

INTERTECH

SEPARABLE CONNECTORS



 **PRYSMIAN**
CABLES & SYSTEMS

Welcome to INTERTECH

Intertech Engineering designs, supplies and installs cable jointing and termination equipment for electrical power transmission and distribution from LV to EHV.

Intertech is based in Melbourne with branch offices in NSW and Queensland. We offer Quality, Service, Reliability and Know How to the power transmission and distribution industry in Australia and New Zealand.

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PRYSMIAN SEPARABLE CONNECTORS

Intertech stock and provide technical support for the Prysmian Elascan range of Separable Connectors. The European manufactured connectors are made from high grade EPDM rubber. The range of Separable Connectors includes elbow, straight and tee connectors, as well as bushings and various accessories.

For further details and full datasheet, please contact Intertech Engineering.

1 Interface A - 250 Amp Separable Connectors

MSCE/EC-250 Range Taking Elbow Connector

MSCS/EC-250 Range Taking Straight Connector

2 Interface B - 400 Amp Separable Connectors

MSCE/EC-400 Elbow Connector

MSCS/EC-400 Straight Connector

MSCT/EC-400 Tee Connector

3 Interface C - 630 Amp Separable Connectors

MSCT/EC-630-C Tee Connector

FMCTXs-630/C Tee Connector

4 Standards and Testing

5 Interface Details



ELASCON by Prysmian

KEY ADVANTAGES

Prysmian ELASCON elbows are suitable for connection of polymeric cables to transformer, switchgear, motors and other industrial equipment.

There are a number of key advantages that are offered across the entire range of ELASCON elbows.

Features include:

- Wide ranging cable adaptors which typically suit an insulation range of ten radial millimetres.
- SICON Mechanical range taking conductor connectors.
- Conductor connectors that are suitable for use on either copper or aluminium conductors.
- There are no minimum distances required between phases.



SUPPLIED BY INTERTECH

ELASCON elbows are supplied as a kit of three single connectors containing all components for a complete installation, including fixing bail and earthing wire.

Installation requires no special tools, heating, taping or filling.

An electrically protected capacitive test point is provided for checking absence of voltage prior to disconnection.

Each kit comes complete with all necessary components and detailed instructions.

As each separable connector covers such a wide range of cable specifications, stock holdings can be reduced and late on-site changes accommodated easily.

Interface A—250 Amp (7.9mm pin type)

Deadbreak Separable Connectors

- Single Core Polymeric Cables
- Copper or Aluminium Conductors
- Shearhead mechanical connectors
- Fully Screened EPDM Body
- 250 Amp Continuous Rating
- 300 Amp Short Term Overload
- Up to 24kV Rating
- Indoor or Outdoor Installations
- Conductor sizes 16-95 mm²



MSCE/EC-250

MSCS/EC-250

SELECTION GUIDE

1. Select a Kit Reference that corresponds to the cable diameter over insulation.

*Model with adaptor

Diameter over Insulation (mm)		Kit Reference	Conductor size in mm ² (reference only)	
			Highest voltage in Um	
Min	Max		(11) 12kV	(22) 24kV
11.8	17.2	MSCE(S)/EC-250-A-12-25/50*	25 - 50	
17.2	25.0	MSCE(S)/EC-250-A-12-70/95	70 - 95	
17.2	25.0	MSCE(S)/EC-250-A-24-25/95		25-95

2. Select earthing arrangement for the table below.

Earthing reference	Type of Metallic Screen on Cable
T1	Polylam
T2	Copper tape
T3	Copper wires

EXAMPLE OF ORDER

22kV single core copper 95mm² cable with copper wire screen. Diameter over insulation is 23.9mm. Elbow type connector required.

MSCE/EC-250-A-24-T3-25/95

Interface B—400 Amp (14mm pin type)



Deadbreak Separable Connectors

- Single Core Polymeric Cables
- Copper or Aluminium Conductors
- Fully Screened EPDM Body
- 400 Amp Continuous Rating
- 600 Amp Short Term Overload
- Up to 36kV Rating
- Indoor or Outdoor Installations
- Conductor Sizes 25-240 mm²
- Range taking body and conductor lugs

SELECTION GUIDE

1. Select a Kit Reference that corresponds to the cable diameter over insulation.

Voltage	Diameter over Insulation (mm)		Approx. Cable Size (mm ²)	Kit Reference
	Min.	Max.		
(11) 12kV	13.0	22.3	25-120	MSCE(S)/EC-400-B-12-rA-25/120
	16.1	26.3	95-240	MSCE(S)/EC-400-B-12-rB-95/240
(15) 17kV	13.0	22.3	25-70	MSCE(S)/EC-400-B-17-rA-25/70
	16.1	26.3	35-120	MSCE(S)/EC-400-B-17-rB-35/120
	20.2	30.8	95-240	MSCE(S)/EC-400-B-17-rC-95/240
(22) 24kV	16.1	26.3	25-150	MSCE(S)/EC-400-B-24-rB-25/150
	16.1	26.3	70-185	MSCE(S)/EC-400-B-24-rB-70/185
	20.1	30.8	95-240	MSCE(S)/EC-400-B-24-rC-95/240
	22.7	33.0	95-240	MSCE(S)/EC-400-B-24-rD-95/240
(33) 36kV	20.2	30.8	25-95	MSCE(S)/EC-400-B-36-rC-25/95
	22.7	33.1	35-120	MSCE(S)/EC-400-B-36-rD-35/120
	25.6	35.3	70-240	MSCE(S)/EC-400-B-36-rE-70/240

2. Specify the voltage Um in kV. (12, 24 or 36kV)

3. Select earthing arrangement for the table below.

Earthing reference	Type of Metallic Screen on Cable
T1	Polylam
T2	Copper tape
T3	Copper wires

4. Select suitable range taking lug.

EXAMPLE OF ORDER

22kV single core aluminium 185mm² cable with copper wire screen. Diameter over insulation is 28.6mm. Elbow type connector is required.

MSCE/EC-400-B-24-rC-T3-95/240

Interface B—400 Amp (14mm pin type)

Deadbreak Separable Tee Connectors

- Single Core Polymeric Cables
- Copper or Aluminium Conductors
- Fully Screened EPDM Body
- 400 Amp Continuous Rating
- 600 Amp Short Term Overload
- Up to 36kV Rating
- Indoor or Outdoor Installations
- Piggy back arrangements for multiple cables
- Conductor Sizes 25-240 (300) mm²
- Range taking body and connector lugs



MSCT/EC-400

SELECTION GUIDE

1. Select a Kit Reference that corresponds to the cable diameter over insulation.

Voltage	Diameter over Insulation (mm)		Approx. Cable Size (mm ²)	Kit Reference
	Min.	Max.		
(11) 12kV	13.0	22.3	25-120	MSCT/EC-400-B-12-rA-25/120
	16.1	26.3	95-240	MSCT/EC-400-B-12-rB-95/240
(15) 17kV	13.0	22.3	25-70	MSCT/EC-400-B-17-rA-25/70
	16.1	26.3	35-120	MSCT/EC-400-B-17-rB-35/120
	20.2	30.8	95-240	MSCT/EC-400-B-17-rC-95/240
(22) 24kV	16.1	26.3	25-150	MSCT/EC-400-B-24-rB-25/150
	16.1	26.3	70-185	MSCT/EC-400-B-24-rB-70/185
	20.1	30.8	95-240	MSCT/EC-400-B-24-rC-95/240
	22.7	33.0	95-240	MSCT/EC-400-B-24-rD-95/240
(33) 36kV	20.2	30.8	25-95	MSCT/EC-400-B-36-rC-25/95
	22.7	33.1	35-120	MSCT/EC-400-B-36-rD-35/120
	25.6	35.3	70-240	MSCT/EC-400-B-36-rE-70/240

2. Specify the voltage Um in kV. (12, 24 or 36kV)

3. Select earthing arrangement for the table below.

Earthing reference	Type of Metallic Screen on Cable
T1	Polylam
T2	Copper tape
T3	Copper wires

4. Select suitable range taking lug.

EXAMPLE OF ORDER

22kV single core copper 120mm² cable with copper tape screen. Diameter over insulation is 25.3mm. Straight type connector is required.

MSCT/EC-400-B-24-rB-T2-70/185
OR
MSCT/EC-400-B-24-rC-T2-95/240

Interface C—630 Amp (M16 bolted)



MSCT/EC-630-C

Deadbreak Separable Tee Connectors

- Single Core Polymeric Cables
- Copper or Aluminium Conductors
- Fully Screened EPDM Body
- 630 Amp Continuous Rating
- 900 Amp Short Term Overload
- Up to 36kV Rating
- Piggy back arrangements for multiple cables
- Indoor or Outdoor Installations
- Conductor Sizes 25-300mm²
- Range taking body and conductor lugs

SELECTION GUIDE

1. Select a Kit Reference that corresponds to the cable diameter over insulation.

Voltage	Diameter over Insulation (mm)		Approx. Cable Size (mm ²)	Kit Reference
	Min.	Max.		
(11) 12kV	13.0	22.3	25-120	MSCT/EC-630-C-12-rA-25/120
	16.1	26.3	95-240	MSCT/EC-630-C-12-rB-95/240
	22.7	33.0	185-300	MSCT/EC-630-C-12-rD-185/300
(15) 17kV	13.0	22.3	25-70	MSCT/EC-630-C-17-rA-25/70
	16.1	26.3	35-120	MSCT/EC-630-C-17-rB-35/120
	20.2	30.8	95-240	MSCT/EC-630-C-17-rC-95/240
	25.6	35.3	185-300	MSCT/EC-630-C-17-rE-185/300
(22) 24kV	16.1	26.3	25-150	MSCT/EC-630-C-24-rB-25/150
	16.1	26.3	70-185	MSCT/EC-630-C-24-rB-70/185
	20.2	30.8	95-240	MSCT/EC-630-C-24-rC-95/240
	22.7	33.0	95-240	MSCT/EC-630-C-24-rD-95/240
	25.6	35.3	185-300	MSCT/EC-630-C-24-rE-185/300
(33) 36kV	20.2	30.8	25-95	MSCT/EC-630-C-36-rC-25/95
	22.7	33.1	35-120	MSCT/EC-630-C-36-rD-35/120
	25.6	35.3	70-240	MSCT/EC-630-C-36-rE-70/240

2. Specify the voltage Um in kV. (12, 24 or 36kV)

3. Select earthing arrangement for the table below

Earthing reference	Type of Metallic Screen on Cable
T1	Polylam
T2	Copper tape
T3	Copper wires

4. Select suitable range taking lug.

EXAMPLE OF ORDER

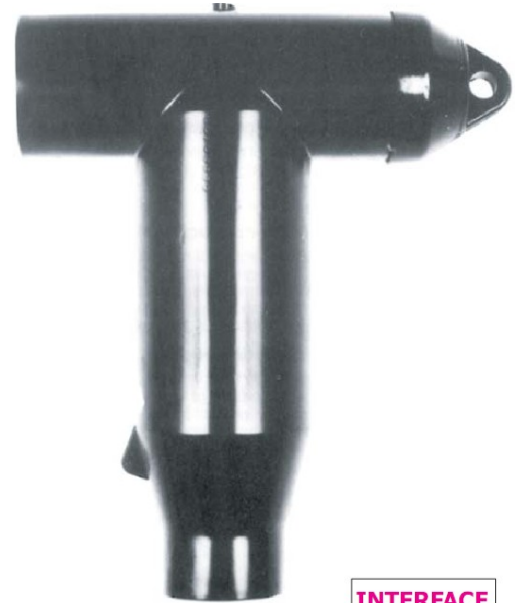
33kV single core aluminium 120mm² cable with copper tape screen. Diameter over insulation is 32.0mm.

MSCT/EC-630-C-36-rD-T2-35/120

Interface C—630 Amp (M16 bolted)

Deadbreak Separable Tee Connectors

- Single Large Core Polymeric Cables
- Copper or Aluminium Conductors
- Fully Screened EPDM Body
- 630 Amp Continuous Rating
- 900 Amp Short Term Overload
- Up to 36kV Rating
- Piggy back arrangements for multiple cables
- Indoor or Outdoor Installations
- Conductor Sizes 50-630 mm²



INTERFACE
C

FMCTXs-630/C

SELECTION GUIDE

1. Select a Kit Reference that corresponds to the cable diameter over insulation.

Diameter over Insulation (mm)		Kit Reference	Conductor size in mm ² (reference only)		
			Highest voltage in Um		
Min	Max		(11)	(22)	(33)
19.7	24.3	FMCTXS-630/C-NZ	120-185	50-95	
23.3	28.5	FMCTXS-630/C-NA	185-240	95-185	5070
27.6	32.6	FMCTXS-630/C-NB	300-400	185-240	95-150
30.6	35.8	FMCTXS-630/C-NC	400-500	240-300	120-185
33.8	38.8	FMCTXS-630/C-ND	500-630	400	185-300
36.8	41.8	FMCTXS-630/C-NE	630	500	300-400
39.8	45.8	FMCTXS-630/C-NF		500-630	400-500

2. Specify the voltage Um in kV. (12, 24 or 36kV)

3. Select earthing arrangement for the table below.

Earthing reference	Type of Metallic Screen on Cable
T1	Polylam
T2	Copper tape
T3	Copper wires

4. Select suitable lug:

- 4.1 - "C" for copper conductor
- "A" for aluminium conductor
- 4.2 indicate conductor size in mm²

EXAMPLE OF ORDER

22kV single core aluminium 400mm² cable with copper wire screen. Diameter over insulation is 36.4mm.

FMCTXs-630/C-ND-24-T3-A400

For two cables per phase also add 3 off FMPCs-400 straight connecting plugs.

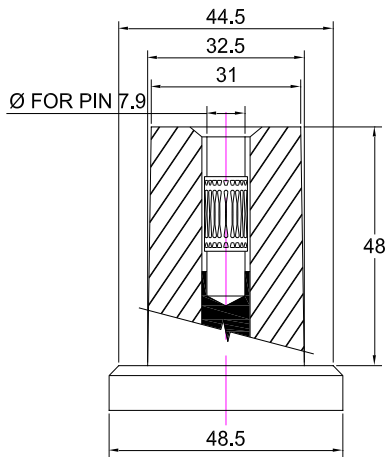
Standards and Testing

The Elascon Range of Separable Connectors have been designed and tested to the European Standards

- To suit Bushings complying to Cenelec EN 50180 and EN 50181
- Designed to the requirements of
 - Cenelec HD 629.1 S2
 - IEC 60502-4
- Range taking mechanical connectors are designed and tested to IEC 61238-1
- Type Tests are available upon request

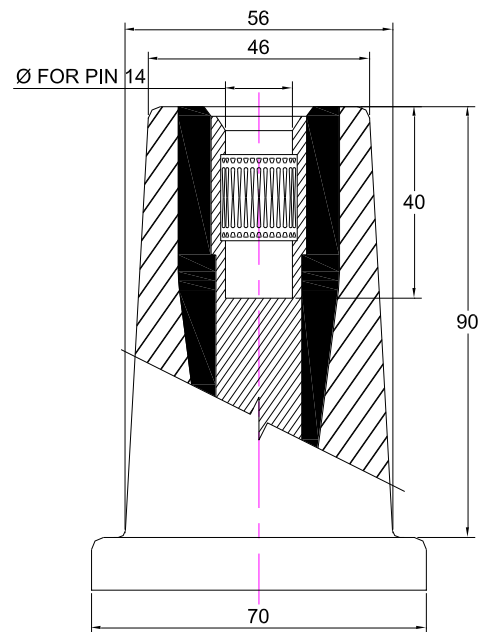


Interface Types



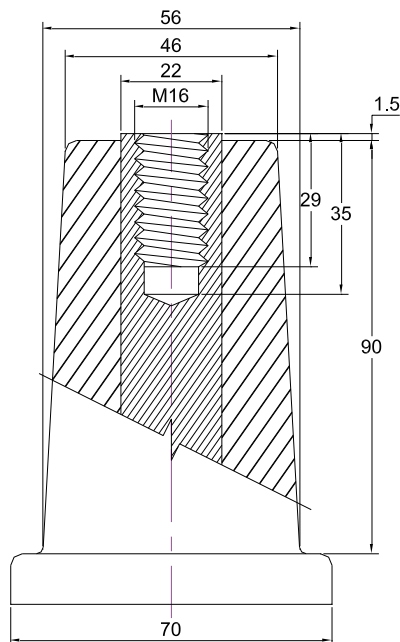
Interface A

- 250 Amps Rated
- 7.9mm diameter pin type connection



Interface B

- 400 Amps Rated
- 14mm diameter pin type connection



Interface C

- 630 Amps Rated
- 16mm diameter bolted type connection

Bushings to CENELEC EN 50180 and EN 50181

INTERTECH

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