# Euromold a Nexans company



Medium voltage separable connectors and bushings - Interface E - 5/8" -



# Nexans Network Solutions Div. Euromold

**COMPANY PRESENTATION** 













#### **EUROMOLD**

Euromold is the leading European specialised designer, manufacturer and distributor of prefabricated cable accessories for medium voltage energy distribution. Euromold provides a complete range of accessories for underground cables: premoulded EPDM rubber connectors for cables and epoxy bushings for transformers and switchgear, as well as a large range of coldshrinkable terminations and joints from 12 to 42 kV. Euromold is also the manufacturer of electrical components for the high voltage accessories of the Nexans group.

#### ISO 9001 Certificate

Since 1992, Euromold's commitment to quality is demonstrated by its ISO 9001 certification.

#### International standards

All our products meet the International standards like CENELEC HD 629.1, CENELEC EN 50180, IEC 60137, IEC 60502-4... or country specifications. Official certificates, CESI, KEMA, ATEX... prove the conformity of our products. Long duration tests of existing or new products are continuously performed in our test fields.

#### Laboratory accreditation

Since June 2000, Euromold's independent ELAB laboratory obtained the BELAC accreditation no.144-TEST conform with the European standards for laboratories ISO 17025 for electrical testing of low and medium voltage cable accessories according to the international standards HD 623 and HD 629.

While every care is taken to ensure that the information contained in this publication is correct, no legal responsibility can be accepted for any inaccuracy. Nexans Network Solutions N.V. - Div. Euromold reserves the right to alter or modify the characteristics of its products described in this catalogue as standards and technology evolve.



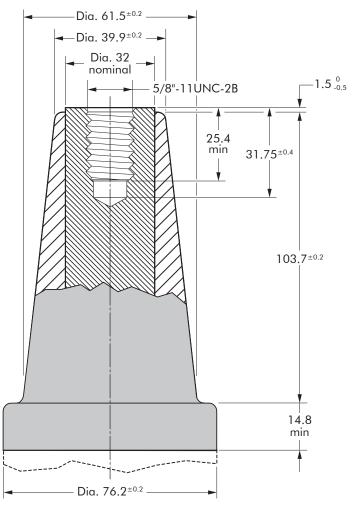
# SEPARABLE CONNECTORS AND BUSHINGS INTERFACE E - 5/8"

#### Table of contents

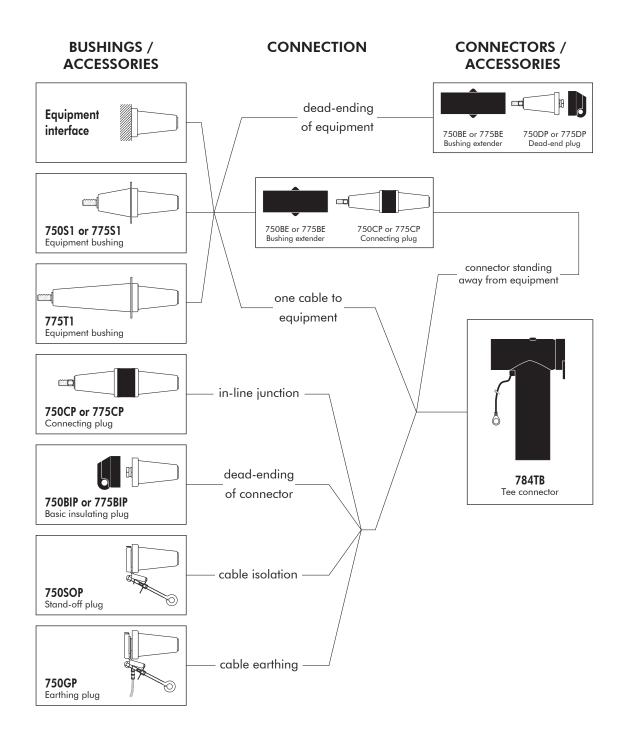
784TB - tee connector 750S1, 775S1 & 775T1 - equipment bushing Accessories Possible arrangements

## INTERFACE E - 5/8"

Dimensions according to IEEE std. 386 (in mm, except where noted).



# I Connecting possibilities







# 784TB INTERFACE E - 5/8" - TEE CONNECTOR FOR USE WITH BUSHINGS WITH ALUMINIUM CONTACT ROD

#### Application

Separable tee shape connector (bolted type) designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors, ...).

Also connects cable to cable when using the appropriate mating parts.

#### Technical characteristics

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.

Up to 42 kV Up to 800 A

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV 20.8/36 (42) kV

## Design

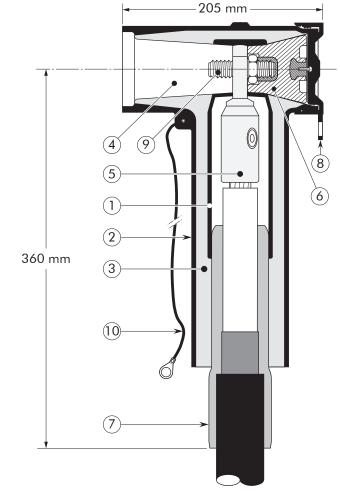
Separable connector comprising:

- 1. Conductive EPDM insert.
- 2. Conductive EPDM jacket.
- Insulating EPDM layer moulded between the insert and the jacket.
- 4. Type E 5/8" interface as described by IEEE 386.
- 5. Conductor contact.
- 6. Basic insulating plug 858 BIPA (with VD point).
- 7. Cable reducer.
- 8. Conductive rubber cap.
- 9. Stud/nut/washer 5/8".
- 10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.

#### Specifications and standards

The 784TB separable connector meets the requirements of CENELEC HD 629.1.

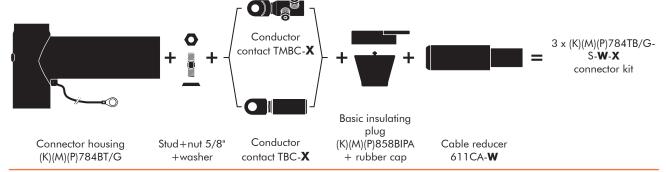


Separable connector	Voltage Um	Current Ir (A) When installed on an		sizes (mm²)	
type	(kV)	appropriate equipment bushing	min	max	
784TB/G	12	800	50	630	
K784TB/G	24	800	35	630	
M784TB/G	36	800	35	630	
P784TB/G	42	800	35	630	

#### Kit contents

The complete (K)(M)(P)784TB/G tee connector kit comprises 3x the following components:

The kit also comprises silicone grease, field control mastic, gloves, roll adhesive tape, installation instructions, venting rod and crimp chart.



#### Ordering instructions

To order the tee connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type.

Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

#### **Example:**

The copper wire screened cable is 36 kV, 240 mm<sup>2</sup> stranded aluminium with a diameter over core insulation of 37.0 mm.

Order 3 x

M784TB/G-S-32-240(K)M-10-2.

#### **Table W**

Ordering	Dia. over core insulation (mm)		
part number	min	max	
3 x 784TB/G-S-15- <b>X</b>	16.0	22.0	
3 x 784TB/G-S-19- <b>X</b>	20.0	26.5	
3 x 784TB/G-S-22- <b>X</b>	23.5	31.0	
3 x 784TB/G-S-27- <b>X</b>	28.5	37.5	
3 x 784TB/G-S-32- <b>X</b>	34.0	42.5	
3 x 784TB/G-S-37- <b>X</b>	39.0	48.5	
3 x 784TB/G-S-43- <b>X</b>	45.5	56.0	

#### Table X

Conduc-	Aluminium conductor		Aluminium and copper conductor	Copper conductor
(mm²)	DIN hexagonal	Deep indent	Bolted	DIN hexagonal
35	35(K)M-10-2	35KM-10-1	ń	35(K)M-14
50	50(K)M-10-2	50(K)M-10-1	16.95-14-5	50(K)M-14
70	70(K)M-10-2	70(K)M-10-1	16.9	70(K)M-14
95	95(K)M-10-2	95(K)M-10-1	16. 150.14.5	95(K)M-14
120	120(K)M-10-2	120(K)M-10-1	50.1	120(K)M-14
150	150(K)M-10-2	150(K)M-10-1	50. 95.240-14-5 300-14-5	150(K)M-14
185	185(K)M-10-2	185(K)M-10-1	95.240-1 120.300-14-5	185(K)M-14
240	240(K)M-10-2	240(K)M-10-1	120.30	240(K)M-14
300	300(K)M-10-2	300(K)M-10-1	5.40	300(K)M-14
400	400(K)M-10-2	400(K)M-10-1	18	400(K)M-14
500	500(K)M-10-2	500(K)M-10-1	30-17	500(K)M-14
630	630(K)M-10-2	630(K)M-10-1	1 400.630-14-5	630(K)M-14



For use with copper tape screened cables. Order: Kit MT.



For use in potentially explosive atmospheres (for 12 kV max.). Order: -/ATEX.



For use with other cable types.
Please contact our representative.



For applications outdoors and in humid climate. Order: +MWS.



Components can be ordered individually.



Multiple cable arrangement possible. Please contact our representative.





# **784TB**

INTERFACE E - 5/8" - TEE CONNECTOR FOR USE WITH BUSHINGS WITH COPPER CONTACT ROD

#### Application

Separable tee shape connector (bolted type) designed to connect polymeric insulated cable to equipment (transformers, switchgear, motors, ...).

Also connects cable to cable when using the appropriate mating parts.

#### Technical characteristics

- The thick conductive EPDM jacket provides a total safe to touch screen which ensures safety for personnel.
- Each separable connector is tested for AC withstand and partial discharge prior to leaving the factory.

Up to 42 kV Up to 1250 A

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV 20.8/36 (42) kV

## Design

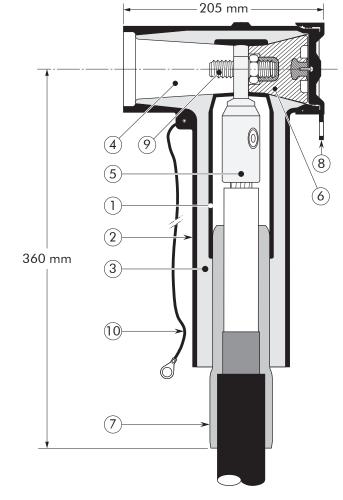
Separable connector comprising:

- 1. Conductive EPDM insert.
- 2. Conductive EPDM jacket.
- Insulating EPDM layer moulded between the insert and the jacket.
- 4. Type E 5/8" interface as described by IEEE 386.
- 5. Conductor contact.
- 6. Basic insulating plug 858 BIPA (with VD point).
- 7. Cable reducer.
- 8. Conductive rubber cap.
- 9. Stud/nut/washer 5/8".
- 10. Earthing lead.

The screen break design enables cable outer sheath testing without removing or dismantling the connector.

#### Specifications and standards

The 784TB separable connector meets the requirements of CENELEC HD 629.1.

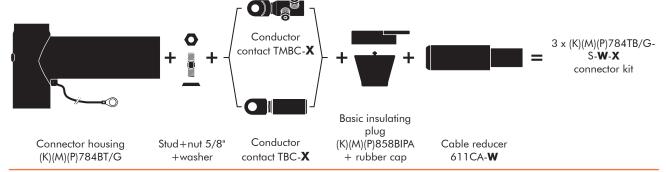


Separable connector	Voltage Um	Current Ir (A) When installed on an	Conductor sizes (mm²	
type	(kV)	appropriate equipment bushing	min	max
784TB/G	12	1250	50	630
K784TB/G	24	1250	35	630
M784TB/G	36	1250	35	630
P784TB/G	42	1250	35	630

#### Kit contents

The complete (K)(M)(P)784TB/G tee connector kit comprises 3x the following components:

The kit also comprises silicone grease, field control mastic, gloves, roll adhesive tape, installation instructions, venting rod and crimp chart.



#### Ordering instructions

To order the tee connector, select the ordering part number which gives you the best centring of your core insulation diameter and substitute **X** using table X, according to your conductor size and type.

Add a 'K' for use up to 24 kV, add an 'M' for use up to 36 kV, add a 'P' for use up to 42 kV.

#### **Example:**

The copper wire screened cable is 36 kV, 240 mm<sup>2</sup> stranded aluminium with a diameter over core insulation of 37.0 mm.

Order 3 x

M784TB/G-S-32-240(K)M-12-2.

#### **Table W**

Ordering	Dia. over core insulation (mm)		
part number	min	max	
3 x 784TB/G-S-15- <b>X</b>	16.0	22.0	
3 x 784TB/G-S-19- <b>X</b>	20.0	26.5	
3 x 784TB/G-S-22- <b>X</b>	23.5	31.0	
3 x 784TB/G-S-27- <b>X</b>	28.5	37.5	
3 x 784TB/G-S-32- <b>X</b>	34.0	42.5	
3 x 784TB/G-S-37- <b>X</b>	39.0	48.5	
3 x 784TB/G-S-43- <b>X</b>	45.5	56.0	

#### Table X

Conduc-	Aluminium conductor		Aluminium and copper conductor	Copper conductor
tor sizes (mm²)	DIN hexagonal	Deep indent	Bolted	DIN hexagonal
35	35(K)M-12-2	35KM-12-1	ιγ	35(K)M-11-2
50	50(K)M-12-2	50(K)M-12-1	16.95-14-5	50(K)M-11-2
70	70(K)M-12-2	70(K)M-12-1	16.9	70(K)M-11-2
95	95(K)M-12-2	95(K)M-12-1	50.150-14-5	95(K)M-11-2
120	120(K)M-12-2	120(K)M-12-1	50.13	120(K)M-11-2
150	150(K)M-12-2	150(K)M-12-1	50. 95.240-14-5 300-14-5	150(K)M-11-2
185	185(K)M-12-2	185(K)M-12-1	95.240-1	185(K)M-11-2
240	240(K)M-12-2	240(K)M-12-1	120.30	240(K)M-11-2
300	300(K)M-12-2	300(K)M-12-1	5.40	300(K)M-11-2
400	400(K)M-12-2	400(K)M-12-1	18	400(K)M-11-2
500	500(K)M-12-2	500(K)M-12-1	30-17	500(K)M-11-2
630	-	630(K)M-12-1	1 1 400.630-14-5	630(K)M-11-2



For use with copper tape screened cables. Order: Kit MT.



For use in potentially explosive atmospheres (for 12 kV max.). Order: -/ATEX.



For use with other cable types.
Please contact our representative.



For applications outdoors and in humid climate. Order: +MWS.



Components can be ordered individually.



Multiple cable arrangement possible. Please contact our representative.





# 750S1, 775S1 & 775T1

**INTERFACE E - 5/8" EQUIPMENT BUSHING** 

#### **Application**

For use in equipment insulated with oil fluid, typically for transformers, switchgear, capacitors...

#### **Technical characteristics**

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

Up to 36 kV 800 A & 1250 A

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV

## Design

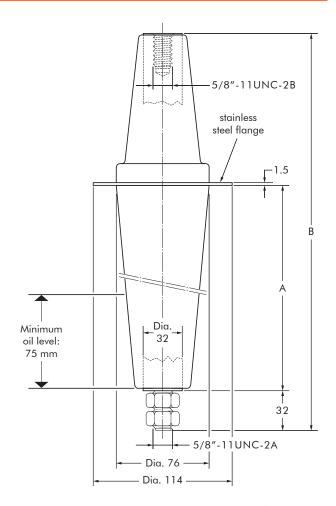
The equipment bushing is a moulded epoxy insulated part in accordance with ANSI/IEEE 386 std. (5/8" threading system).

#### Specifications and standards

The bolted type equipment bushings 750S1, 775S1 and 775T1 meet the requirements of IEC 60137.

## Ordering instructions

To order the equipment bushing, specify the type.

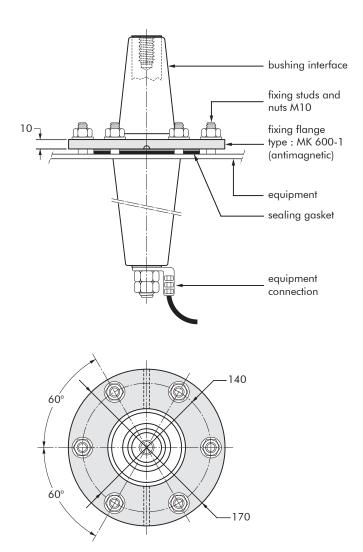


In mm, except where noted.

Equipment bushing	Voltage Ur	Current	Dimensions (mm)	
type	(kV)	(A)	Α	В
750\$1	36	800	75	235
775\$1	36	1250	75	235
775T1	36	1250	221	378

# FIXINGS FOR EQUIPMENT BUSHINGS

# 750S1, 775S1 and 775T1 bushings



# **I** Bushing fixing flange

To order the bushing fixing flange, simply specify MK600-1.





# ACCESSORIES INTERFACE E - 5/8"

## Application

For use with connectors and bushings with an INTERFACE E - 5/8" as described in IEEE std. 386.

#### Technical characteristics

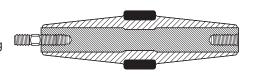
All these products, except the earthing plug, are tested for AC withstand and partial discharge prior to leaving the factory.

Up to 36 kV

6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV

#### 750CP & 775CP Connecting plug

For connecting two or more connectors with a type E - 5/8" interface together, thus creating a separable cable joint or a multiple cable connection to equipment.



### Ordering instructions

Order 750CP for 800 A or 775CP for 1250 A applications.

# 750BE & 775BE Bushing extender

Provides an extension piece to allow cables to stand away from equipment. Is used in conjunction with the connecting plug (750CP or 775CP).

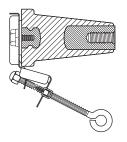


## I Ordering instructions

Order 750BE for 800 A or 775BE for 1250 A applications.

#### I 750SOP Stand-off plug

Is designed to support and 'dead-end' connectors with a type E - 5/8" interface when removed from equipment.



# Ordering instructions

Order 750SOP for 800 A and 1250 A applications.

## I 750GP Earthing plug

Is designed to support and earth connectors with a type E - 5/8" interface when removed from equipment.

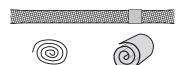


# Ordering instructions

Order 750GP for 800 A and 1250 A applications.

# Kit MT Earthing kit for copper tape screened cables

Contains a tinned copper braid (25 mm $^2$  - L = 500 mm), a tinned copper wire for cleating and water sealing mastic.



# I Ordering instructions

Order Kit MT for 800 A and 1250 A applications.

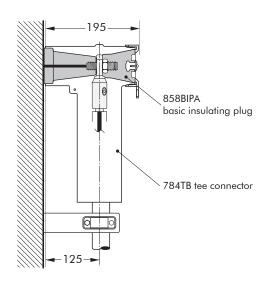




# POSSIBLE ARRANGEMENTS INTERFACE E - 5/8"

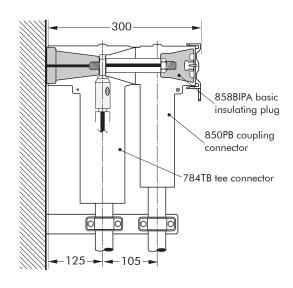
#### 784TB

Single cable arrangement. Order 784TB for 12 kV, 24 kV or 36 kV applications.



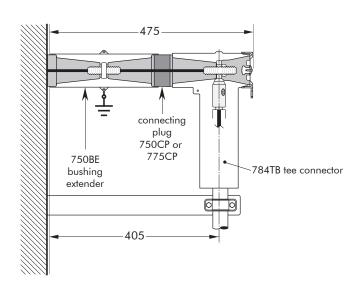
#### 784TB+850PB

Dual cable arrangement. Order 784TB+850PB for 12 kV, 24 kV or 36 kV applications.



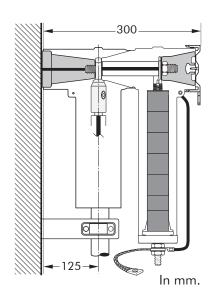
#### 750BE+784TB

Connector standing away from equipment.
Order 750BE+784TB
for 12 kV, 24 kV or 36 kV
applications.

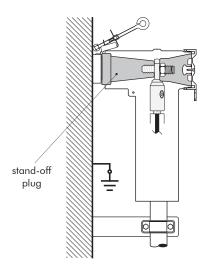


#### 784TB+850SA

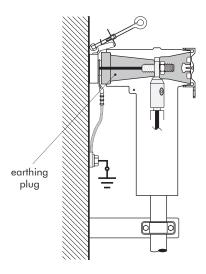
Dead-ending. Order 784TB+850SA for 12 kV, 24 kV or 36 kV applications.



# I Connector on stand-off plug



# Connector on earthing plug







# **NOTES**





Additional catalogue information on power cable accessories is available by contacting us at the address below:

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