

## TRPL 24VDC 2CO

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)



The all-rounder. Compact relay modules, 12.8 mm width with extensive accessories, maximum vibration resistance, and unlimited cross-connection possibilities.

- 2 CO contacts
- Contact material: AgNi
- Integrated status LED for easy function testing
- Unique multi-voltage input from 12 to 60 V UC and 24 to 230 V UC
- Input voltages from 5 V DC to 230 V UC with colored markings: AC: red, DC: blue, UC: white

### General ordering data

|            |   |
|------------|---|
| Version    | TERMSERIES-compact, Relay module, Number of contacts: 2, x 1 CO Contact AgNi, Rated control voltage: 24 V DC $\pm 20\%$ , Continuous current: 6 A, PUSH IN, Test button available: No |
| Order No.  | <a href="#">2773960000</a>  |
| Type       | TRPL 24VDC 2CO  |
| GTIN (EAN) | 4064675037736   |
| Qty.       | 10 items  |

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## Technical data

## Approvals

Approvals



UL File Number Search [UL Website](#)  
 Certificate no. (cULus) E141197

## Dimensions and weights

|            |         |                 |             |
|------------|---------|-----------------|-------------|
| Depth      | 62.5 mm | Depth (inches)  | 2.4606 inch |
| Height     | 89.4 mm | Height (inches) | 3.5197 inch |
| Width      | 12.8 mm | Width (inches)  | 0.5039 inch |
| Net weight | 53.4 g  |                 |             |

## Temperatures

|                       |                |                     |  |
|-----------------------|----------------|---------------------|--|
| Storage temperature   | -40 °C...85 °C | Ambient temperature | -40 °C...60 °C   |
| Operating temperature |                | Humidity            | 5-85% relative humidity,<br>Tu = 40°C, without<br>condensation |

## 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 |

## Rated data UL

|                                    |  |                                    |        |
|------------------------------------|--|------------------------------------|--------|
| Connection cross-section AWG, min. | AWG 26   | Connection cross-section AWG, max. | AWG 14 |
| Type of conductor                  | flexible copper conductor,<br>rigid copper conductor | Pollution severity level           | 2      |

## Control side

|                       |                    |                    |   |
|-----------------------|--------------------|--------------------|---|
| Rated control voltage | 24 V DC $\pm$ 20 % | Rated current DC   | 18 mA   |
| Power rating          | 430 mW             | Coil resistance    | 3388 $\Omega$ $\pm$ 10 %                            |
| Status indicator      | Green LED          | Protective circuit | Free-wheeling diode,<br>Reverse polarity protection |

## 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                                    | DC switching capacity (resistive), max. | 144 W @ 24V                          |
| Contact type                            | 2 x 1 CO Contact (AgNi)                    | Mechanical service life                 | 5 x 10 <sup>6</sup> switching cycles |
| Min. switching power                    | 1 mA @ 24 V, 10 mA @ 12 V,<br>100 mA @ 5 V |   |                                      |

## General data

|                       |                                |               |       |
|-----------------------|--------------------------------|---------------|-------|
| Operating altitude    | $\leq$ 2000 m, above sea level | Mounting rail | TS 35 |
| Test button available | No                             | Colour        | black |

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## Insulation coordination

|   |                       |  |                  |
|---|-----------------------|--|------------------|
| 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 neighbouring contacts     | 4 kVeff / 1 min  |
| Type of isolation at neighbouring contacts                    | 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                  |  |                  |

## Further details of approvals / standards

|                         |         |
|-------------------------|---------|
| Certificate no. (cULus) | E141197 |
|-------------------------|---------|

## 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)   | 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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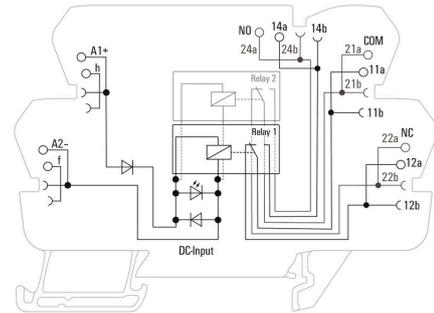
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Drawings

Similar to illustration

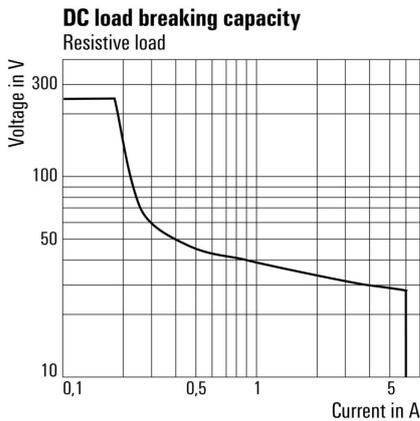


Wiring diagram



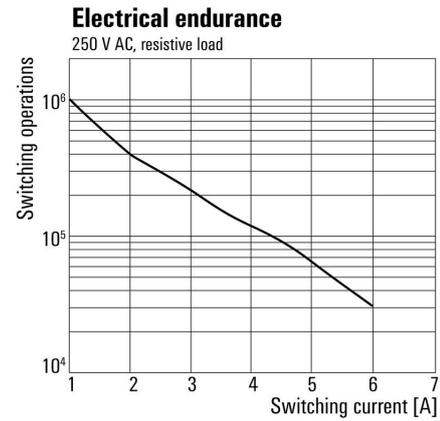
\*The switch contacts are Relays

Graph



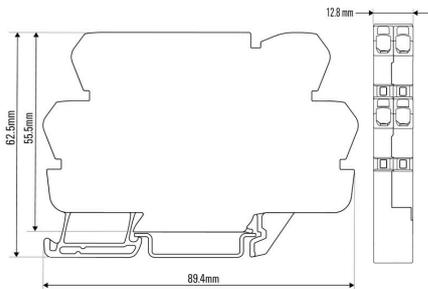
DC load limit curve Resistive load

Graph

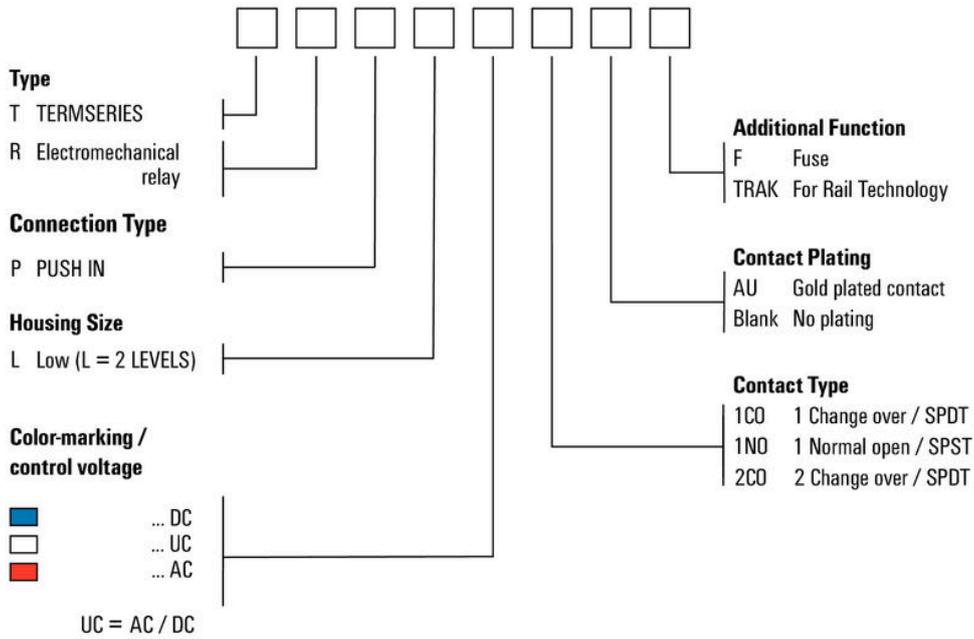


Electrical service life 230 V AC resistive load

Dimensional drawing



**Type code electromechanical relay**



Type codes

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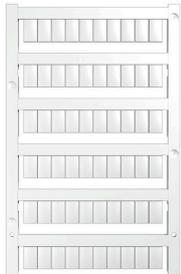
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## Accessories

## 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                     |  |
| Type       | WS 10/12 MC NE WS          | Version  |
| Order No.  | <a href="#">1905970000</a> | WS, Terminal marker, 10 x 12 mm, Pitch in mm (P): 12.00            |
| GTIN (EAN) | 4032248528127              | Weidmueller, white   |
| Qty.       | 300 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                      |                             |

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## Accessories

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

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## Accessories

|            |                            |                             |
|------------|----------------------------|-----------------------------|
| Type       | TCC 6.4/2 RD               | Version                     |
| Order No.  | <a href="#">2556390000</a> | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566901              |                             |
| Qty.       | 10 ST                      |                             |

## WS 12/6



## WS/ DEK

MultiMark terminal markers use an innovative composite material made from two components. The hard base contour of the marker snaps securely into the connector. The elastic surface finish makes the marker easy to mount. This specially punched material enables the strips to be stretched to accommodate the slight variations in spacing that tend to add up, especially with long terminal blocks. Another advantage: the excellent printability of the surface material guarantees durable and wear-resistant labelling. A print resolution of 300 dpi also produces a very legible script.

Your benefits with MultiMark

- Firm hold and durable printing
- Continuous strips save installation time
- Easy mounting thanks to an innovative composite material
- Large label field for optimal legibility
- High flexibility thanks to manufacturer independence

## General ordering data

|            |                            |  |
|------------|----------------------------|--|
| Type       | WS 12/6 MM WS              | Version  |
| Order No.  | <a href="#">2007200000</a> | WS, Terminal marker, 12 x 6 mm, Weidmueller, white |
| GTIN (EAN) | 4050118391886              |  |
| Qty.       | 600 ST                     |  |

## 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 thickness (A): 0.6 mm |
| GTIN (EAN) | 4050118897012              |   |
| 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 thickness (A): 0.6 mm |
| GTIN (EAN) | 4050118895568              |   |
| 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  |
| Qty.       | 1 ST                       | signal path): 125 mA  |
| 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                               |

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## Accessories

## 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

## 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                       |  |

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## Accessories

### 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                       |  |  |