

SEPARABLE ELBOW CONNECTOR (INTERFACE B/400A)

For polymeric cables – Deadbreak operation – with mechanical conductor contact

elascon**EC**REFERENCE: **MSCE/EC -400-B****UTILISATION**

- For connection of polymeric MV cables to transformers, switchgear units, motors, etc.
- Indoor and outdoor installation. The connector is entirely protected by a watertight conductive envelope connected to earth.
- Continuous 400 A rms
- Overload 600 A rms (8 hours per 24-hour period).
- Operated when de-energized.
- Test by voltage detector through an inbuilt capacitive voltage divider.

CABLES

- Single core polymeric insulation (PE, XLPE, EPR ...).
- Copper or aluminium conductors, solid or stranded.
- Semi-conducting screen either extruded or taped.
- Metallic screen of tape, wire or polylam type.
- Insulation voltage up to 18/30 (36) kV.
- Conductor sizes: up to 24 kV ➔ 35 to 300 mm²
36 kV ➔ 35 to 240 mm²

STANDARDS

- Generally meets the requirements of CENELEC HD 629.1 S2 – IEC 60502-4 – NF C 33-051 – NF C 33-001.
- Interfaces: CENELEC EN 50180 – EN 50181.
- Mechanical conductor contact: IEC 61238-1 class A, HN 68-S-91.

**INTERFACE
B/400A****QUALITY ASSURANCE**

- The company has been assessed by third party to be in conformity with the requirements of the standard ISO 9001-EN 29001 version 2000.

PACKING

- Supplied as a kit of 3 single connectors containing all the necessary components.
- Shipping weight and volume (approx) of kit : 6 kg / 0,013 m³

INSTALLATION FEATURES

- No need for special tools, no heating, taping or filling.
- Vertical, angled or inverted position.
- No minimum distance between phases.
- Individual clamping by stainless steel brace.
- Energizing may take place immediately after the connector is plugged into its bushing, dead-end plug
- An unplugged connector must not be energized.

OTHER PRODUCTS

- Associated products such as bushing FMB0m-400 and accessories.
- Separable straight connector MSCS/EC-400-B.


**THORNE &
DERRICK
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ECREFERENCE: **MSCE/EC -400-B****DESCRIPTION****Rep 1 Multi-section mechanical conductor contact Al/Cu.**

Cover the section from 35 mm² to 300 mm².
Copper or aluminium core.
No need for special tools.

Rep 2 Tinned copper contact pin.

Tinned copper pin, screwed into the mechanical conductor contact.

Rep 3 Semi-conducting inner screen.

Insert of semi-conducting **EPDM** enclosing the metallic connections so that ionization of the air remaining trapped inside is prevented.

Rep 4 Semi-conducting outer envelope (thickness 3mm).

Jacket made of semi-conducting **EPDM**. Its design provides relief of electrical stress as does a cable screen. Its connection to the cable screen ensures that the assembly is maintained at earth potential. It allows to evacuate the short-circuit currents.

Rep 5 Insulating body.

Moulded from insulating **EPDM**, for integral reconstitution of insulation. It maintains a uniform contact pressure on the cable insulation and on the bushing interface, providing an excellent moisture seal.

Rep 6 Test point.

Electrically protected by a cap made of semi-conducting **EPDM**. A capacitive voltage divider allows the checking of absence of voltage before removing the connector.

Rep 7 Locking brace.

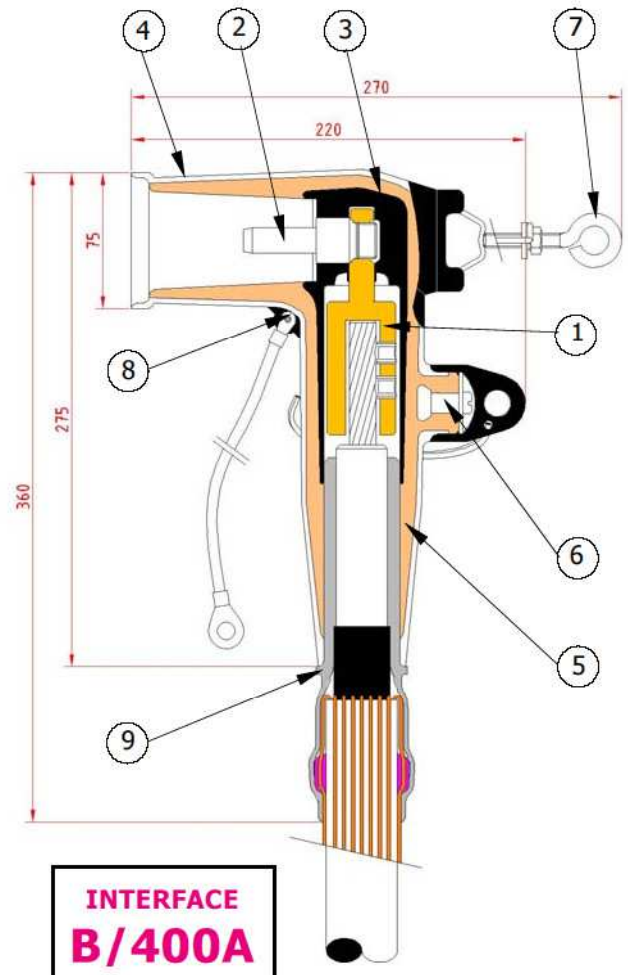
Stainless steel brace fastening the connector onto its mating bushing or other mating accessories.

Rep 8 Earthing eye.

For connection of the outer envelope to the metallic cable screen.

Rep 9 Moulded high permittivity reducer.

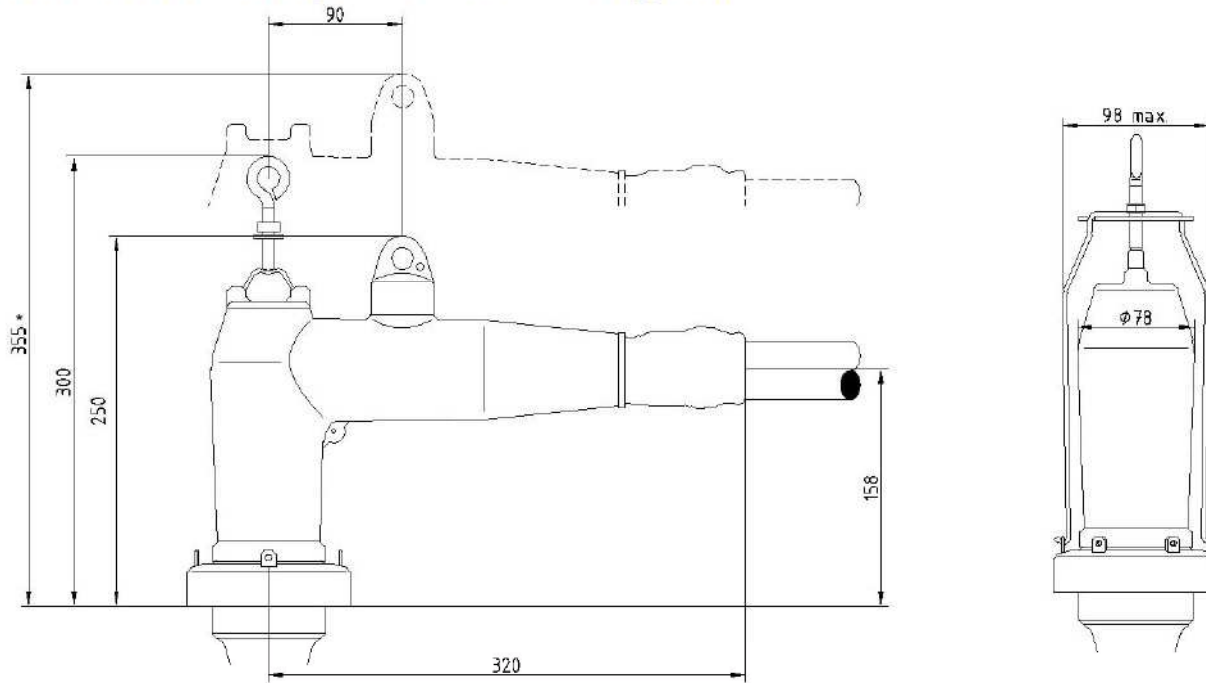
Adapt the connector body to the different cables insulations diameters.
Ensures watertight protection of the earthing device and enables the cable screen test.



100% of the separable connectors bodies are individually tested in factory
- Industrial power frequency
and partial discharges -

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(*) Minimum dimension required for disconnection

1. Select in the table below the kit model corresponding to the diameter over cable insulation and to the insulation voltage U_m in kV.

For cables with reduced insulation thickness or other cross-sections, please contact us.

2. Select suitable earthing device in the table below.

| Voltage | Diam. Over insulation in mm | | Conductor size in mm ² (for guidance only) | | Kit reference |
|---------|-----------------------------|------|---|-----|----------------------------|
| | Min. | Max. | | | |
| 12 kV | 13 | 22,3 | 25 | 120 | MSCE/EC-400-B-12-rA-25/120 |
| | 16,1 | 26,3 | 95 | 240 | MSCE/EC-400-B-12-rB-95/240 |
| 17 kV | 13 | 22,3 | 25 | 70 | MSCE/EC-400-B-17-rA-25/70 |
| | 16,1 | 26,3 | 35 | 120 | MSCE/EC-400-B-17-rB-35/120 |
| | 20,2 | 30,8 | 95 | 240 | MSCE/EC-400-B-17-rC-95/240 |
| 24 kV | 16,1 | 26,3 | 25 | 150 | MSCE/EC-400-B-24-rB-25/150 |
| | 16,1 | 26,3 | 70 | 185 | MSCE/EC-400-B-24-rB-70/185 |
| | 20,2 | 30,8 | 95 | 240 | MSCE/EC-400-B-24-rC-95/240 |
| | 22,7 | 33,0 | 95 | 240 | MSCE/EC-400-B-24-rD-95/240 |
| 36 kV | 20,2 | 30,8 | 25 | 95 | MSCE/EC-400-B-36-rC-25/95 |
| | 22,7 | 33,1 | 35 | 120 | MSCE/EC-400-B-36-rD-35/120 |
| | 25,6 | 35,3 | 70 | 240 | MSCE/EC-400-B-36-rE-70/240 |

| Earthing Device Reference | Type of Metallic Screen of Cable |
|---------------------------|----------------------------------|
| T1 | polylam |
| T2 | Copper tape |
| T3 | Copper wires |

EXAMPLE OF ORDER

20 kV polymeric cable, 1x 50 mm², diameter over insulation 21.5 mm, with copper wire screen, aluminium conductor:

MSCE/EC-400-B-24-rB-T3-25/150.