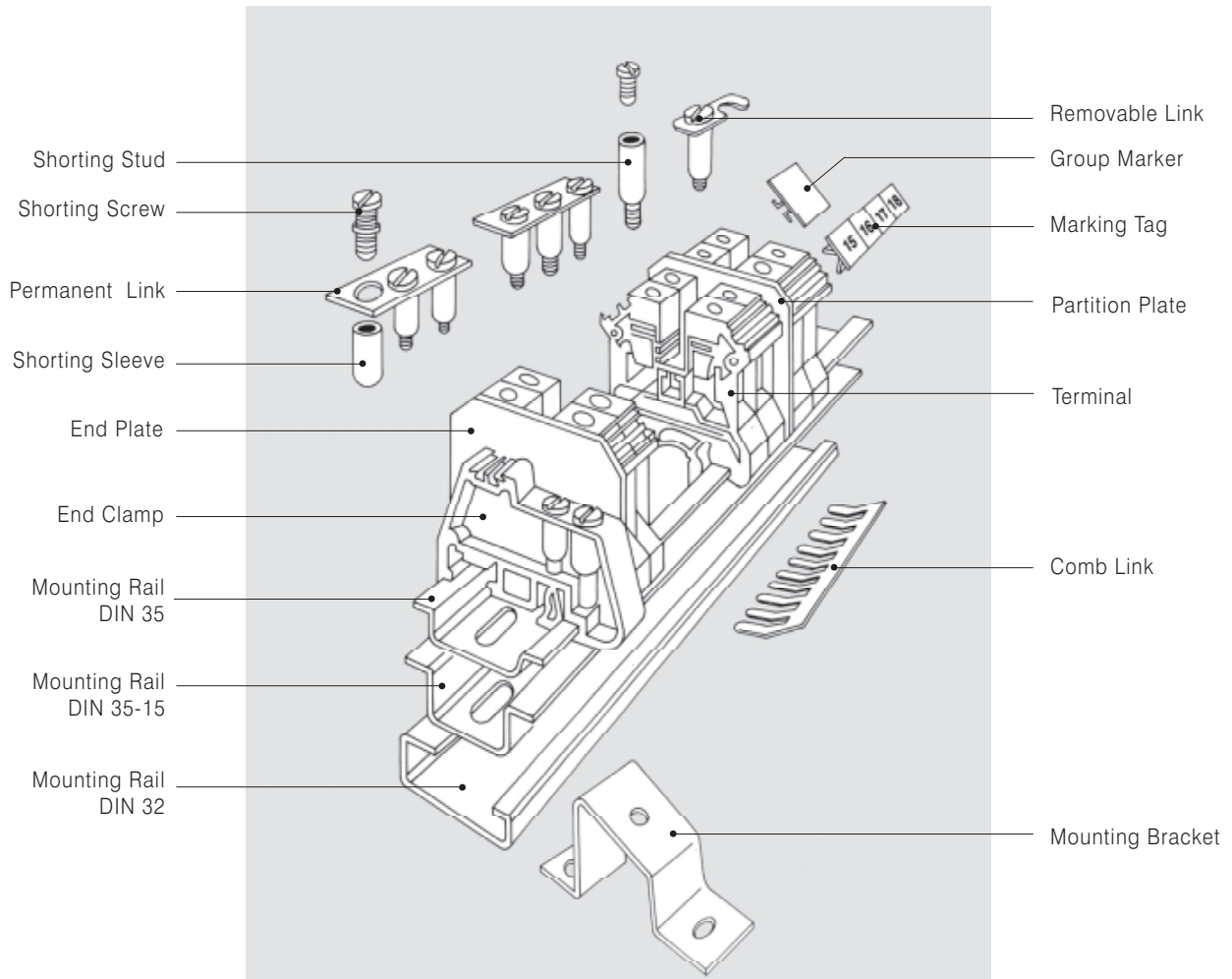


ACCESSORIES



End Clamps/Stops

The End Clamps keep the terminal block assembly securely in position. End Clamp should be fixed on both sides of terminal block assembly for rigidity and sturdiness.

The end clamps in Polyamide 6.6 have suitable recess to accommodate marking tag for group identification.

ES1S



39.5 x 27 x 16 mm
Suitable for DIN 35 Rail.
(Steel)

ES2S



39.5 x 27 x 16 mm
Suitable for DIN 35-15 Rail.
(Steel)

ES3S



25 x 22.5 x 11.5 mm
Suitable for DIN 32 Rail.
(Steel)

ES1N



20 x 28 x 8 mm
Suitable for DIN 15 Rail.

ES2N



34 x 44 x 9 mm
Suitable for DIN 32 / DIN 35 /
DIN 35 -15 Rails.

ES3N



45 x 32 x 8 mm
Suitable for DIN 35 /
DIN 35 -15 Rails.

Mounting Rails

Most of the terminal blocks are designed to mount on the rails that can be fixed easily on panel boards and equipment.

Three types of steel mounting rails; DIN 32, DIN 35/DIN 35-15 and DIN 15 complying to European standards EN 50035, EN 50022 and EN 50045 are offered. The rails are zinc plated and chromate passivated.

All mounting rails are available in standard 1 m and 2 m lengths. Choice of slotted/unslotted rails in DIN 32 and DIN 35 types is available.*

Mounting rails made of steel in accordance with DIN VDE 0611 Part 3 are permissible as grounding bus bars (PE function), but do not have PEN function.

**Mounting rails cut to length with holes/slots as per customer requirements can be supplied.*

DIN 32 Rail



32 x 15 x 1.5 mm
Suitable for all terminals except Micro Terminals,
PCB Terminals, Modular Terminals
and GN Terminals.

DIN 35 Rail



35 x 7.3 x 1.0 mm
Suitable for all terminals except Micro Terminals,
PCB Terminals, Modular Terminals
and GN Terminals.

DIN 35 - 15 Rail



35 x 15 x 1.5 mm
Suitable for all terminals except Micro Terminals,
PCB Terminals, Modular Terminals
and GN Terminals.

DIN 15 Rail



15 x 5 x 1.0 mm
Suitable for Micro Terminals

Mounting Brackets

Mounting brackets are used for installation of mounting rails at an angle to facilitate better access and for more clearance from surface of the panel. The mounting brackets are zinc plated and chromate passivated.

MTGBKT18



Suitable for all Mounting Rails.

MTKGBASE18







58 x 18 x 18 mm mounting
base for panel mount terminals
on DIN 35 rails. (Hole dia 4.3 -
4 Nos & 5.5 - 2 Nos)

End Plates (Polyamide 6.6)

End Plates are used to cover the live parts of the last terminal block in the assembly.

End plates must also be inserted when different size terminals are used in the assembled blocks for rigidity.

EPSCRW2.5U/4U	EPSCRW6U/10U	EPSCRW25U	EPSCRW35U	
 30 x 39 x 2.6 mm Suitable for SCRW2.5U/4U	 31 x 42.5 x 1.5 mm Suitable for SCRW6U/10U	 40 x 48 x 2 mm Suitable for SCRW25U	 43 x 50 x 1.5 mm Suitable for SCRW35U	
EPM4	EPP4	EPDBL4U	EPDBLOFF4U	EPDBLOFF4UA
 22.5 x 27 x 1.5 mm Suitable for M4/4S/4SU	 27 x 27 x 7 Suitable for P4	 38 x 55.5 x 2.4 mm Suitable for DBL4U/4U(L/S)/4UO & all electronic terminals	 49 x 68 x 5.5 mm Suitable for DBLOFF4U (Front Side)	 24 x 68 x 3 mm Suitable for DBLOFF4U (Back Side)
EPF4U	EPFDBL4U	EPDISCT6U	EPKN4U	EPTAB4U
 23.5 x 55.5 x 1.6 mm Suitable for F4U/DISCTL4U/F4U(L)	 49 x 87.6 x 3 mm Suitable for FDBL4U/4UE/4U(LR)	 41 x 63 x 2.95 mm Suitable for DISCT6U	 30.5 x 46.5 x 2.5 mm Suitable for KN4U	 34.5 x 47 x 2.5 mm Suitable for TAB4U
EPPCB	EPPCB	EPSCRW4U 1-2	EPSCRW4U 2-2	EPFA4U
 19 x 14.5 x 2.5 mm Suitable for PCBM	 18 x 19 x 2.5 mm Suitable for PCB5	 35.5 x 46.5 x 2.5 mm Suitable for SCRW4U1-2	 40.5 x 65 x 2.5 mm Suitable for SCRW4U 2-2	 32 x 72 x 1.5 mm Suitable for FA4U
EPTL2.5U	EPCAGE2.5	EPCAGE4	EPCAGE6	EPCAGEP2.5
 55.8 x 84.5 x 2 mm Suitable for TL2.5U	 23 x 58 x 1.5 mm Suitable for CAGE2.5	 28 x 65 x 1.5 mm Suitable for CAGE4	 32.5 x 72 x 2 mm Suitable for CAGE6	 35 x 27.5 x 5 mm Suitable for CAGEP2.5
EPCAGE2.5 1-2	EPCAGE4 1-2			
 25 x 74 x 1.5 mm Suitable for CAGE2.5 1-2	 28.4 x 84.6 x 1.5 mm Suitable for CAGE4 1-2			

Type/ Cat. No.	Dimensions(HxWxT)mm	Suitable for
EPCAGE2.5	58×23×1.4	CAGE2.5
EPCAGE2.5 1-2	74.1×25.2×1.6	CAGE2.5 1-2
EPCAGE2.5 2-2	89.7×25.1×1.5	CAGE2.5 2-2
EPCAGE4	64.9×28×1.5	CAGE4
EPCAGE4 1-2	84.5×28.5×1.5	CAGE4 1-2
EPCAGE4 2-2	104.7×28.6×1.6	CAGE4 2-2
EPCAGE6	71.8×31.5×1.9	CAGE6
EPCAGE6 1-2	93.5×36.5×1.9	CAGE6 1-2
EPCAGE6 2-2	115.6×31.5×1.9	CAGE6 2-2
EPSCRW4U 1-2	44.6×35.8×2.5	SCRW4U 1-2
EPSCRW4U 2-2	65×40.8×2.5	SCRW4U 2-2
EPDBL 4U	54.8×37.7×2.3	DBL4U/DBL4U(IS)/DBL4UCLIP/DBL4UED1/D2, DBL4UED3, DBL4UEDD1/DD2, DBL4UEDD3/DD4, DBL4UED4, DBL4UEDD5, DBL4UELD3, DBL4UELD4, DBL4UELD5, DBL4UEN1, DBL4UELD1.LD2, DBL4UEL1/L2, DBL4UO, DBL4UELA, DBL4UE3LA, DBL4UEMOV, DBL4UESD, DBL4UERC, DBL4UERES
EPFDBL4U	88×66×1.5*	FDBL4U/FDBL4UE/FDBL4UE(LR)/DBLDISCTL4U
EPDBLOFF 4U	68×49×2.5	DBLOFF4U
EPDBLOFF4UA	68×24×3	DBLOFF4U
EPDISCT6U	63.1×41.1×2.9	DISCT6U/DISCT6US
EPF4U	56×23.4×1.6	F4U/F4U(L)/DISCTL4U
EPF6U	42.5×35.5×1.5	F6U/DISCTL6U
EPFA4U	32×71.9×1.6	FA4U
EPKN4U	46.6×30.2×2.5	KN4U
EPM4	27×22.4×1.6	M4/M4S
EPP4	27×27×7	P4
EPPCB	15×19×1.5*	PCBM5H, PCBM5A, PCBM5V, PCB5, PCB7.5,
EPSCRW2.5U/4U	34.2×29.7×2.6	SCRW2.5U/SCRW4U/SCRW2.5UCR/SCRW4UCR/SCRW4UTAB/SCRW4UCLIP,TH2.5U
EPSCRW25U	48×39.8×2	SCRW25U/SCRW25UCR
EPSCRW35U	50.4×42.8×1.5	SCRW35U/SCRW35UCR
EPSCRW6U/10U	42.5×31×1.5	SCRW6U/SCRW10U/SCRW6UCR
EPSCRW16U	42.5×33.8×1	SCRW16U/SCRW 16UCR
EPTAB4U	47×34.5×2.5	TAB4U
EPTL2.5U	55.5×83.8×1.5	TL2.5U
EPTL2.5UH	55.5×60.5×1.5	TL2.5UH/TL2.5UHL
EPCAGEP2.5	35.1×27.4×5	CAGEP2.5/CAGEP2.5 2-2

* Approx.

Polyamide 6.6 Series Partition Plates

Apart from identifying and segregating terminal block groups, partition plates can be used to electrically isolate adjacent cross connection sets. It also helps to maintain the required creepage and clearances.



PPSCRW2.5U/4U



37 x 44 x 1.6 mm
Suitable for SCRW2.5U/4U

PPSCRW6U/10U



37.5 x 56.5 x 1.5 mm
Suitable for SCRW6U/10U

PPSCRW25U



46.5 x 16.5 x 1.5 mm
Suitable for SCRW25U

PPSCRW35U



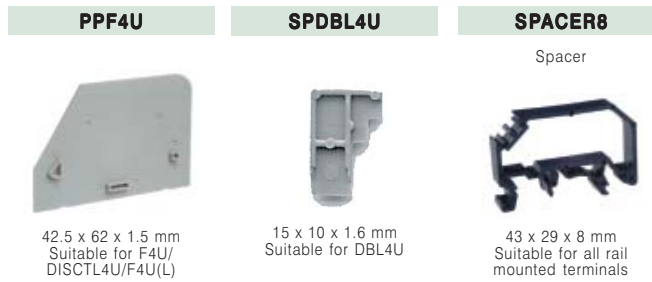
50 x 61.5 x 1.5 mm
Suitable for SCRW35U

PPM4



32.5 x 37 x 1.6 mm
Suitable for M4/4S/4SU

Polyamide 6.6 Series Partition Plates



Type/ Cat. No.	Dimensions(HxWxT)mm	Suitable for
PPCAGE2.5	58×23×1.4	CAGE2.5
PPCAGE2.5 1-2	74.1×30.2×1.6	CAGE2.5 1-2
PPCAGE2.5 2-2	89.7×25.1×1.5	CAGE2.5 2-2
PPCAGE4	64.9×28×1.5	CAGE4
PPCAGE4 1-2	84.5×33.5×1.5	CAGE4 1-2
PPCAGE4 2-2	104.7×33.6×1.6	CAGE4 2-2
PPCAGE6	71.8×36.5×1.5	CAGE6
PPCAGE6 1-2	93.5×31.5×1.5	CAGE6 1-2
PPCAGE6 2-2	115.6×36.5×1.9	CAGE6 2-2
PPF4U	61.9×42.6×1.6	F4U
PPFA4U	50×81.9×1.6	FA4U
PPF6U	57.5×56.2×1.3	F6U
PPM4	36.6×32.2×1.6	M4/M4S
PPSCRW2.5U/4U	43.9×36.7×1.5	SCRW2.5U/SCRW4U/SCRW2.5UCR/SCRW4UCR/TH2.5U/SCRW4UTAB
PPSCRW25U	61.9×46.8×1.5	SCRW25U/SCRW25UCR
PPSCRW35U	64.5×5×1.5	SCRW35U/SCRW35UCR
PPSCRW6U/10U	56.2×37.6×1.3	SCRW6U/SCRW10U/SCRW6UCR/SCRW10UCR

Separator Plates

Separator plate can be used to electrically isolate adjacent cross connection sets. It also maintains the required creepage and clearance values.

The Separator plate is fitted in the specially designed groove of the terminal block, without occupying additional space.



Type/ Cat. No.	Dimensions(HxWxT)mm	Suitable for
SPDBL4U	15.5×16.2×1.6	DBL4U
SPP4	14.5×12×1.5	P4
SPSCRW16U	50×61.5×1.5	SCRW16U
SPSCRW2.5U/4U	17.5×17.4×1.4	SCRW2.5U/SCRW4U
SPSCRW6U/10U	Please – call for details	SCRW6U/SCRW10U

Cross Connecting Accessories

Various functional requirements can be achieved with cross connecting systems. Different type of cross connecting accessories offered include variety of temporary shorting links, permanent shorting links, shorting studs, shorting sleeves, multipole comb links and pre assembled shorting links.

Permanent Shorting Links



Permanent shorting links in tin plated copper / brass are used for permanent cross connection of terminal blocks of the same potential. These links should be electrically connected to the terminal blocks with short Shorting sleeves / studs.

Permanent shorting links are available in 2 pole, 3 pole, 4 pole and ten pole lengths. When permanent shorting links are installed, terminal blocks are safe from accidental contact because the links rest below the top surface of terminal block.

Removable Shorting Links



Removable shorting links in tin plated copper / brass are used for switchable cross connection. These links should be electrically connected to the adjacent terminal block of the same potential with of Long Shorting sleeves / studs. It is recommended to use partition plate for isolation of such cross connected terminals.

Comb Links



Comb type links are used for cross connection wherever terminals in assemblies cannot be cross connected with the aid of conventional shorting links, Sleeves / Studs.

Multi pole comb type link provides choice of consecutive shorting or alternate shorting. These links are insulated which makes them shock-proof. Comb links without insulation are also available.

Shorting Sleeve



Shorting Sleeve in Tin / Nickel plated brass along with steel fixing screw are used for quick cross connection of terminal blocks in conjunction with shorting links (Permanent / Removable).

Short Shorting sleeves (For permanent cross connection) and Long shorting sleeve (For temporary cross connection) may be selected according to the functional requirement.

Shorting Stud



Shorting Stud screws in Tin / Nickel plated brass along with steel fixing screw are used for cross connection of terminal blocks in conjunction with shorting links (Permanent / Removable).

Short Shorting stud (For permanent cross connection) and Long shorting stud (For temporary cross connection) may be selected according to the functional requirement.

Pre Assembled Shorting Links



Pre assembled shorting links with captive sleeves and screws are recommended for quick cross connections.

Two pole, three pole, four pole and ten pole assemblies of links and sleeves have the following advantages :

- Cross connection task is simplified.
- Eliminates possibility of losing sleeves or screws while cross connecting.
- Saves considerable time in cross connecting.

Insulated Push-In Type Shorting Links

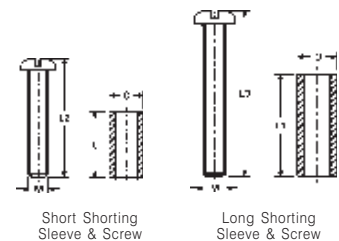


Insulated Push-In Type Shorting Links are specially designed for use in 'Screw less' Spring Clamp Terminals. The links besides providing shock protection, simplify the task of cross connection.

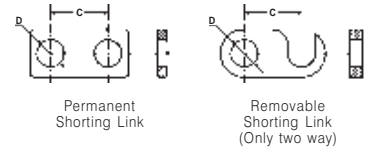
Choice of adjacent and alternate Shorting Links is available.

The link has to be inserted into the slot provided in the current carrying part of the terminal to bridge with a adjacent/alternate terminals.

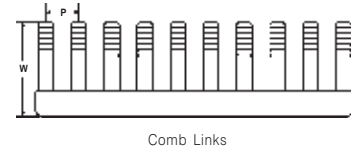
Shorting Sleeve For	L	L1	D	L2	L3	M
SCRW2.5U	8	14.5	4.4	14	20	M2.5
SCRW4U	8	14.5	4.4	14	20	M2.5
SCRW6U/SCRW10U	12.5	18.5	5.5	19	25	M3
CTS25U/CTS35U	14.5	21.5	7	23	31	M4
SCRW4U 1-2/SCRW4U 2-2	8	14.5	4.4	14	20	M2.5
M4/DBL4U/DBLOFF4U	5	9.5	4.4	10	15	M2.5
P4	8	14.5	4.4	14	20	M2.5
TAB4U	5	-	4.4	10	-	M2.5



Shorting Link For	C				ØD
	2 Way	3 Way	4 Way	10 Way	
SCRW2.5U	5	5	5	5	2.7
SCRW4U	6	6	6	6	2.7
SCRW6U	8	8	8	8	3.3
SCRW10U	10	10	10	10	3.3
SCRW25U	12	12	12	12	4.2
SCRW35U	15	15	15	15	4.2
SCRW4U 1-2/SCRW4U 2-2/P4	6	6	6	6	2.7
M4/DBL4U/DBLOFF4U	6	6	6	6	2.7
FDBL4U	8	8	8	8	2.7

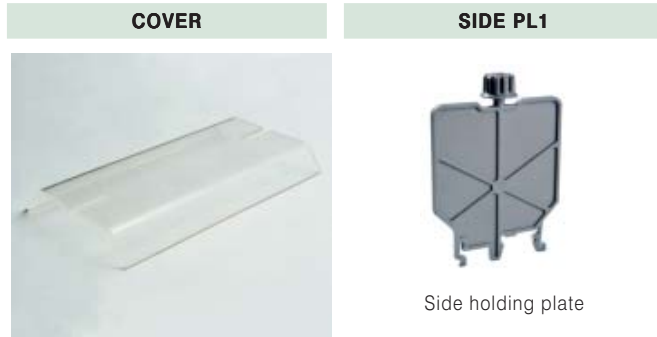


Comb Links For	P	W
SCRW4UN	6	17.5
SCRW4U 1-2/SCRW4U 2-2	6	17.5
M4 Series	6	17.5
P4	6	17.5
DBL4U Series	6	17.5
DBLOFF4U	6	17.5
F4U/FDBL4U	8	10.4
DISCT6U	8	21.5
KN4U	6	17.5
FA4U	9	21.5



Protective Covers and Holding Plates

For protection against dust and shock, transparent protective cover can be installed above the terminal block assembly with side holding plates. The side holding plates can be fitted on to DIN 32 as well as DIN 35 rails. These plates should be backed by standard end clamp.



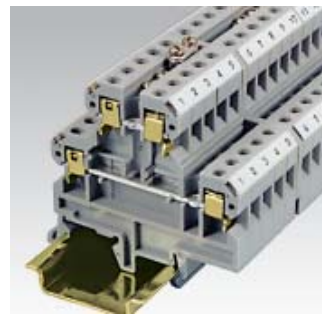
For all rail mounting terminals except busbar type terminals

Markers

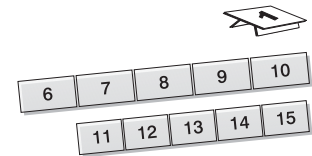
Identification of individual electrical components in the switchgear is one of the major pre-requisites for purposeful and safe work. Systematic marking of individual terminal block facilitate system identification and quick maintenance.

All terminals are provided with suitable recesses for marking tags. Most of the terminal blocks are designed to accommodate two marking tags.

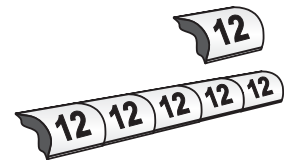
Markers are offered with horizontal or vertical imprints. Blank marking tags are also available.



'K' Type Polyamide marking tags in strips facilitate quick and easy fixing on assembled terminal blocks. The strip comprising of 5 or 10 markers can be fixed on assembled terminals in one stroke. The strip can be detached easily at any point. Apart from good aesthetic looks, 'K' type markers have large surface area and better visibility.



Insert Type PVC marking tags are to be detached into single tags and inserted in the terminal block recesses with a screw driver.



Group Marker These are in Polyamide 6.6, with large blank surface area and can be used for group identification. These markers can be fixed on the Polyamide 6.6 End Clamp or on the terminal block.



Pre-Printed markers can be supplied in horizontal or vertical imprints in the following types:

- Horizontal Print

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----
- Vertical Print

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Marker : KM/ Max. Marking Digits ↓	2	4	5	6	7.5	8	9	10	12	15
Horizontal	3	3	3	4	4	4	4	4	4	5
Vertical	2	3	5	5	3	5	4	5	5	5

Pre Printed markers can be supplied in Horizontal or Vertical imprints in the following types:

- **Individual Numbers:**
Strips of same numerals

1	1	1	1	1	1	1	1	1	1
---	---	---	---	---	---	---	---	---	---
- **Serial Numbers:**
Strips of sequential numerals

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----
- **Individual Alphabets:**
Strips of same alphabets

A	A	A	A	A	A	A	A	A	A
---	---	---	---	---	---	---	---	---	---
- **Special Character:**
Strips of same special characters

24V~	24V~	24V~	24V~	24V~	24V~	24V~	24V~	24V~	24V~
------	------	------	------	------	------	------	------	------	------
- **Alpha Numerals:**
Strips of alpha numerals

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
----	----	----	----	----	----	----	----	----	-----

Marking tags can be supplied as **Blank Strips**. The user can print or write manually, the desired characters.

Ordering Information of Markers

The details regarding various types of markers along with cross reference of terminal is given below.

Cat No.	Description	No. of Marking tags per packet	No. of Marker Strips per packet	No. of Marking tags per strip
KM/2	'K' type marker suitable for M4 , DBL4U , P4, F4U, FDBL4U	100	10	10
KM/4	'K' type marker suitable for PCBM & PCB5	100	10	10
KM/5	'K' type marker suitable for SCRW2.5U, GN4/16/35.	100	10	10
KM/6	'K' type marker suitable for SCRW4U/4UT, M4, DBL4U, G4U, DISBL4, KN4U, TAB4U	100	10	10
KM/7.5	'K' type marker suitable for PCB7.5	100	10	10
KM/8	'K' type marker suitable for SCRW6U, DISBL6 , F4U & FDBL4U.	100	10	10
KM/10	'K' type marker suitable for SCRW10U, DISBL10, G10U	100	10	10
KM/12	'K' type marker suitable for SCRW25U	100	20	5
KM/15	'K' type marker suitable for SCRW35U	100	20	5
KM/50	'K' type marker suitable for SCRW50U, SCRW95U	100	20	5
KM/G1	Group Marker suitable for ES2N or all the Terminals except M4 , DBL4U & P4	100	-	-
KM/G2	Group Marker suitable for ES1N or M4 , DBL4U, P4, SCRW50U, SCRW95U	100	-	-

- Unless otherwise specified, the pre printed marking tags shall be supplied with horizontal imprint.
- Suffix 'V' may be added to the catalogue number for marking tags with vertical imprint. For example KM/5(V), represents the marker KM/5 with vertical imprint.

Marker Plotter

Marker Plotter, Vario Scriber VS 200 ensures quick, durable and clear printing for identifying and marking on the international 'K' type markers.

The plotter is versatile and is used to print on 'K' type marker strips placed on a 'workpiece holder'. The workpiece holder is changeable in a matter of seconds for printing on the different marker sizes. The printing process is easy with the menu driven software programme.

The plotter can be used any time, at any place since it is easily transported in its special carry case. The battery-operated, stand alone, Marker Plotter, Vario Scriber VS 200 can be operative at any place where the user needs it. The spacious carry case provides ample room for the extensive accessories like pen, workpiece, cleaning fluid etc.

Marker Plotter, Vario Scriber VS 200 is strongly recommended to Panel Board Manufacturers and Distributors for printing markers at site. Only blank 'K' type markers need to be stocked for promptly servicing the variety of marker requirements for identification in the wiring of terminal blocks.

VARIO SCRIBER VS 200

With power supply, connecting cable, workpiece holder, print software for text transfer from PC to VS 200, a carry case and instruction manual.

Choice of plotter pens and ink-cartridges is available.



Terminal Blocks

Wide range of terminals are offered to suit modern wiring techniques for performance and reliability in addition to safety, flexibility, efficiency, high density wiring, economy, ease of design and maintenance. The terminals offer the following functions, and more.

- Feed-Through
- Disconnect and Test
- Multilevel
- Ground/Earth
- Fuse
- Distribution
- Integral Electronics

Snap on mounting on the DIN rails saves time and space, improves design and layout and offers compact centralized connection area for quick and efficient external and/or internal wiring.

TERMINAL DETAILS

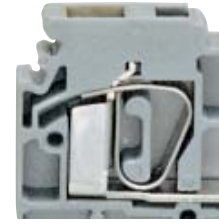
■ Screw Clamp Connection

- Connection can be made by simply stripping the wire of its insulation to the recommended length, and then tightening the clamp screw either without any additional preparation, or after protecting the wire with a ferrule. The clamping screw compresses the current carrying bar, which in turn acts on the wire.
- Screws are extremely important for the quality of the connection. Cold forged rolled threaded steel screws with good galvanic surface protection, zinc plated and chromate passivated are used for the terminals.
- Clamps, which transmit the force applied through the screw to the actual contact area between the wire and the current-carrying bar, are made of hardened steel, zinc plated and bichromated, in order to achieve the required contact pressure over the conductor and offer excellent resistance to corrosion.



■ Spring Clamp Connection

- In spring clamp terminals the clamping action is taken over by a high quality, stainless steel pre-stressed spring.
- The pre-stressed spring is opened using a screw driver so that the wire can be inserted into the clamping space through an opening now created. Once the screw driver is removed, the conductor is pressed hard against the current bar with full spring force ensuring an effective connection.
- As the wire holding spring plays critical role in clamping, it is specially designed and tooled. It is stainless steel with special long life shape retaining properties in-built for reliability of wire termination.



- Current-carrying bars are made from electrolytic copper or alpha brass, electroplated and coated for surface protection while ensuring very low contact resistance.
- Clamping yokes and screws are zinc plated and passivated by a golden yellow chromate layer, considerably increasing corrosion resistance.
- The metal parts of terminals are housed in precision molded, almost unbreakable, self extinguishing flame retardant polyamide 6.6 material rated UL94-V2, for high dielectric strength, electrical insulation and temperature resistance (max. operating temperature 100°C). Terminals in UL94VO grade polyamide 6.6 can be offered on request.

Additional colours for the terminal block shell or housing are offered as under:

Colour	Suffix to Cat. Ref.	Suffix to Cat. Ref.	Colour
Red	RD	BG	Beige
Blue	BL	BR	Brown
Black	BK	KH	Khaki
Orange	OR	GY	Grey
Green	GN	PK	Pink
Yellow	YL		
White	WH		

Please add the colour suffix to Cat. Ref. while ordering.

Typical properties of insulation material of the shell or housing are as under:

Property	Unit	Thermoset High Grade Melamine	Engineering Thermoplastic Polyamide 6.6
Specific Gravity	--	1.5	1.2 - 1.15
Upper Limit Temperature	°C	130	100
Lower Limit Temperature	°C	- 55	- 50
Volume Resistivity	Ω cm	10 ¹¹	10 ¹²
Surface Resistivity	Ω	10 ¹⁰	10 ¹⁰
Dielectric Strength	KV/cm	100	400
Tropical Resistance	--	Good	Good
Flammability (UL 94)	Grade	V0	V2 #
Flexibility	--	--	Excellent

WIRE TERMINATION

The terminals are suitable for connection of either solid or stranded copper wires as per the gauge range specified.

It is recommended to connect only one wire of the rated cross section in a clamp. Connecting more than one wire per clamp may result in poor contact and overheating.

Stranded wires can be connected without any special preparation, but particular care should be taken when stripping the wires in order not to cut any of the strands. A good quality stripping tool, which provides fast stripping of most insulated wires without damage to the conductors is strongly recommended. With flexible cables of fine strands, the strands may be twisted between finger and thumb. Twisting should never be done with pliers. In order to improve the quality of the connection, and for all those cases where frequent removal

(i.e. for testing) and reinsertion of the wire is expected, it is recommended using a ferrule – insulated or uninsulated – or a flat crimp terminal.

ASSEMBLY OF TERMINAL BLOCKS

All the terminal blocks are designed to be installed on standard DIN rails, either symmetrical (DIN35, DIN35-15, DIN15) or asymmetrical (DIN32). When mounting terminal blocks, the following accessories are always necessary:

- End Plate(s), at least one, at the open end of the last terminal block.
- End stops, at each end of the terminal block assembly.

Other accessories include:

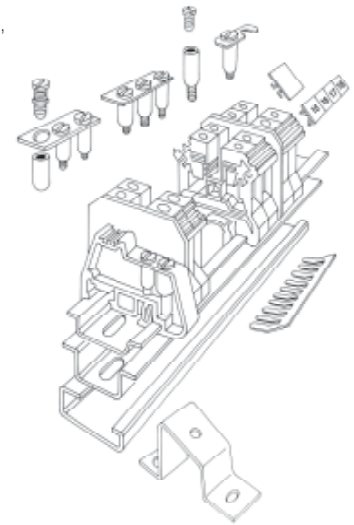
- Partition Plates, inserted between blocks, these help preventing accidental contact between wires, etc..
- Angled steel brackets, to lift the DIN rail above the bottom of the panel;
- Jumper bars 2, 3 and 4 poles, assembled with appropriate screw and spacers;
- Pre-assembled jumper bars, 10 poles;
- Jumper comb links, 2-pole to 10-pole, to interconnect adjacent terminal blocks;
- Moving jumpers, assembled with appropriate screw and spacers. These provide economical and safe temporary shorting between adjacent blocks;
- Marker strips, either blank (to be marked) or pre-marked.

To determine the length of the mounting rail required, calculate the sum of:

- Thickness of one terminal (including tolerance if applicable) times number of terminals
- Thickness of one end plate, and of separator plates, if used
- Thickness of two end stops
- Plus minimum 25 mm. (~1") on either side, for easy mounting on the panel.

Extra terminals can be added to an existing assembly at any time. Individual terminals can be replaced easily, without removing adjacent blocks.

To remove a terminal block from the DIN rail, simply insert the tip of a screwdriver in the slot provided at the outside edge of the flexible foot of every terminal block.



Accessories

Insulated Pre Assembled Shorting Links



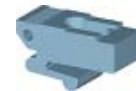
Insulated Pre Assembled Shorting Links are ideal choice for quick permanent cross connections of the terminals. Available in 2/3/4/10/100 pole assembly, the Pre Assembled Shorting Links have following advantages :

- Eliminate possibility of losing sleeves/screws while cross

connecting with captive screws.

- Insulated captive screws make the assembly shock proof and finger safe.
- Saves considerable time for cross connections.
- Simplify the task of cross connections with simple application.

End Clamps/Stops



Cat No. : ES4N
Dimensions (H×W×T)mm : 14.5x25.4x11.8
Suitable for : DIN 32 Rails

Group Marker Holders

Group Marker Holders are offered in two versions:

- GRPM1 to GRPM5, to be mounted on End Clamps.
- GRPM6 and GRPM7 for direct mounting on DIN channels.

GRPM1 to GRPM5 Group Markers can be inserted in the groove on the end clamp and are intended for group identification of terminals used in the assembly.

GRPM6 and GRPM7 are intended for identification, independent of actual terminals used in the assembly. A sticker/paper can be inserted in the slot, which will be covered by a transparent acrylic sheet.

Assembly	GRPM1	GRPM2	GRPM3	GRPM4
				
Mountable on	ES1N	ES3N	ES2N	ES3N
Assembly	GRPM5	GRPM6	GRPM7	
				
Mountable on	ES2N	All mounting rails	All mounting rails	

Product improvement is a continuous process, hence data given in this catalogue is subject to change without intimation. Please call for details of product certification and current status. All dimensions in mm.