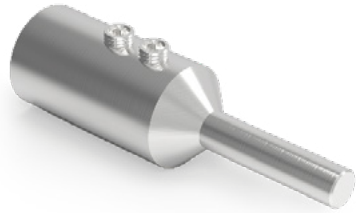
ASSEMBLY INSTRUCTION

High Voltage Cable End Tip

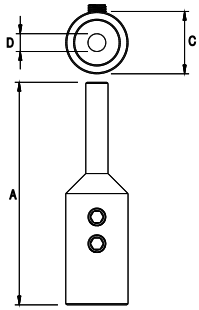
30100105; 30100109



High Voltage Cable End Tip

For High Voltage Cable connections with horizontal conductor or directly with earthing electrode. Brass tip allows connection to copper or steel constuction, being resistance to weather conditions. In a set with screw protection glue and heat shrink tubing.

NOTE: End Tip assembly according to instruction.



CAT. NUM.	TYPE	A	C	D	Allen screw
30100105	301.1 NI	115	28	10	2×M8×12
30100109	301.1 AL	115	28	9	2xM8x12

The set includes

High voltage cable end No. 30100105

Allen screw 8x8

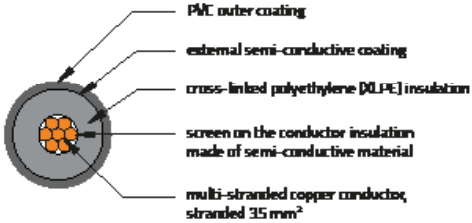
Glue for the screws

Heat shrink tube

Allen wrench

NOTE: You can buy high-voltage insulated cable that is already prepared for assembly. When making an order, please specify the required cable lengths.

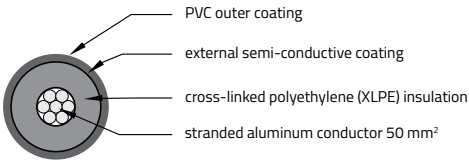
Cable features 30000199



High-voltage insulated cable

Color	Black
The outer diameter	23,4 mm
Cross section of the cable core	35 mm^2
Maximum conductor resistance at 20°C	0,524 Ω/km
Equivalent of separation distance for air	750 mm
Equivalent of separation distance for regular building materials	1500 mm
Cable weight	0,735 kg/m
Operating temperature range	from -30°C to 70°C
Assembly temperature range	from -5°C to 40°C
Minimum bending radius	about 280 mm
Cable ammability	not spreading flame
Flammability test	PN-EN 60332-1-2; IEC 60332-1

Cable features 30000299



High-voltage insulated cable

Color	black
The outer diameter	25 mm
Cross section of the cable core	50 mm²
Maximum conductor resistance at 20°C	<0,70 Ω/km
Equivalent of separation distance for air	950 mm
Equivalent of separation distance for regular building materials	455 mm
Cable weight	0,135 kg/m
Operating temperature range	max 100 °C
Assembly temperature range	max 140 °C
Minimum bending radius	about 200 mm
Cable ammability	-
Flammability test	-

Separation distance

The correct application of a high-voltage cable involves with the establishment of the minimum insulation clearance for the object in accordance with PN-EN 62305-3, „electrical insulation of external LPS". The insulation clearance provided by the cable high voltage cable is:

CAT. NUM.	PRODUCT	SEPARATION DISTANCE (S)
30000199	High Voltage Cable End Tip (stranded copper conductor)	75 cm
30000299	High Voltage Cable End Tip (stranded aluminum conductor)	95 cm

Depending on the cable design and LPS class of the facility, the maximum cable length that should be used is:

30000199	**Maximum cable length**		
	Lightning protection class		
Number of cables	I	II	III oraz IV
1	-	12,50 m	18,75 m
2	14,20 m	18,94 m	28,40 m
3 or more	21,30 m	28,40 m	42,61 m

30000299	**Maximum cable length**		
	Lightning protection class		
Number of cables	I	II	III oraz IV
1	-	15,83 m	23,75 m
2	17,99 m	23,99 m	35,98 m
3 or more	26,99 m	36,98 m	53,98 m

If separation distance exceeds s=75cm, use additional cables to reduce it. The reduction of the separation distance through the application of additional conductors takes place only when the distance between the wires is not less than 20 cm. This minimizes the interaction of magnetic fields on the cables. If the wires are arranged along each other, then the separation distance and maximum cable length are not reduced. The values given in the table are valid for all type B earththing electrodes, and type A earththing electrodes, where the difference of resistance of individual electrodes is less than or equal 2. If the conditions in the building require longer cables, you should consult with an lightning protection systems expert. The maximum lenght of high-voltage cable depends on the precise spacing of the separation distance.

Required tools:


Stripping Tool
cat. num. 31700101


cable scissors
cat. num. 31400101

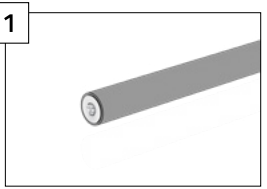

pliers


heat gun


1 person

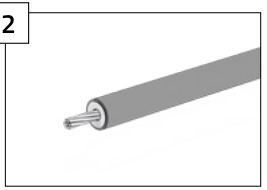

5 minutes

1



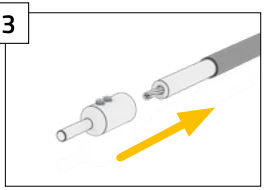
At 30 mm distance remove all insulating layers, using stripping tool 31700101

2



Using scissors 31400101 remove 2 external cable layers at the distance of 120mm. Scissors blades, should not damage the insulating layer of the cross-linked polyethylene.

3



Put the High voltage cable tip onto the core of the cable. Make sure that the screws will have access to a vein when tightening.

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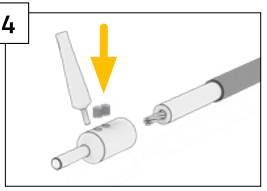
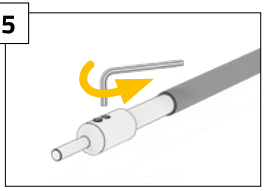


Apply a layer of glue in to the holes for the allen screws.

5



Tighten the screws with an Allen wrench.

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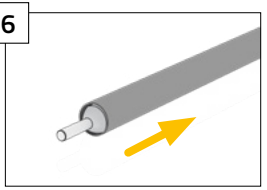
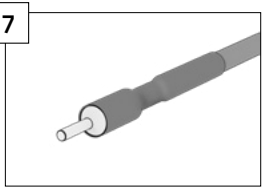


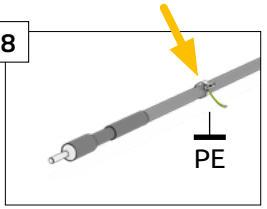
Heat shrinkable tube push onto the cable end to obscure the screw. Then, using a hot air blower or a propane-butane burner shrink the tube.

7



Properly shrunk tube should be smooth, without any defects. After shrinking leave the insulated element to cool completely.

8



You should use a grounding strap No.: 96440101 (64.1/E) at a distance of 1.5m from every end of the high-voltage cable and attach it to the equipotential bonding rail.