Euromold
a Nexans company

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

Catalogue 2015
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**SEPARABLE CONNECTORS AND BUSHINGS**

**INTERFACE E - 5/8"**

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

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- 750S1, 775S1 & 775T1 - equipment bushing
- Accessories
- Possible arrangements
Connecting possibilities

**BUSHINGS / ACCESSORIES**

- Equipment interface
- 750S1 or 775S1 Equipment bushing
- 775T1 Equipment bushing
- 750CP or 775CP Connecting plug
- 750BIP or 775BIP Basic insulating plug
- 750SOP Stand-off plug
- 750GP Earthing plug

**CONNECTION**

- dead-ending of equipment
- one cable to equipment
- in-line junction
- dead-ending of connector
- cable isolation
- cable earthing

**CONNECTORS / ACCESSORIES**

- 750BE or 775BE Bushing extender
- 750DP or 775DP Dead-end plug
- 784TB Tee connector
**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**

<table>
<thead>
<tr>
<th>Voltage Um (kV)</th>
<th>Current Ir (A)</th>
<th>Conductor sizes (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/10 (12) kV</td>
<td>800</td>
<td>50</td>
</tr>
<tr>
<td>6.35/11 (12) kV</td>
<td>800</td>
<td>35</td>
</tr>
<tr>
<td>8.7/15 (17.5) kV</td>
<td>800</td>
<td>35</td>
</tr>
<tr>
<td>12/20 (24) kV</td>
<td>800</td>
<td>35</td>
</tr>
<tr>
<td>12.7/22 (24) kV</td>
<td>800</td>
<td>35</td>
</tr>
<tr>
<td>18/30 (36) kV</td>
<td>800</td>
<td>35</td>
</tr>
<tr>
<td>19/33 (36) kV</td>
<td>800</td>
<td>35</td>
</tr>
<tr>
<td>20.8/36 (42) kV</td>
<td>800</td>
<td>35</td>
</tr>
</tbody>
</table>

**Design**

Separable connector comprising:

1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. 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.
**Kit contents**
The complete (K)(M)(P)784TB/G tee connector kit comprises 3x the following components:

- Connector housing (K)(M)(P)784BT/G
- Stud + nut 5/8” + washer
- Conductor contact TMBC - X
- Basic insulating plug (K)(M)(P)858BIPA + rubber cap
- Cable reducer 611CA-W

3 x (K)(M)(P)784TB/G-S-W-X connector kit

**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 mm² 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**

<table>
<thead>
<tr>
<th>Ordering part number</th>
<th>Dia. over core insulation (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>min</td>
</tr>
<tr>
<td>3 x 784TB/G-S-15-X</td>
<td>16.0</td>
</tr>
<tr>
<td>3 x 784TB/G-S-19-X</td>
<td>20.0</td>
</tr>
<tr>
<td>3 x 784TB/G-S-22-X</td>
<td>23.5</td>
</tr>
<tr>
<td>3 x 784TB/G-S-27-X</td>
<td>28.5</td>
</tr>
<tr>
<td>3 x 784TB/G-S-32-X</td>
<td>34.0</td>
</tr>
<tr>
<td>3 x 784TB/G-S-37-X</td>
<td>39.0</td>
</tr>
<tr>
<td>3 x 784TB/G-S-43-X</td>
<td>45.5</td>
</tr>
</tbody>
</table>

**Table X**

<table>
<thead>
<tr>
<th>Conductor sizes (mm²)</th>
<th>Aluminium conductor</th>
<th>Aluminium and copper conductor</th>
<th>Copper conductor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DIN hexagonal</td>
<td>Deep indent</td>
<td>Bolted</td>
</tr>
<tr>
<td>35</td>
<td>35(K)M-10-2</td>
<td>35(K)M-10-1</td>
<td>35(K)M-14</td>
</tr>
<tr>
<td>50</td>
<td>50(K)M-10-2</td>
<td>50(K)M-10-1</td>
<td>50(K)M-14</td>
</tr>
<tr>
<td>70</td>
<td>70(K)M-10-2</td>
<td>70(K)M-10-1</td>
<td>70(K)M-14</td>
</tr>
<tr>
<td>95</td>
<td>95(K)M-10-2</td>
<td>95(K)M-10-1</td>
<td>95(K)M-14</td>
</tr>
<tr>
<td>120</td>
<td>120(K)M-10-2</td>
<td>120(K)M-10-1</td>
<td>120(K)M-14</td>
</tr>
<tr>
<td>150</td>
<td>150(K)M-10-2</td>
<td>150(K)M-10-1</td>
<td>150(K)M-14</td>
</tr>
<tr>
<td>185</td>
<td>185(K)M-10-2</td>
<td>185(K)M-10-1</td>
<td>185(K)M-14</td>
</tr>
<tr>
<td>240</td>
<td>240(K)M-10-2</td>
<td>240(K)M-10-1</td>
<td>240(K)M-14</td>
</tr>
<tr>
<td>300</td>
<td>300(K)M-10-2</td>
<td>300(K)M-10-1</td>
<td>300(K)M-14</td>
</tr>
<tr>
<td>400</td>
<td>400(K)M-10-2</td>
<td>400(K)M-10-1</td>
<td>400(K)M-14</td>
</tr>
<tr>
<td>500</td>
<td>500(K)M-10-2</td>
<td>500(K)M-10-1</td>
<td>500(K)M-14</td>
</tr>
<tr>
<td>630</td>
<td>630(K)M-10-2</td>
<td>630(K)M-10-1</td>
<td>630(K)M-14</td>
</tr>
</tbody>
</table>

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.
**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.

**Design**
Separable connector comprising:
1. Conductive EPDM insert.
2. Conductive EPDM jacket.
3. 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.

<table>
<thead>
<tr>
<th>Separable connector type</th>
<th>Voltage Um (kV)</th>
<th>Current Ir (A)</th>
<th>Conductor sizes (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>784TB/G</td>
<td>12</td>
<td>1250</td>
<td>50</td>
</tr>
<tr>
<td>K784TB/G</td>
<td>24</td>
<td>1250</td>
<td>35</td>
</tr>
<tr>
<td>M784TB/G</td>
<td>36</td>
<td>1250</td>
<td>35</td>
</tr>
<tr>
<td>P784TB/G</td>
<td>42</td>
<td>1250</td>
<td>35</td>
</tr>
</tbody>
</table>
Kit contents

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

- Connector housing (K)(M)(P)784BT/G
- Stud+ nut 5/8" +washer
- Conductor contact TMB6C
- Conductor contact TBC
- Basic insulating plug (K)(M)(P)858BIPG+ rubber cap
- Cable reducer 611CA-W

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 mm² 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

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

### Table X

<table>
<thead>
<tr>
<th>Conductor sizes (mm²)</th>
<th>Aluminium conductor</th>
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<tr>
<td></td>
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<td>Deep indent</td>
<td>Bolted</td>
</tr>
<tr>
<td>35</td>
<td>35(K)M-12-2</td>
<td>35KM-12-1</td>
<td>16.95-14-5</td>
</tr>
<tr>
<td>50</td>
<td>50(K)M-12-2</td>
<td>50KM-12-1</td>
<td>95.20-14-5</td>
</tr>
<tr>
<td>70</td>
<td>70(K)M-12-2</td>
<td>70KM-12-1</td>
<td>95.20-14-5</td>
</tr>
<tr>
<td>95</td>
<td>95(K)M-12-2</td>
<td>95KM-12-1</td>
<td>95.20-14-5</td>
</tr>
<tr>
<td>120</td>
<td>120(K)M-12-2</td>
<td>120KM-12-1</td>
<td>95.20-14-5</td>
</tr>
<tr>
<td>150</td>
<td>150(K)M-12-2</td>
<td>150KM-12-1</td>
<td>95.20-14-5</td>
</tr>
<tr>
<td>185</td>
<td>185(K)M-12-2</td>
<td>185KM-12-1</td>
<td>185.30-14-5</td>
</tr>
<tr>
<td>240</td>
<td>240(K)M-12-2</td>
<td>240KM-12-1</td>
<td>240.30-14-5</td>
</tr>
<tr>
<td>300</td>
<td>300(K)M-12-2</td>
<td>300KM-12-1</td>
<td>300.30-14-5</td>
</tr>
<tr>
<td>400</td>
<td>400(K)M-12-2</td>
<td>400KM-12-1</td>
<td>400.30-14-5</td>
</tr>
<tr>
<td>500</td>
<td>500(K)M-12-2</td>
<td>500KM-12-1</td>
<td>500.30-14-5</td>
</tr>
<tr>
<td>630</td>
<td>-</td>
<td>630(K)M-12-1</td>
<td>630(K)M-11-2</td>
</tr>
</tbody>
</table>

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.

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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.

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.

<table>
<thead>
<tr>
<th>Equipment bushing type</th>
<th>Voltage Ur (kV)</th>
<th>Current Ir (A)</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>750S1</td>
<td>36</td>
<td>800</td>
<td>75</td>
</tr>
<tr>
<td>775S1</td>
<td>36</td>
<td>1250</td>
<td>75</td>
</tr>
<tr>
<td>775T1</td>
<td>36</td>
<td>1250</td>
<td>221</td>
</tr>
</tbody>
</table>

In mm, except where noted.
750S1, 775S1 and 775T1 bushings

**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

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

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 750BE for 800 A or 775BE 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).

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.
**Kit MT**  
**Earthing kit for copper tape screened cables**  
Contains a tinned copper braid (25 mm² - L = 500 mm), a tinned copper wire for cleating and water sealing mastic.

**Ordering instructions**  
Order Kit MT for 800 A and 1250 A applications.

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**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.

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**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.

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**Kit MT**  
**Earthing kit for copper tape screened cables**  
Contains a tinned copper braid (25 mm² - L = 500 mm), a tinned copper wire for cleating and water sealing mastic.

**Ordering instructions**  
Order Kit MT for 800 A and 1250 A applications.
POSSIBLE ARRANGEMENTS
INTERFACE E - 5/8"

<table>
<thead>
<tr>
<th>784TB</th>
<th>Single cable arrangement. Order 784TB for 12 kV, 24 kV or 36 kV applications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>784TB+850PB</td>
<td>Dual cable arrangement. Order 784TB+850PB for 12 kV, 24 kV or 36 kV applications.</td>
</tr>
<tr>
<td>750BE+784TB</td>
<td>Connector standing away from equipment. Order 750BE+784TB for 12 kV, 24 kV or 36 kV applications.</td>
</tr>
<tr>
<td>784TB+850SA</td>
<td>Dead-ending. Order 784TB+850SA for 12 kV, 24 kV or 36 kV applications.</td>
</tr>
</tbody>
</table>
Additional catalogue information on power cable accessories is available by contacting us at the address below:

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