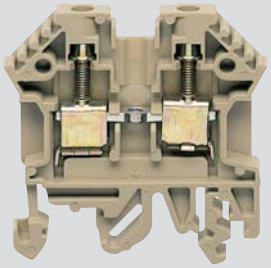
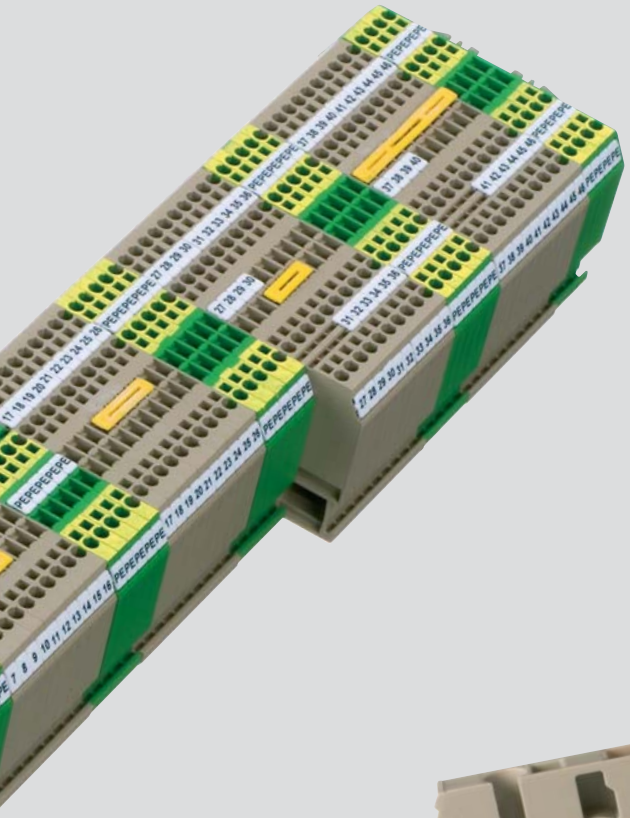
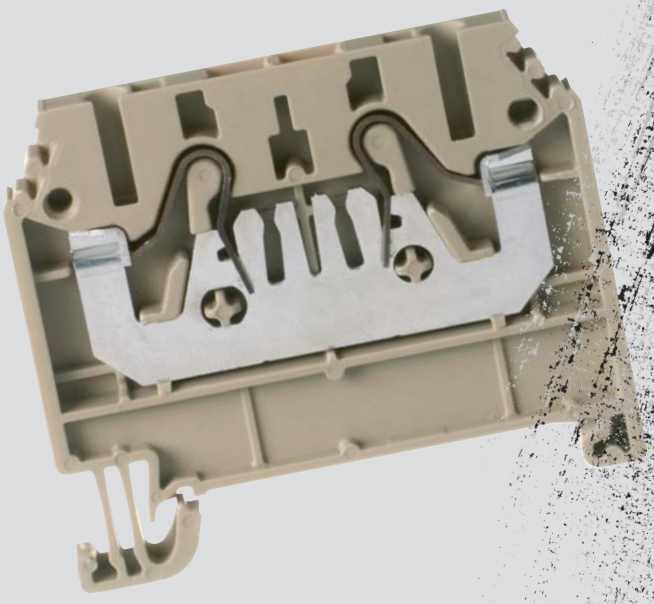


DIN RAIL TERMINAL BLOCKS



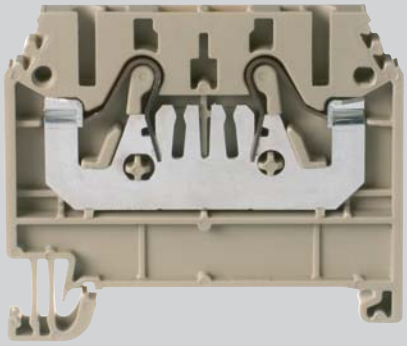


PTR

A Phoenix Mecano Company

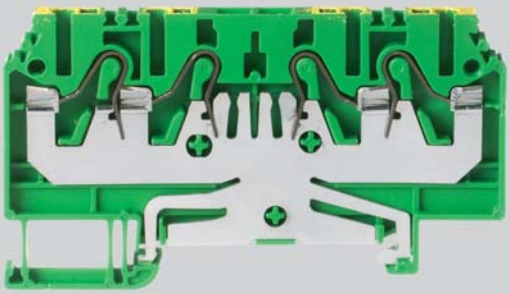
INNOVATIVE PTR PRODUCTS.

PTR constantly expands and renews its product range. Details concerning the listed products can be found on the following pages.



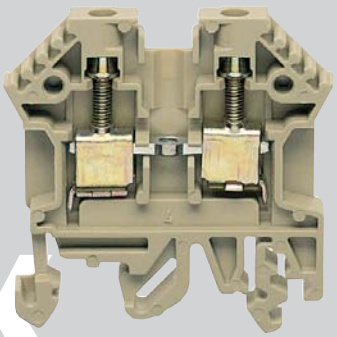
LEG SPRING PRINCIPLE

From p. 81



ATEX DIN RAIL TERMINAL BLOCKS

From p. 143



ATEX

ATEX DIN Rail Terminal Blocks are used in explosive areas.

CONTENT

CSA 22.2 No. 158

UL 1059

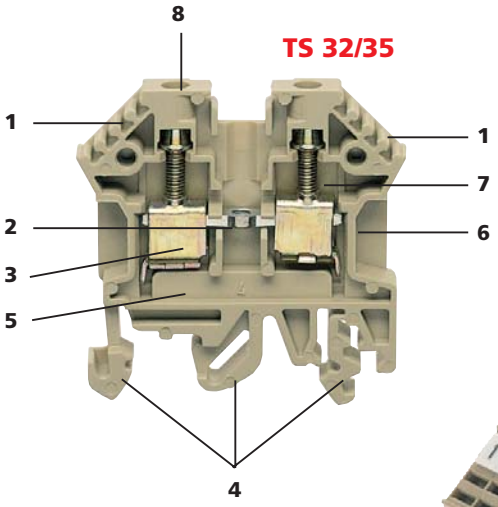
CSA 22.2 No. 158
UL 1059

UL 1059
CSA 22.2 No. 158

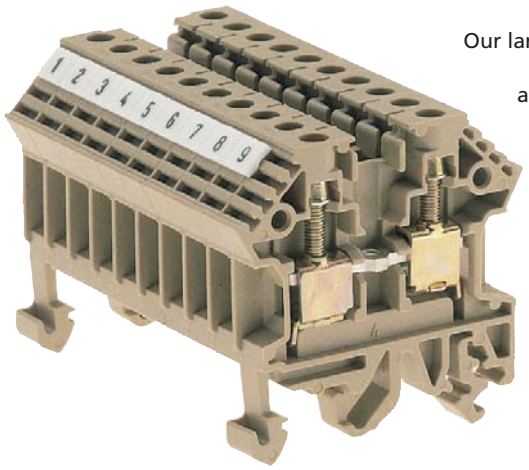
EN 61984

73 / 23 / EWG
89 / 392 / EWG
93 / 68 / EWG

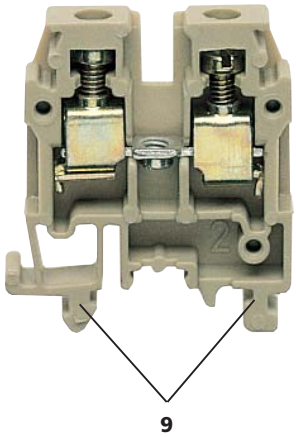
EN 50014 / EN 60079-0
EN 50019 / EN 60079-7
EX-RL 94 / 9 / EG



TS 32/35



TS 32/35



TS 15

1 Labelling position
2 Conductor bar, copper, leadfree tinned
3 Clamping yoke designed to resist vibration, steel, tinned, chromated, thick film passivated
4 Combination foot permits mounting onto TS 32 and TS 35 rails
5 Terminal body, polyamide 6.6
6 Wide, tunnel-shaped cable entry, closed on four sides, guides the conductor into the clamp, prevents wire fraying
7 Clamping screw, steel, tinned, chromated, thick film passivated
8 Screw driver guide
9 Foot for mounting onto TS 15 rails

Screw Principle SR

Our clients mostly apply the screw principle, which has proved itself millionfold and is used worldwide.

Clamping yoke and screw are both produced from hardened steel. This provides the clamping yoke unit with the necessary contact power to press the mains-operated conductor against the busbar and in that way to guarantee a gas-proof and vibration- and shake-proof connection.

Terminal blocks with screw principle are available for a very large cross section area of 0,08 mm^2 to 240 mm^2. Different kinds of conductors, inflexible and flexible multi-wired and fine-wired conductors – everything leads to a safe contact with this technique!

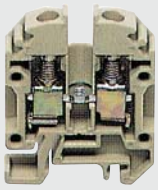
Our largest product range of terminal blocks and a diversified accessory range provide the possibilities of realizing application-specific solutions.

Terminal blocks with ATEX approval

Screw principle terminal blocks among other terminal blocks are also available in a commoditised version for explosionproof areas as "… -EX"!

Please refer to the chapter especially published for this specific case of use from page 141.

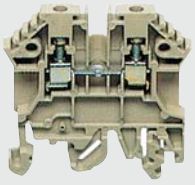
SCREW PRINCIPLE



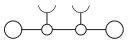
CONNECTION DIAGRAM

DESIGNATION		SR 2.5-T15	SR 4-T15
DIMENSION (L x B x H)			
with TS 15 mm		26 x 5 x 29,5	27 x 6 x 34,5
with TS 32 mm			
with TS 35 x 7,5 mm			
Direct mounting			
TYPE			
Type • Colour		SR 2.5-T15 BEIGE	SR 4-T15 BEIGE
Cat. no. • PU		**41035.2** • 100	**41010.2** • 100
Type • Colour		SR 2.5-T15 BLUE	SR 4-T15 BLUE
Cat. no. • PU		**41035.5** • 100	**41010.5** • 100
RATINGS		IEC / UL / CSA	IEC / UL / CSA
Rated voltage V		500 / 300 / 300	500 / 300 / 300
Rated current A		24 / 15 / 20	32 / 30 / 40
Rated wire size mm² • AWG		2,5 • 22-14	4 • 22-10
Test voltage kV • Contamination degree		6 • 3	6 • 3
Gauge plug acc. to EN 60 947-1 • Flammability class UL 94		A3 • V2	A4 • V2
CONNECTION DATA			
Single wire (solid) • Stranded (flexible) mm²		0,2-4 • -	0,2-4 • -
Flexible • Flexible (with ferrules acc. to DIN 46 228/1) mm²		0,2-4 • 0,2-2,5	0,2-4 • -
Contact wire range mm²		0,2-4	0,2-4
Insulation stripping length mm		7	9
FEATURES			
Number of cross connection channels		1	1
Test checking possibilities			
ACCESSORIES			
End plate AP		AP 2.5/15	AP 1.5-4
Cat. no. • PU beige		**492427.2** • 50	**492738.2** • 50
Cat. no. • PU blue		**492427.5** • 50	**492738.5** • 50
Holding plate TW		TW 2.5/15	TW 1.5-4
Cat. no. • PU beige		**492428.2** • 50	**492071.2** • 50
Cat. no. • PU blue		**492428.5** • 50	**492071.5** • 50
Insulation plate TRS			TRS 3
Cat. no. • PU			**492566.2** • 100
Cross connector Q	2 poles	Q 2	Q 2
Cat. no. • PU		**492422.0** • 20	**492422.0** • 20
Outer insulated cross connector AQI	2 poles		
Cat. no. • PU			
Cross connector Q	3 poles	Q 3	Q 3
Cat. no. • PU		**492423.0** • 20	**492423.0** • 20
Outer insulated cross connector AQI	3 poles		
Cat. no. • PU			
Cross connector Q	4 poles	Q 4	Q 4
Cat. no. • PU		**492424.0** • 10	**492424.0** • 10
Outer insulated cross connector AQI	4 poles		
Cat. no. • PU			
Cross connector Q	10 poles	Q 10	Q 10
Cat. no. • PU		**492425.0** • 10	**492425.0** • 10
ACCESSORIES			
Further accessories like labelling systems, covers, end brackets, etc. (page ➛)		From page 179	From page 179

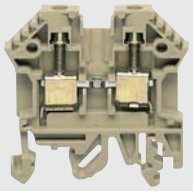
SCREW PRINCIPLE



CONNECTION DIAGRAM



DESIGNATION	SR 2.5	SR 2.5 N
DIMENSION (L x B x H)		
with TS 32 mm	48 x 5 x 51,5	
with TS 35 x 7,5 mm	48 x 5 x 47	62,5 x 5,1 x 47
TYPE		
Type • Colour	SR 2.5 BEIGE	SR 2.5 N BEIGE
Cat. no. • PU	**41296.2** • 100	**41574.2** • 100
Type • Colour	SR 2.5 BLUE	SR 2.5 N BLUE
Cat. no. • PU	**41296.5** • 100	**41574.5** • 100
Type • Colour		
Cat. no. • PU		
Type • Colour		
Cat. no. • PU		
RATINGS	IEC UL CSA	IEC UL CSA
Rated voltage V	800 600 600	800 600 600
Rated current A	24 20 20	24 20 20
Rated wire size mm² • AWG	2,5 • 22-12	2,5 • 20-14
Test voltage kV • Contamination degree	8 • 3	8 • 3
Gauge plug acc. to EN 60 947-1 • Flammability class UL 94	A3 • V2	A3 • V2
CONNECTION DATA		
Single wire (solid) • Stranded (flexible) mm²	0,2-4 • -	0,2-4 • -
Flexible • Flexible (with ferrules acc. to DIN 46 228/1) mm²	0,2-4 • 0,2-2,5	0,2-4 • 0,2-2,5
Contact wire range mm²	0,2-4	0,2-4
Insulation stripping length mm	7	9
FEATURES		
Number of cross connection channels	1	2
Test checking possibilities	1	1
ACCESSORIES		
End plate AP	AP 2.5-10	AP 2.5-10
Cat. no. • PU beige	**492001.2** • 50	**492001.2** • 50
Cat. no. • PU blue	**492001.5** • 50	**492001.5** • 50
Holding plate TW	TW 2.5-10	TW 2.5-10
Cat. no. • PU beige	**492002.2** • 50	**492002.2** • 50
Cat. no. • PU blue	**492002.5** • 50	**492002.5** • 50
Insulation plate TRS	TRS 3	
Cat. no. • PU	**492566.2** • 100	
Cross connector Q • Insulated cross connector QI/ZQI	Q 2	ZQI 2.5/2
Cat. no. • PU	**492567.0** • 50	**493710.8** • 50
Cross connector Q • Insulated cross connector QI/ZQI		ZQI 2.5/3
Cat. no. • PU		**493711.8** • 50
Cross connector Q • Insulated cross connector QI/ZQI	Q 3	ZQI 2.5/4
Cat. no. • PU	**492568.0** • 50	**493712.8** • 20
Cross connector Q • Insulated cross connector QI/ZQI		ZQI 2.5/5
Cat. no. • PU		**493713.8** • 20
Cross connector Q • Insulated cross connector QI/ZQI	Q 4	ZQI 2.5/6
Cat. no. • PU	**492569.0** • 20	**493714.8** • 20
Cross connector Q • Insulated cross connector QI/ZQI		ZQI 2.5/7
Cat. no. • PU		**493715.8** • 20
Cross connector Q • Insulated cross connector QI/ZQI	Q 10	ZQI 2.5/8
Cat. no. • PU	**492570.0** • 10	**493716.8** • 10
Cross connector Q • Insulated cross connector QI/ZQI		ZQI 2.5/9
Cat. no. • PU		**493717.8** • 10
Cross connector Q • Insulated cross connector QI/ZQI		ZQI 2.5/10
Cat. no. • PU		**493718.8** • 10
ACCESSORIES		
Further accessories like labelling systems, covers, end brackets, etc. (page ➛)	From page 179	From page 179



SR 4

48 x 6 x 51,5
48 x 6 x 47

SR 4 BEIGE
41001.2 • 100
SR 4 BLUE
41001.5 • 100
SR 4-NB BEIGE
41499.2 • 100
SR 4-NB BLUE
41499.5 • 100

IEC	UL	CSA
800	600	600
32	40	40

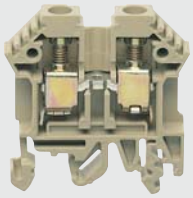
4 • 22-10
6 • 3
A4 • V2

0,2-6 • -
0,2-6 • 0,2-4
0,2-6
12

1
1

AP 2.5-10
492001.2 • 50
492001.5 • 50
TW 2.5-10
492002.2 • 50
492002.5 • 50
TRS 1
492003.2 • 100
Q 2
492019.0 • 50
QI 2
492740.2 • 50
Q 3
492020.0 • 50
QI 3
492741.2 • 50
Q 4
492021.0 • 20
QI 4
492742.2 • 20
Q 10
492022.0 • 10
QI 10
492743.2 • 10

From page 179



SR 10

48 x 8 x 51,5
48 x 8 x 47

SR 10 BEIGE
41005.2 • 100
SR 10 BLUE
41005.5 • 100
SR 10-NB BEIGE
41118.2 • 100
SR 10-NB BLUE
41118.5 • 100

IEC	UL	CSA
800	600	600
57	65	55

10 • 22-8
6 • 3
A5 • V2

0,2-10 • 0,2-10
0,2-10 • 0,2-10
0,2-10
12

1
1

AP 2.5-10
492001.2 • 50
492001.5 • 50
TW 2.5-10
492002.2 • 50
492002.5 • 50
TRS 1
492003.2 • 100
Q 2
492060.0 • 50
QI 2
492750.2 • 50
Q 3
492061.0 • 50
QI 3
492751.2 • 50
Q 4
492062.0 • 20
QI 4
492752.2 • 20
Q 10
492063.0 • 10
QI 10
492753.2 • 10

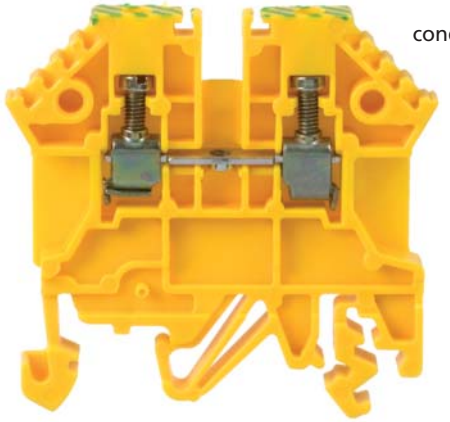
From page 179

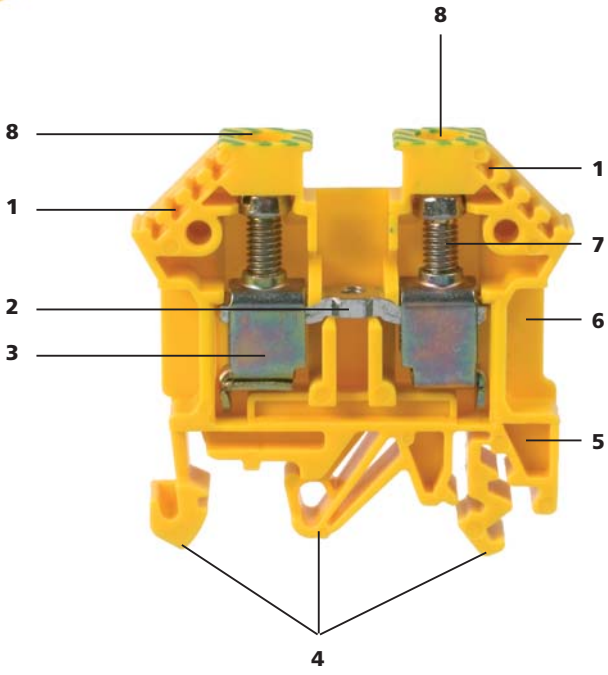
Feed-through Terminals Green/Yellow

Feed-through Terminals Green/Yellow SR..-DPE

These terminal blocks are intended for problematic local conditions where an earthing conductor can be fed through at a specific point, but ought not be earthed.

For a clear identification of an earthing conductor that is connected, the terminal blocks of this series have the same appearance as the protective-conductor terminals SRSL, but they are not in contact with the DIN rail and they do not have an earthing function. The connection to the conductor bar and therefore the actual earthing takes place in a different place by the means of the protective-conductor terminals SRSL.





1 Labelling position
2 Conductor bar, copper, leadfree tinned
3 Clamping yoke designed to resist vibration, steel, tinned, chromated, thick film passivated
4 Combination foot permits mounting onto TS 32 and TS 35 rails
5 Green-yellow coloured terminal body, polyamide 6.6
6 Wide, tunnel-shaped cable entry, closed on four sides, guides the conductor into the clamp, prevents wire fraging
7 Clamping screw, steel, tinned, chromated, thick film passivated
8 Screw driver guide

Direct Mounting Terminal Blocks

Direct Mounting Terminal Blocks SRMB

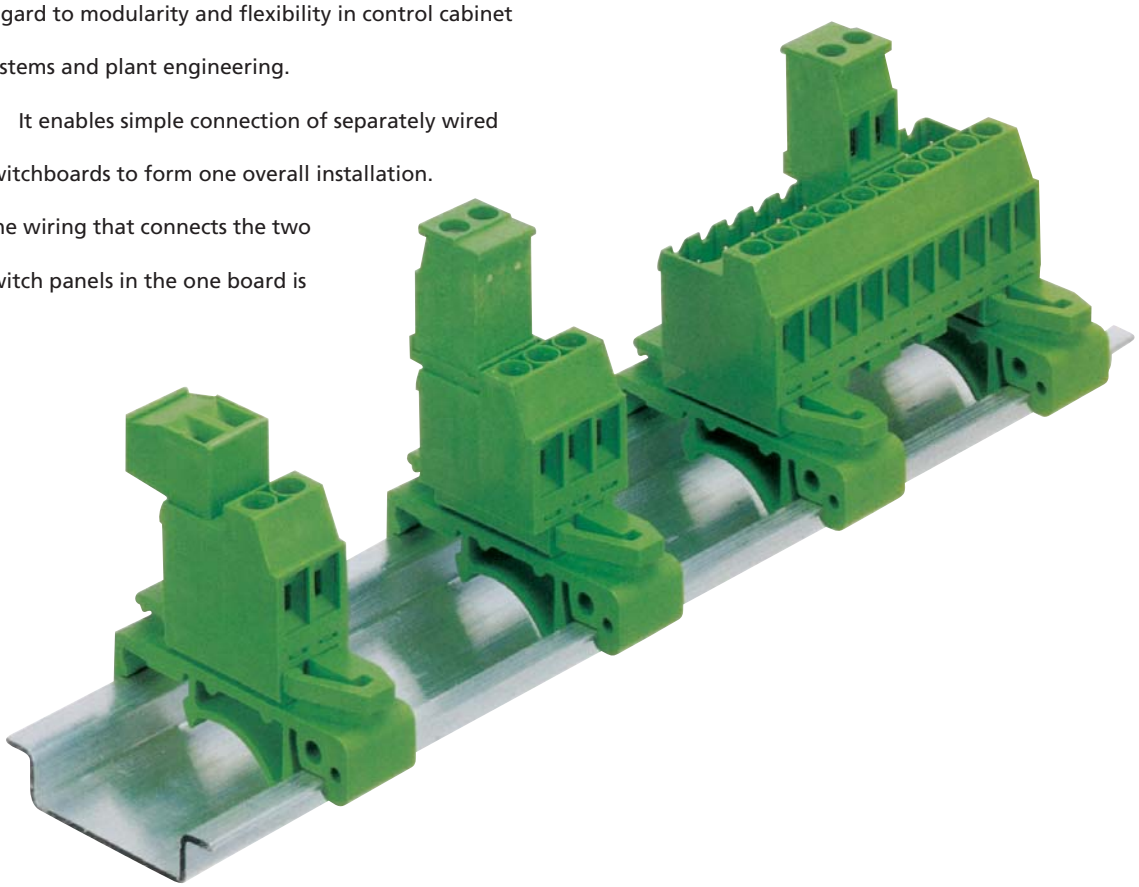
The direct mounting terminal blocks SRMB are cost-efficient connection systems which can be combined modularly through fixed spigots to the desired pole numbers. An end holder EH each is latched in both ends of the terminal block. The terminal block consists of a 3,5mm feed through drilling which fits a clamping bolt.

The terminal blocks SRMB 2.5, SRMB 4 and SRMB 10 provide a contact safety according to VGB 4 over the body. The clamping yoke system assures a safe mechanical and electric contact.

Pluggable Connection System AKZS 950

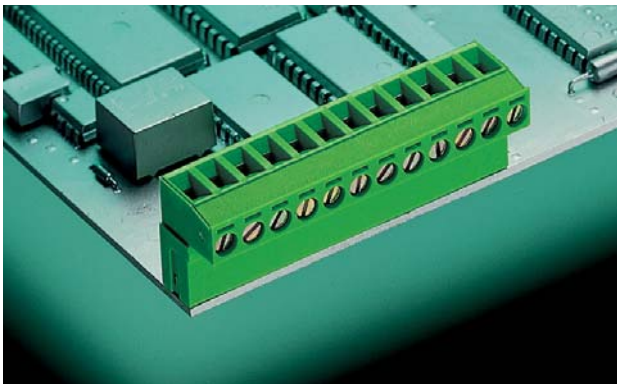
The pluggable connection system AKZS 950 has been developed to meet the ever increasing demands with regard to modularity and flexibility in control cabinet systems and plant engineering.

It enables simple connection of separately wired switchboards to form one overall installation. The wiring that connects the two switch panels in the one board is



routed to the AKZS 950 basic element which is designed for mounting on the 32/35 mm DIN rail and in the other board the corresponding lines are routed to the AKZ 950 mating component.

After installing the control cabinets, the two switch-boards can be easily connected in this way.



AKZ 950/.. - 5,08 - GREEN

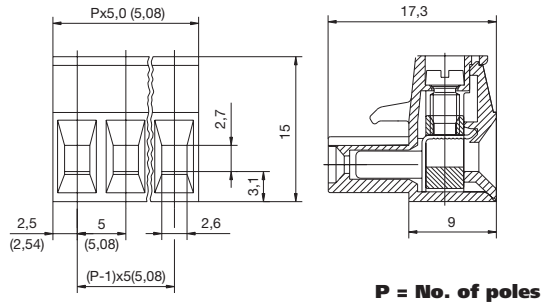
2-24 poles, Spacing 5,08 mm
insert required no. of poles ..

Ratings:

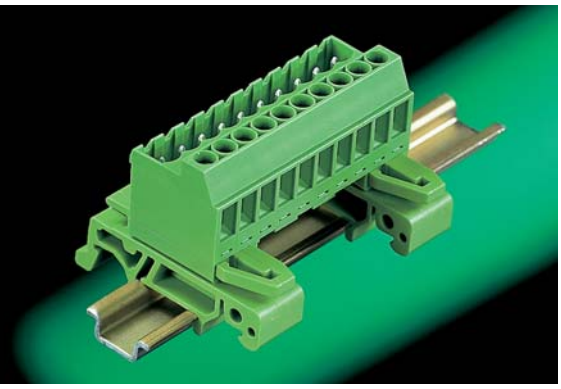
Rated Voltage	**300 V**	**250 V**
Rated Current	**15 A**	**12 A (T60)**
Overvoltage Category		**III**
Wire Size	**AWG 22-12**	**2,5 mm²**
Rating Impulse Voltage/Dirt Level		**4 kV/3**
Rated Torque / Screw Size		**0,5 Nm/M3**

Max. Rated Cross Section	
Single Wire (solid)	**2,5 mm²**
Stranded Wire (flexible)	**2,5 mm²**
Stranded wire with Ferrules	**2,5 mm²**
Dimensions	
Spacing	**5,08 mm**
Stripped Length	**6,0 mm**
Materials	
Insulating Material	**PA**
Flammability Class	**UL94 V-0**
Temperature Range	**-30°C/+105°C**
Terminal Block	**CuZn**
Contact	**CuSn**
Colour	
green	**RAL 6018**

AKZ 950



P = No. of poles



AKZS 950/..G - 5,08 - GREEN

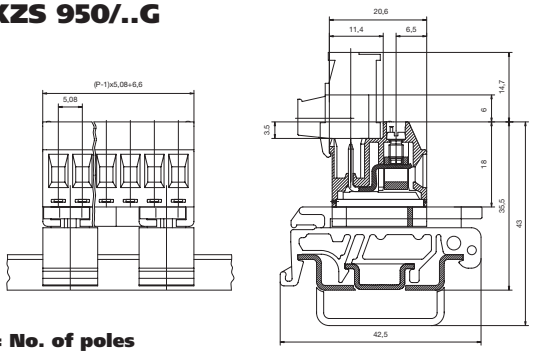
2-24 poles, Spacing 5,08 mm
insert required no. of poles ..
mountable in combination with TS 15 and TS 35

Ratings:

Rated Voltage	**300 V**	**250 V**
Rated Current	**15 A**	**12 A (T60)**
Overvoltage Category		**III**
Wire Size	**AWG 28-12**	**2,5 mm²**
Rating Impulse Voltage / Dirt Level		**4 kV / 3**
Rated Torque / Screw Size		**0,5 Nm/M3**

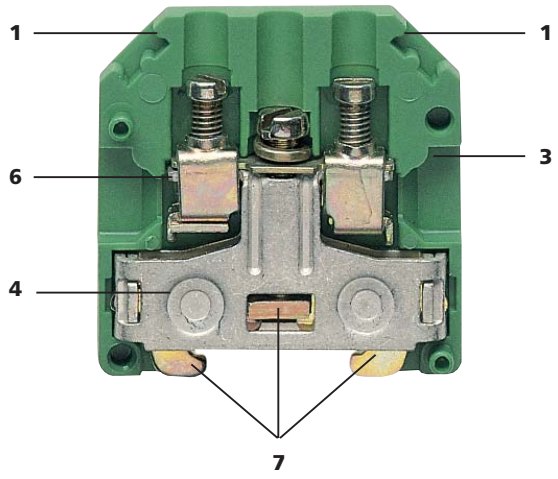
Max. Rated Cross Section	
Single Wire (solid)	**2,5 mm²**
Stranded Wire (flexible)	**2,5 mm²**
Stranded Wire with Ferrules	**2,5 mm²**
Dimensions	
Spacing	**5,08 mm**
Stripped Length	**6,0 mm**
DIN rail	**TS 15 DIN EN 60715** **TS 35 DIN EN 60715**
Materials	
Insulating Material	**PA**
Flammability Class	**UL94 V-0**
Temperature Range	**-30°C/+105°C**
Terminal Block	**CuZn**
Wire Guard	**Cu**
Colour	
green	**RAL 6018**

AKZS 950/..G



P = No. of poles

Earth Terminal Blocks

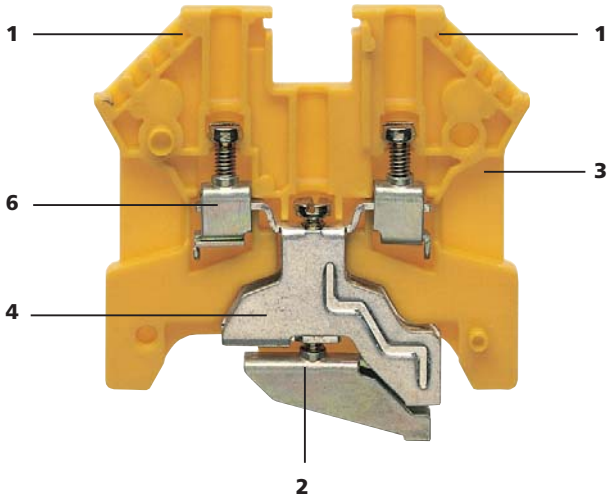


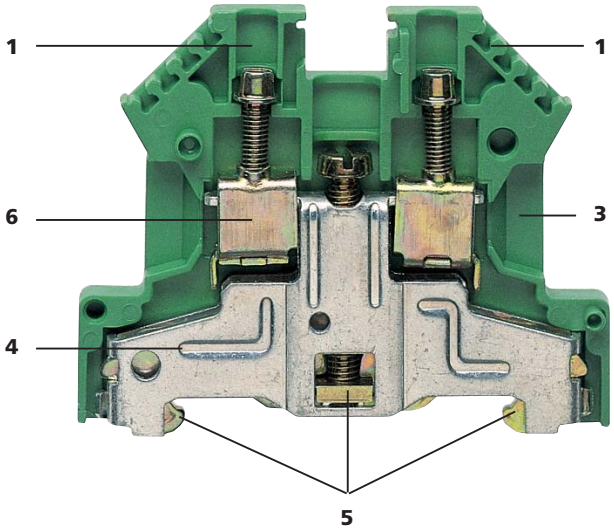
Earth Terminal Blocks SRSL

The strict VDE requirement imposed on ground connections, such as low contact resistance, corrosion-free connection points, secured screws, green-yellow colour coding and clear circuit identification – are fully oberserved by the PTR earth terminal blocks.

Mounted on the same DIN rail with other types of terminals, they are easily distinguished by their green-yellow colour code. For special emphasis the earth terminal blocks consist of an enclosed green-yellow half shell insulated body made of Polyamide 6.6. Incoming and outgoing earthed conductors have a separate connection point.

The structural design of the earth terminal blocks is based on the fact that the mounting rail is used not only mechanically, but also electrically, i.e. as a ground (PE) busbar. Therefore it is possible to position the earth terminal blocks directly next to the phase conductor terminals. Earth terminal blocks offer the same space savings and design features as the other PTR terminal blocks and the general terminal marking system can be used.



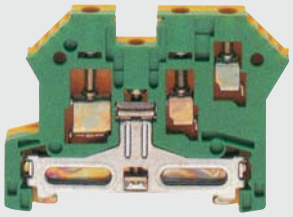


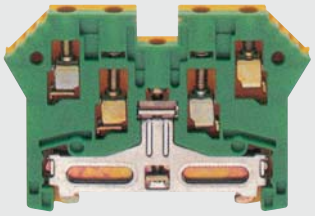
1 **Labelling position**
2 **Clamp assembly for TS 32, steel, zinc-plated chromated, thick film passivated**
3 **Green/yellow PA 6.6, housing consisting of 2 half shells**
4 **Clamp bow, made of leadfree tin-plated copper**
5 **Clamp assembly for TS 35, steel, zinc-plated, chromated**
6 **Proven PTR screw clamp design**
7 **Clamp assembly for TS 15, steel, zinc-plated, chromated**

SCREW PRINCIPLE

CONNECTION DIAGRAM

DESIGNATION	SRSL 4-T15	SRSLN 2.5-T32
DIMENSION (L x B x H)		
with TS 15 mm	32 x 7 x 34	
with TS 32 mm		40 x 6 x 43,7
with TS 35 x 7,5 mm		
TYPE		
Type • Colour	SRSL 4-T15 GREEN/YELLOW	SRSLN 2.5-T32 GREEN/YELLOW
Cat. no. • PU	**41064.2** • 100	**41057.2** • 100
RATINGS	IEC UL CSA	IEC UL CSA
Rated voltage V		
Rated current A		
Rated wire size mm^2 • AWG	4 • 22-10	2,5 • 22-12
Test voltage kV • Contamination degree	8 • 3	8 • 3
Gauge plug acc. to EN 60 947-1 • Flammability class UL 94	A3 • V2	A3 • V2
CONNECTION DATA		
Single wire (solid) • Stranded (flexible) mm^2	0,2-4 • -	0,2-4 • -
Flexible • Flexible (with ferrules acc. to DIN 46 228/1) mm^2	0,2-4 • -	0,2-4 • 0,2-2,5
Contact wire range mm^2	0,2-4	0,2-4
Insulation stripping length mm	9	10
FEATURES		
Number of cross connection channels		
Test checking possibilities		
ACCESSORIES		
End plate AP		
Cat. no. • PU green		
ACCESSORIES		
Further accessories like labelling systems, covers, end brackets, etc. (page ➛)	From page 179	From page 179





SRSLN 2.5-T35

52 x 6 x 38,9

SRSLN 2.5-T35 GREEN/YELLOW
41058.2 • 100

IEC	UL	CSA
2,5 • 22-12		
8 • 3		
A3 • V2		
0,2-4 • -		
0,2-4 • 0,2-2,5		
0,2-4		
10		

From page 179

SRSL 2.5-T35-DR

62 x 6 x 47

SRSL 2.5-T35-DR GREEN/YELLOW
41060.2 • 100

IEC	UL	CSA
2,5 • 22-12		
6 • 3		
A3 • V2		
0,2-4 • -		
0,2-4 • 0,2-2,5		
0,2-4		
9		

AP 2.5 R
492574.1 • 20

From page 179

SRSL 2.5-T35-DRL

67 x 6 x 47

SRSL 2.5-T35-DRL GREEN/YELLOW
41062.2 • 100

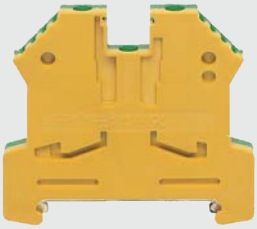
IEC	UL	CSA
2,5 • 22-12		
6 • 3		
A3 • V2		
0,2-2,5 • -		
0,2-2,5 • 0,2-2,5		
0,2-2,5		
9		

AP 2.5 RL
492575.1 • 20

From page 179

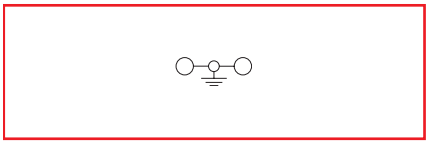
EARTH TERMINALS SRSL

SCREW PRINCIPLE



CONNECTION DIAGRAM

DESIGNATION	SRSL 2.5-T32	SRSL 2.5-T35
DIMENSION (L x B x H)		
with TS 15 mm		
with TS 32 mm	48 x 6 x 51,7	
with TS 35 x 7,5 mm		52 x 6 x 47
TYPE		
Type • Colour	SRSL 2.5-T32 GREEN/YELLOW	SRSL 2.5-T35 GREEN/YELLOW
Cat. no. • PU	**41055.2** • 100	**41056.2** • 100
RATINGS	IEC UL CSA	IEC UL CSA
Rated voltage V		
Rated current A		
Rated wire size mm^2 • AWG	2,5 • 22-12	2,5 • 22-12
Test voltage kV • Contamination degree	12 • 3	12 • 3
Gauge plug acc. to EN 60 947-1 • Flammability class UL 94	A3 • V2	A3 • V2
CONNECTION DATA		
Single wire (solid) • Stranded (flexible) mm^2	0,2-4 • -	0,2-4 • -
Flexible • Flexible (with ferrules acc. to DIN 46 228/1) mm^2	0,2-4 • 0,2-2,5	0,2-4 • 0,2-2,5
Contact wire range mm^2	0,2-4	0,2-4
Insulation stripping length mm	10	10
FEATURES		
Number of cross connection channels		
Test checking possibilities		
ACCESSORIES		
ACCESSORIES		
Further accessories like labelling systems, covers, end brackets, etc. (page ➛)	From page 179	From page 179



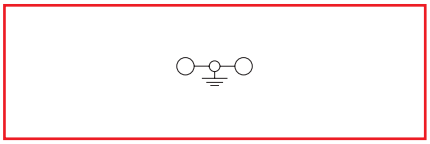
SRSL 4-T32

56 x 8 x 51,5

SRSL 4-T32 GREEN/YELLOW
41065.2 • 100

IEC	UL	CSA
4 • 22-10		
8 • 3		
A4 • V2		
0,2-6 • -		
0,2-6 • 0,2-4		
0,2-6		
12		

From page 179



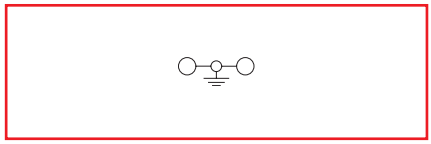
SRSL 4-T35

56 x 8 x 47

SRSL 4-T35 GREEN/YELLOW
41212.2 • 100

IEC	UL	CSA
4 • 22-10		
8 • 3		
A4 • V2		
0,2-6 • -		
0,2-6 • 0,2-4		
0,2-6		
12		

From page 179



SRSL 10-T32

56 x 10 x 51,5

SRSL 10-T32 GREEN/YELLOW
41066.2 • 80

IEC	UL	CSA
10 • 20-6		
8 • 3		
A5 • V2		
0,2-10 • -		
0,2-10 • -		
0,2-10		
12		

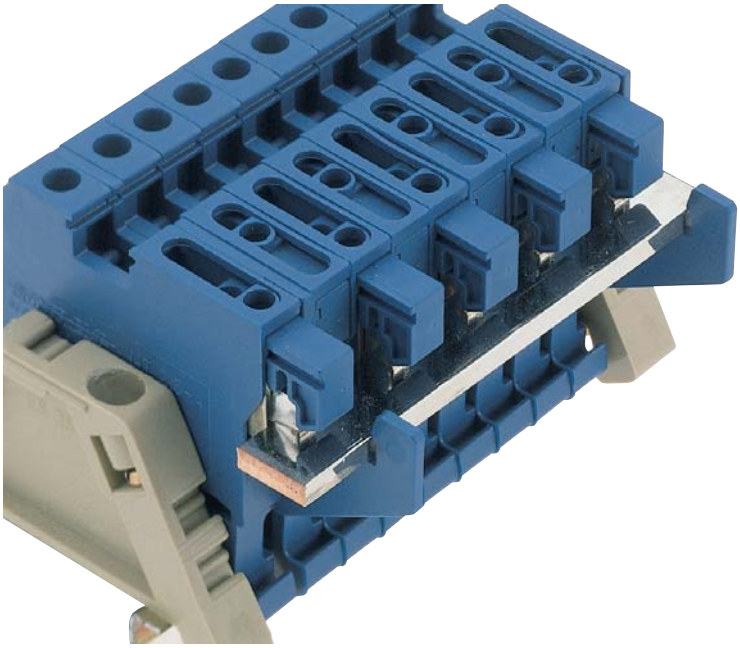
From page 179

Neutral Disconnect Terminals

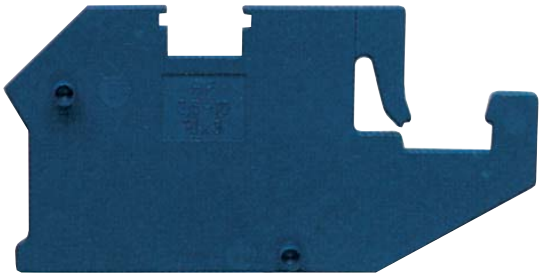
Neutral (N) Disconnect Terminal Blocks SRNT

According to VDE standards – for example VDE 0108 – it is required that all current circuits with conductors which run outside of the switching and distribution equipment and which have a conductor cross section up to 10 mm² must permit an insulation measurement of all conductors to earth without disconnecting the neutral conductor. Therefore PTR disconnect terminals are fully designed for this special application. The 10 x 3 mm or the 6 x 6 mm busbar is directed outside of the terminals and is hold in safe position by the support brackets.

The disconnection and connection is done through a disconnect slide, which contacts the busbar on both sides. The disconnect slide permits testing in any operating position. Each terminal can be individually removed. The feeding is done for example through clamping yoke ZB 16 or ZB 35.



Busbar Ssch

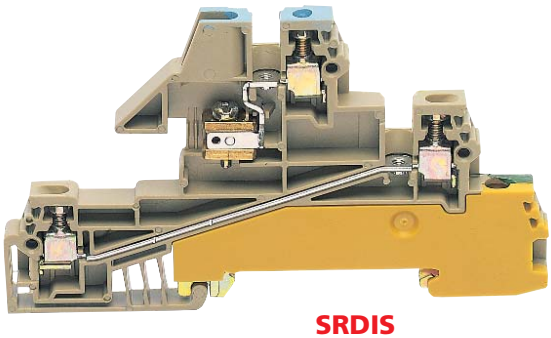


Retaining plate HP

Three Level Installation Terminal Blocks

Three Level Installation Terminal Blocks SRDIS

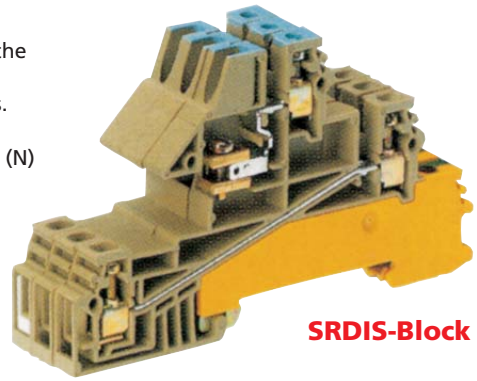
According to VDE 0100 (EC 364) resp. VDE 0108 it is specified that the relationship of current circuits must be clearly visible and with each current circuit an insulation check must be possible without disconnecting the neutral (N) conductor. This particularly applies to distributor cabinets of public buildings, such as hospitals, schools, airports, office buildings, institutes, etc. Our three level installation terminal blocks are specially designed to meet all these requirements. The neutral conductor cross-connection takes place on behalf of the busbar system Ssch 10 x 3. The input is made possible over a separate clamping yoke or a NT-disconnect terminal block.



SRDIS

Advantages:

- The three types of terminal blocks belonging to a single phase current circuit, namely ground terminal blocks, phase conductor through terminal blocks and neutral disconnect terminal blocks are located in one housing.
- The feed through connections in the center and upper level are bridgeable with all types by means of a cross-connection system.
- The terminal blocks may be easily removed from the neutral (N) rail independently of their neighbours.
- Same position of the 10 x 3 bus bar as the neutral (N) disconnect terminal blocks SRNT.
- They can be combined with SR terminal blocks, earth terminal blocks SRSL, and neutral (N) disconnect terminal blocks SRNT, for example for the feeding.
- Shape identical terminal blocks of various types are available.

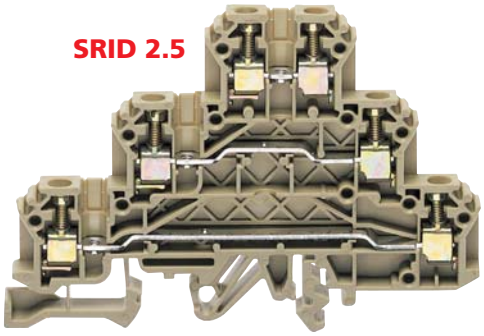


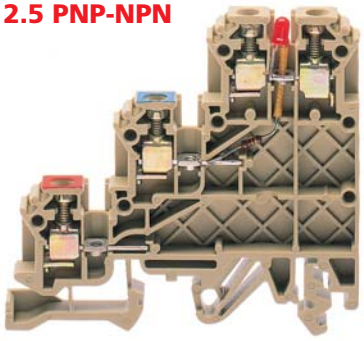
SRDIS-Block

SRI 2.5 PNP-NPN

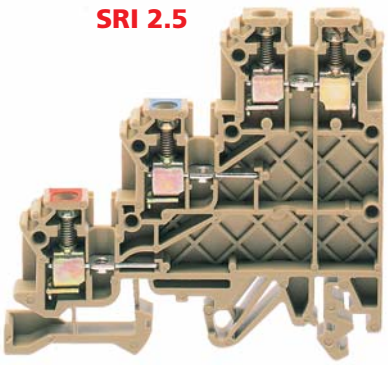
Three Level Initiator Terminal Blocks

SRID 2.5





SRI 2.5

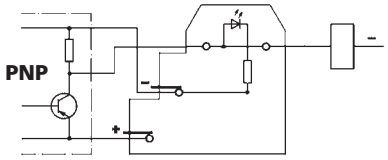


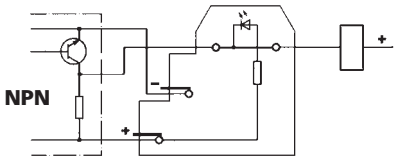
The advantages are:

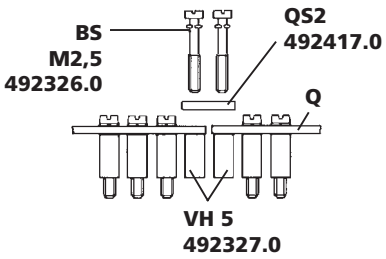
- Protected wire inlet
- One terminal per sensor provides for a quick and definedcircuit allocation
- Safe from contact (VBG 4) without extra covering
- Colour code red for positive and blue for negative wire inlet eliminates faulty wiring
- Additional marking is practicable due to the colour code
- Light indicator facilitates fault finding and signalizes the circuit function.

Three Level Initiator Terminal Blocks SRI / SRID

In the field of machine constructions, inductive or capacitive proximity switches are increasingly used for actuation without physical contact. In general they are designed as “Three Wire Sensors”. The positive and negative conductors are necessary for the power supply, the third conductor transmits the switching pulses. The only 5 mm wide “Three Sensor Terminals” from PTR minimize wiring time and costs and cabinet space when three wire devices such as sensors, proximity switches etc. are connected.







Terminal design:

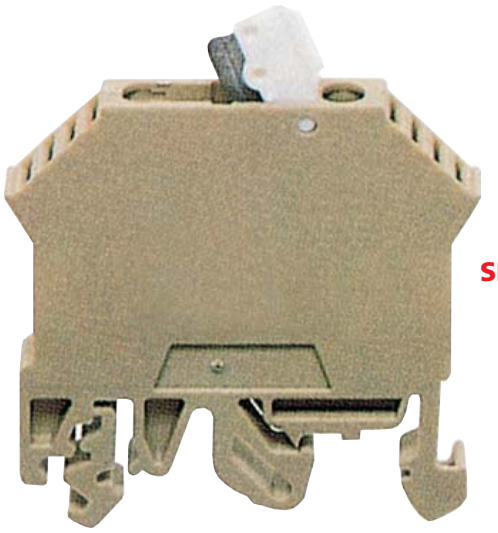
Upper level: Feed-through terminal printable on either side

Middle level: Wire inlet, blue for negative wire

Lower level: Wire inlet, red for positive wire

Besides the three level sensor terminals also available is a common feed terminal SRID 2.5 for the use of supplying the busbars at any point on the terminal strip. This SRID 2.5 version is alternatively offered also with an integrated light indicator. When feeding from the left, only the overhanging section of the SRID 2.5 requires covering with the end plate short, Cat.-no. 492714.2. The crossconnection can be assembled individually with QS, VH and BS. Pre-assembled versions are also available. In addition to the offered poles any further requested number of poles is individually fixable.

Disconnect Terminal Blocks



SRT 4-M

1 Disconnect knife
2 Disconnect lever
3 Dummy fuse

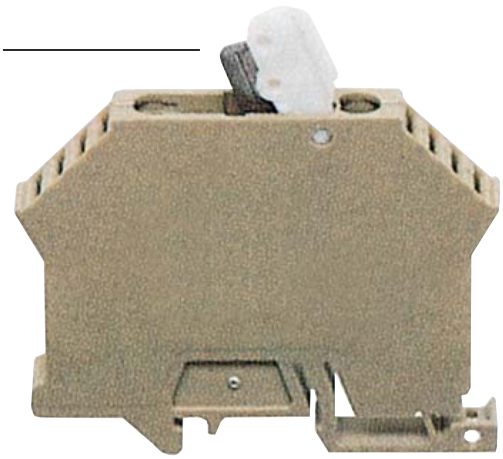
Disconnect Terminal Blocks SRT

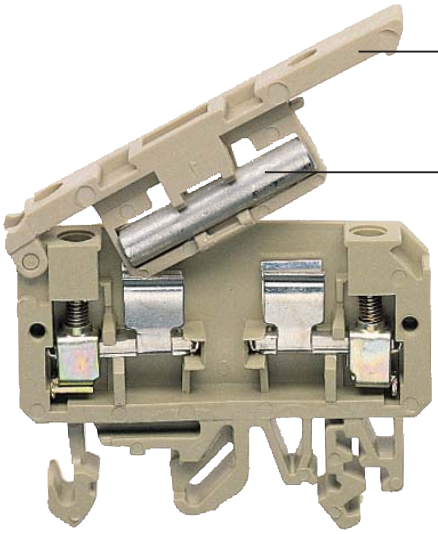
In measuring, control and remote-controlled systems disconnect terminals are often installed in order to quickly locate operating faults. PTR disconnect terminals allow to disconnect the current circuit without disconnecting the conductor. They are available with combination foot for TS 32 / 35 and versions for TS 15.

SRT 4-M / SRT 4-T15-M

- Construction profile equal to standard terminals
- Sturdy enclosed insulating housing
- Reliable disconnect knife system with high surface protection
- Low and stable contact resistances
- Finger safe even during the disconnect cycle

SRT 4-T15-M



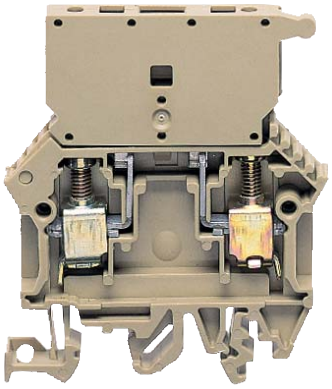


SRT 4-H

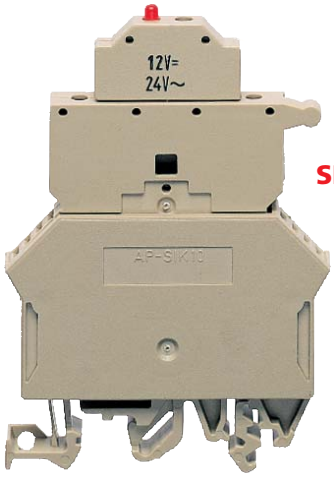
SRT 4-H / SRT 4-T15-H

- Disconnect link is a disconnect lever which is equipped with a contact casing/dummy fuse
- The disconnect lever is folding and arresting in the end position
- Identical with standard fuse terminal blocks
- Disconnect levers can be applied as conductor terminal blocks through the removal of the contact casing

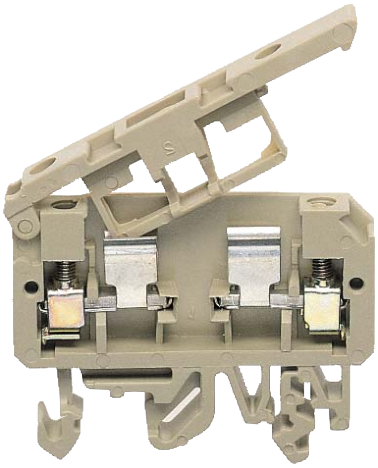
Fuse Terminal Blocks



SRSI 10-E



SRSI 10-LED



SRSI 4-H

Fuse Terminal Blocks SRSI

According to the electrical standards, electrical equipment, control systems, and machines must be protected with fuses. The following PTR fuse terminal types have been developed to meet these standards.

The fuse terminal SRSI 10-E can additionally be fitted with the fuse plug SST/...LED.

SRSI 10-E

Suitable for the following fuse cartridges:

- 5 x 20 mm for 250 V
- 5 x 25 mm for 250 V with indicator
- 5 x 30 mm for 500 V

SRSI 10-E-Z

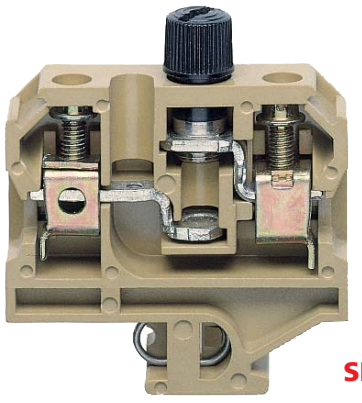
Suitable for the following fuse cartridges:

- 1/4" x 1 1/4 " (6,3 x 32 mm)
- 1/4" x 1" (6,3 x 25 mm)

SRSI 4-H / SRSI - T35 (32)-K

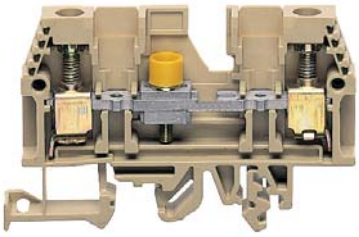
Suitable for the following fuse cartridges:

- 5 x 20 mm for 250 V
- 5 x 25 mm for 250 V with indicator



SRSI 10-T32-K

Test Disconnect Terminal Blocks



Test Disconnect Terminal Blocks SRP

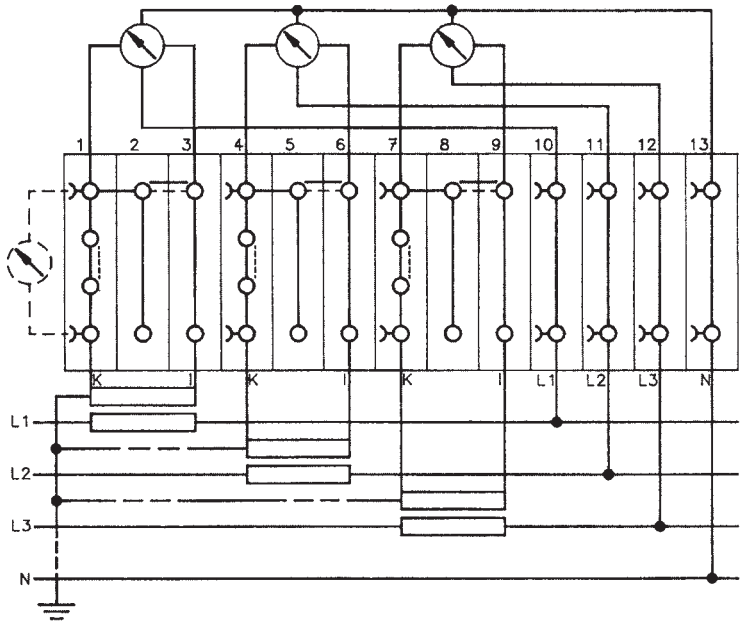
- Screw clamp connection
- Material: Polyamide 6.6
- Rail mount on TS 32 and TS 35

Test disconnect terminals are mainly employed in the field of generating and supplying electrical current. They are therefore designed in such a way to meet the various prevailing switching requirements of the current transformer secondary circuits.

PTR Test Disconnect Terminals are available in three different versions:

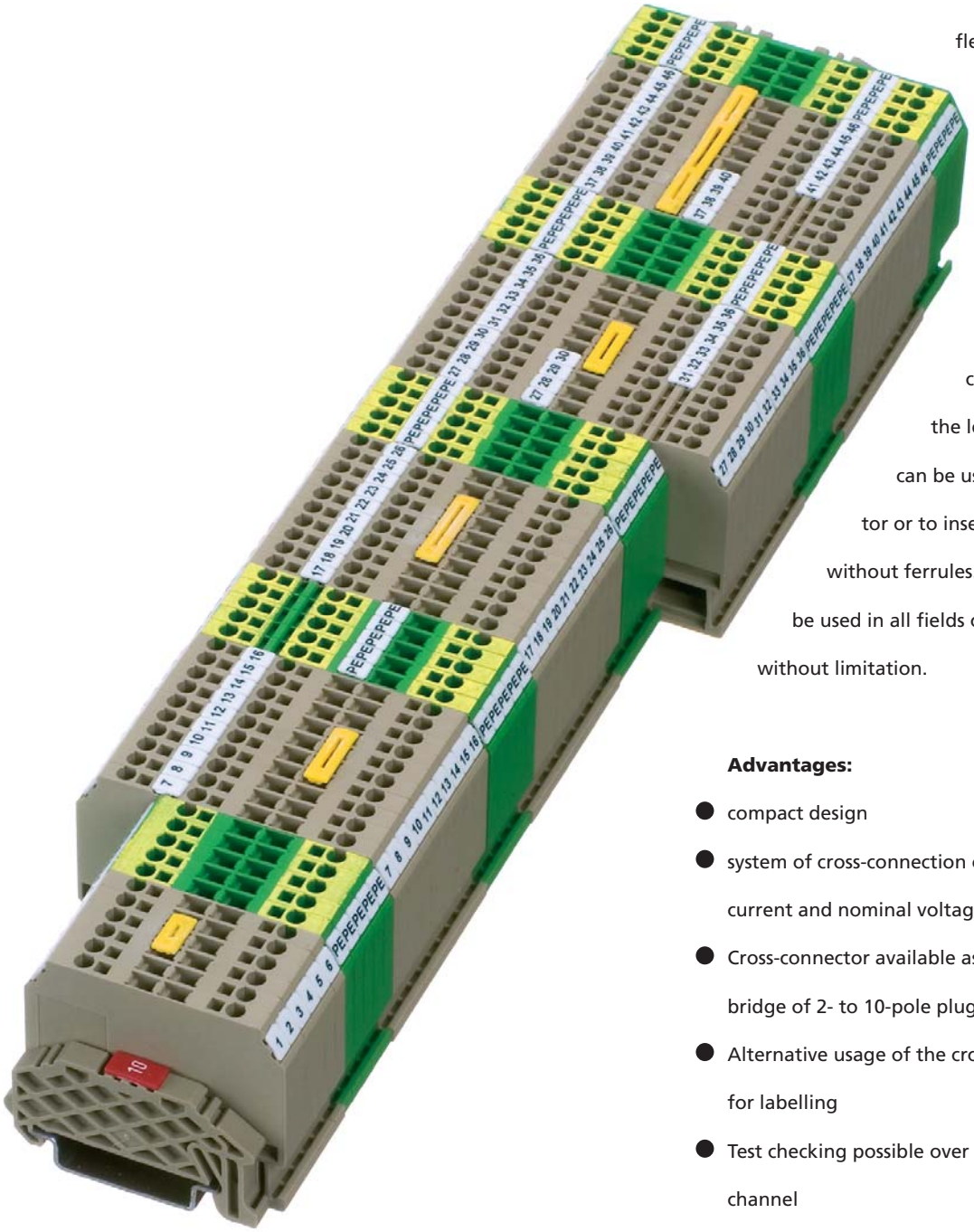
- SRPL Longitudinal disconnect terminal
- SRPQ Cross-disconnect terminal
- SRPD Feed-through terminal

Due to the combination of these designs almost all required switching solutions are possible. All three versions are absolutely protected against hand touching according to VBG 4 and are mounted in a 8 mm wide space saving unbreakable housing made of polyamide 6.6.



The disconnection of the current or voltage circuits is achieved by means of a slide link that cannot be lost. The switching position is easy to identify at any time since the disconnecting screw is provided with a yellow insulating sleeve. All designs can be provided with test sockets for test purposes by means of a test plug PS 4.

Leg Spring Principle



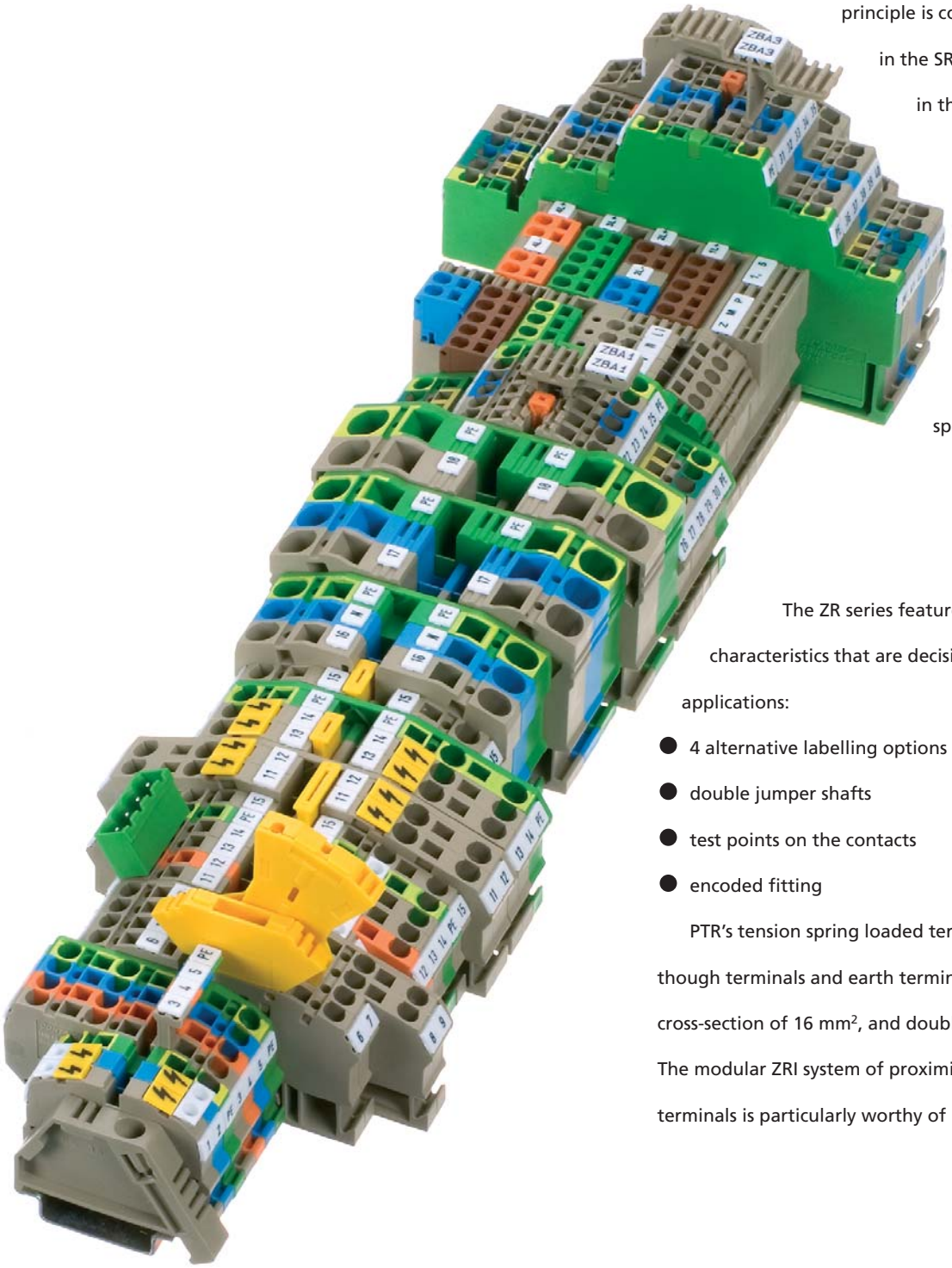
Leg Spring Principle FR / FRSL

Leg spring terminal blocks save up to 80 % of the wiring time! Compared with screw and tension spring terminal blocks, it is not necessary to use tools to connect the conductor: Massive conductors or flexible conductors with ferrules can be directly applied into the terminal. While inserting the wire the contact with the busbar is automatically established through the leg spring. A screw driver can be used to loosen the conductor or to insert flexible conductors without ferrules. These terminal blocks can be used in all fields of electrical engineering without limitation.

Advantages:

- compact design
- system of cross-connection chargeable under rated current and nominal voltage
- Cross-connector available as chain bridge or fixed bridge of 2- to 10-pole pluggable
- Alternative usage of the cross-connection channel for labelling
- Test checking possible over the cross-connection channel

Tension Spring Principle



Tension Spring Principle ZR

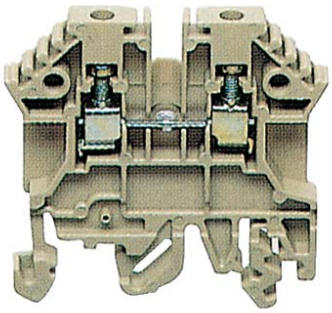
PTR's tension spring loaded terminals provide a realistic alternative to terminal blocks with screw clamp connection in many fields of application. The clamping principle is comparable to that used in the SR screw terminals. While in the SR series, a clamping yoke holds the conductor in contact with the busbar, in the ZR series, the contact is maintained by means of a specially shaped spring.

The ZR series features the following typical characteristics that are decisive for practical applications:

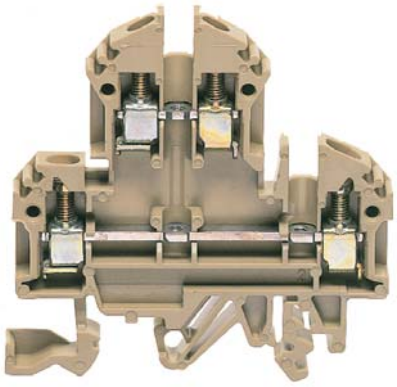
- 4 alternative labelling options
- double jumper shafts
- test points on the contacts
- encoded fitting

PTR's tension spring loaded terminals include feed-though terminals and earth terminal blocks up to a rated cross-section of 16 mm^2, and double and triple variants. The modular ZRI system of proximity switch and actuator terminals is particularly worthy of note.

ATEX-Terminal Blocks



SR 2.5-EX



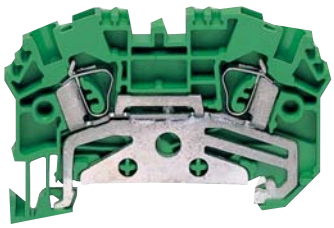
SRD 4-EX

ZR 2.5-DRL-EX

ATEX-Terminal Blocks ...-EX

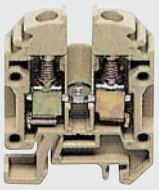
Each ATEX-terminal block is tested especially for the usage in explosive areas and is approved according to the norms DIN 60 079-0 / DIN EN 50 014 and DIN 60 079-7 / DIN EN 50 019, also for the ignition protection 'heightened safety EEx e'.

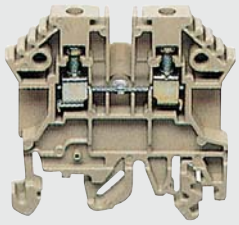
EX-terminal blocks are so called EX-devices ('components') according to DIN EN 60 079-0. Devices which are necessary for the safe operation of appliances and security systems without fulfilling an autonomic function themselves are called components. According to the European EX-guideline EX-RL 94/9/RG, components are not marked with the CE-indication. For an easy identification the article description of the ATEX-terminal block end with an '-EX'. Currently, feed through terminal blocks as well as earth terminal blocks for cross-sections of 0,2 mm^2 to 35 mm^2 are available. Double-level feed through terminal blocks are available for conductor cross-sections up to 4 mm^2. The direct mounting series 'SRMB' is available for cross-sections up to 10mm^2.



ZRSL 2.5-EX

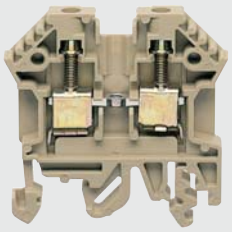
SCREW PRINCIPLE

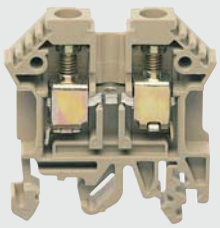


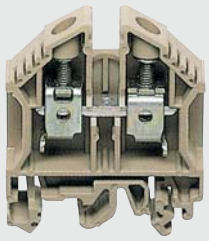


CONNECTION DIAGRAM

DESIGNATION	SR 4-T15-EX	SR 2.5-EX
DIMENSION (L x B x H)		
with TS 15 mm	27 x 6 x 34,5	
with TS 32 mm		48 x 5 x 51,5
with TS 35 x 7,5 mm		48 x 5 x 47
TYPE		
Type • Colour	SR 4-T15-EX BEIGE	SR 2.5-EX BEIGE
Cat. no. • PU	**41433.2** • 100	**41426.2** • 100
Type • Colour	SR 4-T15-EX BLUE	SR 2.5-EX BLUE
Cat. no. • PU	**41433.5** • 100	**41426.5** • 100
RATINGS	**Nemko**	**Nemko**
Rated voltage V	380	660
Rated current A	34	26
Part certification number	NEMKO 04ATEX1344U	NEMKO 04ATEX1344U
Test voltage kV • Contamination degree	4 • 22-12	2,5 • 22-14
Gauge plug acc. to EN 60 947-1 • Flammability class UL 94	A4 • V2	A3 • V2
CONNECTION DATA		
Single wire (solid) • Stranded (flexible) mm^2	0,2-4 • -	0,2-4 • -
Flexible • Flexible (with ferrules acc. to DIN 46 228/1) mm^2	0,2-4 • 0,2-2,5	0,2-4 • 0,2-2,5
Contact wire range mm^2	0,2-4	0,2-4
Insulation stripping length mm	9	7
FEATURES		
Number of cross connection channels	1	1
Test checking possibilities		1
ACCESSORIES		
End plate AP	AP 1.5-4	AP 2.5-10
Cat. no. • PU beige	**492738.2** • 50	**492001.2** • 50
Cat. no. • PU blue	**492738.5** • 50	**492001.5** • 50
Holding plate TW	TW 1.5-4	TW 2.5-10
Cat. no. • PU beige	**492071.2** • 50	**492002.2** • 50
Cat. no. • PU blue	**492071.5** • 50	**492002.5** • 50
Insulation plate TRS	TRS 3	TRS 3
Cat. no. • PU	**492566.2** • 100	**492566.2** • 100
Cross connector Q 2 poles	Q 2	Q 2
Cat. no. • PU	**492087.0** • 50	**492567.0** • 50
Insulated cross connector QI		
Cat. no. • PU		
Cross connector Q/Outer insulated cross connector AQI 2 poles		
Cat. no. • PU		
Cross connector Q 3 poles	Q 3	Q 3
Cat. no. • PU	**492088.0** • 50	**492568.0** • 50
Insulated cross connector QI		
Cat. no. • PU		
Cross connector Q/Outer insulated cross connector AQI 3 poles		
Best.-Nr. • PU		
Cross connector Q 4 poles	Q 4	Q 4
Cat. no. • PU	**492089.0** • 20	**492569.0** • 20
Insulated cross connector QI		
Cat. no. • PU		
Cross connector Q 10 poles	Q 10	Q 10
Cat. no. • PU	**492090.0** • 10	**492570.0** • 10
Insulated cross connector QI		
Cat. no. • PU		
Cover AD		
Cat. no. • PU		
ACCESSORIES		
Further accessories like labelling systems, covers, end brackets, etc. (page ➛)	From page 179	From page 179







SR 4-EX

48 x 5 x 51,5
48 x 5 x 47

SR 4-EX BEIGE
41427.2 • 100
SR 4-EX BLUE
41427.5 • 100

Nemko
660
34
NEMKO 04ATEX1344U
4 • 22-10
A4 • V2

0,2-6 • -
0,2-6 • 0,2-4
0,2-6
12

1
1

AP 2.5-10
492001.2 • 50
492001.5 • 50
TW 2.5-10
492002.2 • 50
492002.5 • 50
TRS 1
492003.2 • 100
Q 2
492019.0 • 50
QI 2
492740.2 • 50

Q 3
492020.0 • 50
QI 3
492741.2 • 50

Q 4
492021.0 • 20
QI 4
492742.2 • 20
Q 10
492022.0 • 10
QI 10
492743.2 • 10

From page 179

SR 10-EX

48 x 8 x 51,5
48 x 8 x 47

SR 10-EX BEIGE
41430.2 • 100
SR 10-EX BLUE
41430.2 • 100

Nemko
660
61
NEMKO 04ATEX1344U
10 • 22-8
A5 • V2

0,2-10 • -
0,2-10 • 0,2-10
0,2-10
12

1
1

AP 2.5-10
492001.2 • 50
492001.5 • 50
TW 2.5-10
492002.2 • 50
492002.5 • 50
TRS 1
492003.2 • 100
Q 2
492060.0 • 50
QI 2
492050.2 • 50

Q 3
492061.0 • 50
QI 3
492751.2 • 50

Q 4
492062.0 • 20
QI 4
492752.2 • 20
Q 10
492063.0 • 10
QI 10
492753.2 • 10

From page 179

SR 16-EX

50 x 12 x 63
50 x 12 x 58,5

SR 16-EX BEIGE
41431.2 • 50
SR 16-EX BLUE
41431.5 • 50

Nemko
660
82
NEMKO 04ATEX1344U
16 • 12-4
B7 • V2

2,5-16 • 2,5-25
2,5-16 • 2,5-16
2,5-25
15

1

AP 16
492104.2 • 20
492104.5 • 20
TW 16
492105.2 • 20
492105.5 • 20

Q 2
492112.0 • 20

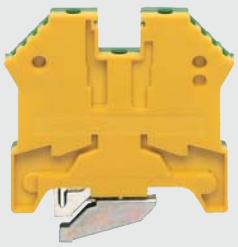
Q 3
492113.0 • 20
Q 4
492114.0 • 10

Q 10
492115.0 • 10

AD1
492819.0 • 20

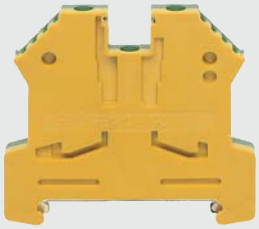
From page 179

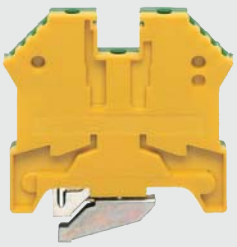
SCREW PRINCIPLE

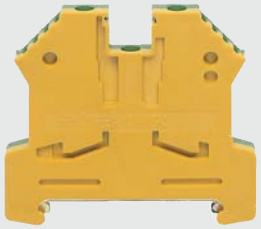


CONNECTION DIAGRAM

DESIGNATION	SRSL 4-T15-EX	SRSL 2.5-T32-EX
DIMENSION (L x B x H)		
with TS 15 mm	32 x 7 x 34	
with TS 32 mm		40 x 6 x 51,7
with TS 35 x 7,5 mm		
TYPE		
Type • Colour	SRSL 4-T15-EX GREEN/YELLOW	SRSL 2.5-T32-EX GREEN/YELLOW
Cat. no. • PU	**41404.2** • 100	**41434.2** • 100
RATINGS	**Nemko**	**Nemko**
Rated voltage V		
Rated current A		
Part certification number	NEMKO 04ATEX1343U	NEMKO 04ATEX1344U
Test voltage kV • Contamination degree	4 • 22-10	2,5 • 22-12
Gauge plug acc. to EN 60 947-1 • Flammability class UL 94	A3 • V2	A3 • V2
CONNECTION DATA		
Single wire (solid) • Stranded (flexible) mm^2	0,2-4 • -	0,2-4 • -
Flexible • Flexible (with ferrules acc. to DIN 46 228/1) mm^2	0,2-4 • 0,2-4	0,2-4 • 0,2-2,5
Contact wire range mm^2	0,2-4	0,2-4
Insulation stripping length mm	9	10
FEATURES		
Number of cross connection channels		
Test checking possibilities		
ACCESSORIES		
ACCESSORIES		
Further accessories like labelling systems, covers, end brackets, etc. (page ➛)	From page 179	From page 179







SRSL 2.5-T35-EX

52 x 6 x 47

SRSL 2.5-T35-EX GREEN/YELLOW
41435.2 • 100

Nemko

NEMKO 04ATEX1344U
2,5 • 22-12
A3 • V2

0,2-4 • -
0,2-4 • 0,2-2,5
0,2-4
10

From page 179

SRSL 4-T32-EX

56 x 8 x 51,5

SRSL 4-T32-EX GREEN/YELLOW
41436.2 • 100

Nemko

NEMKO 04ATEX1344U
4 • 22-10
A4 • V2

0,2-6 • -
0,2-6 • 0,2-4
0,2-6
12

From page 179

SRSL 4-T35-EX

56 x 8 x 47

SRSL 4-T35-EX GREEN/YELLOW
41437.2 • 100

Nemko

NEMKO 04ATEX1344U
4 • 22-10
A4 • V2

0,2-6 • -
0,2-6 • 0,2-4
0,2-6
12

From page 179

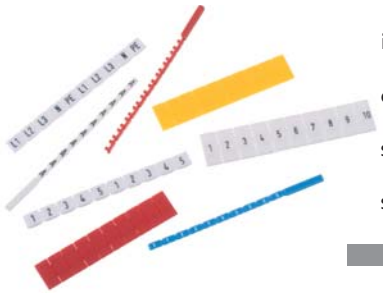
Accessories

Accessories

The PTR accessories programme has been considered and developed in a user-related way. A multitude of technical applications is realizable with a minimum effort. Nevertheless the fitting piece can not always be found in the accessories programme: Do you need differently printed identification labels or a fuse not listed in the catalogue? Approach us! Besides the accessories listed here, we also accomplish individual wishes.

DIN Rails

DIN rails are made of steel, aluminum or copper and available in lengths of two meters or as DIN rail segments. Forms of horizontal rails are distinguished between the C-profile (TS 32), the automation profile (TS35) and the compact rail (TS 15), as well as perforated and blank versions.



End Holders

End holders are mounted at the beginning and the end of the rail terminal block equipment for the fixation of the terminal block. They can be distinguished depending on the supporting bar in the geometry of the foot for mounting and in the screwable and fixable versions.

Labelling Systems

In electronic engineering, it is necessary to clearly indicate devices and appliances. In order to fulfill these claims for the terminal blocks, too, the quick labelling systems PSB, PBSTR, SB and BSTR, as well as the labelling system AS 3/10 can be applied.

Wire Markers

Conductors are indicated with the wire markers KBH and KBH-C. The markers KBH are fitted into not yet connected conductors, the markers KBH-C are clipped to already connected conductors. Both versions are available in diverse sizes for different conductor cross-sections.

Mounting Rails

The mounting rails are designed in conformity with the latest level of European standard DIN EN 50045, 50022 and 50035.

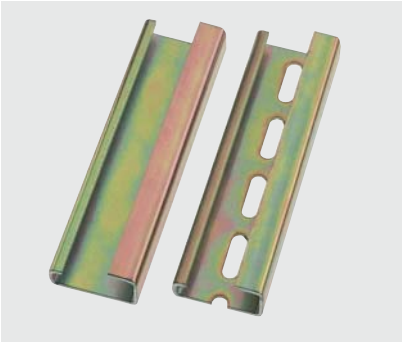
The mounting rails are galvanized and covered with a thick film passivated chromation. We have paid particular attention to high dimensional accuracy.

According to DIN VDE 0611 part 3, mounting rails made of steel are permissible as ground busbars.

If terminal for PEN function are required the following facts have to be observed:

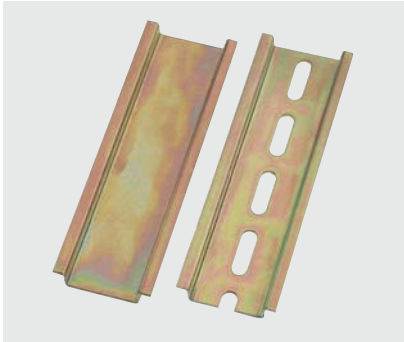
- only one rail made of E-Cu is permitted to be employed
- the short circuit currents and the thermal rated currents have to be considered.

The mounting rails are delivered in a length of 2 meter, however they are also available cut to length.



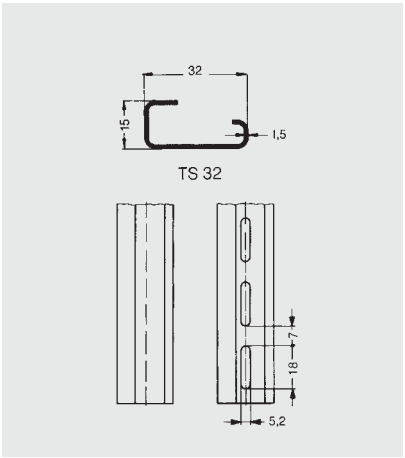
TS 32

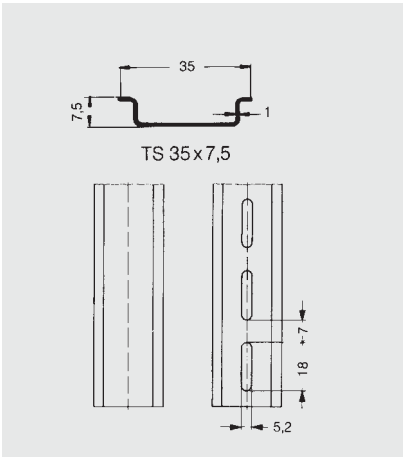
Type	Cat. no.
TS 32 steel unslotted	492025.0
TS 32 steel slotted	492093.0



TS 35 x 7.5

Type	Cat. no.
TS 35x7.5 steel unslotted	492026.0
TS 35x7.5 steel slotted	492094.0

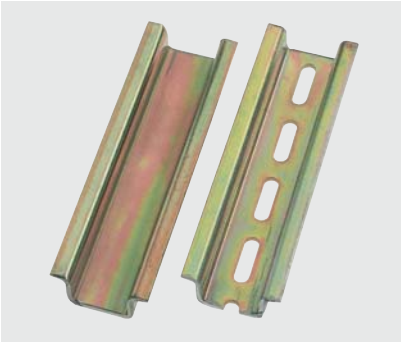




Mounting Rails / Earthconductors / Busbars Extract from DIN VDE 0611 Part 3

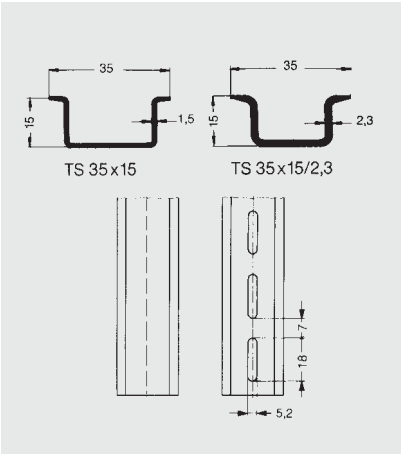
Type	Material	Cat.-No.	Short circuit resistance E-Cu conductor (mm^2)	Max. short circuit current (kA)	Max. perm. rated current with PEN function (A)
TS 32	Steel	492025.0	35	4,2	*
TS 32 slotted	Steel	492093.0	35	4,2	*
TS 32	Cooper	492371.0	120	14,4	292
TS 32	Aluminium	492370.0	70	8,4	207
TS 35 x 7,5	Steel	492026.0	16	1,92	*
TS 35 x 7,5 slotted	Steel	492094.0	16	1,92	*
TS 35 x 7,5	Aluminium	492710.0	35	4,2	105
TS 35 x 15	Steel	492027.0	25	3	*
TS 35 x 15 slotted	Steel	492095.0	25	3	*
TS 35 x 15/2,3	Steel	492038.0	50	6	*
TS 35 x 15/2,3 slotted	Steel	492039.0	50	6	*
TS 15	Steel	492091.0	10	1,2	*
TS 15 slotted	Steel	492092.0	10	1,2	*
TS 15	Aluminium	492711.0	16	1,92	81
TS 15 slotted	Aluminium	492378.0	16	1,92	82

*** Steel protective earth busbars are not permitted for PEN functions.**



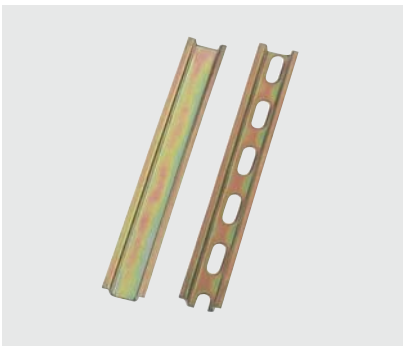
TS 35 x 15

Type	Cat. no.
TS 35 x 15 steel unslotted	492027.0
TS 35 x 15 steel slotted	492095.0



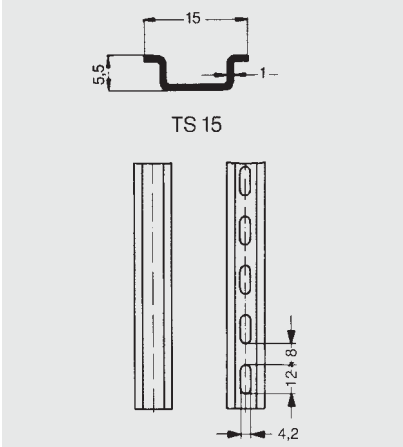
Support Bracket

Type	Height	Cat. no.	PU
TSTW M6	48 mm	492303.0	10
TSTW M5	48 mm	492414.0	10
TSTW M6	32 mm	492563.0	10
TSTW M5	32mm	492564.0	10



TS 15

Type	Cat. no.
TS 15 steel unslotted	492091.0
TS 15 steel slotted	492092.0



Support Bracket

Type	Height	Cat. no.	PU
TST M6	20 mm	492737.0	10
TST M5	20 mm	492736.0	10
BS M6 x 12		492304.0	50
BS M5 x 8		492415.0	50

End Brackets

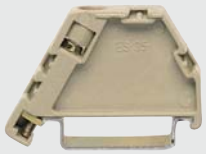
Type	Cat. no.	Width	PU
ES 32/2/K	492825.2	8 mm	50

Type	Cat. no.	Width	PU
ES 32/K/ST	492827.0	9,5 mm	50

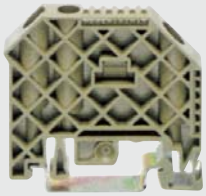
Type	Cat. no.	Width	PU
ES 32	492004.2	7,5 mm	50

Type	Cat. no.	Width	PU
ES 35/2/K	492826.2	8 mm	50

Type	Cat. no.	Width	PU
ES 35/K/ST	492828.0	9,5 mm	50



Type	Cat. no.	Width	PU
ES 35	492005.2	7,5 mm	50



Type	Cat. no.	Width	PU
ES 32/35 Combi	491424.2	9,5 mm	50

Type	Cat. no.	Width	PU
HES 35 ST	492761.0	11 mm	50
HES 32 ST	492760.0	11 mm	50

Type	Cat. no.	Width	PU
ES 15	492074.2	7,5 mm	50

screwless

Type	Cat. no.	Width	PU
ZES 35	493748.2	6 mm	50

direct mounting

Type	Cat. no.	Width	PU
EH 2	492136.2	5 mm	50

Borehole diameter 3,5 mm

direct mounting

Type	Cat. no.	Width	PU
EH 3	492939.2	5 mm	20

Borehole diameter 3,5 mm

End Plates AP/ZAP

In general end plates are used at the end of each terminal row. If different terminals of different sizes are used on one terminal row, end plates are also used between these different sized terminals. The overall dimension of end plates conform to the dimension of the terminal to match.

Type	Cat. no.	used with clamp
AP-SR	492070.2	SRU 2.5
AP 1.5-4	492738.2	SRU 4 SR4-T15 SRM 4
AP 2.5-10	492001.2	SR 4 SR 10 SR 2.5
AP 4	492101.2	SRD 2.5 SRD 4 SRD 4V
AP 4 800 V	492159.2	SRD 4-800 SRD 4-V-800
AP 16	492104.2	SR 16
AP 35	492116.2	SR 35
AP 3250	492046.2	SRT 4-H SRT 4-T 15-H SRSI 4-H SRSI 4-T 15-H
AP 1850	492047.6	SRSI 10-T32-K SRSI 10-T32-K
AP 2.5/15	492427.2	SR 2.5-T 15
AP 2.5 ID	492699.2	SRID 2.5
AP 2.5 I	492698.2	SRI 2.5
AP 2.5 R	492574.2	SR 4 DR
AP 2.5 RL	492575.2	SR 4 DRL
AP 10	492762.2	SRSI 10-E
APL/Q/D	492782.2	SRPL 10 SRPQ 10 SRPD 10

Type	Cat. no.	used with clamp
ZAP 2.5/2A	493700.2	ZR 2.5
ZAP 2.5/3A	493701.2	ZR 2.5 DR
ZAP 2.5/4A	493702.2	ZR 2.5 DRL
ZAP 4/2A	493703.2	ZR 4
ZAP 4/3A	493704.2	ZR 4 DR
ZAP 4/4A	493705.2	ZR 4 DRL
ZAP 6/2A	493760.2	ZR 6
ZAP 10/2A	493788.2	ZR 10
ZAPD 2.5	493756.2	ZRD 2.5
ZAP/TW ZRI 1.5/3	493746.2	ZRI 1.5/3
ZAP/TW ZRI 1.5/4	493747.2	ZRI 1.5/4
ZAP-SR	493757.2	ZR 2.5 N
ZAP/ID 2.5	493761.2	ZRID 2.5
ZAP/VMAK	493762.2	ZRMA 2.5

Isolation Partitions/TW

When operating with cross-connections partition plates have to be mounted between the cross-connection.This is necessary in order to follow the prescribed air and creepage distances.

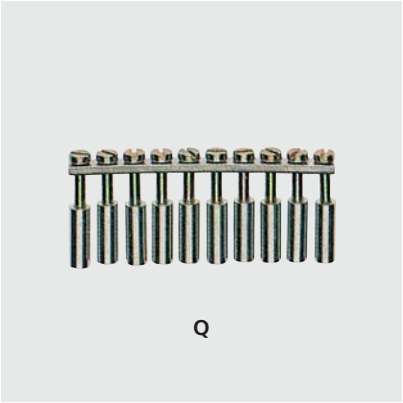
Type	Cat. no.	used with clamp
TW 1.5-4	492071.2	SRU 4 SR4-T15 SRM 4
TW 2.5-10	492002.2	SR 2.5 SR 4 SR 10 SRSL 4-T32 SRSL 4-T35 SRSL 10-T32 SRSL 10-T35
TW 16	492105.2	SR 16
TW 35	492117.2	SR 35
TW 2.5	492426.2	SRU 2.5
TW 2.5/15	492428.2	SRU 2.5-T 15
TWMF	492957.2	

Separators/TRS

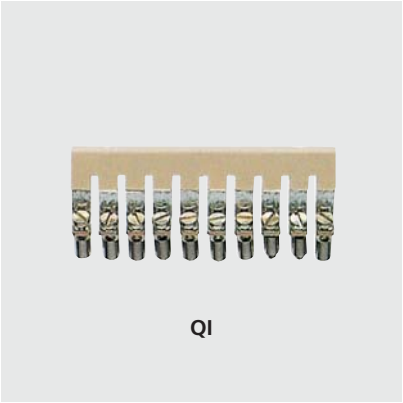
Some terminal types are used with separators when operating them with cross-connections for to follow the prescribed air and creepage distances. Separators can be mounted subsequently between the cross-connections.

Type	Cat. no.	used with clamp
TRS 1	492003.2	SR 4 SR10 SR 16 SRPL 10 SRPQ 10 SRPD 10
TRS 3	492566.2	SR 4-T15 SR 2.5 SRU 4 SRD 2.5 SRD 4 SRDIS 2.5-…

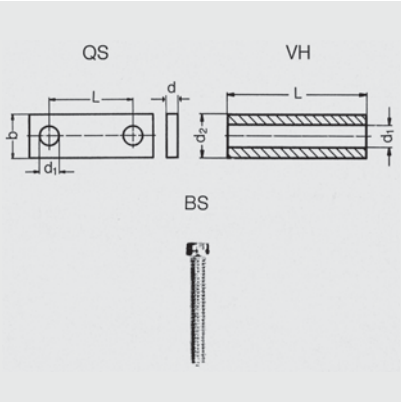
End Plates/Isolation Paritions also available in blue and partly in green!



Q



QI



Cross-Connection-Systems
for SR Terminal Blocks

Q/QI **Pre-assembled cross-connectors**

For cross-connections the cross-connection bar, connection sleeve and fixing screw are already captively mounted with the corresponding number of poles. The cross-connections have to be inserted and screwed in the individual terminal row.
These cross-connections units are available in 2-, 3-, 4- and 10-pole versions.
Depending on type of terminal we supply insulated cross-connections QI or uninsulated cross-connections Q.

QS **Cross-connection bars**

In order to cross-connect several modular terminals of same potential, cross-connection bars are used. The cross-connection bars are made of copper or brass material. The surface is electro nickel-plated. These cross-connection bars, supplied in 2-, 3-, 4- and 10-pole lengths, match to the individual terminal width. The cross-connection bar is electrically joined through a connection sleeve to the modular terminal busbar.
For some types of terminal blocks we deliver cross-connection bars of 0,5 m length. So that cross-connections of any required number of poles can be put together.

VH **Connection sleeves**

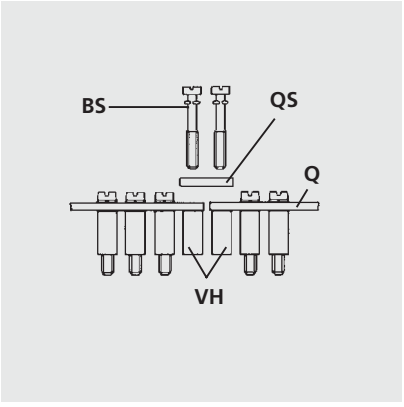
The lengths of the connection sleeves are matched to the individual terminal. These are made of copper or brass material. The surface is nickel-plated. For each terminal to be joined a connection sleeve is required.

BS **Fixing screw**

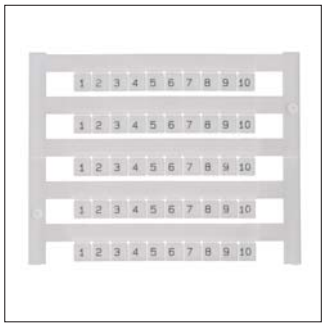
In order to be able to connect the cross-connection bar with the connection sleeve to a modular terminal busbar, a steel fixing screw is used. The steel screw has the task to mechanically fix the cross-connection unit to the busbar.

Cross-connections over more than 10 modular terminal

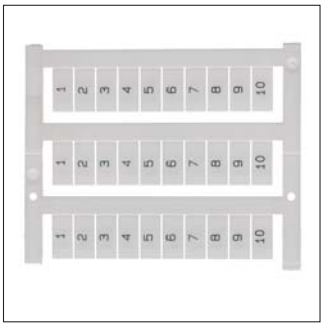
From the Q 10 the first and respectively the last clamping bolt is unscrewed from the VH. The QS 2 is put in-between and both clamping bolts are screwed into the VH again.



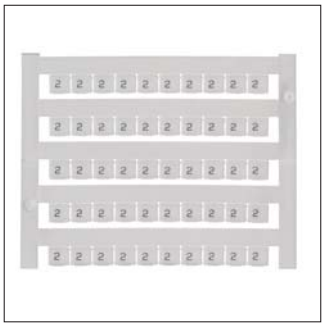
Pocket Quick Labelling System PSB/ PBSTR



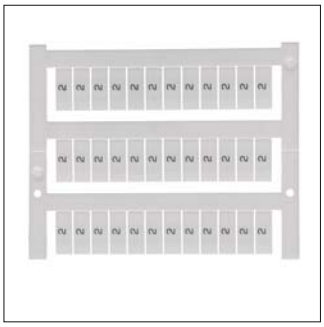
PSB labelled **FW**
(continuously horizontal)



PBSTR labelled **FS**
(continuously vertical)



PSB labelled **GW**
(identically horizontal)

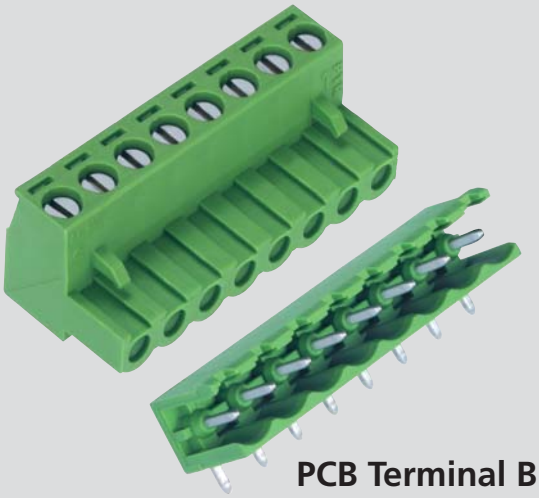


PBSTR labelled **GS**
(identically vertical)

The pocket quick labelling systems combine a simple and fast handling with a low price. The pocket labelling strips PSB 4, PSB 5 and PSB 6 are especially appropriate for short strings. The PSB 5 markers can be used to indicate all PSB terminal blocks except for the 1.5 mm^2 blocks on behalf of their compact size of 5 mm.
The pocket quick labelling systems PBSTR 5 and PBSTR 6 are especially appropriate for longer strings. Both labelling systems are available in seven different colours; please include the specific end number in your order:

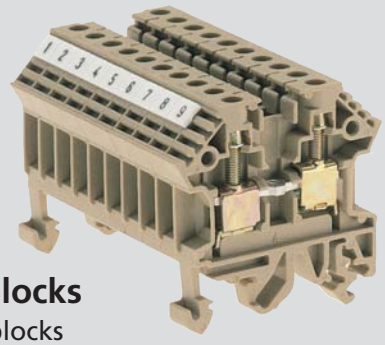
49XXXX.7 = White
49XXXX.5 = Blue
49XXXX.9 = Red
49XXXX.8 = Yellow
49XXXX.1 = Green
49XXXX.3 = Orange

Type	Cat. no.	Labelling Surface (L x W mm)	No. of markers | rows	No. of markers | mats	PU
NEUTRAL					500
PSB 4/50 neutral	494820.7	5 x 4	10	50	500
PSB 5/50 neutral	494600.7	5 x 5	10	50	500
PSB 6/50 neutral	494702.7	5 x 6	10	50	360
PBSTR 5/36 neutral	499000.7	5 x 10	12	36	300
PBSTR 6/30 neutral	499106.7	6 x 12	10	30	
SPECIAL PRINTING				50	500
PSB 4/50 Special printing	494821.7	5 x 4	10	50	500
PSB 5/50 Special printing	494819.7	5 x 5	10	50	500
PSB 6/50 Special printing	494811.7	5 x 6	10	50	360
PBSTR 5/36 Special printing	499001.7	5 x 10	12	36	300
PBSTR 6/30 Special printing	499107.7	6 x 12	10	30	
STANDARD PRINTING	see p. 191-192				



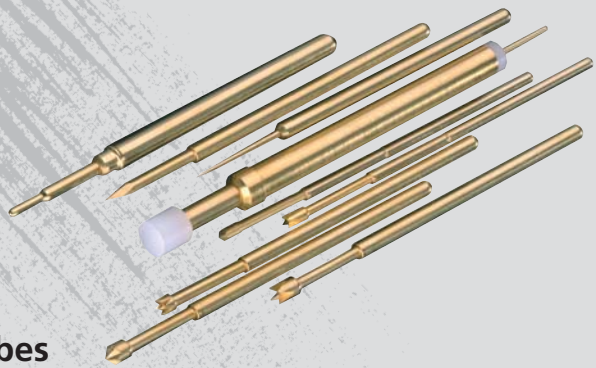
PCB Terminal Blocks

and multi connectors with spring or screw connection



DIN Rail Terminal Blocks

direct mounting terminal blocks
and transformer terminals



Test Probes

for PCB and cable testing

PTR Messtechnik GmbH & Co. KG
Gewerbehof 38 • D-59368 Werne
P.O. Box 1462 • D-59357 Werne
Phone: + 49 (0) 23 89/79 88-0
Fax: + 49 (0) 23 89/79 88 88
e-mail: info@ptr-messtechnik.de
http://www.ptr-messtechnik.de

Presented by

TÜV CERT DIN EN ISO 14001 Reg.-Nr. 04 104 0129 DIN EN ISO 9001 Reg.-Nr. 041 003 310

CERTIFIED ISO 9001 SYSTEM