

# Separable straight connector with mechanical conductor contact (interface B / 400 A)

**elascon**  
EC

For polymeric cables – Deadbreak operation

Generally meets the requirements of C 33-051 - CENELEC HD 629.1 S2 - IEC 60502-4 - IEEE 386

Interfaces: CENELEC EN 50180 – EN 50181

Mechanical conductor contact: IEC 61238-1 class A.

## Medium Voltage (MV)

Up to 19/33 (36) kV

MV separable connectors rating 400 A (interface B)

Reference : MSCS/EC-400-B

**INTERFACE  
B/400 A**



## Product Application and Design

### 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).
- Dead-break operated.
- Voltage detection through an integrated 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 copper tape, copper wires or polylam type.
- Insulation voltage up to 19/33 (36) kV.
- Conductor sizes: 25 to 240mm<sup>2</sup>.

### Packing

Supplied as a kit of 3 single connectors containing all the necessary components.  
Shipping weight and volume (approx) of kit : 4.5 kg / 0.01 m<sup>3</sup>.

### Other products

- Associated products such as bushing FMB0m-400 and accessories for separable connectors 400A, interface B.
- Separable Elbow Connector MSCE/EC-400-B.

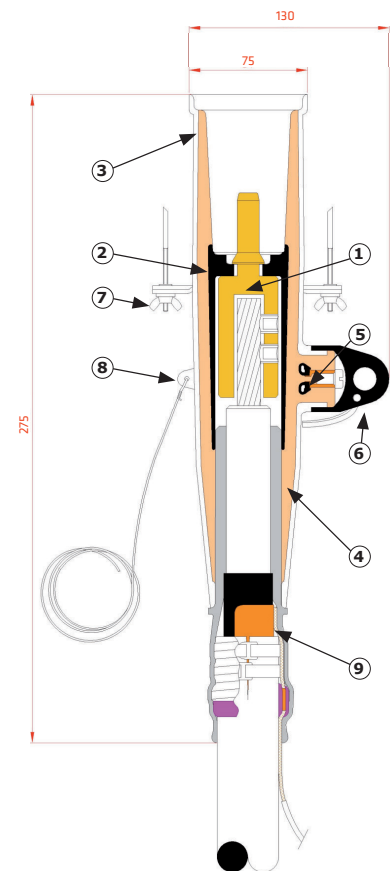


## Installation features

- The screen break design enables cable outer sheath testing without removing or dismantling the connector.
- No need for special tools, no heating, taping or filling.
- No minimum distance between phases.
- Individual clamping by stainless steel brace.
- Energizing may take place immediately after the connector is plugged on its mating bushing, dead-end plug ...
- An unplugged connector must never be energized.

## Description

- 1 Multi-section mechanical conductor contact Al/Cu**  
2 sizes cover the cross from 25 mm<sup>2</sup> to 240 mm<sup>2</sup>, copper or aluminum conductor designed with locking ring. No need for special tools.
- 2 Semi-conducting inner screen**  
Insert of molded semi-conducting EPDM enclosing the metallic contact piece so that the air inside is prevented.
- 3 Semi-conducting outer envelope (thickness 3 mm)**  
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 the assembly is maintained at earth potential. It allows to evacuate the fault currents.
- 4 Insulating body**  
Molded 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.
- 5 Test point**  
A capacitive voltage divider allows to check the absence of voltage before disconnecting the connector.
- 6 Cap**  
Molded semi-conducting EPDM. Protects and earthes the test point during normal use.
- 7 Locking brace**  
Stainless steel brace fastening the connector on to its mating bushing or other mating accessories.
- 8 Earthing eye**  
For connection of the outer envelope to the metallic cable screen.
- 9 Molded high permittivity adapter**  
Adapts the connector body to the different cable insulation diameter (cross section). Ensures watertight protection of the earthing device and enables the cable jacket test.



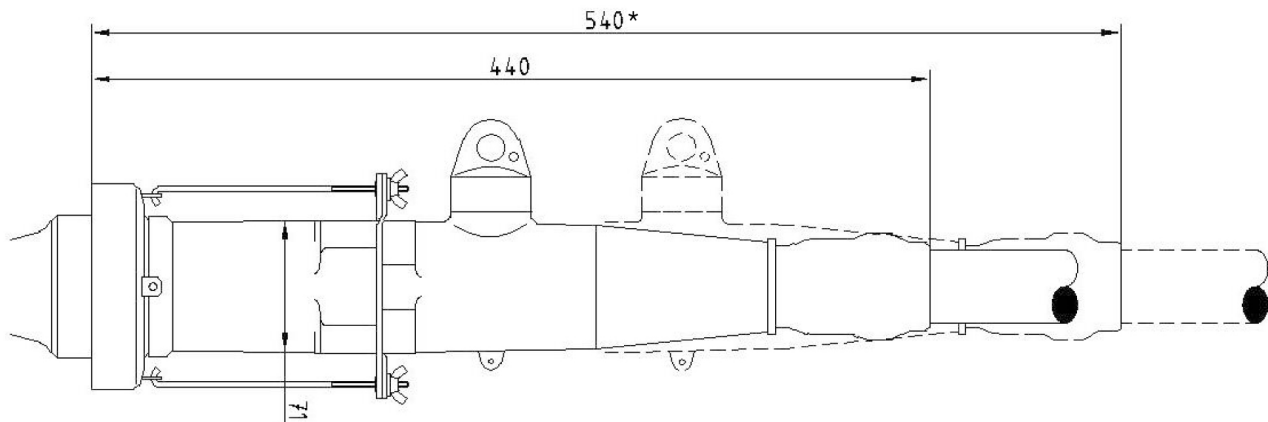
\*Mechanical conductor contact with copper contact pin, designed with locking ring.

### INTERFACE B/400 A

**100% of the separable connector bodies are individually tested in factory (Industrial Power Frequency and partial discharges). The screen break design enables cable outer sheath testing without removing or dismantling the connector.**

## Selection guide

### Overall dimensions (installed on bushing) in mm



(\*) Minimum dimension required for disconnection

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

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

For cables with other cross-sections, please contact us.

2- Select suitable earthing device in the table below.

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

### Example of order

1x 50 mm<sup>2</sup>, 20 kV polymeric cable, diameter over insulation 21.5 mm, with copper wire screen, aluminum conductor: **MSCS/EC-400-B-24-rB-T3-25/150**.