

# Terminal rail systems

Both active and passive components and intelligent modules are mounted on terminal rails – a method which has proven its worth over the years. But it is only after the use of certain consumables – which are frequently not taken into consideration – that electrical installation is finally completed. In this chapter, users will find a range of terminal rails and profile rails for component installation together with end brackets for holding and isolating the components. This guarantees firm installation and isolation. Weidmüller supplies components which show perfect functional compatibility.

Terminal rails are made of either steel, stainless steel, aluminium, copper or plastic, depending on the area of application.

## Stainless steel

Stainless steel is a collective noun for all kinds of steel (alloys) which are smelted in a special process and have a high degree of purity. Stainless steel has much-enhanced resistance to corrosion. Weidmüller's stainless steel terminal rails have the following composition: X5 CrNi 18-10 stainless steel (i.e. ~ 18 % chromium, ~ 10 % nickel).

## Aluminium

Aluminium is second only to copper in its electrical conductivity. One advantage is its light weight. Aluminium oxidises quickly in air; thus passivated, it offers excellent corrosion protection.

## Copper

Copper, a heavy metal, has the best electrical conductivity of all metals used. As it is a soft metal, Weidmüller's terminal rails are 2.3 mm thick.

## Plastic

The plastic terminal rail scores on two counts: firstly, its insulating properties, and secondly, its low weight. This leads to its use in special applications where, for example, clearance and creepage distances with respect to the mounting plate cannot be achieved with the standard terminal rails.

## Steel

Weidmüller started developing RoHS-compliant surfaces at a very early stage to meet the requirements of EU directives. This commitment is now paying off because Weidmüller products comply with the statutory instruments at an early date and provide you, the customer, with the customary, high Weidmüller quality. All the yellow-passivated surfaces so well known to users will in future be replaced by terminal rails with the new **WIN-Q** surface finish. This name stands for the Weidmüller quality, in other words excellent surface protection and, at the same time, excellent electrical properties.

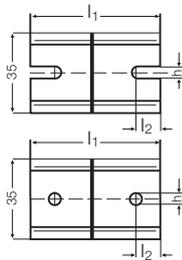
A terminal rail can also be used as a protective conductor busbar. Weidmüller PE / earth terminals in the W-Series, Z-Series, I-Series, SAK- and AKZ-Series comply with requirements stipulated in IEC 60 947-7-2. According to VDE 0100 part 540, for conductors with cross-sectional areas exceeding 10 mm<sup>2</sup>, both protective and neutral conductors may be grouped together as a single category of conductors designated PEN.

If a terminal rail is used as a PEN busbar, the following criteria must be observed:

- Only E-Cu or aluminium profiles are allowed
- Short-circuit currents and thermal rated currents must be taken into account
- The terminal rails are to be insulated as a contribution to protective insulation

All unperforated terminal rails can be provided with fixing holes (state dimensions h and l2).  
Possible diameters are 3.5 / 5.6 / 5.5 / 7 mm.

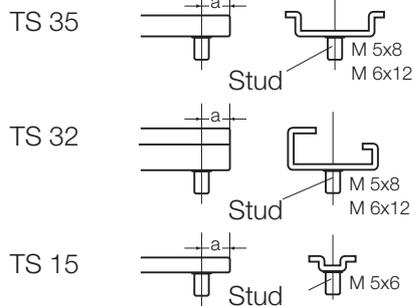
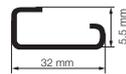
All unperforated steel rails can also be supplied with welded on steel studs (state dimension a and required studs).



**TS 15**



**TS 32**

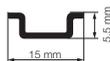


**TS 35**



## Terminal rails

### TS15 terminal rail



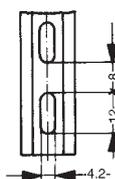
#### Unperforated



#### TS 15 x 5

Aluminium	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 15x5 2M/AL/BK	16 mm <sup>2</sup>	1 mm	2 m	10 m	0134700000
(max. permissible rated current for PEN function = 76 A)					
Steel, galvanised and passivated					
TS 15x5 2M/ST/ZN	10 mm <sup>2</sup>	1 mm	2 m	2 m	0514200000

#### With slotted hole

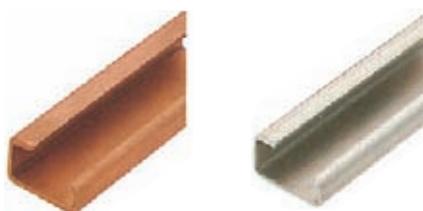


Aluminium	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 15x5/LL 2M/AL/BK	16 mm <sup>2</sup>	1 mm	2 m	2 m	0217900000
(max. permissible rated current for PEN function = 76 A)					
Steel, galvanised and passivated					
TS 15x5/LL 2M/ST/ZN	10 mm <sup>2</sup>	1 mm	2 m	2 m	0117500000
TS 15x5/LL 1M/ST/ZN	10 mm <sup>2</sup>	1 mm	1 m	10 m	0117510000

### TS 32 terminal rail



#### Unperforated



#### TS 32 x 15

Aluminium	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 32X15 2M/AL/BK	70 mm <sup>2</sup>	1.5 mm	2 m	2 m	0169300000
(max. permissible rated current for PEN function = 192 A)					
Steel, galvanised and passivated					
TS 32X15 2M/ST/ZN	35 mm <sup>2</sup>	1.5 mm	2 m	2 m	0122800000

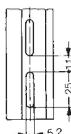
#### Copper

TS 32X16.2 2M/CU/BK	120 mm <sup>2</sup>	2.1 mm	2 m	2 m	0364300000
(max. permissible rated current for PEN function = 269 A)					

#### Stainless steel

TS 32X15 2M/CRN	35 mm <sup>2</sup>	1.5 mm	2 m	2 m	0293220000
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#### With slotted hole



Steel, galvanised and passivated	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 32X15/LL 2M/ST/ZN	35 mm <sup>2</sup>	1.5 mm	2 m	2 m	0514400000

TS 35 x 7,5 terminal rail



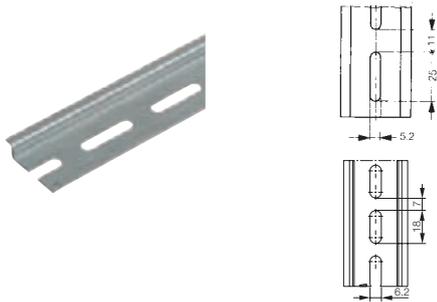
Unperforated



TS 35 x 7.5

Aluminium	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 35X7.5 2M/AL/BK (max. permissible rated current for PEN function = 125 A)	35 mm <sup>2</sup>	1 mm	2 m	2 m	0330800000
Steel, galvanised and passivated					
TS 35X7.5 2M/ST/ZN	16 mm <sup>2</sup>	1 mm	2 m	2 m	0383400000
TS 35X7.5 1M/ST/ZN	16 mm <sup>2</sup>	1 mm	1 m	10 m	0383410000
Stainless steel					
TS 35X7.5 2M/CRN	16 mm <sup>2</sup>	1 mm	2 m	2 m	1747350000

With slotted hole

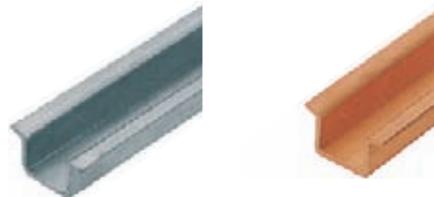


Steel, galvanised and passivated	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 35X7.5/LL 2M/ST/ZN	16 mm <sup>2</sup>	1 mm	2 m	2 m	0514500000
TS 35X7.5/LL 1M/ST/ZN	16 mm <sup>2</sup>	1 mm	1 m	10 m	0514510000
TS 35X7.5/LL/6 2M/ST/ZN	16 mm <sup>2</sup>	1 mm	2 m	2 m	0514570000

TS 35 x 15 terminal rail



Unperforated



TS 35 x 15

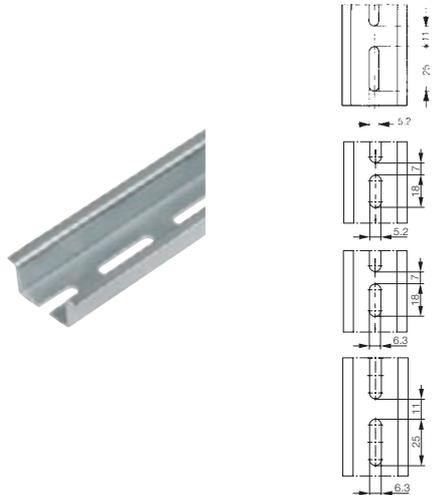
Copper	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 35X15/2.3 2M/CU/BK (max. permissible rated current for PEN function = 309 A)	150 mm <sup>2</sup>	2.3 mm	2 m	2 m	0270100000
Steel, galvanised and passivated					
TS 35X15/2.3 2M/ST/ZN	50 mm <sup>2</sup>	2.3 mm	2 m	2 m	0498000000
Aluminium					
TS 35X15/2.3 2M/AL/BK (max. permissible rated current for PEN function = 192 A)	70 mm <sup>2</sup>	2.3 mm	2 m	2 m	1848290000

Unperforated



Steel, galvanised and passivated	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 35X15 2M/ST/ZN	25 mm <sup>2</sup>	1.5 mm	2 m	2 m	0236400000

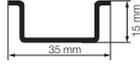
With slotted hole



Steel, galvanised and passivated	Short-circuit strength	Material thickness	Length	Qty.	Order No.
TS 35X15/LL 2M/ST/ZN	25 mm <sup>2</sup>	1.5 mm	2 m	2 m	0236500000
TS 35X15/LL 1M/ST/ZN	25 mm <sup>2</sup>	1.5 mm	1 m	10 m	0236510000
TS 35X15LL/5 2M/ST/ZN	25 mm <sup>2</sup>	1.5 mm	2 m	2 m	1837380000
TS 35X15/LL/6x18 2M/ST/ZN	25 mm <sup>2</sup>	1.5 mm	2 m	2 m	1805980000
TS 35X15/LL/6x25 2M/ST/ZN	25 mm <sup>2</sup>	1.5 mm	2 m	2 m	1866290000

Terminal rails

TS 35 x 15 terminal rail



Unperforated



**TSK 35 x 15**

Plastic PVC RAL 7035	Length	Qty.	Order No.
TSK 35X15 2M PVC/GR	2 m	2 m	0514300000