cross currents

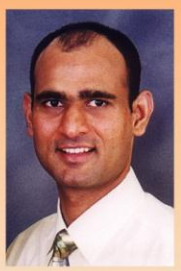
DECEMBER, 2003

FOR PRIVATE CIRCULATION ONLY

Dear Friends,

Here's wishing all of you a very Prosperous and Fulfilling 2004! We take this opportunity to launch Cross Currents, a newsletter that we intend to publish regularly, reaching out and touching every member of the vast Elmex Family settled in many parts of the globe.

The idea of Cross Currents is to talk to each other, initiate a dialogue -- accept your feedback and work on it, share our domain knowledge and experience, our products and processes. We'll tell you what we've done, you tell us what more you want us to do. Together we'll ignite the spark of innovation and productivity for a brighter future for both of us and the industry that we are a part of.



With Regards

Vipul Ray
Managing Director

ELECRAMA-2004

This year ELECRAMA 2004 is in New Delhi at the Pragati Maidan between February 3-7. As always ***elmex*** will be there with a new look stall, new products, new ideas. We will be at **Stall no. H-30, 32 - Hall 7 FGH**. We look forward to meeting you there!

The Best Stall Design (under 50 mtrs) Trophy that we won at ELECRAMA.

CST 185BB CST 185BC

NEW POWER TERMINALS

With the addition of new types - **CST 70** and **CST 185** - ***elmex*** has extended its range of products for higher current, offering you an even more flexible choice of termination techniques. The new CST 70 and CST 185 are DIN Rail Mounted Terminals (TS 32 mounted) in melamine housing, rated 190A and 350A respectively and **permit stranded cable in screw clamp and bolted flat conductors, or ring/fork lugged cables.**

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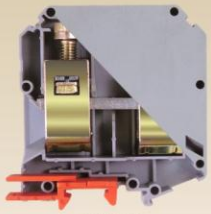
DPBB/DPBC : POWER (BUS BAR) TERMINALS - POLYAMIDE 6.6

Our existing **KUT** series high current terminals are rated 101A to 232A, our **DPBB/DPBC** (TS 35 mounted) are rated 192A and 269A, while in series type **CBT** (TS 32 mounted) ratings are from 110A to 250A. The KUT series permits stranded and solid conductors with screw clamp connection. The DPBB/DPBC are open type **bus bar terminals permitting ring type or fork type lugs for cable connections. The termination choice is screw clamp or bolted.**


CBT 250


KUT 95

ELMEX EXPORTS

Since the last few years, Elmex products have found a steady and growing demand in the global marketplace. As an **ISO 9001-2000** company, with products conforming to **UL, CSA, IEC,** & **IS** Standards, we have already made our mark in **USA, Malaysia, New Zealand** and a number of countries in **Africa,**

Disconnecting Type Terminals :

FOR CT SECONDARY APPLICATIONS

Disconnecting Type Terminal Blocks from ***elmex*** are popular, not just with industries in the Control and Instrumentation, LT/HT Switchgear and Control Panel manufacturing sectors, but also with their end-users. This is chiefly because our terminals with sliding links and other features provide them an easy and quick way for **on-site routine testing**, without the need to physically disconnect the wires. The sliding link feature is also useful in control circuits for isolation purposes in tracing control circuit faults.


KSTD 6WS

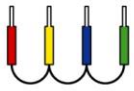

CATDM 4

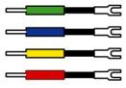
elmex's disconnecting terminals come with both sliding link and hinged knife edge lever designs. KUTSD 6, KUTD 10 (polyamide housing) and CATDM 4, CLTDM 4 (melamine housing) are eminently suited to CT secondary applications, not only because of the sliding link feature but also due to the **sleeve type** (4 mm diameter) **nut assemblies** that allow use as test sockets for test connections using banana plugs. Besides, the **Ring-Type and Fork-Type Lugs** of test wires can also be used with these terminals, a major plus-point for on-site testing.

The Test Procedure

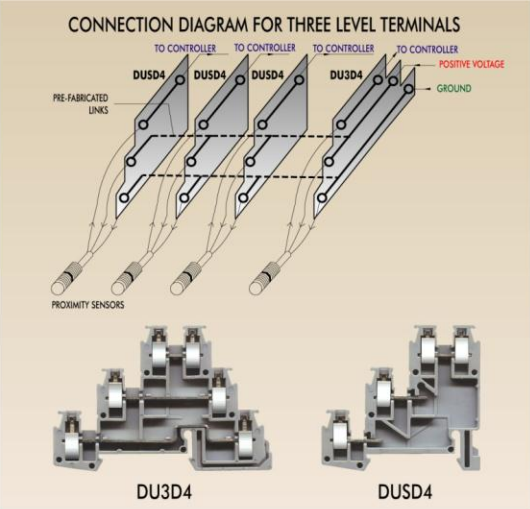
The CT secondary side terminals are first shorted by plugging in the shorting cord *(refer diagram below)* with banana plugs. The sliding link is then slid out and secured with its fixing screws. Then the test source wires with banana plugs are plugged in the sleeve type nut on the meter and relay side of the terminal block. Once testing is over, the test source wires are unplugged, then the sliding links are returned to their original in-service position. Lastly, the shorting cord is unplugged. In place of the shorting cord with banana plugs, our standard removable shorting links can be used.


KUTSD 6


SHORTING CORD


TEST SOURCE CORDS

For high vibration installations, type KSTD 6WS **with spring-loaded screw clamps** are the best - ***elmex's* unique contribution for this application.**



Triple Deck Terminals for Multiple Sensor Control

elmex's Triple Deck Terminals – **DU3D 4** and **DUSD 4** – are special application product for **Control and Automation Applications**.

In designing control circuit for proximity sensors and such other control elements, the controls take place through 3 wires - a positive, a negative and a sensor signal wire. DU3D 4 and DUSD 4 are **employed in combination** to fulfill this function. They are designed such that their lower and middle decks can be directly connected to lower and middle decks of adjacent terminals by means of **pre-fabricated shorting links**. The positive and negative supply for controls are connected to the decks, forming a "**control supply bus**". The top levels of DU3D 4 and DUSD 4 are all feed-through type, so that sensor signals can be connected to top levels for onward connection to the controller. These Terminals offer an economic, effective and space-saving solution for handling a **large number of sensor signals in control wiring**.

Interface Modules for Control & Automation Applications

econix manufactures various Interface Modules (IFM), essential peripherals for **PLC** (Programmable Logic Controllers), **DCS** (Distributed Control Systems), **SCADA** (Supervisory Control And Data Acquisition), **CNC** (Computer Numerical Control) and other dedicated computer systems. They are **fully integrated, composite** and **tested assemblies** with various electrical and electronic components as well as PCBs. They offer flexibility in controls layout at shop floor as well as during commissioning at site.

These Interface Modules can be mounted on standard DIN Rails. The range includes Passive Modules, Relay Modules and Modules with various components like Resistors, Diodes, Capacitors, MOV, etc. DIN Rail-mounted Solid State relays, with opto-isolation between input and output, are also available for fast switching of loads.

DIN Rail-mounted Passive Interface Modules offer compact plug-in type connectors - IDC/FRC Headers or D-subminiature on one side and PCB Connector for screw clamp type connections (wire size upto 2.5 sq mm) on the other side. The D-sub.connector facilitates 9, 15, 25, 37, 50 plug-in pins as required. IDC/FRC Headers have 10, 14, 16, 20, 26, 34, 40, 50, 64 pins. Thus a wide range of choices for designing interfacing between signals from controllers and field loads like motors and solenoids, valves, heaters, fans, etc., is available.

DIN Rail-mounted Interface Modules - Relay Boards : Controllers provide low power TTL/CMOS signals that cannot actuate field loads like motors, solenoids, etc. The IFM with relays are specifically designed to interface such signals to field loads upon energization of relay coil from controller signals.

econix provides many choices in relays and configurations for Interface Modules such as single or double pole double throw contact configuration, plug-in type O/E/N Relays, Omron Relays, etc. with **sturdy change over contact ratings** of 3 to 6 Amps at 28 VDC/230 VAC (resistive loads). The number of channels (or relays) per modules can be selected from 1, 2, 4, 6, 8, 16 channels with 1, 2, 4 change over contacts. The Modules meet the requirement for insulation strength (HV-1KV, 50 Hz for 1 Min.) with insulation resistance of more than 1000 megaohms between adjacent connections.

OUR PRODUCT RANGE

- ***Insulation Housings in Melamine, Polyamide, (Nylon) 6.6, FRPP***
- ***Conductor Clamping with Screw Clamps (MS & Brass), Spring Clamps, Bolted Connection, Anti-Vibration Spring-loaded Clamps***
- ***Mounting on Standard DIN-rails TS 35, TS 32 and TS 15***

Feed-through Terminals : Upto 185 sq mm conductor size	**Lighting Pole Terminals :** Upto 35 sq mm (100 Amps) 400 V. For long distance street lighting & similar applications
Power Terminals : Upto 350 Amps for cables, lugs, bus bars & solid conductors	**PCB Connectors :** 0.5-2.5 sq mm, 1/2/3way, Single, Double Deck, Fuse & Disconnecting type
Distribution Blocks : For radial distribution upto 16 outputs and upto 50 sq mm incoming & 10 sq mm outgoing	**Special Application Terminals :** Wire Wrap, Termi point etc.
Earth Terminals : Upto 35 sq mm for earthing	**Component Housing :** Double Deck Terminals with Diodes, LEDs, Resistors, Varistors etc.
Micro Terminals : On TS 15 rails for extremely compact arrangements	**Twin Terminals :** For 2 separate loading points on outgoing side
Double Deck Terminals : Feed-through type, Fuse/Feed Through/Disconnect type	**Plug and Socket type Terminals :** Suited for Draw-out type Control Panels
Triple Deck Terminals : Especially designed for Automation and Controls, Sensor Circuits	**Passive Interface Modules :** D-Sub upto 50 pins and IDC upto 64 pins
Disconnecting Type Terminals : Knife-edge Lever or Sliding Link Disconnector for isolation purposes & in CT secondary applications (site-testing)	**Relay Boards :** Upto 4 c-o contacts and high contact ratings, also available with protective fuse and indicator
Fuse Disconnection Terminal : With a fuse in disconnect lever	**Special Application Modules :** With Diodes, Signal Distributions, Resistors with/without LED, Solid State Relays, Custom-made Interface Modules
Switch Mode Power Supplies (SMPS) Panel-mounted : 5, 12, 24 VDC/90-270 VAC upto 10A rated current	
Custom-made Special Application Switches	

We welcome your suggestions and queries
regarding our products and feedback about CROSS CURRENTS.
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