

## TRPL 48-110VDC 1CO AU TRAK

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergsstraße 26  
D-32758 Detmold  
Germany

www.weidmueller.com



The ultra-compact TERMSERIES-compact TRAK complete modules comply with the strict standards of the railway industry. Their relays are permanently installed, which makes them particularly vibration-proof. They operate reliably in a temperature range of -40 to +70 °C and are protected against condensation. Typical railway voltage fluctuations and interruptions are tolerated without functional failure. Thanks to their slim, flat design, they can be installed anywhere. And since their contours are identical to those of the tried-and-tested TERMSERIES, all accessories of the series can be used. This means that extremely robust solutions can be realised - even outside the railway industry.

- Developed according to the strict railway standards EN 50155, EN 61373 and EN 45545-2
- Resistant to voltage and temperature fluctuations
- Insensitive to shocks and vibrations
- Extremely compact with a width of only 6.4 mm and a depth of 63 mm
- Integrated status LED for easy function testing
- Compatible with the complete range of TERMSERIES accessories
- Version 1 changeover contact

## General ordering data

|            |   |
|------------|---|
| Version    | TERMSERIES-compact, Relay module, Number of contacts: 1, CO contact Au (Gold), AgSnO <sub>2</sub> , Rated control voltage: 48 V...110 V DC +25 % / -30 %, Continuous current: 6 A, PUSH IN, Test button available: No |
| Order No.  | <a href="#">2774000000</a>  |
| Type       | TRPL 48-110VDC 1CO AU TRAK  |
| GTIN (EAN) | 4064675037774   |
| Qty.       | 10 items  |

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## Technical data

## Approvals

Approvals



## Dimensions and weights

|            |         |                 |             |
|------------|---------|-----------------|-------------|
| Depth      | 62.5 mm | Depth (inches)  | 2.4606 inch |
| Height     | 89.4 mm | Height (inches) | 3.5197 inch |
| Width      | 6.4 mm  | Width (inches)  | 0.252 inch  |
| Net weight | 25 g    |                 |             |

## Temperatures

|                       |                |                     |  |
|-----------------------|----------------|---------------------|--|
| Storage temperature   | -40 °C...85 °C | Ambient temperature | -40 °C...70 °C                                     |
| Operating temperature |                | Humidity            | 95 % for 30 days, minimal condensation to EN 50155 |

## Environmental Product Compliance

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status               | Compliant with exemption             |
| RoHS Exemption (if applicable/known) | 7a, 7cl                              |
| REACH SVHC                           | Lead 7439-92-1                       |
| SCIP                                 | 75e5f661-708e-44b0-9fc2-4f6c675b3b71 |

## Control side

|                       |                                     |                    |                                       |
|-----------------------|-------------------------------------|--------------------|---------------------------------------|
| Rated control voltage | 48 V...110 V DC +25 % / -30 %       | Rated current DC   | 2.4 mA @ 48 V DC, 3.2 mA @ 110 V DC   |
| Power rating          | 115 mW @ 48 V DC, 352 mW @ 110 V DC | Coil resistance    | 10600 Ω ± 15 %                        |
| Status indicator      | Green LED                           | Protective circuit | Suppressor diode, Free-wheeling diode |

## Load side

|   |                           |                            |   |
|---|---------------------------|----------------------------|---|
| Rated switching voltage                 | 250 V AC                  | Continuous current         | 6 A   |
| Max. switching frequency at rated load  | 0.1 Hz                    | Max. switching voltage, AC | 250 V   |
| Max. switching voltage, DC              | 250 V                     | Inrush current             | 20 A / 20 ms                                  |
| AC switching capacity (resistive), max. | 1500 VA                   | Switch-on delay            | <11 ms  |
| Switch-off delay                        | <30 ms                    | Contact type               | 1 CO contact (Au (Gold), AgSnO <sub>2</sub> ) |
| Mechanical service life                 | 10 x 106 switching cycles | Min. switching power       | 50 mW   |

## General data

|                                    |                           |                        |  |
|------------------------------------|---------------------------|------------------------|--|
| Operating altitude                 | ≤ 2000 m, above sea level |                        |  |
| Version                            | for railway applications  |                        |  |
| Mounting rail                      | TS 35                     |                        |  |
| Test button available              | No                        |                        |  |
| Colour                             | black                     |                        |  |
| UL94 flammability rating component | Component                 | Housing                |  |
|                                    | UL94 flammability rating  | V-0                    |  |
|                                    | Component                 | Relay status indicator |  |
|                                    | UL94 flammability rating  | V-0                    |  |

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## Technical data

| Component                | Pusher |
|--------------------------|--------|
| UL94 flammability rating | V-0    |

## Insulation coordination

|  |                  |   |                       |
|--|------------------|---|-----------------------|
| Rated voltage                                    | 300 V            | Pollution severity  | 2                     |
| Surge voltage category                           | III              | Clearance and creepage distances for control side - load side | ≥ 6 mm                |
| Dielectric strength for control side - load side | 4 kVeff / 1 Min. | Type of isolation at input and output                         | reinforced insulation |
| Dielectric strength of open contact              | 1 kVeff / 1 min  | Dielectric strength to mounting rail                          | 4 kVeff / 1 Min.      |
| Impulse withstand voltage                        | 6 kV (1.2/50 µs) | Protection degree   | IP20                  |

## Connection data

|   |                     |   |                      |
|---|---------------------|---|----------------------|
| Wire connection method  | PUSH IN             | Stripping length, rated connection  | 9 mm                 |
| Clamping range, rated connection  | 1.5 mm <sup>2</sup> | Clamping range, min.  | 0.14 mm <sup>2</sup> |
| Clamping range, max.  | 2.5 mm <sup>2</sup> | Wire connection cross section AWG, min.   | AWG 26               |
| Wire connection cross section AWG, max.   | AWG 14              | Wire cross-section, solid, min.   | 0.5 mm <sup>2</sup>  |
| Wire cross-section, solid, max.   | 1.5 mm <sup>2</sup> | Wire cross-section, solid, min. (AWG)   | AWG 26               |
| Wire cross-section, solid, max. (AWG)   | AWG 14              | Wire connection cross section, finely stranded, min.                                    | 0.35 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, max.                                    | 2.5 mm <sup>2</sup> | Wire cross-section, finely stranded, min. (AWG)   | AWG 26               |
| Wire cross-section, finely stranded, max. AWG 14 (AWG)                                  | AWG 14              | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.14 mm <sup>2</sup> |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 1.5 mm <sup>2</sup> | Conductor cross-section, flexible, AEH (DIN 46228-1), min.                              | 0.5 mm <sup>2</sup>  |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max.                              | 1.5 mm <sup>2</sup> | Blade size  | 0.6 x 3.5 mm         |

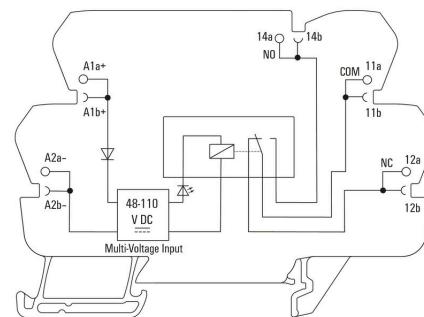
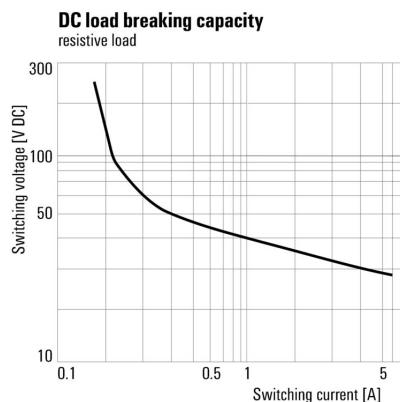
## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC001437    | ETIM 9.0    | EC001437    |
| ETIM 10.0   | EC001437    | ECLASS 14.0 | 27-37-16-01 |
| ECLASS 15.0 | 27-37-16-01 |             |             |

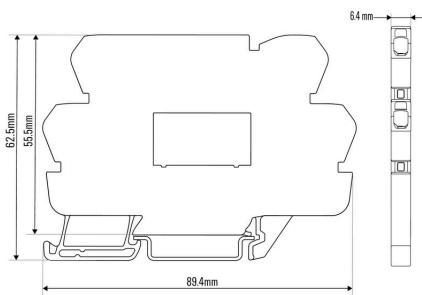
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**Drawings****Similar to illustration****Wiring diagram****Graph**

DC load limit curve Resistive load

**Dimensional drawing**

## TRPL 48-110VDC 1CO AU TRAK

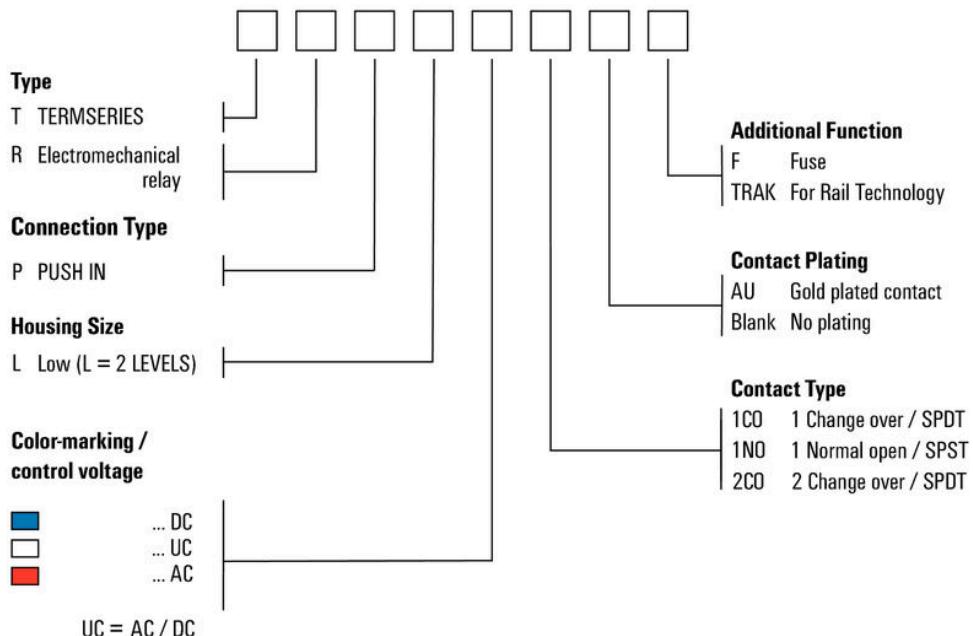
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## Drawings

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## Miscellaneous

## Type code electromechanical relay



Type codes

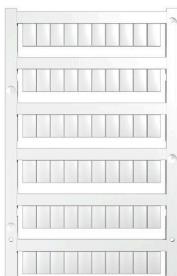
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## Accessories

## Blank



WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text. WS markers are ideal for labels with long, customised character strings. Thanks to the proven MultiCard format, printing with PrintJet CONNECT oder/or Plotter is possible.

- Can be fitted in strips or individually
- Markers in proven MultiCard format

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

## General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | WS 10/6 M MC NE WS         | Version  |
| Order No.  | <a href="#">1818400000</a> | WS, Terminal marker, 10 x 6 mm, Pitch in mm (P): 6.00 Weidmueller, |
| GTIN (EAN) | 4032248310876              | Allen-Bradley, white   |
| Qty.       | 600 ST                     |  |

## Cross-connections



## Adjustable cross-connections

Increase the flexibility of your cross-connections. The TERMSERIES CROSS-CONNECTION (TCC) enables individually adjustable cross-connections with up to 51 poles. The maximum number of pluggable poles has been increased to 32 poles. The strip material can be shortened to the required length very easily. The cross-connectors convince thanks to their easy handling and visibility as well as their universal connection possibilities. An additional web prevents the spring from deforming during assembly.

- Individually adjustable cross-connection with 51 poles
- Additional bar to avoid deformation of the spring
- Increased cross-connection – up to 32 poles possible
- Vibration resistance

## General ordering data

|            |                            |                             |
|------------|----------------------------|-----------------------------|
| Type       | TCC 6.4/51 RD              | Version                     |
| Order No.  | <a href="#">2556410000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566925              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/51 OR              | Version                     |
| Order No.  | <a href="#">2556370000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566680              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/51 BL              | Version                     |
| Order No.  | <a href="#">2556450000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566963              |                             |
| Qty.       | 10 ST                      |                             |

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## Accessories

|            |                            |                             |
|------------|----------------------------|-----------------------------|
| Type       | TCC 6.4/51 BK              | Version                     |
| Order No.  | <a href="#">2556490000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118567007              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/2 OR               | Version                     |
| Order No.  | <a href="#">2556350000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566826              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/2 BL               | Version                     |
| Order No.  | <a href="#">2556430000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566949              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/2 BK               | Version                     |
| Order No.  | <a href="#">2556470000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566987              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/10 RD              | Version                     |
| Order No.  | <a href="#">2556400000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566918              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/10 OR              | Version                     |
| Order No.  | <a href="#">2556360000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566673              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/10 BL              | Version                     |
| Order No.  | <a href="#">2556440000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566956              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/10 BK              | Version                     |
| Order No.  | <a href="#">2556480000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566994              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 12.8/26 RD             | Version                     |
| Order No.  | <a href="#">2556420000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566932              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 12.8/26 OR             | Version                     |
| Order No.  | <a href="#">2556380000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566697              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 12.8/26 BL             | Version                     |
| Order No.  | <a href="#">2556460000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566970              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 12.8/26 BK             | Version                     |
| Order No.  | <a href="#">2556500000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118567014              |                             |
| Qty.       | 10 ST                      |                             |
| Type       | TCC 6.4/2 RD               | Version                     |
| Order No.  | <a href="#">2556390000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566901              |                             |
| Qty.       | 10 ST                      |                             |

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## Accessories

## Slotted screwdriver



VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

## General ordering data

|            |                            |   |
|------------|----------------------------|---|
| Type       | SDIS 0.6X3.5X100           | Version   |
| Order No.  | <a href="#">2749810000</a> | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118897012              | thickness (A): 0.6 mm   |
| Qty.       | 1 ST                       |   |
| Type       | SDS 0.6X3.5X100            | Version   |
| Order No.  | <a href="#">2749340000</a> | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118895568              | thickness (A): 0.6 mm   |
| Qty.       | 1 ST                       |   |

## Interface adapters



Faster signal wiring with less space  
To reduce wiring times, pre-assembled cables are used between the control system and the interface level and are simply connected to the TERMSERIES adapter. This enables throughput times in electrical cabinet building to be significantly reduced. The adapter has a universal fit and offers a genuine space advantage in interaction with the TERMSERIES products with identical contours.

- Reduced wiring time due to plug-and-play concept with pre-assembled cables
- Can be applied to the input and output sides of the TERMSERIES
- Ready for plus and minus switching logic
- High space-saving due to universal fit to other TERMSERIES products

## General ordering data

|            |                            |   |
|------------|----------------------------|---|
| Type       | TIA F10                    | Version   |
| Order No.  | <a href="#">1463520000</a> | TERMSERIES, Adapter, 10-pole plug according to DIN EN 60603-13,                             |
| GTIN (EAN) | 4050118323535              | long locking lever, Number of signal paths: 8, Rated voltage DC : 24 V,                     |
| Qty.       | 1 ST                       | Rated current (per signal path): 125 mA   |
| Type       | TIA SUBD 15S               | Version   |
| Order No.  | <a href="#">1463530000</a> | TERMSERIES, Adapter, Sub-D, 15-pole, DIN 41652 / IEC 60807,                                 |
| GTIN (EAN) | 4050118323542              | Number of signal paths: 8, Rated voltage DC : 24 V, Rated current (per signal path): 125 mA |
| Qty.       | 1 ST                       |   |

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## Accessories

## TERMSERIES interface adapter



## Faster signal wiring with less space

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- Reduced wiring time due to plug-and-play concept with pre-assembled cables
- Can be applied to the input and output sides of the TERMSERIES
- Ready for plus and minus switching logic
- High space-saving due to universal fit to other TERMSERIES products

## General ordering data

|            |                            |   |
|------------|----------------------------|---|
| Type       | TIAL F10                   | Version   |
| Order No.  | <a href="#">1463540000</a> | TERMSERIES, Adapter, 10-pole plug according to DIN EN 60603-13,         |
| GTIN (EAN) | 4050118323559              | long locking lever, Number of signal paths: 8, Rated voltage DC : 24 V, |
| Qty.       | 1 ST                       | Rated current (per signal path): 125 mA                                 |
| Type       | TIAL F20                   | Version   |
| Order No.  | <a href="#">1463550000</a> | TERMSERIES, Adapter, 20-pole plug according to DIN EN 60603-13,         |
| GTIN (EAN) | 4050118331783              | long locking lever, Number of signal paths: 16, Rated voltage DC : 24   |
| Qty.       | 1 ST                       | V, Rated current (per signal path): 60 mA                               |

## Partition plate



## Versatile separation plates

Separation plates can be used to group together signals visually, to electrically isolate modules and to insert markings for a better overview. This makes them a particularly versatile accessory. Separation plates increase the clearance and creepage distances between two modules, thus increasing the rated insulation voltage between two modules to up to 600 V. Double separation plates can be marked with WAD5 or WS10/5 markers and enable continuous cross-connections. Installation is made easier with the perforations to individually break out the cross-connection channels.

- Partition plates visually separates groups from each other
- Indentations for individual breaking out the crossconnection channels
- Partition plates isolates between two modules by increasing the clearance and creepage distances of up to 600 V

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## Accessories

## General ordering data

|            |                            |                                     |
|------------|----------------------------|-------------------------------------|
| Type       | TW TXS/TXZ R3.2            | Version                             |
| Order No.  | <a href="#">1240800000</a> | TERMSERIES, Partition plate         |
| GTIN (EAN) | 4050118028188              |                                     |
| Qty.       | 10 ST                      |                                     |
| Type       | TXL PP                     | Version                             |
| Order No.  | <a href="#">2774090000</a> | TERMSERIES-compact, Partition plate |
| GTIN (EAN) | 4064675037866              |                                     |
| Qty.       | 10 ST                      |                                     |

## Feed through module



## Precision-fit feed-through terminals

The precisely fitting terminals enable potentials to be brought from the control side to the load side and vice versa. Due to the compatibility with the TERMSERIES, there is a uniform test system with a standardised test tap.

## General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | TXPL FT                    | Version  |
| Order No.  | <a href="#">2774080000</a> | TERMSERIES-compact, Feed-through terminal, PUSH IN |
| GTIN (EAN) | 4064675037859              |  |
| Qty.       | 1 ST                       |  |

## Supply module



## Space-saving feed-in terminals

For easy feed-in of neutral or negative potentials at the input of switched potentials at the output. Cross-connections enable space-saving connection of sensors and actuators without additional feed-through terminal blocks.

## General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | TXPL S                     | Version                                    |
| Order No.  | <a href="#">2774100000</a> | TERMSERIES-compact, Supply module, PUSH IN |
| GTIN (EAN) | 4064675037873              |  |
| Qty.       | 1 ST                       |  |