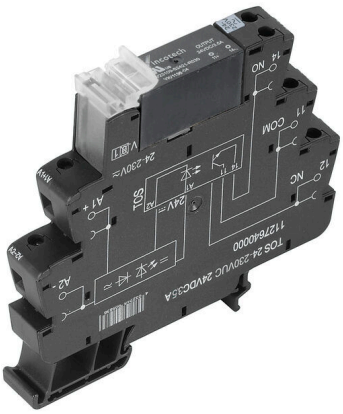
Data sheet

# TOS 24-230VUC 24VDC5A

**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

## Product image



Similar to illustration

- 1 NO contact (MOS-FET)
- 12.8 mm wide
- 5 A DC output current
- Unique multi-voltage input from 24 to 230 V UC

## General ordering data

| | |
|---|---|
| Version | TERMSERIES, Solid-state relay, Rated control voltage: 24...230 V UC ±10 % , Rated switching voltage: 3...33 V DC, Continuous current: 5 A, Screw connection |
| Order No. | 1990970000 |
| Type | TOS 24-230VUC 24VDC5A |
| GTIN (EAN) | 4050118379297 |
| Qty. | 10 items |
| Delivery status | This article will no longer be available in the future. |
| Available until | 2026-03-30T00:00:00+02:00 |
| Alternative product | TOS 24-230VUC 24VDC5A ED2 |

# TOS 24-230VUC 24VDC5A

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## Technical data

### Approvals

| | |
|---|---|
| Approvals | |
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate no. (cULus) | E141197 |

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 87.8 mm | Depth (inches) | 3.4567 inch |
| Height | 89.6 mm | Height (inches) | 3.5276 inch |
| Width | 12.8 mm | Width (inches) | 0.5039 inch |
| Net weight | 60 g | | |

### Temperatures

| | | | |
|---|---|---|---|
| Storage temperature | -40 °C...70 °C | Ambient temperature | -20 °C...40 °C |
| Operating temperature | | Humidity | 5-95% relative humidity, Tu = 40°C, without condensation |

### Probability of failure

| | |
|---|---|
| MTTF | 773 a |

### Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 7a, 7cI |
| REACH SVHC | Lead 7439-92-1 |
| SCIP | 9e2cbc49-76d9-4611-b8ec-5b4f549a0aa9 |

### Rated data UL

| | | | |
|---|---|---|---|
| Ambient temperature (operational), max. | 40 °C | Connection cross-section AWG, min. | AWG 26 |
| Connection cross-section AWG, max. | AWG 14 | Type of conductor | rigid copper conductor, flexible copper conductor |
| Tightening torque, max. | 0.4 Nm | Pollution severity level | 2 |

### Control side

| | | | |
|---|---|---|---|
| Rated control voltage | 24...230 V UC ±10 % | Nominal control current | 22.4 mA DC @ 24 V DC, 22.6 mA AC @ 24 V AC, 2.4 mA DC @ 230 V DC, 4.6 mA AC @ 230 V AC |
| Power rating | 540 mW @ 24 V DC, 545 mVA @ 24 V AC, 550 mW @ 230 V DC, 1.1 VA @ 230 V AC | Status indicator | Green LED |
| Protective circuit | Rectifier | Input frequency | 3 Hz |
| Coil voltage of the replacement relay deviating from the rated control voltage | Yes | Coil voltage of the replacement relay | 24 V DC |

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## Technical data

### Load side

| | | | |
|---|---|---|---|
| Rated switching voltage | 3...33 V DC | Continuous current | 5 A |
| Rated switching current | 5 A | Inrush current | 15 A / 10 ms |
| Switch-on delay | ≤ 10 ms | Switch-off delay | <100 ms |
| Voltage drop at max. load | ≤ 0.3 V | Leakage current | <10 µA |
| Min. switching current | 1 mA | Short-circuit-proof | No |
| Protective circuit, load side | Free-wheeling diode | Contact type | 1 NO contact (MOS-FET) |
| max. switching frequency (AC control voltage) | 3 Hz | max. switching frequency (DC control voltage) | 3 Hz |

### General data

| | | |
|---|---|---|
| Mounting rail | TS 35 | |
| Test button available | No | |
| Colour | black | |
| UL94 flammability rating component | Component | Housing |
| | UL94 flammability rating | V-0 |
| | Component | Retaining clip |
| | 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 | ≥ 5.5 mm |
| Dielectric strength for control side - load side | 2.5 kVeff | 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. (DNV) | TAA00001E5 | Certificate no. (cULus) | E141197 |

### Connection data

| | | | |
|---|---|---|---|
| Wire connection method | Screw connection | Stripping length, rated connection | 8 mm |
| Tightening torque, max. | 0.4 Nm | Clamping range, rated connection | 1.5 mm² |
| Clamping range, min. | 0.14 mm² | Clamping range, max. | 2.5 mm² |
| Wire connection cross section AWG, min. | AWG 26 | Wire connection cross section AWG, max. | AWG 14 |
| Wire cross-section, solid, min. | 0.14 mm² | Wire cross-section, solid, max. | 2.5 mm² |
| Wire cross-section, solid, min. (AWG) | AWG 26 | Wire cross-section, solid, max. (AWG) | AWG 14 |
| Wire connection cross section, finely stranded, min. | 0.14 mm² | Wire connection cross section, finely stranded, max. | 2.5 mm² |
| 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. | 0.25 mm² | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 2.5 mm² |
| Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 0.25 mm² | Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 2.5 mm² |
| Wire connection cross section, finely stranded, two clampable wires, min. | 0.5 mm² | Wire cross-section, finely stranded, two clampable wires, max. | 1 mm² |
| Blade size | size PH0 | | |

# TOS 24-230VUC 24VDC5A

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## Technical data

### Classifications

| | | | |
|---|---|---|---|
| ETIM 8.0 | EC001504 | ETIM 9.0 | EC001504 |
| ETIM 10.0 | EC001504 | ECLASS 14.0 | 27-37-16-04 |
| ECLASS 15.0 | 27-37-16-04 | | |

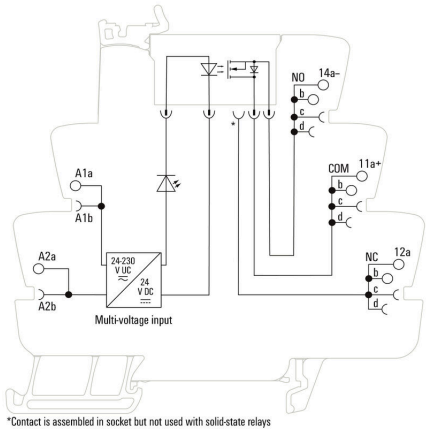
# TOS 24-230VUC 24VDC5A

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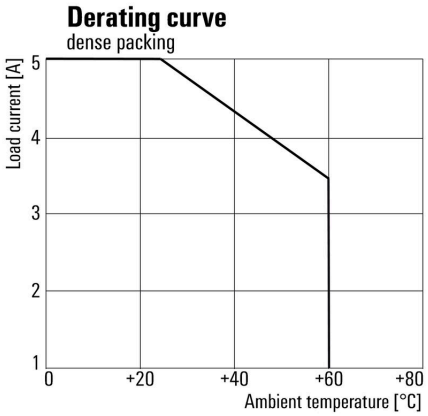
www.weidmueller.com

## Drawings

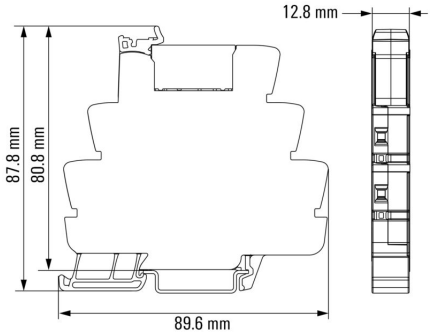
### Wiring diagram




### Derating curve




### Dimensional drawing



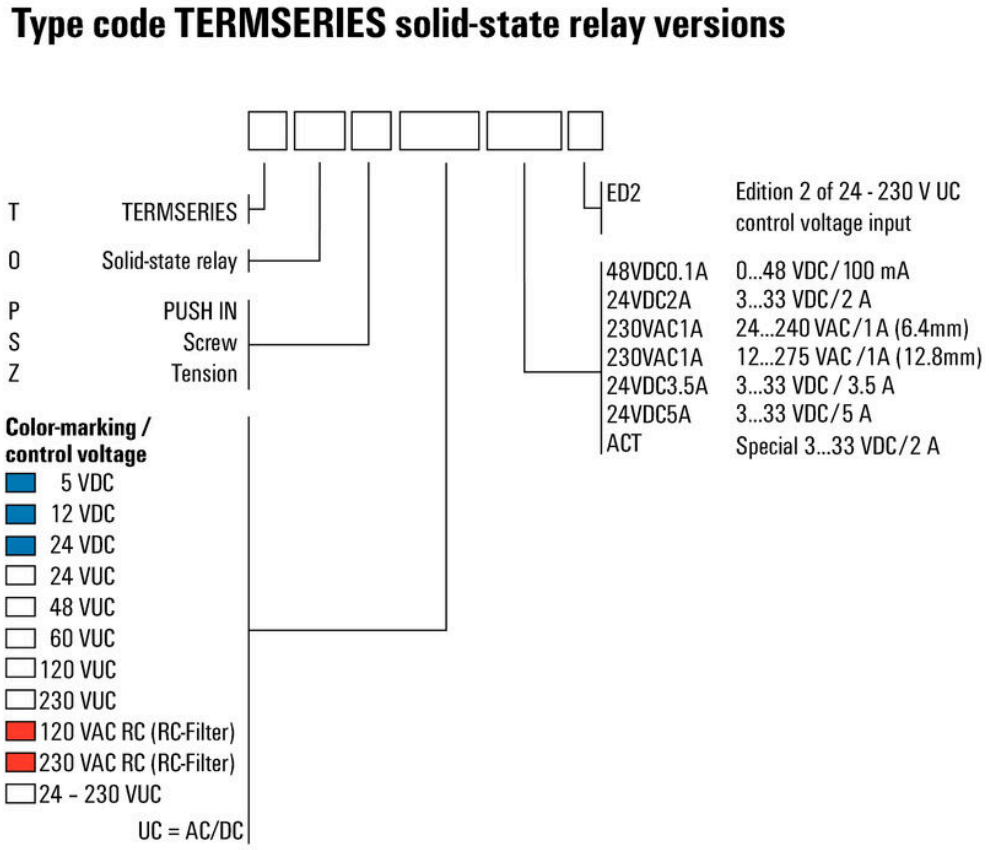
Weidmüller

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## Drawings

### Miscellaneous




Type codes

# TOS 24-230VUC 24VDC5A

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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 crosscconnection 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. | 1240800000 | TERMSERIES, Partition plate |
| GTIN (EAN) | 4050118028188 | |
| Qty. | 10 ST | |

### Supply module



Space-saving supply modules
Our supply terminals enable potentials to be fed at the input – e.g.
neutral or minus potentials – or switched potentials to be fed at the output. In
conjunction with precisely fitting cross-connections from the TEMRSERIES,
the connections for the cables on the relay module remain free for actuators
or sensors. No additional feed-through terminal blocks are required, resulting
in huge space savings in the panel. At the same time, the wiring is simplified
as no double wire-end ferrules are required for the potential feed.

#### General ordering data

| | | |
|---|---|---|
| Type | TXP SUPPLY | Version |
| Order No. | 2618940000 | TERMSERIES, Supply module, Number of contacts: 5, , Continuous |
| GTIN (EAN) | 4050118667592 | current: 10 A, PUSH IN |
| Qty. | 10 ST | |

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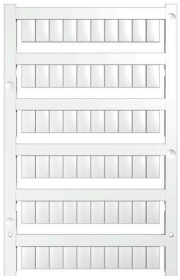
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## Accessories

| | | |
|---|---|---|
| Type | TXS SUPPLY | Version |
| Order No. | 1240780000 | TERMSERIES, Supply module, Number of contacts: 5, , Continuous |
| GTIN (EAN) | 4050118028140 | current: 10 A, Screw connection |
| Qty. | 10 ST | |

| | | |
|---|---|---|
| Type | TXZ SUPPLY | Version |
| Order No. | 1240790000 | TERMSERIES, Supply module, Number of contacts: 5, , Continuous |
| GTIN (EAN) | 4050118028164 | current: 10 A, Tension-clamp connection |
| Qty. | 10 ST | |

### 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. | 1818400000 | WS, Terminal marker, 10 x 6 mm, Pitch in mm (P): 6.00 Weidmueller, |
| GTIN (EAN) | 4032248310876 | Allen-Bradley, white |
| Qty. | 600 ST | |

### ZQV

### General ordering data

| | | |
|---|---|---|
| Type | ZQV 1.5N/R6.4/2 GE | Version |
| Order No. | 1193670000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4032248976638 | |
| Qty. | 10 ST | |

| | | |
|---|---|---|
| Type | ZQV 1.5N/R6.4/10 GE | Version |
| Order No. | 1193680000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4032248976454 | |
| Qty. | 10 ST | |

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## Accessories

| | | |
|---|---|---|
| Type | ZQV 1.5N/R6.4/19 GE | Version |
| Order No. | 1193690000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4032248976645 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/2 BL | Version |
| Order No. | 1446140000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118251074 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/10 BL | Version |
| Order No. | 1390350000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118190793 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/19 BL | Version |
| Order No. | 1391620000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118191813 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/2 RT | Version |
| Order No. | 1446090000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118250886 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/10 RT | Version |
| Order No. | 1391640000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118191660 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/19 RT | Version |
| Order No. | 1391610000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118191783 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/2 SW | Version |
| Order No. | 1446040000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118251067 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/10 SW | Version |
| Order No. | 1391630000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118191776 | |
| Qty. | 10 ST | |
| Type | ZQV 1.5N/R6.4/19 SW | Version |
| Order No. | 1391600000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118191806 | |
| Qty. | 10 ST | |

### Crosshead screwdriver Phillips



Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

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## Accessories

### General ordering data

| | | |
|---|---|---|
| Type | SDK PH0 X 60 | Version |
| Order No. | 2749400000 | Screwdriver, Blade width (B): 3 mm, 60 mm, Blade thickness (A): 0 |
| GTIN (EAN) | 4050118895629 | |
| Qty. | 1 ST | |

| | | |
|---|---|---|
| Type | SDIK PH0 X 60 | Version |
| Order No. | 2749880000 | Screwdriver, Blade width (B): 0 mm, 60 mm, Blade thickness (A): 0 |
| GTIN (EAN) | 4050118897081 | |
| Qty. | 1 ST | |

### Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

### General ordering data

| | | |
|---|---|---|
| Type | SDS 0.6X3.5X100 | Version |
| Order No. | 2749340000 | Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118895568 | thickness (A): 0.6 mm |
| Qty. | 1 ST | |

| | | |
|---|---|---|
| Type | SDIS SLIM 0.6X3.5X100 | Version |
| Order No. | 2749610000 | Mounting tool, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade |
| GTIN (EAN) | 4050118896350 | thickness (A): 0.6 mm |
| Qty. | 1 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

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## Accessories

### General ordering data

| | | |
|---|---|---|
| Type | TCC 6.4/51 RD | Version |
| Order No. | 2556410000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566925 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/51 OR | Version |
| Order No. | 2556370000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566680 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/51 BL | Version |
| Order No. | 2556450000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566963 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/51 BK | Version |
| Order No. | 2556490000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118567007 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/2 OR | Version |
| Order No. | 2556350000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566826 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/2 BL | Version |
| Order No. | 2556430000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566949 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/2 BK | Version |
| Order No. | 2556470000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566987 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/10 RD | Version |
| Order No. | 2556400000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566918 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/10 OR | Version |
| Order No. | 2556360000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566673 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/10 BL | Version |
| Order No. | 2556440000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566956 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/10 BK | Version |
| Order No. | 2556480000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566994 | |
| Qty. | 10 ST | |
| Type | TCC 12.8/26 RD | Version |
| Order No. | 2556420000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566932 | |
| Qty. | 10 ST | |
| Type | TCC 12.8/26 OR | Version |
| Order No. | 2556380000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566697 | |
| Qty. | 10 ST | |

# TOS 24-230VUC 24VDC5A

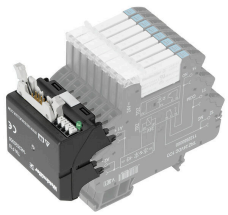
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Germany

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## Accessories

| | | |
|---|---|---|
| Type | TCC 12.8/26 BL | Version |
| Order No. | 2556460000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566970 | |
| Qty. | 10 ST | |
| Type | TCC 12.8/26 BK | Version |
| Order No. | 2556500000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118567014 | |
| Qty. | 10 ST | |
| Type | TCC 6.4/2 RD | Version |
| Order No. | 2556390000 | TERMSERIES, Cross-connector |
| GTIN (EAN) | 4050118566901 | |
| Qty. | 10 ST | |

### TERMSERIES interface adapter



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 | TIAL F10 | Version |
| Order No. | 1463540000 | 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 |