

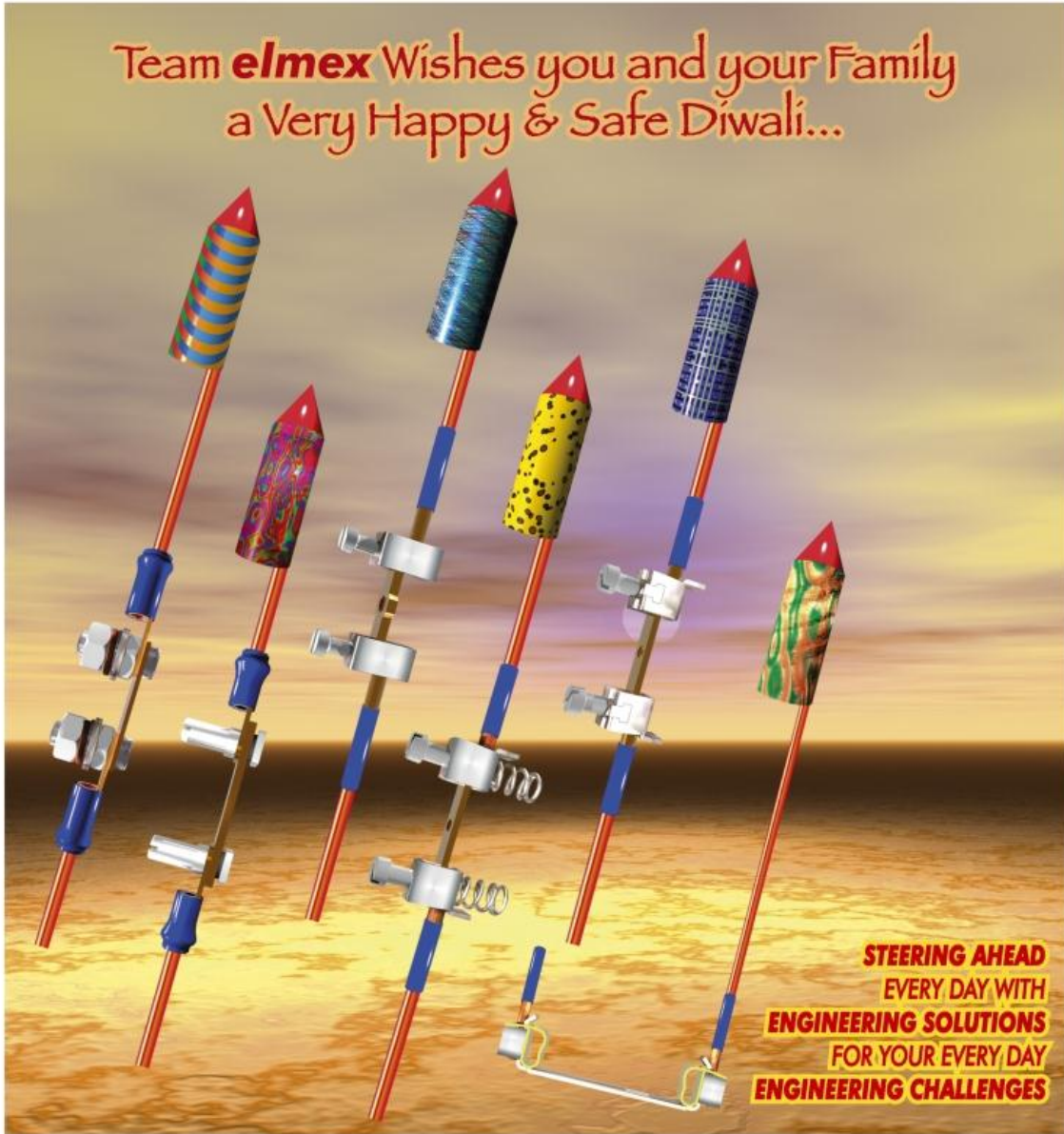


cross currents

OCTOBER, 2010

FOR PRIVATE CIRCULATION ONLY

Team **elmex** Wishes you and your Family
a Very Happy & Safe Diwali...



**STEERING AHEAD
EVERY DAY WITH
ENGINEERING SOLUTIONS
FOR YOUR EVERY DAY
ENGINEERING CHALLENGES**

NEW ADDITIONS : **elmex** RANGE OF TERMINALS

elmex has developed a range of **Neutral Links** for termination of neutral and ground wires on bus bar. Neutral Links **elmex** type **KNL 4**, **KNL 16** and **KNL 35** are suitable for termination of rated conductor size 6,16 and 35 sq mm respectively. Conductor clamping is by screw-clamp mechanism in all these three types of links. Technical specifications of the links are given in the adjacent column.

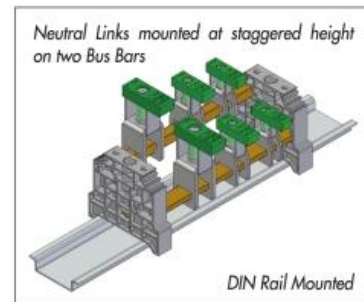
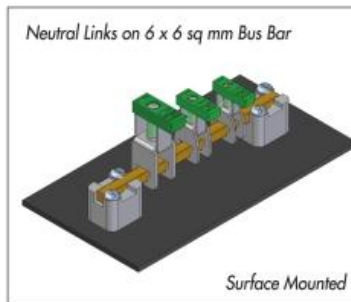
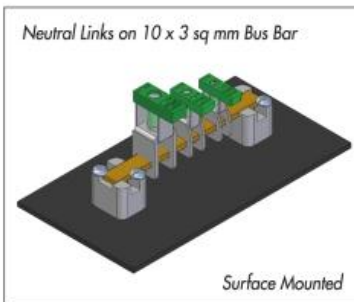
elmex Neutral Links basically comprise of four parts i.e. terminal clamp, contact holding piece, terminal screw and the insulation housing made of Polyamide 6,6. These neutral links are mounted on the bus bar. Bus bars needed for termination are available in standard length of 1 meter which can be cut to the required length at the customer end. Further, bus bars are available in rectangular cross sections of 10 x 3 sq mm as well as square cross sections of 6 x 6 sq mm and both of these sections are common for use with all three types of links.

Neutral links along with bus bars can be mounted in the electric wiring panel either on the DIN rail or surface (as shown in the illustrations below).

For mounting on DIN rail, **elmex** side clamp type **SCNL** is to be used. It is suitable for mounting on TS 35/TH 35 type DIN rails and is designed for accommodating both types of bus bars. The side clamp is designed in such a way that two bus bars with neutral links can be fixed at staggered height offering more flexibility in termination.

For surface mount applications, plastic support **elmex** type **KNLSUP** can be used. Support **KNLSUP** is designed for mounting both sizes of bus bars.

| DESCRIPTION | KNL 4 | KNL 16 | KNL 35 |
|------------------------|----------------|--------------|---------------|
| Pitch | 8.00 mm | 9.80 mm | 14.50 mm |
| Height x Width | 30 x 22 mm | 33 x 23 mm | 44 x 27 mm |
| Rated Cross Section | 6 sq mm | 16 sq mm | 35 sq mm |
| Connection Possibility | | | |
| Flexible | 0.5 - 06 sq mm | 6 - 16 sq mm | 10 - 35 sq mm |
| Rigid | 0.5 - 10 sq mm | 6 - 25 sq mm | 10 - 50 sq mm |
| Type of Connection | Screw Clamp | Screw Clamp | Screw Clamp |
| Current Rating | 41 A | 76 A | 125 A |
| Screw Size | M 3.5 | M 5 | M 6 |
| Torque | 0.8 Nm | 2 Nm | 2.5 Nm |



elmex & econix @ EXHIBITIONS



A view of our stall at INTEC 2010, International Industrial Trade Fair, held at Coimbatore from September 1 to 5, 2010.

MEET US AT

We will be participating at the Electrical Expo Kenya 2010, going to be held at the Kenyatta International Conference Centre, Nairobi, Kenya, from November 24 to 27, 2010.

We will be also participating at the 20th Middle East & Africa Power & Energy Exhibition, Electrix 2010 going to be held at the Cairo International Convention Centre, Cairo, Egypt, from December 4 to 7, 2010.



elmex CONDUCTOR CLAMPING TECHNOLOGY



Screw Clamp (Steel)

Screw Clamp consists of a U-Shaped steel part, called Yoke or Contact Clamp and a screw for clamping the conductor. Loosening of screws during service is prevented by elastic deformation of yoke while tightening of screws, which in turn grips screw threads firmly.

Outstanding feature of *elmex* screw-clamp technology is the provision of double interlock. The vertical arms of the Contact Clamp are folded at the top end into lips, overlapping each other. The lip from each arm locks into recess provided on the other arm, thus providing double interlocking. In the event of inadvertent overtightening, this design prevents damage to the threads and deformation of Contact Clamp.

elmex contact clamps are subjected to a special heat treatment process, so that the rolled inner threads of the clamp achieve a uniform and strong wear resistance. The rolled threads provide higher mechanical strength.

elmex uses cold forged rolled threaded washer base, or cheese head, screws. *elmex* contact-clamps and the screws are protected by zinc plating and passivation, under controlled plating process, for achieving better corrosion resistance.



Screw Clamp - Spring Loaded

Spring-loaded terminals are a special offering from *elmex* for high vibration applications, although *elmex* standard screw-clamp design is already resistant to vibrations.

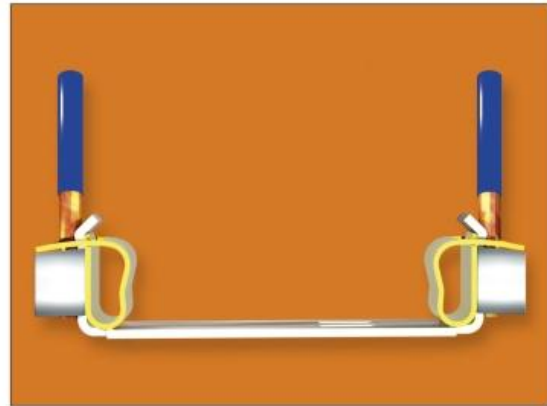
Compression springs are assembled under the contact clamps in pre-stressed condition. When the screws are fully tightened up to specified torque, the springs under the contact clamps provide additional pressure between current bar and conductor, making the terminals especially suitable for high vibration applications.



Screw Clamp (Copper - Alloy)

In copper alloy screw clamp design, also popularly called "All Brass Terminals", the clamping part is made of brass, and brass screws are used for clamping the conductor. The brass screw clamps are also designed to prevent loosening of screws during service.

By appropriate selection of materials and processes in the *elmex* copper-alloy screw clamp design, the phenomena of stress corrosion cracking is taken care of. Protection against atmospheric corrosion in *elmex* design is achieved by tin plating in a controlled plating process, with an undercoat of nickel plating to prevent zinc migration.



Spring Clamps

Spring clamp (also named "tension-clamp" or "cage clamp") provides screwless clamping and consists of stainless steel clamp, which functions as a spring for developing necessary contact pressure between current bar and conductor. Current bar is the current carrying part in the terminal block.

The spring clamp is brought under tension by inserting a screwdriver in the space provided. This creates necessary opening in the clamp for inserting conductor. After stripping the insulation at the conductor end, the conductor is fully inserted and the screwdriver is withdrawn. The clamp arm thereby presses the conductor firmly against current bar, by spring action of the clamp. *elmex* current bars have serrated face for better grip on conductor, giving lower contact resistance.



elmex CONDUCTOR CLAMPING TECHNOLOGY



Stud and Nut clamping for Cable Lugs:

This conductor-clamping design is especially developed for receiving Ring-type or Fork-type cable lugs. The terminal block consists of Housing, Studs and Nuts and the Current Bar.

long-nut with a slot at the top for applying screwdriver. These are used where assembly space is a constraint.

In *elmex* design the lugged cables are clamped to the current bar by tightening the nuts, in case of "Nut-Driver" type of Stud Terminals. For Screwdriver operated stud terminals, the stud is provided with a special

The metal parts in these types of *elmex* terminals are made of Copper alloy and tin plated, with nickel undercoat, for protection against atmospheric corrosion.

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 | Micro Terminals | Power (Bus Bar) Terminals | High Current Terminals | Fully Enclosed High Current Terminals |
| Double Deck Terminals | Triple Deck Terminals | Disconnecting Type Terminals | Fuse Disconnection Terminal | Fuse Feed Through Terminals |
| Spring Clamp Terminals | All Brass Terminals | Plug & Socket type Terminals | Special Application Terminals (C.T.-Sec.) | Distribution Blocks |
| Stud type Terminals | Spring Loaded Terminals | Lighting Pole Terminals | Earth Terminals | Special Application Switches |
| Plug-in type PCB Connectors | Low Consumption Relay Modules | Closed type Stud Terminals | Termitronix with Control Elements | Plug & Socket type Terminals |

We welcome your suggestions and queries regarding our products and feedback about CROSS CURRENTS. Write to us at ask@elmex.net



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