethernet 10/100 Base T, RS232
Supported Barcodes, Printer	Standard and 2D
Printer Memory	256 MB RAM
Dimensions W x H x D	253 mm x 189 mm x 322 mm
Weight	4 kg

RoHS ✓

TYPE	Pack Cont.	Article-No.
TT431	1 pc.	556-00400

All dimensions in mm. 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/TT431 300dpi Printhead	Printhead for TT430/TT431	556-00453
TT430/TT431 Print Roller	Print Roller for TT430/TT431	556-00454

Subject to technical changes.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Infrastructure

Thermal transfer printer

TT4030, High volume printing

HellermannTyton's premium printer TT4030 is specifically designed for medium and heavy duty industrial applications. The 300 dpi print head fulfils all standard requirements for printing bar codes, warning signs, logos and written information. Optional premium quality accessories such as a perforator and cutter are designed to work seamlessly with the printer and will suit the most demanding needs.

Printing high definition graphics such as 2d barcodes, standard bar codes, numbers and text on adhesive labels, thermo plastics such as heat shrink and cable markers (Tiptags) is easily done.

A colour LCD Touchscreen with modern user interface helps intuitive operation.

Creation of professional looking industrial identification is simplified by the use of HellermannTyton´s label creation software TagPrint Pro 3.0.

Whether in stand-alone mode, as a PC application or in a network - the robust TT4030 printers can meet every requirement.

Features and benefits

- High volume single sided printing
- Print on HellermannTyton heatshrink tubing, cable markers and labels
- Uses standard 300 m ribbons
- Barcodes: standard and 2D
- Print speed up to 300 mm/s (30 mm/s recommended for ladder style products and tubing)
- Multiple language selection
- Windows drivers: 32 / 64 bit for Windows XP, Windows Vista, Windows 7, 8, 10

TT4030 thermal transfer printer for high volumes.

Print Method	Thermal transfer
Print Head Type	300 dpi, flat type
Print Speed	up to 300mm/s
Max. Print Width	105.70 mm
Label Height Max (metric)	2,000 mm
Interfaces	RS232 C, USB 2.0, Ethernet 10/100 Base T
Supported Barcodes, Printer	Standard, 2D
Printer Memory	256 MB RAM
Dimensions W x H x D	252 mm x 288 mm x 460 mm
Weight	10 kg

HF ✓   RoHS ✓

One Step to the Web!

TYPE	Article-No.
TT4030	556-04037

Subject to technical changes.

TYPE	Description	Article-No.
P4030 Perforator	Perforator for TT4030	556-04051
TT4030 Printhead	Printhead for TT4030	556-04041
S4030 Cutter	S4030 Cutter for TT4030	556-04050
TT External Reel Holder	External Reel Holder	556-00451
Printer Roller TT4030/TT4000+	Printer Roller for TT4030/TT4000+	556-04005

Subject to technical changes.

Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

HellermannTyton

Infrastructure

## Thermal transfer ribbons for

Adhesive Labels

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 highest quality and performance of printed labels
• Ribbons are specifically designed to maximise print performance for the recommended material

Ribbons for printing on adhesive labels.

ℹ ID: The standard inside core diameter is 25.4 mm.
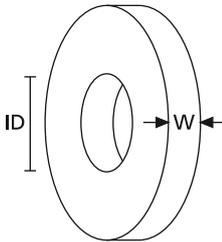
TYPE	Recommended Material	Colour	Width (W)	Reel Length	Article-No.
TT822OUT 60MM	323/823/880/892/951/1203/1204/1206/1208/1210/1211/1213/1216/1220/1221	Black (BK)	60.0	300 m	556-00111
TT822OUT 110MM	323/823/880/892/951/1203/1204/1206/1208/1210/1211/1213/1216/1220/1221	Black (BK)	110.0	300 m	556-00101
TT932DOUT 85MM	323/1209	Black (BK)	85.0	300 m	556-00117
TT932DOUT 110MM	323/1209	Black (BK)	110.0	300 m	556-00118
TT122OUT 60mm	1220/1221	Black (BK)	60.0	300 m	556-00060
TT122OUT 110mm	1220/1221	Black (BK)	110.0	300 m	556-00061
TTRR 110	Labels/1220/1221	Red (RD)	110.0	300 m	556-00208

All dimensions in mm. Subject to technical changes.

RoHS ✓

c **UL** US   Please note! Not all products listed on this page may have this approval. Please check our website for latest approvals.

Thermal transfer ribbons for heat shrink

TTRC+: Smudge, Scratch, Oil, Benzene and Alcoholic Solvent Resistant

TTRC+ is a unique printer ribbon which has been specially formulated to penetrate the surface of printable substrates, including heat shrink marker sleeves and tie on marker tags. With the application of heat or after the duration of seven days, TTRC+ will produce a 'tattoo' effect, making an excellent permanent mark.

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.
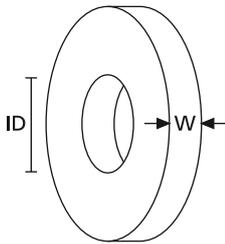
i **ID: The standard inside core diameter is 25.4 mm.**

TYPE	Recommended Material	Colour	Width (W)	Reel Length	Article-No.
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.
Minimum Order Quantity (MOQ) may differ from package content.

RoHS

Global certification – we train everyday.

Seeing far ahead increases safety: HellermannTyton is an IRIS-certified specialist in railway cable management solutions that take the material requirements of tomorrow into account today. That's why our products don't just meet standards, but usually exceed them. First class all the way.

MADE FOR REAL⊕

HellermannTyton

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