

# Cross currents

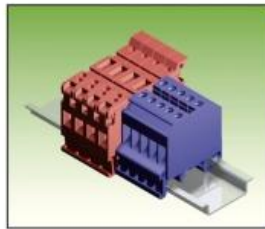
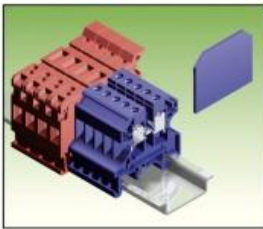
AUGUST, 2010

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## elmex ACCESSORIES FOR TERMINAL BLOCKS

We have presented many issues of Cross Currents where we have discussed about **elmex** Terminal Blocks, Interface Modules and Special Application Switches. In this issue we present technical details/usage of accessories with **elmex** Terminal Blocks.

Various **elmex** accessories are designed to perform specific functions. While some of the accessories are to be used as per the standard practices to ensure safe and normal service conditions, some of them are used to facilitate quick identification in wiring, easy trouble shooting, current distribution etc. Application of various types of accessories offered by **elmex** is described hereunder.

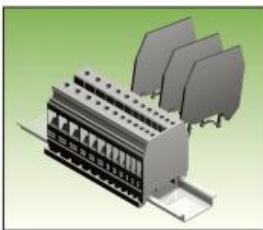


### End Plates :

End plates are used to insulate the stack of terminal blocks. End plates have the same profile as that of the terminal block and are available in different colours to match with the colour of the terminal block.

For terminal blocks made using Polyamide 6, 6 housing, the end plates are 'snap on' type i.e. they get press fitted on the terminal block side whereas in case of Melamine terminal blocks, the end plates require support by end clamps.

Certain terminal blocks are so designed that they have both the sides closed and hence it is not required to mount an end plate at the end of the stack. However for other terminal blocks with their one side open, it is normal practice to mount the end plate at the end of the stack to insulate the live parts as a safety measure against an electric shock hazard.



### Barrier Plates/Partition Plates :

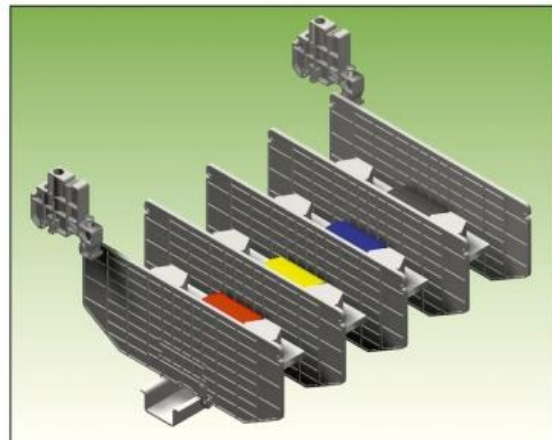
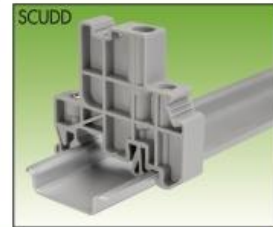
Barrier plates/Partition plates are used to serve one or more purposes :

- (1) to increase clearance and creepage distances in certain applications.
- (2) provide separation between terminal blocks with different potentials.
- (3) to readily differentiate stacks of terminal groups.

### End Clamps :

End Clamps also known as End Stoppers are used to hold a stack of terminal blocks on the mounting rail. Depending on the profile of the terminal block stack and the mounting channel, end clamps are available in different sizes and also in different designs. They are either made from Polyamide or Mild Steel duly plated.

It is recommended that while selecting the end clamp, due consideration is given to the strength of support required by the clamp. This is to ensure that the selected end clamp firmly supports the terminal block stack and prevents its movement on the rail and also its dislodging from the rail during normal handling or wiring.



## elmex ACCESSORIES FOR TERMINAL BLOCKS

### Group Markers and Warning Labels:

Group Markers are used for providing common marking for a group of terminal blocks and are mounted using a marking label holder, fixed on an end clamp for group marking.

The following types of Group Markers are available depending on marking requirement and type of DIN rail used:

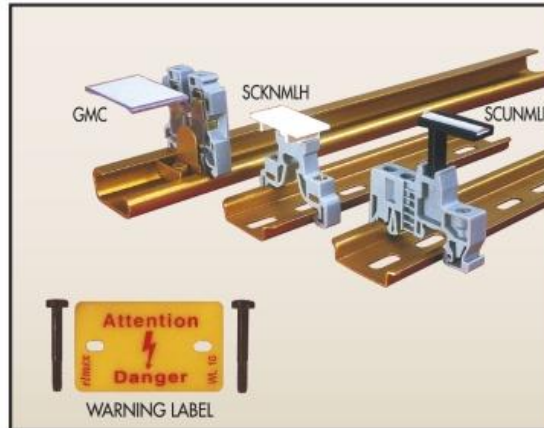
**SCUN MLH** : Suitable for Group Marking of terminal blocks mounted on DIN rail types TS 35/TS 32 (Top Hat Section/G Section).

**SKCN MLH** : Suitable for Group Marking of terminal blocks mounted on DIN rail type TS 35.

**DCKN MLH** : Specially designed for Group Marking of screwless terminal blocks mounted on DIN rail type TS 35 (Top Hat Section).

**GMC** : Suitable for Group Marking of terminal blocks mounted on DIN rail type TS 32.

Warning labels are used to indicate safety precautions and are available in yellow colour with printing in red colour to show warning signs.



### Marking Labels :

Marking labels are used for identification of circuit connections. Marking of terminals help in easy identification and quick maintenance. Marking labels are made of Polyamide in white colour and pre-printed with black indelible ink.

Marking labels are used to serve different purposes like alpha-numeric identification required for accurate wiring and trouble shooting.

Marking labels are available in strips containing 10 markers. They are also

available in form of a card which consists of 10 such strips. Marking label strip can be snapped on the stack of 10 terminals together.

Marking labels are available in different sizes with option of either vertically printed numbers or horizontally printed numbers.

Ordering Guideline for **elmex** marking labels is given below for ready reference.

**Example - 1 :** KN 6X5 H 1-10 = KN6.5 Strip with 1 to 10 printed Horizontally.

**Example - 2 :** U 10X V A1- A10 = U10 Strip with A1 to A10 printed Vertically.

MARKER TYPE			ORIENTATION		PRINTING		PRINTING	
	CODE	SUITABILITY	CODE	DIRECTION	CODE	NUMBERS PRINTED	CODE	NUMBERS PRINTED
Strip	KN	"K" Series	H	Horizontal	1-10	1 2 3 4 5 6 7 8 9 10	AAA-ALL	AAA AAA AAA AAA AAA AAA AAA AAA AAA AAA
Strip	U	"U" Series	V	Vertical	1-10	1 2 3 4 5 6 7 8 9 10	A1-ALL	A1 A1 A1 A1 A1 A1 A1 A1 A1 A1
Card	KC	"K" Series			1-10	1 2 3 4 5 6 7 8 9 10	A11-A20	A11 A12 A13 A14 A15 A16 A17 A18 A19 A20
					1-10	1 1 1 1 1 1 1 1 1 1	1A-10A	1A 2A 3A 4A 5A 6A 7A 8A 9A 10A
					11-100	11 11 11 11 11 11 11 11 11 11	11A-20A	11A 12A 13A 14A 15A 16A 17A 18A 19A 20A
					101-110	101 102 103 104 105 106 107 108 109 110	+ -ALL	+ + + + + + + + + +
					990-999	990 991 992 993 994 995 996 997 998 999	≡ -ALL	≡ ≡ ≡ ≡ ≡ ≡ ≡ ≡ ≡ ≡
					1-ALL	1 1 1 1 1 1 1 1 1 1		
					11-ALL	11 11 11 11 11 11 11 11 11 11		
					111-ALL	111 111 111 111 111 111 111 111 111 111		
					A-ALL	A A A A A A A A A A		
					AA-ALL	AA AA AA AA AA AA AA AA AA AA		

MARKER WIDTH		Please refer corresponding terminal accessories data on respective pages of the <b>elmex</b> composite catalogue for selecting the correct width.
CODE	WIDTH mm	
5XX	5.00	
5X5	5.50	
6XX	6.00	
6X5	6.50	
8XX	8.00	
82X	8.20	
825	8.25	
10X	10.00	

Please specify the required characters that are to be printed in the above manner. Printing up to only 3 characters is possible. One strip has 10 Labels.

When ending with "ALL", all the characters on the strip will be same.

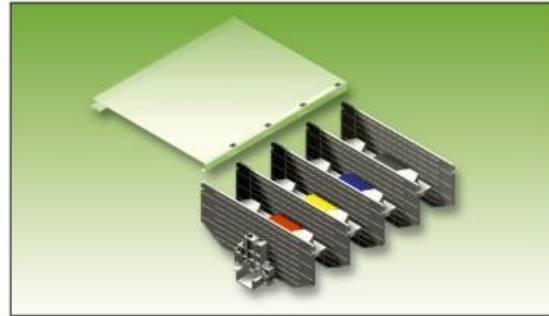
## elmex ACCESSORIES FOR TERMINAL BLOCKS

### Protection Covers :

Certain design of terminal blocks e.g. stud type and bus bar terminal blocks where the contacts of the terminals do not form fully shrouded assemblies and hence live parts remain open posing an electric shock hazard. As a safeguard against this, protective covers are used which provide protection against electric shock hazard.

elmex offers various types of protection covers ranging from covering a single terminal block to entire stack of terminal blocks.

As an innovative solution to shroud the entire stack of terminal blocks of different height and width, elmex offers protection cover type PCK 3 which is mounted on support plate type UHDD. Support plate UHDD is mounted on DIN rail at both ends of the stack and the protection cover is snap fit on the same.



### Mounting Rails :

Mounting rails/channels manufactured and supplied by elmex comply with DIN/IEC standards (IEC 60715 – Dimensions of low-voltage switchgear and controlgear – Standardised mounting on rails for mechanical support of electrical devices in switchgear and controlgear installations).

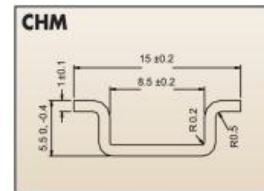
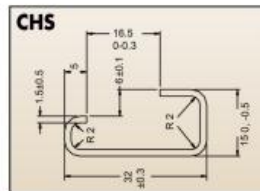
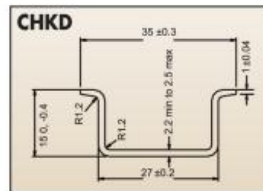
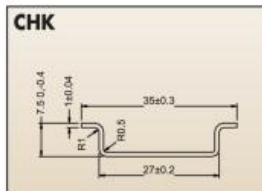
DIN rails are available in 35 mm Top Hat section (7.5 mm and 15 mm deep), 32 mm ("G" Section) and 15 mm width. These channels are made of mild steel. Channels of 300, 500 and 1000 mm (with or without slot) are available as standard lengths. All channels are Alkaline Zinc plated with yellow or blue passivation. Channels with RoHS compliant plating are also available against special orders.

Dimensional accuracy is ensured through gauging during manufacturing process.

Dimensional details are given below for the four types of channels described above :

It is important that the channels used have accurate dimensions within permissible tolerances. If the mounting dimensions are less than specified then the attachment of the terminal blocks on these rails will not be strong enough and there could be problems of loose fitment and at times terminal blocks may get dislodged from the channel even in normal service conditions.

If the mounting dimensions are more than specified limits, the terminal will fit tighter than required and it would be difficult to move terminals on the rail or dismount it from the rail. At times this may lead to breakage of terminal blocks made from Melamine (thermoset).



## elmex & econix PARTICIPATION AT EXHIBITIONS



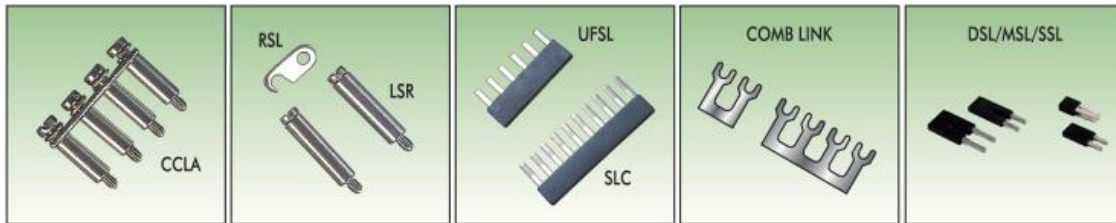
elmex and econix will participate in the India show to be held at MTN Expo Centre in Johannesburg, South Africa between 30 August and 1 September 2010. The India Show in South Africa is supported by Ministry of Commerce & Industry, Government of India along with Consulate General of India in South Africa and organized by Confederation of Indian Industry, New Delhi.

elmex and econix also participated with flying colours in Exhibition WePOWER 2010, Damm, Saudi Arabia from June 6 to 8, 2010. ▶





### elmex ACCESSORIES FOR TERMINAL BLOCKS



#### Shorting Links :

Shorting links or interconnecting links are used to interconnect two or more terminal blocks of the same type and at the same potential. It is recommended that factory made shorting links which are designed considering the rated current of the terminal block and its pitch are used for interconnection purpose rather than looping by wire which is not a reliable practice.

elmex offers following types of shorting links :

**Permanent Cross Connection Link Assembly (CCLA) :** This type of link assemblies are used to permanently short terminal blocks. As shown in the figure above, the link comprises of a shorting bar/link, screws, spring washer and sleeves. This link assembly is supplied in ready to use form for quick cross connection. These links are available in 2,3,4,5 and 10 ways.

**Removable Shorting Links (RSL) :** Removable shorting links are used to interconnect two adjacent terminal blocks temporarily and make switchable cross connection. The links are fitted onto the terminal blocks with long studs and screws. As the links rest above the top surface of terminal blocks, they can be readily opened up.

For a pair of terminal blocks to be shorted, one removable link and two studs are required. Further, since the links rest above the top surface of the terminal

block, it is recommended to mount a barrier plate/partition plate between two adjacent pairs of shorted terminal blocks.

**Comb Type Shorting Links (UFSL & SLC) :** In the two types of shorting links as described above, interconnection is made using screws / studs through a tapped hole in the current bar. For certain types of terminal designs viz. stud type terminal blocks, such interconnection is not possible. As a solution to this problem, shorting links are designed to interconnect adjacent terminal blocks through termination point (where wire is connected) like stud and nut assemblies or clamping units from sides between adjacent terminal blocks. These links are generally available in 2,3,4,5 and 10 ways.

**Push-in Type Shorting Links (DSL/MSL/SSL) :** These types of links are designed for screwless type terminal blocks and are available in two ways. A stack of terminal blocks of the same type can be shorted using 2 way shorting links. These shorting links are push-in type.

Current bars in these terminals have provision to accept two shorting links which can be inserted from top. Thus we can short two terminals with one shorting link, three terminals with two shorting links, four terminals with three shorting links and so on.

### TREE PLANTATION DRIVE @ elmex

Planting is an act of putting down roots and contributing to the future. The simple act of planting a tree, helps the environment in so many ways.

This year we have planted more than 500 different kinds of saplings at our headquarters as well as other manufacturing facilities.



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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