

# Cross currents

JULY, 2009

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## elmex Test Disconnect Terminals from 2.5 up to 10 sq mm For Power and Control Circuits

elmex offers a wide range of terminals with disconnecting features for application in power and control circuits for temporary disconnection (for testing/maintenance purposes) at zero potential/at no load.

elmex has now developed Plug & Socket type terminal PS 8M, in polyamide housing, particularly for applications in semi-draw out type motor control circuits/feeders. The terminal is suitable for **termination of conductor size 0.5 to 6 sq mm**. The connection between plug and socket parts of the terminal is established by contact mechanism which employs spring action that provides permanent high contact pressure with very low resistance to securely connect the plug pin with the socket. Current carrying parts of the terminals are silver plated to provide optimum conductivity. Conductor termination is by screw-clamp mechanism.

Terminal PS 8M is stackable to facilitate termination with disconnecting facility, for multiple cables, depending on the application. This feature allows

use of only required number of terminals for stacking.

PS 8M terminals are available with options to mount on TS 35 DIN rails. The mounting feet can be attached to the terminals at the end of the stack, as shown in FIG 3. The feet can be attached either to the plug or the socket. For disconnecting, the plug and the socket can be pulled apart.

**PS 8M are available in different colours.** Use of PS 8M in different colours is an added advantage for ready identification.

The **draw-out feature** of PS 8M makes it a convenient choice **for panels with modular constructions wherein separately wired modules or panels can be connected with one another once they are completely wired internally.** Such a modular design facilitates quick disconnection for test and maintenance work.

IEC 60947-7-1: 800 V / 32 A / 6 sq mm / 0.8 Nm

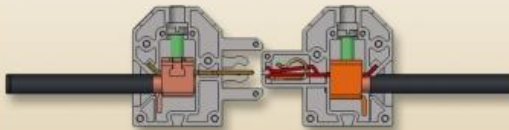


FIG 1 : Sectional View of Plug and Socket Terminal PS 8M

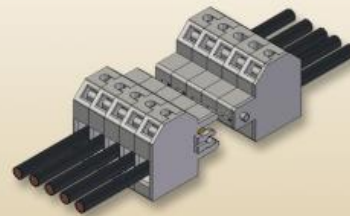


FIG 2 : Plug and Socket Terminal PS 8M without foot

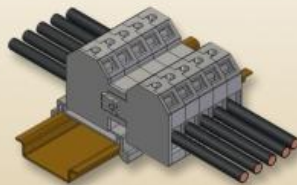


FIG 3 : Plug and Socket Terminal PS 8M mounted on DIN rail

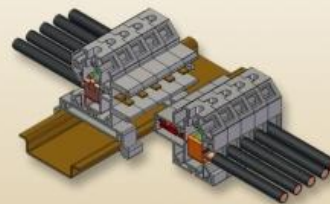


FIG 4 : Plug and Socket Terminal PS 8M in Disconnect position

**NEW**



**elmex Plug & Socket Test Disconnect Terminal PS 8M (Polyamide)**

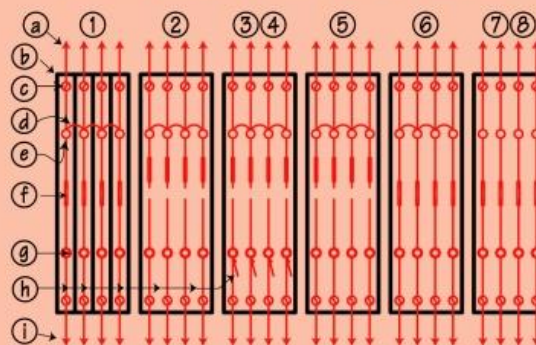
**elmex RANGE OF TEST DISCONNECT TERMINALS**

Type	Ratings	Typical Application	Type of Disconnection	Mounting Channel (DIN/IEC)
<b>PS 8M</b>	800 V / 32 / 6 sq mm / 0.8 Nm	Semi draw-out type motor Control Circuits	Disconnect Plug & Socket	TS 35
<b>KLTD M4</b>	800 V / 41 A / 6 sq mm / 2 Nm	CT Secondary Circuit	Disconnect Sliding Link	TS 35
<b>KUTSD 6</b>	800 V / 38 A / 6 sq mm / 1.4 Nm	CT Secondary Circuit	Disconnect Sliding Link	TS 35
<b>KSTD 6WS</b>	800 V / 41 A / 6 sq mm / 0.8 Nm	CT Secondary Circuit	Disconnect Sliding Link	TS 35
<b>KUTD 10</b>	630 V / 61 A / 10 sq mm / 1.2 Nm	CT Secondary Circuit	Disconnect Sliding Link	TS 35
<b>KULTD 6</b>	800 V / 32 A / 6 sq mm / 1 Nm	CT Secondary Circuit	Disconnect Sliding Link	TS 35
<b>KUDT 4</b>	800 V / 15 A / 2.5 sq mm / 0.4 Nm	Control & Instrumentation	Disconnect Knife Edge	TS 35
<b>KULTD 4</b>	800 V / 20 A / 4 sq mm / 0.6 Nm	Control & Instrumentation	Disconnect Knife Edge	TS 35
<b>KULTD 4WS</b>	800 V / 20 A / 4 sq mm / 0.6 Nm	Control & Instrumentation	Disconnect Knife Edge	TS 35
<b>DCDT 4</b>	800 V / 20 A / 4 sq mm	Control & Instrumentation	Disconnect Knife Edge	TS 35
<b>PSC 1/5</b>	600 V / 25 A / 2.5 sq mm / 0.5 Nm	Semi draw-out type motor Control Circuits	Screw driver operated knob to disconnect Plug & Socket	TS 32
<b>CATD M4</b>	800 V / 41 A / 6 sq mm / 1.2 Nm	CT Secondary Circuit	Disconnect Sliding Link	TS 32
<b>CLTD M4</b>	800 V / 45 A / 6 sq mm / 1.2 Nm	CT Secondary Circuit	Disconnect Sliding Link	TS 32
<b>CSTD 6</b>	800 V / 38 A / 6 sq mm / 0.8 Nm	CT Secondary Circuit	Disconnect Sliding Link	TS 32

## elmex TEST DISCONNECT TYPE TERMINALS WITH SLIDING LINK FOR CT SECONDARY CIRCUITS

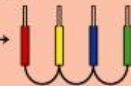


**DIAGRAM SHOWING PRINCIPLE OF APPLICATION**

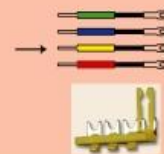


1-8 Sequence of operations for testing relays and meters

- a Wiring from CT secondary
- b 4 nos. **elmex** Disconnecting Type Terminals
- c **elmex** Screw Clamp Termination
- d Shorting Cord for CT-Sec Shorting
- e Hollow Round Nuts (CT Side)



- f Sliding Links
- g As in "e" but Relay's side
- h Current Source Test Cords
- i Wiring from Relays/Meters
- d example of **elmex** shorting Link type SLD6 - 4 way for KULTD 6



**elmex** Disconnecting type terminals have certain special features, which make them eminently suited for application in CT secondary circuits. These features are of special interest to the end-users as well as designers of LT/HT switchgear and controlgear, because they provide an easy, quick and safe method of on-site testing of relays and meters, connected in the CT secondary circuits.

**The special features of **elmex** disconnecting type terminals are:**

1. **Sliding link**, easily slidable and operated by standard screw driver
2. **elmex shorting link** for single phase and 3 phase circuits for shorting adjacent terminals, and thereby CT-secondary.
3. **Long round nuts** (i.e. hollow studs), which receives standard banana pins. This feature enables users to prepare their own shorting cord and current-source test cords with banana pins, as shown in the diagram.

**The sequence of operations on **elmex** disconnecting type terminals with sliding links for on site testing, as shown in the diagrams, is summarised as follows:**

1. Short the CT side long round nuts of **elmex** terminals (using shorting cord or **elmex** shorting links)
2. Slide out the sliding link provided within the terminal, by loosening the securing screw and tightening it in slide-out position.
3. Connect current source test-cords to relay and meter side long round nuts of **elmex** terminals.
4. Conduct testing on relays and meters.

**Sequence for returning to in-service status is just reversed:**

5. Disconnect current-source test-cords.
6. Return sliding link to in-service position, and secure it by its fixing screw.
7. Remove shorting links/shorting cord.
8. Back to in-service position.

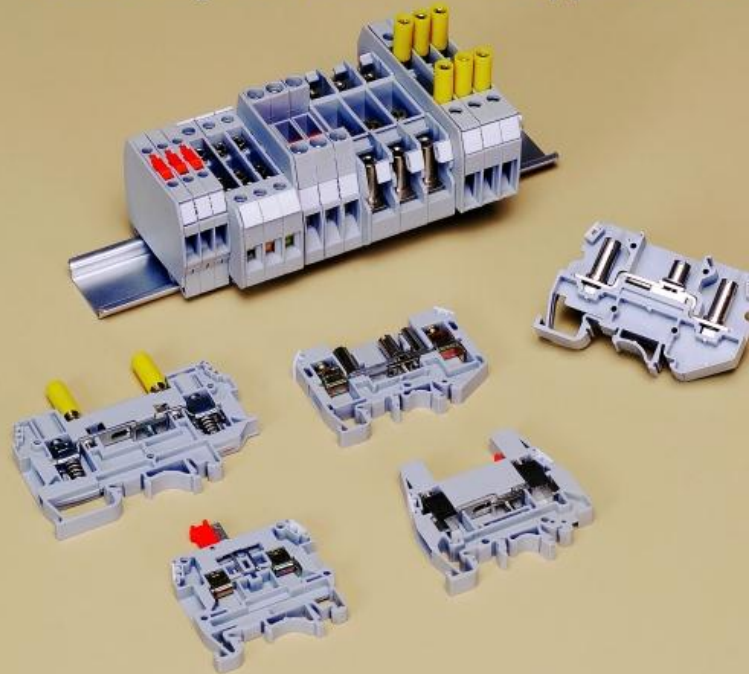
**elmex** shorting link type **SLD 6** for **KULTD 6** shown above, remains within the block of four terminals in service. This product, originally developed for ring main units, is now used for other applications also.



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## **elmex Test Disconnect Terminals :** **Wide range to meet diverse applications**



### **TEST DISCONNECT TERMINALS :**

- ✓ Disconnects continuity without removing conductors
- ✓ Sliding Link and Knife Edge Type Disconnecting
- ✓ Suitable for Fork/Ring as well as Pin type lugs
- ✓ Available in Polyamide and Melamine Housings

We welcome your suggestions and queries regarding our products and feedback about CROSS CURRENTS. Write to us at [ask@elmex.net](mailto:ask@elmex.net)



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TECHNICAL SPECIFICATIONS MAY CHANGE IN LINE WITH TECHNICAL ADVANCES AND INDUSTRY STANDARDS.