# TC MOBILE I/O X300 AC - Signaling system

2903808

https://www.phoenixcontact.com/us/products/2903808

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Compact signaling system for cellular networks to monitor digital values as well as to switch relay outputs remotely. Communication is via the ODP protocol to an ODP server using GPRS. Supply voltage range of 93 V ... 250 V AC.

## Your advantages

- GPRS messaging system for remote control of outputs
- Alarm generation on voltage failure via SMS
- GSM mobile phone network: 850, 900, 1800, and 1900 MHz
- Communication via ODP protocol
- Data transmission either online or as historical values with time stamp
- Configuration via USB and web browser
- Compact design also for domestic installations (4 HP, DIN 43880)
- Mounting on DIN rail or on the wall

## Commercial data

| | |
|---|---|
| Item number | 2903808 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | DNC423 |
| GTIN | 4046356768863 |
| Weight per piece (including packing) | 244.3 g |
| Weight per piece (excluding packing) | 244.3 g |
| Country of origin | DE |

# Technical data

## Notes

Utilization restriction

| | |
|---|---|
| CCCex note | Use in potentially explosive areas is not permitted in China. |

## Product properties

| | |
|---|---|
| Product type | Signaling system |
| MTTF | 662 Years (SN 29500 standard, temperature 25°C, operating cycle 21%) |
| | 333 Years (SN 29500 standard, temperature 40°C, operating cycle 34.25%) |
| | 142 Years (SN 29500 standard, temperature 40°C, operating cycle 100%) |

## Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 5.145 W |
| Mains type | Cellular communication |

Supply

| | |
|---|---|
| Supply voltage range | 93 V AC ... 250 V AC (47.5 Hz ... 63 Hz) |
| Typical current consumption | 40 mA (230 V AC) |
| Max. current consumption | 60 mA |

## Input data

Digital

| | |
|---|---|
| Description of the input | Digital input |
| Number of inputs | 4 |
| Switching level "0" signal | 0 V AC ... 50 V AC |
| Switching level "1" signal | 90 V AC ... 250 V AC |

## Output data

Switching

| | |
|---|---|
| Output name | Relay output |
| Number of outputs | 4 |
| Contact switching type | N/O contact |
| Minimum switching voltage | 5 V |
| Maximum switching voltage | 125 V DC |
| | 250 V AC |
| Limiting continuous current | 5 A |
| Switching power | 750 VA |
| Electrical service life | 150000 switching cycles (5 A / 30 V DC) |
| | 150000 switching cycles (3 A / 120 V AC) |

| | |
|---|---|
| | 30000 cycles (5 A / 250 V AC) |

## Connection data

### Supply

| | |
|---|---|
| Conductor cross-section, flexible, with ferrule, without plastic sleeve | 0.25 mm² ... 2.5 mm² |
| Conductor cross-section, flexible, with ferrule, with plastic sleeve | 0.25 mm² ... 2.5 mm² |
| Single conductor/terminal point, rigid | 0.2 mm² ... 2.5 mm² |
| Single-wire/terminal point, flexible | 0.2 mm² ... 2.5 mm² |
| Conductor cross-section AWG | 24 ... 14 |
| Stripping length | 6.50 mm |
| Tightening torque | 0.5 Nm ... 0.6 Nm (5-7 lbs-in, screw terminal blocks) |

## Interfaces

| | |
|---|---|
| Web server | yes |

### Data: USB 2.0

| | |
|---|---|
| Connection method | Mini-USB type B, 5-pos. |
| Transmission length | ≤ 3 m (only for configuration and diagnostics) |

### Wireless

| | |
|---|---|
| Interface description | GSM / GPRS |
| Frequency range | 850 MHz (2 W (EGSM)) |
| | 900 MHz (2 W (EGSM)) |
| | 1800 MHz (1 W (EGSM)) |
| | 1900 MHz (1 W (EGSM)) |
| GPRS | Multislot Class 10 |

## Dimensions

| | |
|---|---|
| Width | 72 mm |
| Height | 90 mm |
| Depth | 62 mm |

## Material specifications

| | |
|---|---|
| Color (Upper housing part) | light gray (RAL 7035) |
| Color (Lower housing part) | black (RAL 9005) |
| Material (Housing) | Polycarbonate |

## Environmental and real-life conditions

### Ambient conditions

| | |
|---|---|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 70 °C (SMS mode only, note the derating information in the technical documentation for data connection) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | 2000 m |

| | |
|---|---|
| Permissible humidity (operation) | 0 % ... 95 % |

## Approvals

CE

| | |
|---|---|
| Certificate | CE-compliant |

ATEX

| | |
|---|---|
| Identification | Ⓔx II 3 G Ex nA nC IIC T4 Gc X |
| Note | Please follow the special installation instructions in the documentation! |

Wireless approval USA, FCC

| | |
|---|---|
| Note | Part 15.107(a), 15.109(a) |

Corrosive gas test

| | |
|---|---|
| Identification | ISA-S71.04-1985 G3 Harsh Group A |

Wireless approval, Europe

| | |
|---|---|
| Note | RED 2014/53/EU |

## EMC data

| | |
|---|---|
| Electromagnetic compatibility | Conformance with EMC Directive 2014/30/EU |

Electrostatic discharge

| | |
|---|---|
| Standards/regulations | EN 61000-4-2 |

Electrostatic discharge

| | |
|---|---|
| Contact discharge | ± 6 kV |
| Discharge in air | ± 8 kV |
| Indirect discharge | ± 6 kV |
| Comments | Criterion B |

Electromagnetic HF field

| | |
|---|---|
| Standards/regulations | EN 61000-4-3 |

Electromagnetic HF field

| | |
|---|---|
| Frequency range | 26 MHz ... 6 GHz |
| Field intensity | 10 V/m |
| Comments | Criterion A |

Fast transients (burst)

| | |
|---|---|
| Standards/regulations | EN 61000-4-4 |

Fast transients (burst)

| | |
|---|---|
| Input | ± 2 kV (Unshielded supply line) |
| Signal | ± 2 kV (Shielded signal line) |
| Comments | Criterion B |

Surge current load (surge)

| | |
|---|---|
| Standards/regulations | EN 61000-4-5 |

Surge current load (surge)

| | |
|---|---|
| Input | ± 1 kV (Symmetrical, unshielded supply line) |
| | ± 2 kV (Asymmetrical, unshielded supply line) |
| Signal | ± 1 kV (Data line, asymmetrical) |
| Comments | Criterion B |

Conducted interference

| | |
|---|---|
| Standards/regulations | EN 61000-4-6 |

Conducted interference

| | |
|---|---|
| Frequency range | 0.15 MHz ... 80 MHz |
| Comments | Criterion A |
| Voltage | 10 V |

Voltage dips

| | |
|---|---|
| Standards/regulations | EN 61000-4-11 |

Emitted interference

| | |
|---|---|
| Emitted radio interference in acc. with EN 55011 | Class B, area of application: Industry and residential |

Criteria

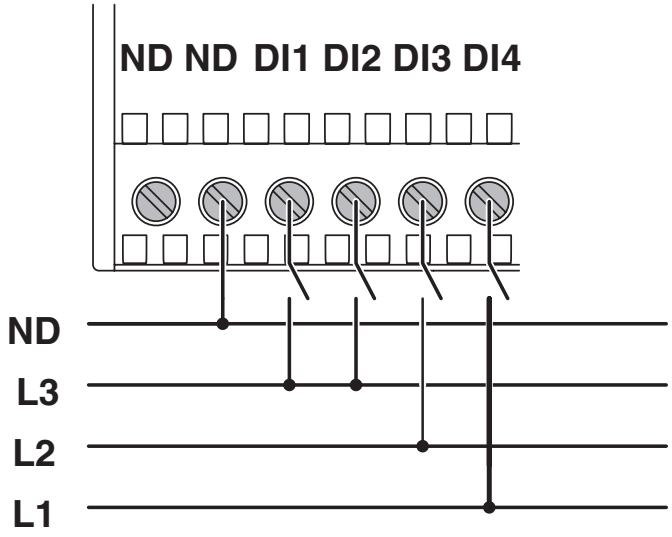
| | |
|---|---|
| Criterion A | Normal operating behavior within the specified limits. |
| Criterion B | Temporary impairment to operational behavior that is corrected by the device itself. |

## Standards and regulations

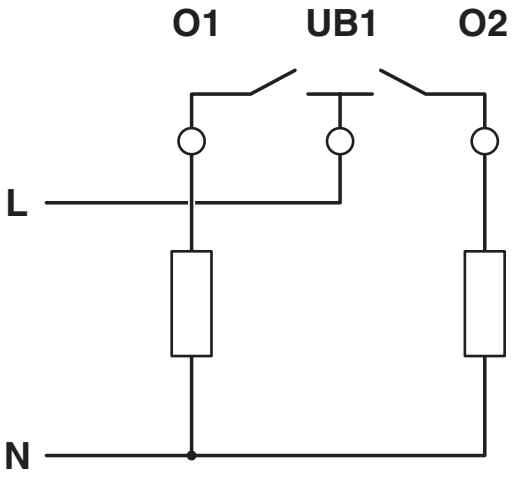
| | |
|---|---|
| Standards/regulations | EN 50360 |
| Standards/regulations | EN 50121-4 |

## Drawings

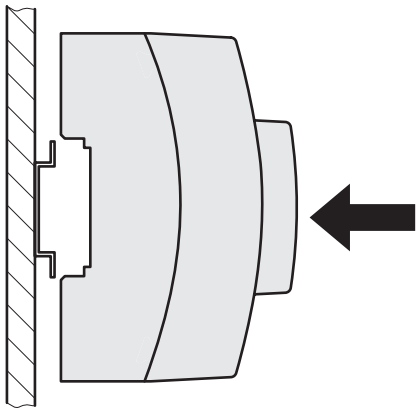
Connection diagram




Connection diagram

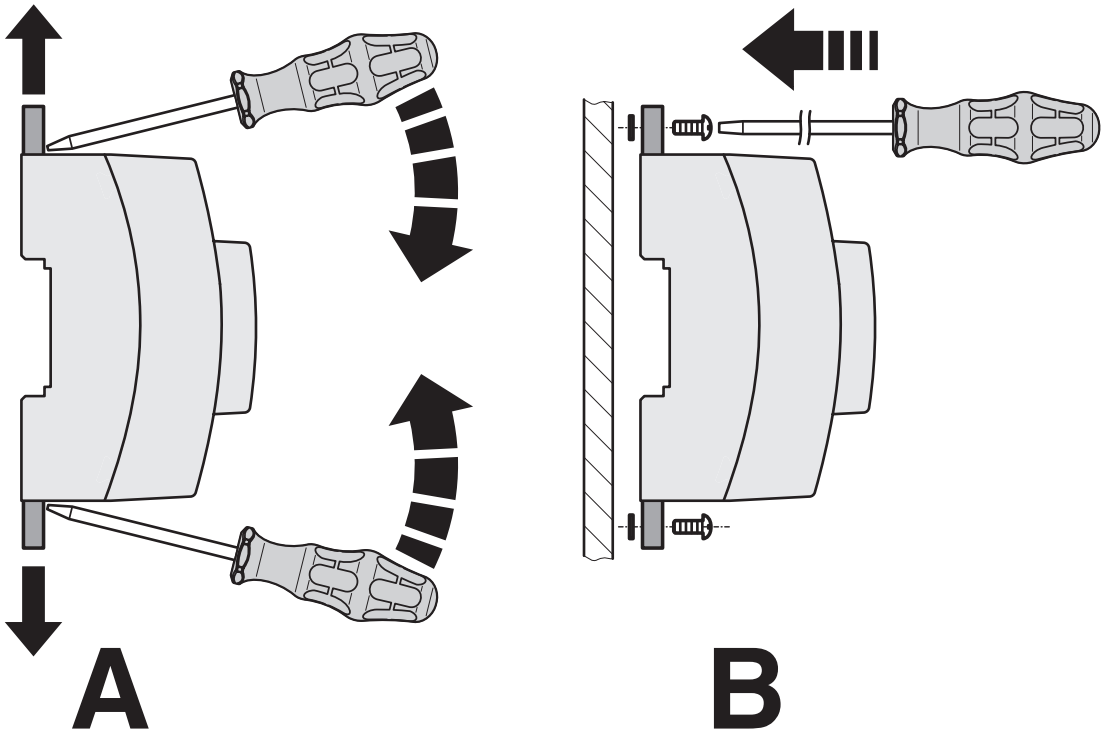


Schematic diagram



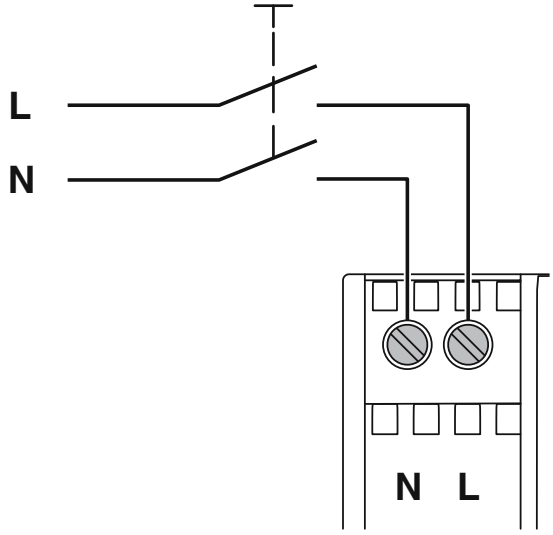
DIN rail mounting

Schematic diagram



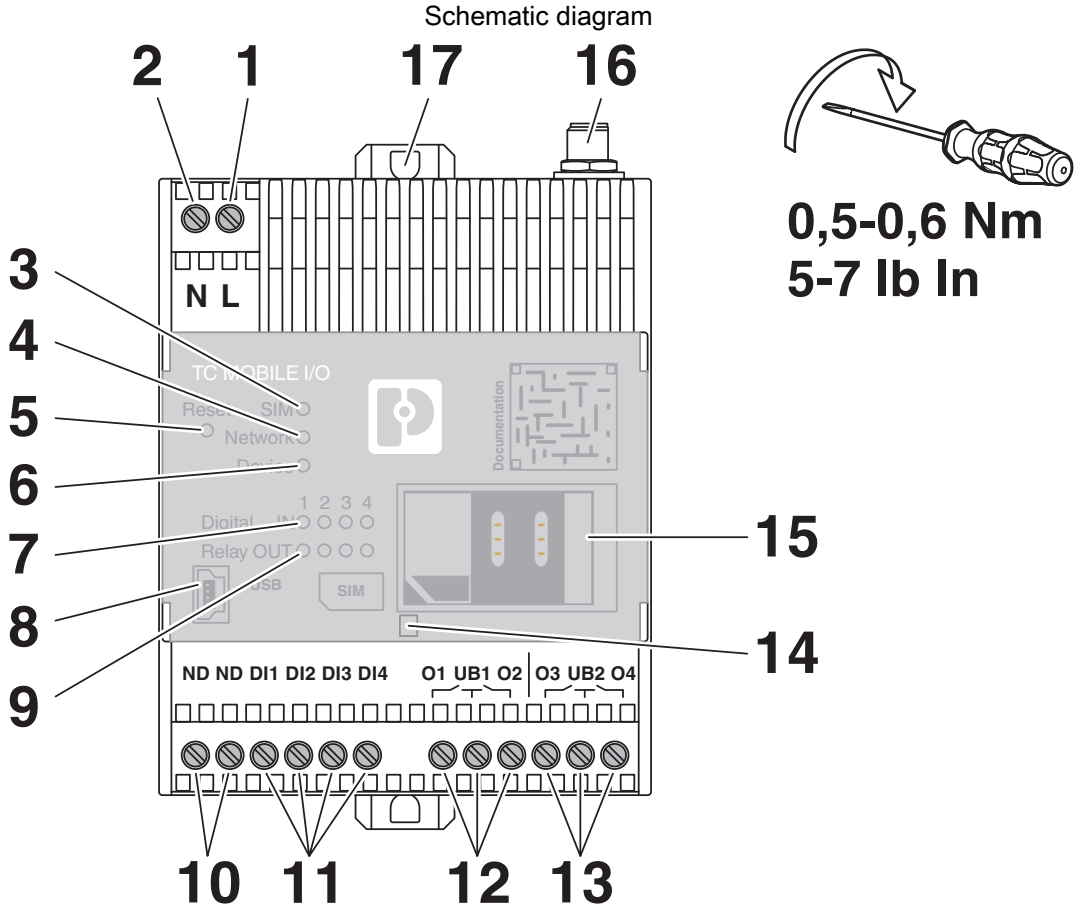

Panel mounting

Schematic diagram



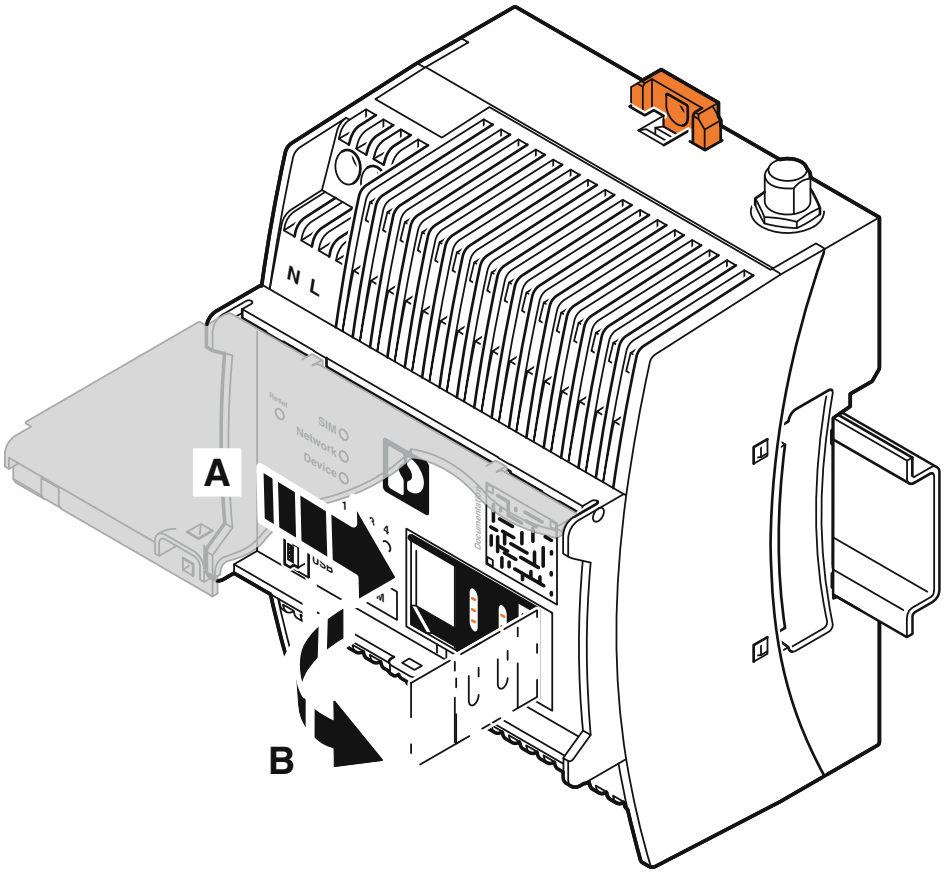

Connecting the supply voltage

Schematic diagram



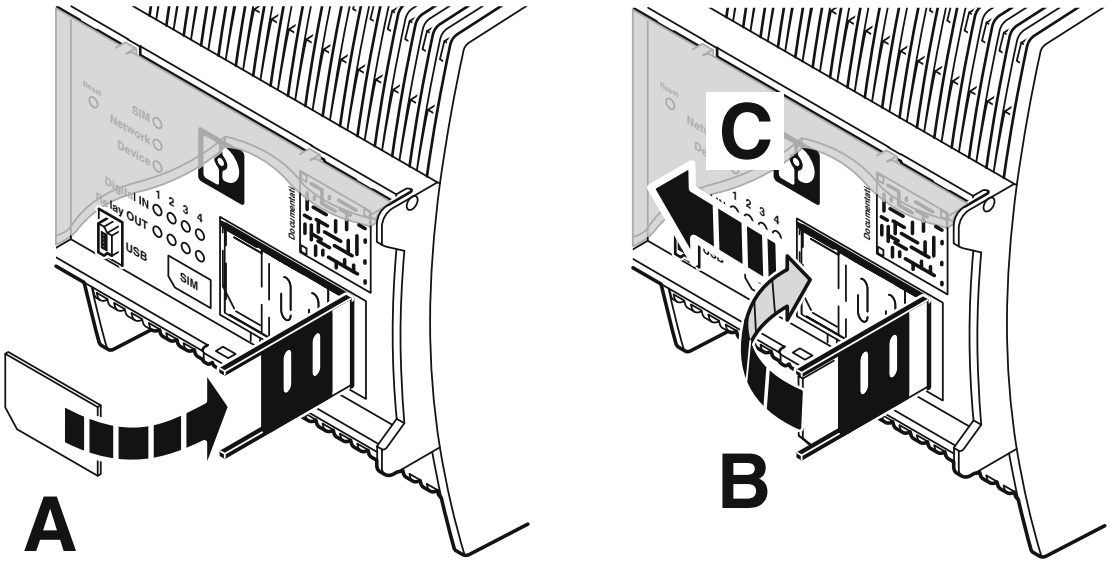

Front view

Schematic diagram



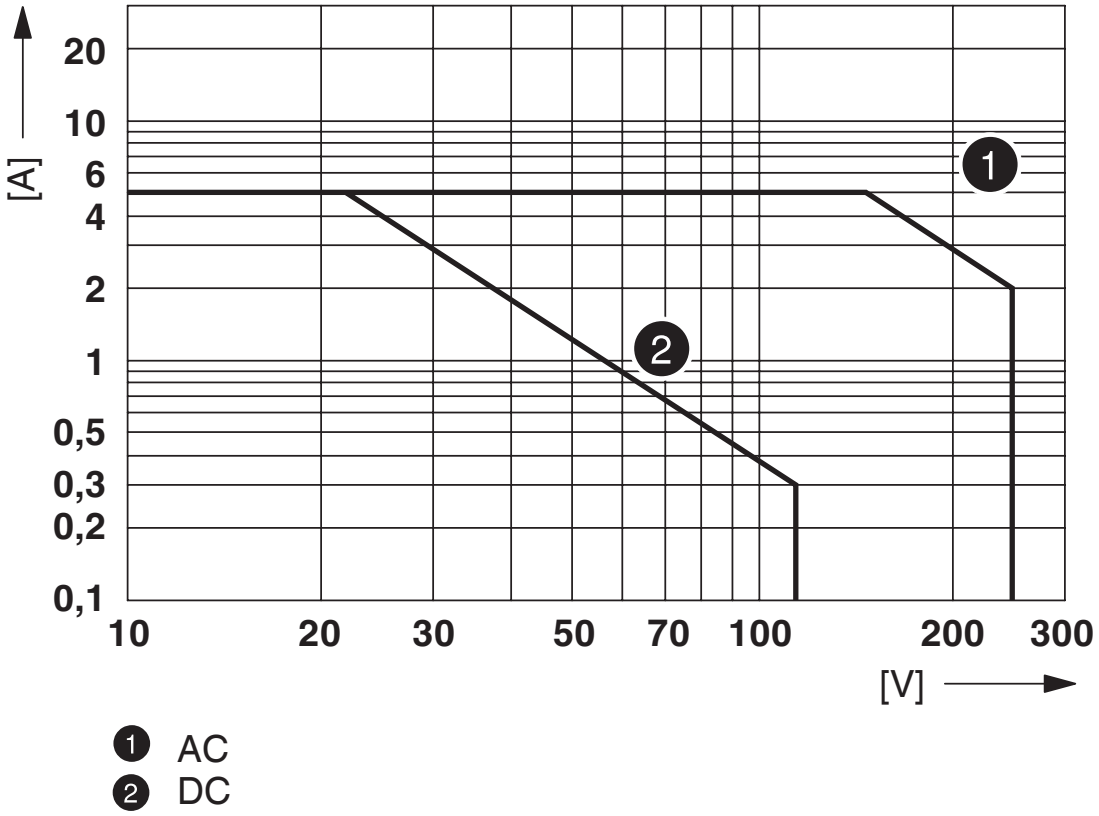

Insert the SIM card

Schematic diagram




Insert the SIM card

Diagram




Relay, max. load switching capacity, resistive load

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27242608 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC001604 |

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 32151600 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |



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