



# The innovation in lightning protection

High-voltage-resistant, insulated HVI<sup>®</sup>Conductor



High degree of safety due to controlled discharge of lightning currents



# Easy to install, sustainable, visually appealing: DEHN HVI® Lightning Protection

The HVI®Conductor is a high-voltage-resistant, insulated down conductor from DEHN, the expert for lightning protection and earthing, surge protection and safety equipment. Insulated lightning protection based on HVI®Conductors is durable and sustainable: if photovoltaic or air-conditioning systems are installed on the roof at a subsequent date, HVI®Lightning Protection usually requires no alteration whereas conventional lightning protection systems must be adapted.

## Unique design

When using conventional lightning protection systems, it is often not possible to maintain the necessary separation distances. This is no problem with the HVI®Conductor thanks to its unique design and special sheath. The concept behind the HVI®Conductor is to wrap the lightning current carrying conductor in insulating material in such a way that the required separation distance from other conductive parts of the building, electric lines and pipes, is maintained. The conductor consists of an inner copper conductor with a high-voltage-resistant thick-walled insulation and a weather-resistant semi-conductive special outer sheath. This prevents creeping flashover along the surface of the conductor.

## Visually appealing

The grey version of the HVI®Conductor can be painted to match the architecture of the building. Hidden installation in or behind the façade is also possible. Consequently, the HVI®Conductor offers entirely new design possibilities.

## Wide range of applications

The HVI®Conductor is the ideal solution for external lightning protection systems on residential and industrial buildings, wind turbines, photovoltaic systems, biogas plants, cell sites and systems of the process industry with hazardous areas.

## Easy to install

Easy to mount support tubes, connecting elements, tripods and tools facilitate installation.

### Benefits of DEHN HVI®Lightning Protection:

- Unique design
- Simple installation
- Wide range of applications
- Ideally suited for subsequent changes on the roof
- Appearance can be changed to fit in with the architecture of the building

HVI®light

HVI®Conductor  
black stranded

HVI®power

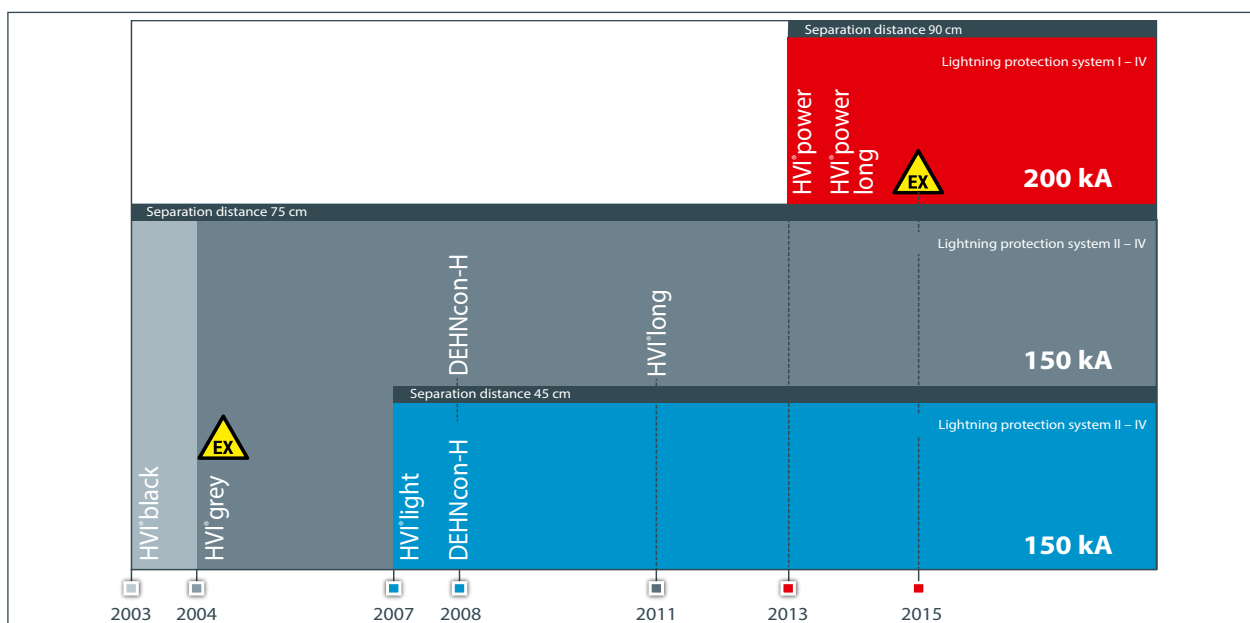
## High-voltage-resistant, insulated HVI®Conductor: The innovation in external lightning protection

In 2003, DEHN launched an innovation in external lightning protection, the high-voltage-resistant, insulated HVI®Conductor. Since then, thousands of buildings and installations have been successfully equipped with HVI®Lightning Protection.

Thanks to the large number of installations and our intensive development we have gained the edge in terms of experience. This is reflected in the variety of HVI®Conductors available. These meet the differing installation requirements for lightning protection systems.

The application range has been gradually expanded to include the versions HVI®light, HVI®long, HVI®power, HVI®power long and DEHNcon-H. All the different conductor variants can be purchased either as pre-assembled sets or as individual components. The various HVI®Conductors are available on reels or cut to length. HVI®Conductors are therefore extremely versatile and suitable for every application.

**Only DEHN offers such a broad range of conductor types for all areas of application and many years of experience in insulated lightning protection with HVI®Conductors.**





## The separation distance is crucial

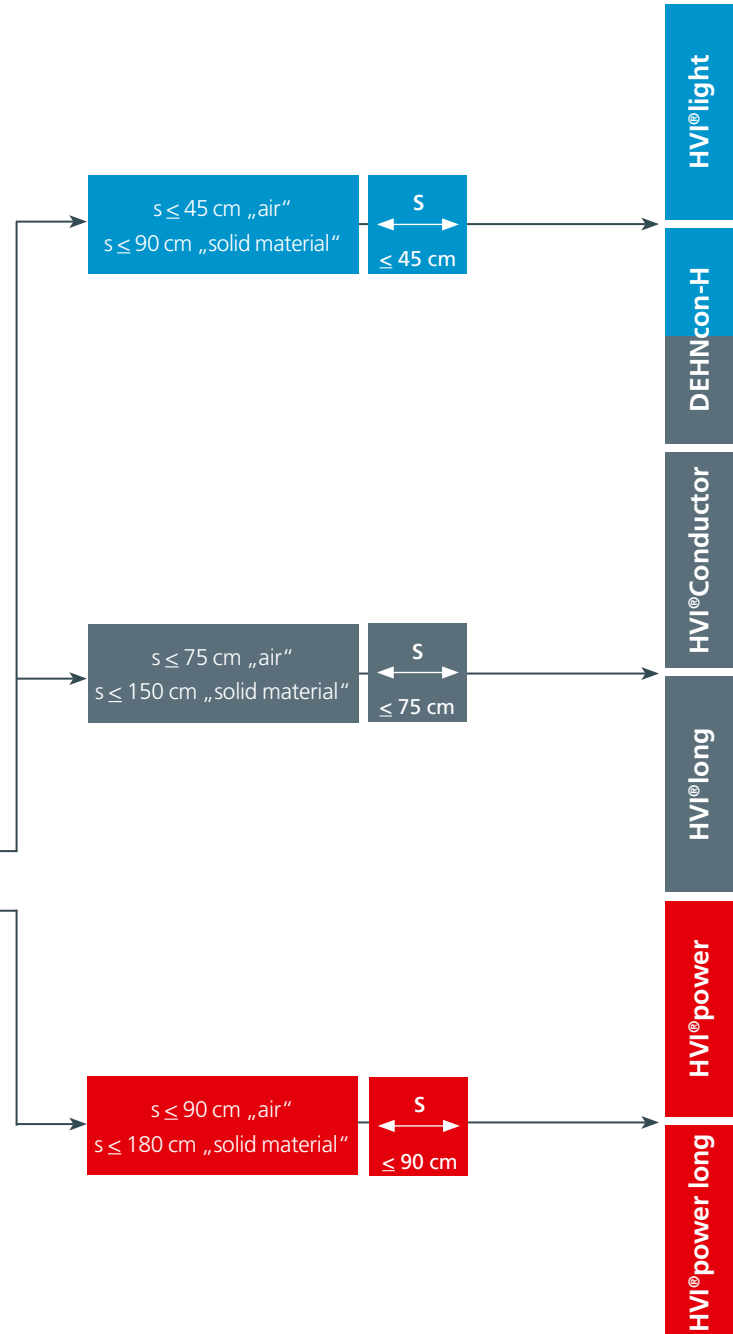
The overview on the right makes it easier to select the right HVI® Conductor. The criteria for selection are the separation distance (s) and the class of lightning protection.

The IEC 62305-3 standard requires that a defined separation distance be kept as a minimum distance between the lightning protection system and electrically conductive materials. This prevents dangerous flashover and, therefore, also sparking, ensuring that lightning currents are safely conducted to the earth-termination system. The high-voltage-resistant, insulated down conductors from DEHN provide an equivalent separation distance and in doing so meet the normative requirements.

**Separation distance**  
The separation distance can be calculated automatically by means of the DEHNSupport Toolbox software.

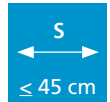
Class of lightning protection II\*

Class of lightning protection I \*





## HVI®light Conductor: Ideal for flat roofs

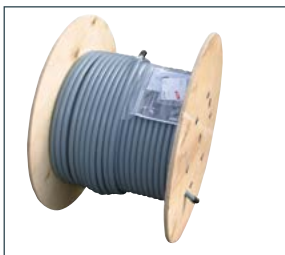


The HVI®light Conductor supplements the tried and tested HVI®Conductor. Designed for low, large-scale buildings where the separation distance cannot be maintained with conventional lightning protection systems, it offers new design options in lightning protection.

In many cases, there is a risk of uncontrolled flashover from the bare air-termination system or down conductor to metal electrical installations such as photovoltaic systems. Flashover may

also occur through the roofing to metal or electrical installations below. This can be prevented using a lightning protection system with HVI®light Conductors.

HVI®light Conductors are designed for intermeshing the air-termination system on flat roofs. They have a dark grey sheath which blends in with the colour of most flat roofs. HVI®light Conductors are either delivered on a disposable reel to be cut to length on site or ready cut to lengths of up to 70m.



HVI®light Conductor  
(Part No. 819 125)

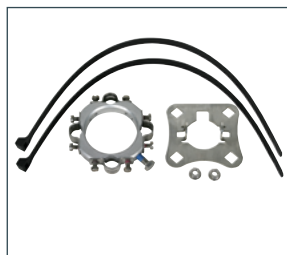


HVI®light Conductor cut to  
length (Part No. 819 129)

+



Connection element  
(Part No. 819 299)



Fixing kit for HVI®light  
Conductor (Part No. 819 289)



## HVI®light Conductor: Quick and easy installation

One of the major advantages of the HVI®light Conductor is its quick and easy installation without sealing end.

A sealing end which is connected to the functional equipotential bonding system of the building is not required.

Instead, the conductor is connected to the supporting tube in the tripod. This does not need to be connected to the functional equipotential bonding system.

### Air-termination mast for HVI®light Conductor on flat roofs

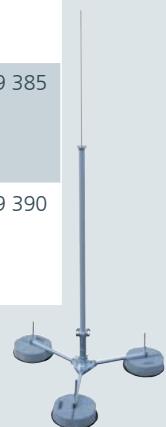
Type	Part No.
Air-termination mast 30 for HVI®light Conductor Length of the supporting tube: 1300 mm Total height: 2300 mm	819 282
Air-termination mast 30 for HVI®light Conductor Length of the supporting tube: 1300 mm Total height: 2800 mm	819 287

Type	Part No.
Air-termination mast 50 for HVI®light Conductor Length of the supporting tube: 1900 mm Total height: 2900 mm	819 380
Air-termination mast 50 for HVI®light Conductor Length of the supporting tube: 1900 mm Total height: 3900 mm	819 385
Air-termination mast 50 for HVI®light Conductor Length of the supporting tube: 1900 mm Total height: 4900 mm	819 390

### Accessories

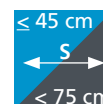
Type	Part No.
Flat roof conductor holder	253 015
Adapter for Part No. 253 015	253 026

Type	Part No.
Wall-mounted conductor holder	275 252
Fixing bolt for spanning an aluminium cable	105 229





## DEHNcon-H: Ideally suited for residential buildings with gable roofs



**DEHNcon-H is ideally suited for gable roofs. With DEHNcon-H it only takes a few air-termination rods to effectively protect even complex roof structures.**

The filigree supporting tubes of DEHNcon-H with glass-fibre reinforced plastic are unobtrusive and only expose a small area to the wind. Thanks to the reduced wind load and light-weight construction DEHNcon-H supporting tubes can be mounted to a free length of almost 4.5 metres. This makes them easy to retrofit, e.g. on antenna masts.

DEHNcon-H can be ordered as a pre-assembled set with integrated sealing end and pre-assembled HVI®light-/HVI®Conductor.

Alternatively, individual components (supporting tube, connection set, HVI®light-/HVI®Conductor on a reel or already cut to length) are available.

Special supporting tubes and rafter holders are available for installing the HVI®light-/HVI®Conductor under the roof.

### Rafter holder

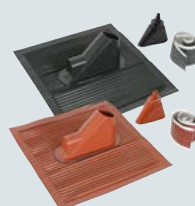
Type	Part No.
St/tZn	105 240



### Roof bushing kit

Roof bushing kit comprises aluminium roof tile, rubber grommet and sealing tape.

Type	Part No.
black	105 245
red	105 246



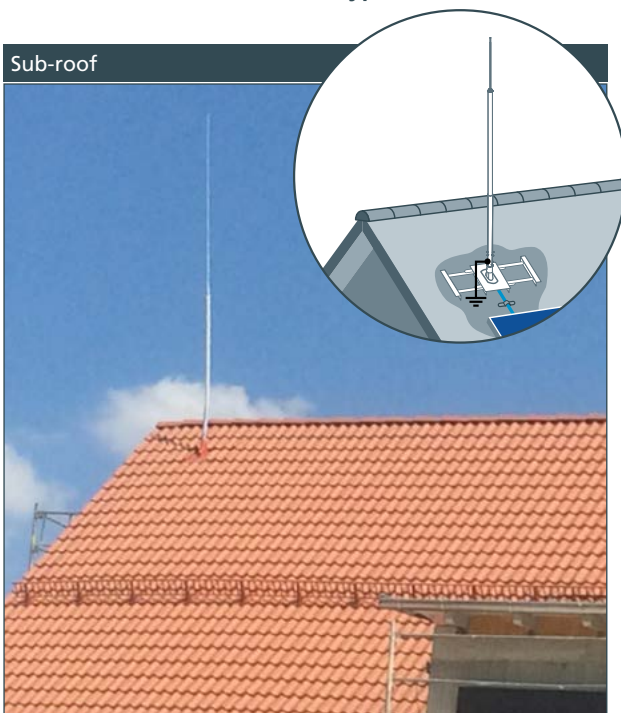


Detailed lightning protection in a gas pressure control and measurement system



Source: JS EMSR-Technik, Schnufenhofen

DEHNcon offers two different types of installation: sub-roof and rooftop



Source: Haustechnik Hass GmbH, Igensdorf

HVI®light

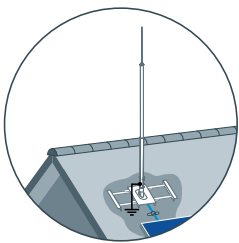
DEHNcon-H

HVI®Conductor

HVI®long

HVI®power

HVI®power long



## Sub-roof installation HVI®light- / HVI®Conductor



### DEHNcon-H / HVI®light Conductor in the supporting tube

For mounting on the rafter holder.  
With air-termination tip and conductor  
which is pre-cut to individual length.

Type	Part No.
Air-termination mast for sub-roof installation of the HVI®light Conductor	819 243



### DEHNcon-H / HVI®Conductor in the supporting tube

With air-termination rod and conductor  
which is pre-cut to individual length.

Type	Part No.
Air-termination mast for sub-roof installation of the HVI®Conductor	819 247



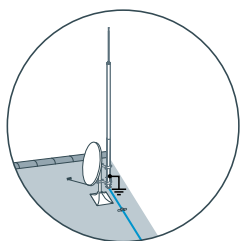
### Accessories

Type	Part No.
Conductor holder thread M8	275 250
Conductor holder thread M6	275 251
Conductor holder with slot	275 252
Conductor holder with plastic base	275 259

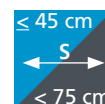




Source: Haustechnik Hass GmbH, Igensdorf



## Rooftop installation HVI®light- / HVI®Conductor



### HVI®light Conductor in the supporting tube

For mounting on transmitters/receivers.  
With air-termination tip and conductor  
which is pre-cut to individual length.

Type	Part No.
Air-termination mast for rooftop installation of the HVI®light Conductor	819 255



### HVI®Conductor in the supporting tube

For mounting on transmitters/receivers.  
With air-termination rod and conductor  
which is pre-cut to individual length.

Type	Part No.
Air-termination mast for rooftop installation of the HVI®Conductor	819 326



### Accessories

Type	Part No.
Conductor holder	202 829
Fixing clamp for pipes (for HVI®Conductor)	105 161
Fixing clamp for pipes (for HVI®light Conductor)	105 354



HVI®light

DEHNcon-H

HVI®Conductor

HVI®long

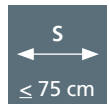
HVI®power

HVI®power long



Quelle: Blitzschutz Paul Hahl, Frankfurt

## HVI®Conductor: Pre-assembled standard solution



The HVI®Conductor is the standard version and is suitable for a wide range of applications: It protects large roof-mounted structures, antennas or masts with information technology equipment from direct lightning strikes – also in potentially explosive areas.

The HVI®Conductor is used for a separation distance  $s \leq 75$  cm in the air and  $s \leq 150$  for solid materials. It can be directly routed to the earth-termination system provided the maximum conductor length is observed. It can also be installed in the form of an elevated isolated ring conductor.

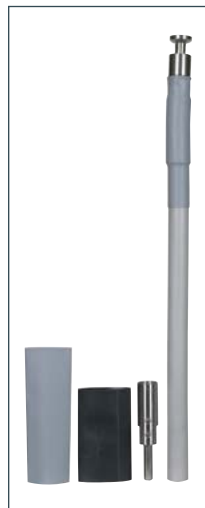
The HVI®Conductor can be installed inside the supporting tube so that it is not exposed to the wind.

If the current needs to be distributed to several conductors in order to reduce the separation distance or if longer conductor lengths are required, up to four additional conductors can be installed on the outside of the supporting tube with a special fixing kit.

### Installation inside tube

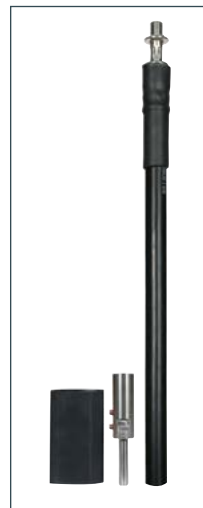


HVI®Conductor black  
Part No. 819 220

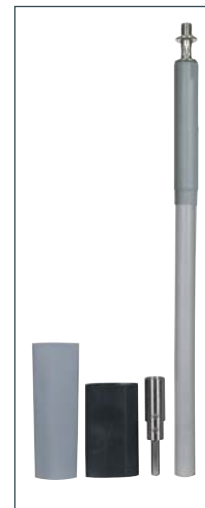


HVI®Conductor grey  
Part No. 819 223

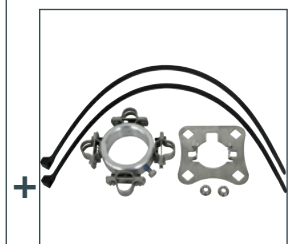
### Installation outside tube



HVI®Conductor black  
Part No. 819 226



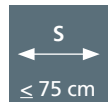
HVI®Conductor grey  
Part No. 819 227



Fixing kit for  
HVI®Conductor  
Part No. 819 294



## HVI®long Conductor: Ideally suited for on-site assembly



In case of new buildings and building restorations, the exact conductor length can rarely be defined at the design stage of the lightning protection system. Therefore, the HVI®long Conductor, which can be assembled on site, is a perfect solution.

The HVI®long Conductor is available either on a 100 m reel or pre-cut to the required length. In combination with the available connection sets, a complete conductor can be assembled on site. After ascertaining the exact length required, the installer cuts the conductor to length, strips it and attaches the connecting set.



On cable reel, black  
Part No. 819 135

Cut to length, black  
Part No. 819 131



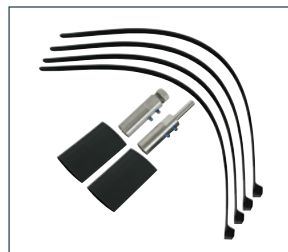
On cable reel, grey  
Part No. 819 136

Cut to length, grey  
Part No. 819 132

+

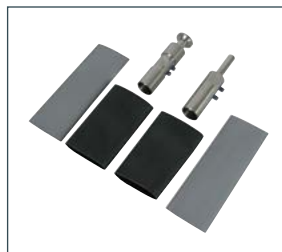


Installation inside tube  
Connection set black  
Part No. 819 145

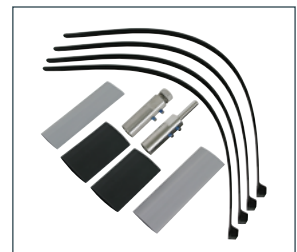


Installation outside tube  
Connection set black  
Part No. 819 146

+

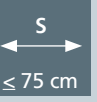


Installation inside tube  
Connection set grey  
Part No. 819 147



Installation outside tube  
Connection set grey  
Part No. 819 148

# HVI®long Conductor: individually combinable



Supporting tubes with air-termination tips/rods, without side outlet

Part No.	105 314	105 330	105 316	105 332	105 315	105 331	105 317	105 333
Material of the supporting tube	GFK / StSt	GFK / Al	GFK / StSt	GFK / Al	GFK / StSt	GFK / Al	GFK / StSt	GFK / Al
Length of the supporting tube	3200 mm	4700 mm	4700 mm	4700 mm	3200 mm	4700 mm	4700 mm	4700 mm
Length of the air-termination tip / rod	1000 mm / ø 10 mm	1000 mm / ø 10 mm	1000 mm / ø 10 mm	1000 mm / ø 10 mm	2500 mm / ø 22/16/10 mm	2500 mm / ø 22/16/10 mm	2500 mm / ø 22/16/10 mm	2500 mm / ø 22/16/10 mm
Outer diameter	50 mm	50 mm	50 mm	50 mm	50 mm	50 mm	50 mm	50 mm
Packing unit	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece	1 piece

## Fixing devices for supporting tubes

Wall mounting bracket  
Part No. 105 342



Fixing bracket  
Part No. 105 340



Fixing equipment for use on railings  
Part No. 105 354



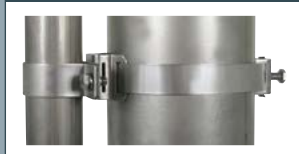
Fixing bracket  
Part No. 105 341



Wall mounting bracket  
Part No. 105 344



Fixing clamp with tensioning strap  
Part No. 105 360



## Conductor holders

Conductor holder  
Part No. 275 225 (grey, Rd = 23 mm)  
Part No. 275 220 (Rd = 20 mm)



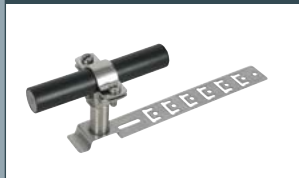
Conductor holder  
Part No. 275 252



Conductor holder  
Part No. 275 320



Roof conductor holder  
Part No. 202 829



Roof conductor holder  
Part No. 253 015



Adapter  
Part No. 253 026 (Rd = 20 mm)  
Part No. 253 027 (grey, Rd = 23 mm)



## Installed inside the supporting tube

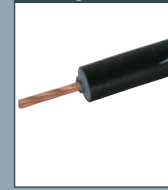
Part No. 819 135 (black)  
Part No. 819 136 (grey)



Connection set  
Part No. 819 145 (black)  
Part No. 819 147 (grey)



Part No. 819 131 (schwarz)  
Part No. 819 132 (grau)



EB connection element  
Part No. 410 229

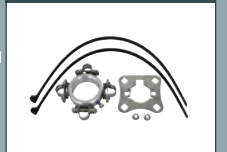


## Installed outside the supporting tube

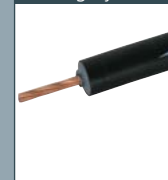
Part No. 819 135 (black)  
Part No. 819 136 (grey)



Fixing set  
Part No. 819 294



Part No. 819 131 (black)  
Part No. 819 132 (grey)



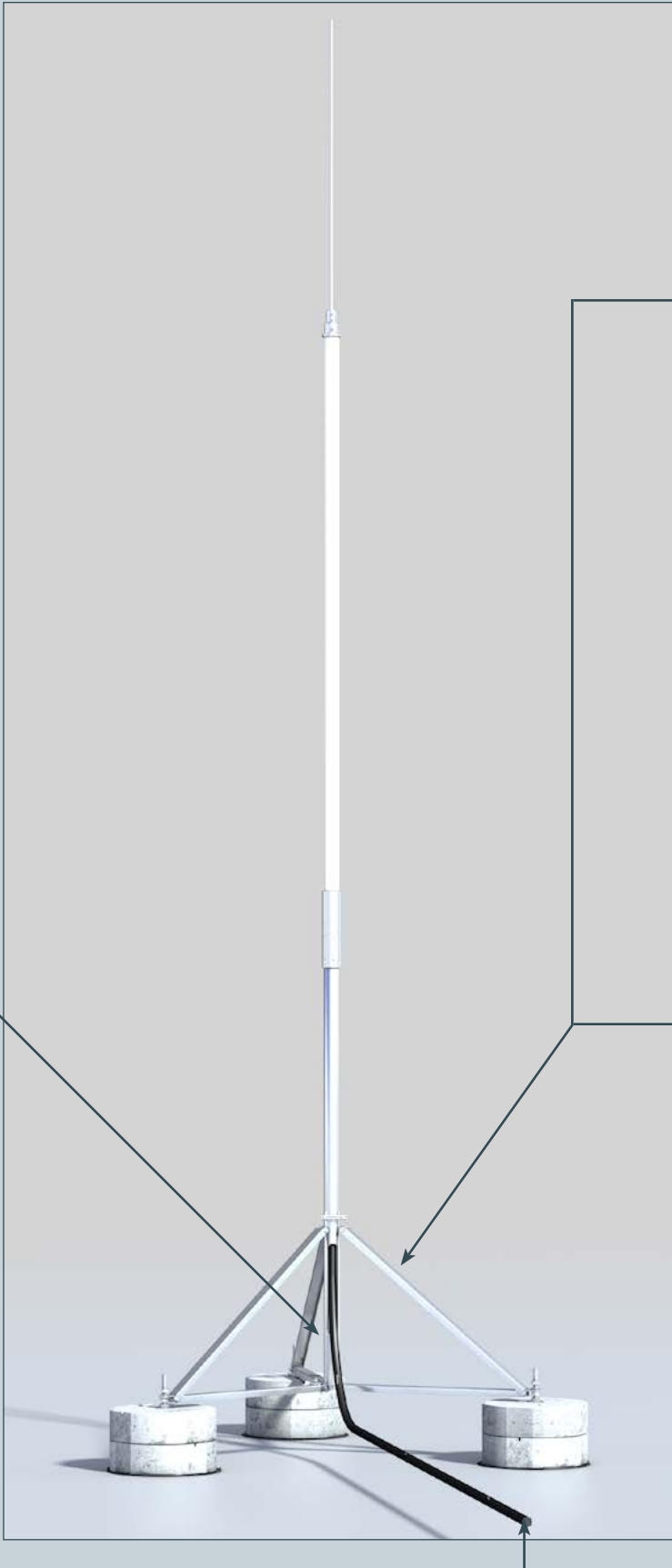
EB connection element  
Part No. 410 229



Connection set  
Part No. 819 146 (black)  
Part No. 819 148 (grey)



Part No.	105 336	105 325	105 338	105 327	105 337	105 326	105 339	105 328
Material of the supporting tube	GFK / StSt	GFK / Al	GFK / StSt	GFK / Al	GFK / StSt	GFK / Al	GFK / StSt	GFK / Al
Length of the supporting tube	3200 mm		4700 mm		3200 mm		4700 mm	
Length of the air-termination tip / rod	1000 mm / ø 10 mm		1000 mm / ø 10 mm		2500 mm / ø 22/16/10 mm		2500 mm / ø 22/16/10 mm	
Outer diameter	50 mm		50 mm		50 mm		50 mm	
Packing unit	1 piece		1 piece		1 piece		1 piece	



### Stands and accessories for supporting tubes without side outlet

Tripod small  
Part No. 105 351



Tripod large  
Part No. 105 201



Concrete base with wedge  
Part No. 102 010



Base plate  
Part No. 102 050



### Stands and accessories for supporting tubes with side outlet

Tripod small  
Part No. 105 390



Four-legged stand small  
Part No. 105 490



Tripod large  
Part No. 105 391



Four-legged stand large  
Part No. 105 491



Threaded rod sets  
Part No. 105 396 / -397 / -398



Threaded rod sets  
Part No. 105 496 / -497 / -498



Concrete base with wedge  
Part No. 102 012

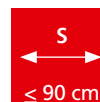


Base plate  
Part No. 102 050





Source: Blitzschutz Kunz, Saarbrücken



## HVI®power and HVI®power long Conductor: Suits all classes of LPS

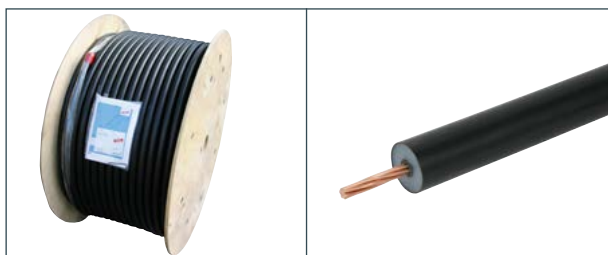
The HVI®power Conductor can also be used for class of LPS I since the complete system 1 is tested with lightning impulse currents of 200 kA (10/350  $\mu$ s). Therefore, the HVI®power Conductor is an ideal solution for all classes of LPS.

### 20% more separation distance<sup>2)</sup>

The HVI®power Conductor makes it possible to keep an equivalent separation distance of 90 cm in air and 180 cm in solid materials. This represents 20% more separation distance than other high-voltage-resistant conductors with a separation distance of 75 cm.

The HVI®power Conductor is primarily used in buildings where large separation distances are necessary due to the dimensions (height) of the building, e.g. in hospitals, data centres and silos. Depending on the individual area of application one can choose between two different variants:

- HVI®power long Conductor (on reel or cut to length)
- HVI®power Conductor (pre-assembled)



On cable reel, black  
Part No. 819 137

Cut to length, black  
Part No. 819 163 (6 - 35 m)  
Part No. 819 161 (36 - 80 m)

+



Installation inside tube  
Connection set black  
Part No. 819 142



Installation outside tube  
Connection set black  
Part No. 819 149

### Accessories



EB connecting element  
Part No. 410 239

<sup>1)</sup> Including accessories

<sup>2)</sup> Compared to other high-voltage-resistant conductors with a separation distance of 75 cm.





## HVI®power Conductor and HVI®power long Conductor: inside and outside installation

The sealing end spring in the supporting tube allows automatic contact to the semi-conductive sheath of the HVI®power Conductor, thus establishing the sealing end. The functional equipotential bonding system is directly connected to the metal supporting tube, thus ensuring the fast and error-free installation of the HVI®power Conductor and HVI®power long Conductor.

The HVI®power Conductor can be installed in the supporting tube (inside installation) made of stainless steel or aluminium.

In the case of supporting tubes made of glass-fibre reinforced plastic/aluminium a connection set can be used to install an additional HVI®power Conductor on the outside. This method of installation holds the following advantages:

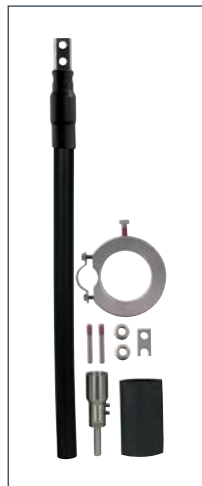
- The supporting tubes can either be mounted on buildings, roof structures and masts or stand alone in tripods anchored with an appropriate number of concrete bases.
- The surface area exposed to the wind is small.
- In the case of supporting tubes with a side outlet the installation is quick and easy.

Installation inside tube



HVI®power Conductor  
Part No. 819 160

Rohraußenverlegung für Stützhohre GFK/Al



HVI®power Conductor  
Part No. 819 165

The spring contact of the HVI®power Conductor



# HVI®power Conductor: individually combinable



## Supporting tube with air-termination tip/rod, without side outlet

Part No.	105 320	105 563	105 322	105 565	105 321	105 573	105 323	105 575
Material of the supporting tube	GFK / NIRO	GFK / Al	GFK / NIRO	GFK / Al	GFK / NIRO	GFK / Al	GFK / NIRO	GFK / Al
Length of the supporting tube	3500 mm		5000 mm		3500 mm		5000 mm	
Length of the air-termination tip / rod	1000 mm / ø 10 mm		1000 mm / ø 10 mm		2500 mm / ø 22/16/10 mm		2500 mm / ø 22/16/10 mm	
Outer diameter	50 mm		50 mm		50 mm		50 mm	
Packing unit	1 piece		1 piece		1 piece		1 piece	

### Fixing devices for supporting tubes

Wall mounting bracket  
Part No. 105 342



Fixing bracket  
Part No. 105 340



Fixing equipment  
for use on railings  
Part No. 105 354



Fixing bracket  
Part No. 105 341



Wall mounting bracket  
Part No. 105 344



Fixing clamp  
with tensioning strap  
Part No. 105 360



### Conductor holders

Roof conductor holder  
Part No. 253 334



Roof conductor holder  
Part No. 202 857



Roof conductor holder  
Part No. 253 333



Conductor holder  
with plastic base  
Part No. 275 249



Conductor holder with female  
thread M6: Part No. 275 241  
M8: Part No. 275 240

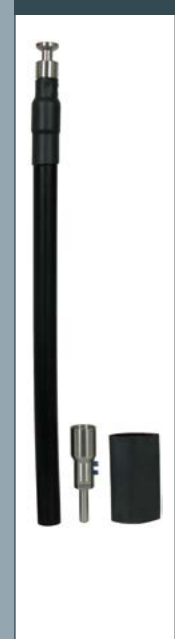


Conductor holder  
with slot  
Part No. 275 242

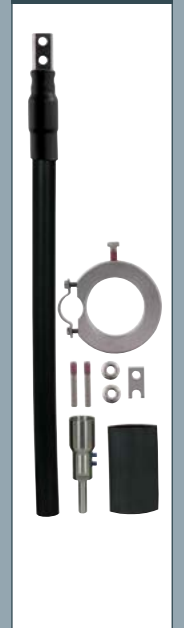


### Pre-assembled HVI®power Conductor

Part No. 819 160  
Inside installation



Part No. 819 165  
Outside installation<sup>1)</sup>



### HVI®power long Conductor

On a reel  
Part No. 819 137



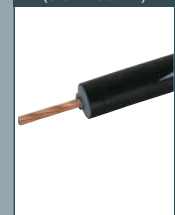
EB connection element  
Part No. 410 239



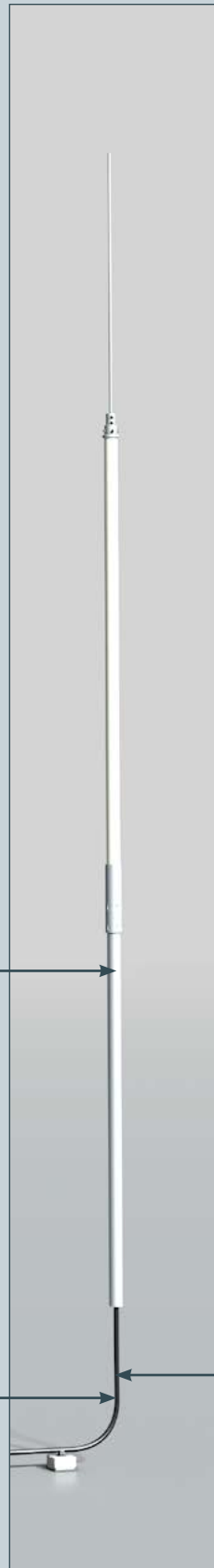
Connection kit for installation  
inside tube  
Part No. 819 142



Part No. 819 163  
(6 – 35 m)  
Part No. 819 161  
(36 – 80 m)



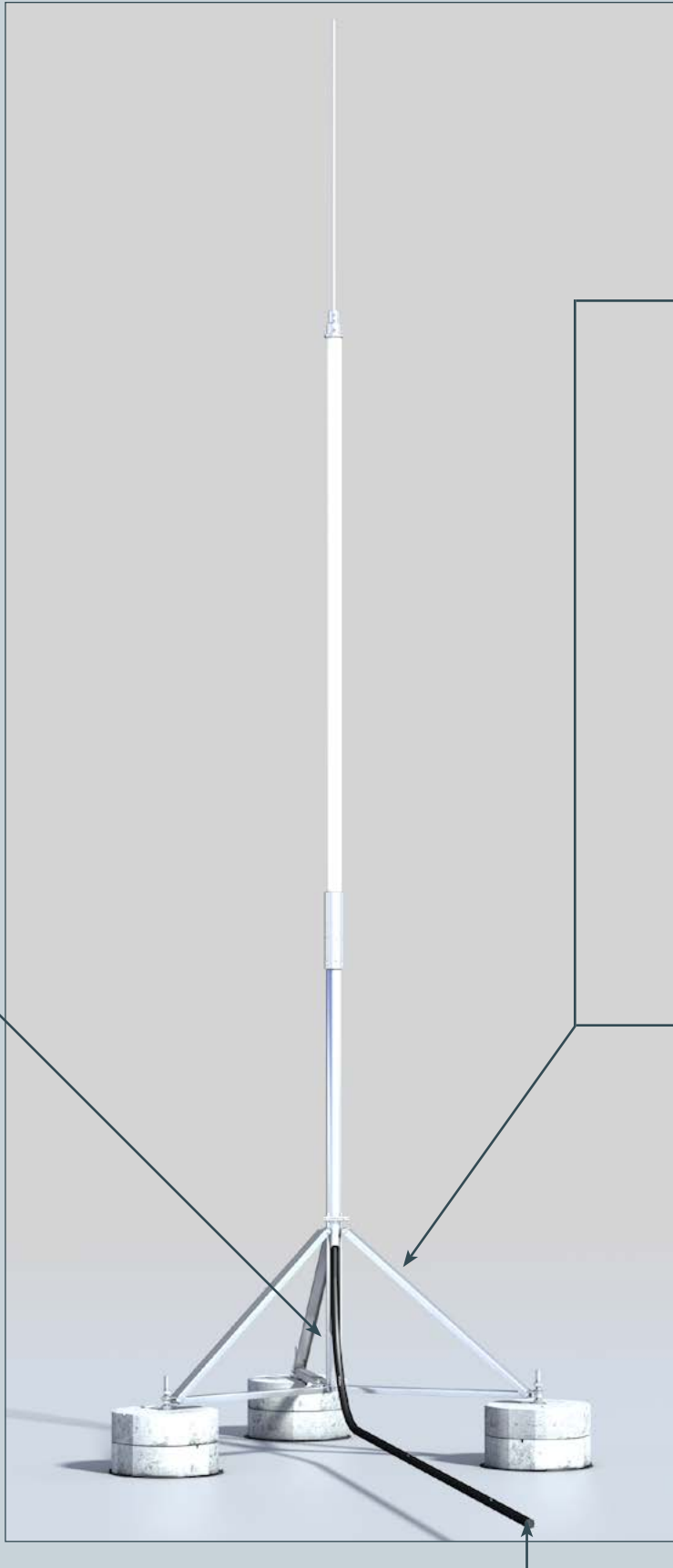
Connection kit for installation  
outside tube  
Part No. 819 149 \*



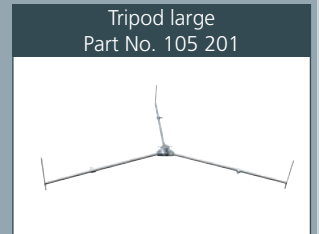
<sup>1)</sup> Installation of HVI®power Conductor outside the tube is only possible with HVI®power supporting tube made of GRP/Al

## Supporting tubes with air-termination tips/rods, with side outlet

Part No.	105 392	105 513	105 394	105 515	105 393	105 543	105 395	105 545
Material of the supporting tube	GFK / St	GFK / Al	GFK / St	GFK / Al	GFK / St	GFK / Al	GFK / St	GFK / Al
Length of the supporting tube	3500 mm		5000 mm		3500 mm		5000 mm	
Length of the air-termination tip / rod	1000 mm / ø 10 mm		1000 mm / ø 10 mm		2500 mm / ø 22/16/10 mm		2500 mm / ø 22/16/10 mm	
Outer diameter	50 mm		50 mm		50 mm		50 mm	
Packing unit	1 piece		1 piece		1 piece		1 piece	



### Stands and accessories for supporting tubes without side outlet



### Stands and accessories for supporting tubes with side outlet





## Installation of HVI® Conductors and HVI® power Conductors in hazardous areas

In many industrial sectors, technical processes may lead to the formation of hazardous and potentially explosive atmospheres. Depending on the duration and frequency of the existence of such potentially explosive atmospheres, the areas are divided into Ex zones. These danger zones are recorded in the explosion protection documentation. As, according to EN 1127-1 and TRBS 2152-3, lightning flashes are classified and regarded as one of the 13 possible sources of ignition, suitable measures must be taken to reduce the potential danger of ignition for the relevant ex zone when planning and installing lightning protection systems.

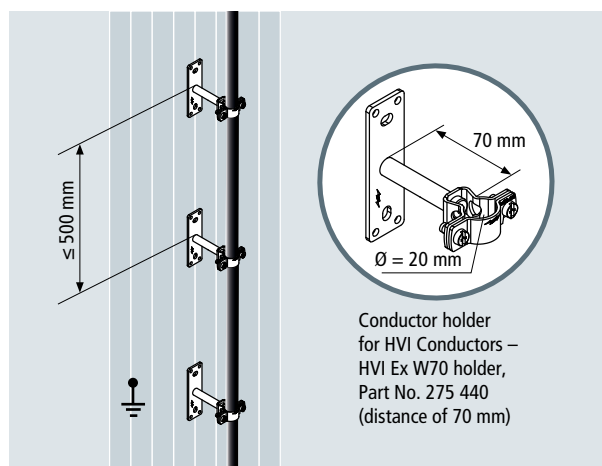
The high-voltage-resistant and insulated HVI® Conductors and HVI® power Conductors by DEHN offer a safe, tried and tested solution for discharging lightning currents. Both variants are suitable for installation in ex zones 1 and 21 as well as 2 and 22.

Note: It is possible to install all types of HVI® Conductor (HVI® light, HVI® Conductor and HVI® power conductor) in ex zones 2 and 22 without the need for any special installation regulations.

Technical properties	HVI® Conductor Part No. 819 135	HVI® power Conductor Part No. 819 137
Tested with $I_{imp}$ (10/350 $\mu$ s)	150 kA	200 kA
Separation distance (air)	$\leq 75$ cm	$\leq 90$ cm
For use in class of LPS (at $k_c = 1$ )	II, III, IV	I, II, III, IV

Generally, sparking resulting from lightning current should be avoided in ex zones 1 and 21. This is achieved by electrically insulating the lightning protection system from conductive elements in the building structure and installations with the aim of keeping (partial) lightning currents away from ex areas.

The special way in which various types of HVI conductors are installed ensures that no uncontrolled sparking occurs when lightning current passes through the conductors. Special conductor holders made completely of stainless steel to withstand corrosive environments are required for the installation. When mounting HVI conductors in ex areas, special installation conditions must be considered. These are described in detail in DEHN installation instructions.



Example: Installation of the HVI® Conductor parallel to an earthed metal facade with holders at intervals of 500 mm



Source: Fa. ABEL ReTec GmbH & Co.KG, Engelsberg

## The safe solution for external lightning protection of ex plants and systems in hazardous areas: HVI®Conductor and HVI®power Conductor.

Conductor holders and further accessories  
for installing the HVI®- and HVI®power Conductor in Ex zones 1 and 21.

Conductor holder HVI®Conductor	Wall distance (mm)	Conductor holder support Rd (mm)	Part No.
<b>1</b> HVI®Ex W70 holder	70	20	275 440
<b>2</b> HVI®Ex W200 holder	200	20	275 441
<b>3</b> HVI®Ex P70 holder	70	20	275 444
<b>4</b> HVI®Ex P200 holder	200	20	275 442

Conductor holder HVI®power	Wall distance (mm)	Conductor holder support Rd (mm)	Part No.
<b>1</b> HVI®power Ex W85 holder	85	27	275 450
<b>2</b> HVI®power Ex W240 holder	240	27	275 451
<b>3</b> HVI®power Ex P85 holder	85	27	275 454
<b>4</b> HVI®power Ex P240 holder	240	27	275 455

Accessories	Part No.
<b>5</b> HVI®Ex busbar 500	275 498
<b>6</b> Pipe clamp	106 323
<b>7</b> Separate grip head	106 324
<b>8</b> Tensioning strap	540 901



# General Accessories

## Lateral air-termination rod

for supporting tubes



Type	Part No.
Length 530 mm, Al	819 183
Length 1030 mm, Al	819 185
Length 530 mm, NIRO	819 184
Length 1030 mm, NIRO	819 186

## HVI®cutter

Cable shears for easily cutting all HVI®-Conductors to length



Type	Part No.
Cable shears	597 032

## Hinweisschild

“ATTENTION!  
Separated Lightning Protection with HVI®conductor system”



Type	Part No.
Warning sign DE/EN	480 598
Warning sign FR/IT	480 597

## DEHNhelix

Stripping tool for HVI®Conductors



Type	Part No.
DEHNhelix	597 230

## Spare blades

For DEHNhelix



Type	Part No.
Spare blades DEHNhelix	597 130

## Stripping tool for HVI® / HVI®light Conductor

For stripping



Type	Part No.
HVI®strip 20	597 220

## Stripping tool for HVI®power / HVI®power long Conductor

For stripping the HVI®power and HVI®power long Conductor



Type	Part No.
HVI®strip 27 Set	597 227

## Spare blades

For HVI®head 20, HVI®head 27



Type	Part No.
Spare blades 4 pcs. for HVI®head 20	597 101
Spare blades 4 pcs. for HVI®head 27	597 102

# Technical properties – HVI® Conductors

Technical properties	HVI®light	DEHNcon-H	HVI®Conductor	HVI®long	HVI®power	HVI®power long
Structure	solid		solid / stranded			stranded
Cross-section	19 mm <sup>2</sup>		19 mm <sup>2</sup>			25 mm <sup>2</sup>
Colour	dark grey		black / grey			black
Material of the inner conductor	copper		copper			copper
Outer diameter	20 mm		20 mm / 23 mm black / grey			27 mm
Equivalent separation distance (air)	≤ 45 cm		≤ 75 cm			≤ 90 cm
Equivalent separation distance (solid material)	≤ 90 cm		≤ 150 cm			≤ 180 cm
Minimum bending radius (OD = outer diameter)	10 x OD min. 200 mm		10 x OD 200 / 230 mm black / grey			10 x OD 270 mm
Operating temperature	-30 °C – +70 °C		-30 °C – +70 °C			-50 °C – +70 °C
Installation temperature	-5 °C – +40 °C		-5 °C – +40 °C			-5 °C – +40 °C
Tensile strength	950 N		950 N			1200 N
UV / weather-resistant	yes		yes			yes
Tested with I <sub>imp</sub> (10/350 µs)	150 kA <sup>1)</sup>		150 kA <sup>1)</sup>			200 kA
For use in class of LPS (at k <sub>c</sub> = 1)	II, III, IV		II, III, IV			I, II, III, IV
Max. permissible conductor length LPL I (at k <sub>c</sub> = 1)	–		–			11.25 m
Max. permissible conductor length LPL II (at k <sub>c</sub> = 1)	7.5 m		12.5 m			15 m
Max. permissible conductor length LPL III/IV (at bei k <sub>c</sub> = 1)	11.25 m		18.75 m			22.5 m
Installation in Ex zone 1 and 21	not allowed		allowed			allowed
Cable weight / 100 m	~ 40 kg		~ 48 kg (black) ~ 63 kg (grey)			~73 kg

<sup>1)</sup> Based on IEC 62561-1

[www.dehn-international.com/partners](http://www.dehn-international.com/partners)



**Surge Protection  
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