

# RCK-TWUM/BL12/10,0PUR-U - Master cable



1684043

<https://www.phoenixcontact.com/us/products/1684043>

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Master cable, application: Sensor/actuator box, number of positions: 12, slot assignment: single, status display: no; master cable connection: M23 plug connection, PUR/PVC, cable length: 10 m, shielding: no, this item is expected to be lead-free from Q3 2026 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance



## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1684043       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | AB34          |
| Product key                          | ABRDCB        |
| GTIN                                 | 4017918172077 |
| Weight per piece (including packing) | 1,178.8 g     |
| Weight per piece (excluding packing) | 1,130.764 g   |
| Customs tariff number                | 85444290      |
| Country of origin                    | DE            |

## Technical data

### Notes

|                    |                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------|
| Notes on operation | The master cable is earmarked for use on the sensor/actuator boxes with an M23 plug-in connection. |
|--------------------|----------------------------------------------------------------------------------------------------|

### Product properties

|                     |                         |
|---------------------|-------------------------|
| Product type        | Master cable, assembled |
| Application         | Sensor/actuator box     |
| Number of positions | 12                      |

### Electrical properties

|                       |         |
|-----------------------|---------|
| Nominal voltage $U_N$ | 48 V AC |
|                       | 60 V DC |

### Connection data

|                   |                  |
|-------------------|------------------|
| Connection method | Fixed connection |
|-------------------|------------------|

### Signaling

|                        |    |
|------------------------|----|
| Status display present | no |
|------------------------|----|

### Material specifications

|                                                          |             |
|----------------------------------------------------------|-------------|
| Material Housing                                         | PUR         |
| Material of contact, master cable side                   | CU alloy    |
| Material of the contact carrier on the master cable side | PA          |
| Material of contact surface, master cable side           | gold-plated |

### Connector

#### Connection 1

|                   |        |
|-------------------|--------|
| Head design       | Socket |
| Head cable outlet | angled |
| Head thread type  | M23    |

#### Connection 2

|             |                |
|-------------|----------------|
| Head design | free cable end |
|-------------|----------------|

### Cable/line

|              |      |
|--------------|------|
| Cable length | 10 m |
|--------------|------|

PUR/PVC black [PUR]

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|                                               |                                                                                                    |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------|
| Dimensional drawing                           |                  |
| Cable weight                                  | 107.4 kg/km                                                                                        |
| UL AWM Style                                  | 20549 (80°C/300 V)                                                                                 |
| Number of positions                           | 11                                                                                                 |
| Shielded                                      | no                                                                                                 |
| Cable type                                    | PUR/PVC black [PUR]                                                                                |
| Conductor structure signal line               | 19x 0.15 mm                                                                                        |
| AWG signal line                               | 22                                                                                                 |
| Conductor structure, voltage supply           | 42x 0.15 mm                                                                                        |
| AWG power supply                              | 18                                                                                                 |
| Conductor cross-section                       | 8x 0.34 mm <sup>2</sup> (Signal line)<br>3x 0.75 mm <sup>2</sup> (power line)                      |
| Wire diameter incl. insulation                | 1.3 mm ±0.1 mm (Signal line)<br>1.8 mm ±0.1 mm (power line)                                        |
| External cable diameter                       | 8.50 mm ±0.2 mm                                                                                    |
| Outer sheath, material                        | PUR                                                                                                |
| External sheath, color                        | black RAL 9005                                                                                     |
| Conductor material                            | Bare Cu litz wires                                                                                 |
| Material wire insulation                      | PVC                                                                                                |
| Single wire, color                            | brown, blue, green/yellow, white, green, yellow, gray, pink, red, black, violet                    |
| Inner sheath thickness                        | ≥ 0.15 mm                                                                                          |
| Thickness, outer sheath                       | ≥ 0.38 mm                                                                                          |
| Overall twist                                 | Wires twisted in layers                                                                            |
| Max. conductor resistance                     | ≤ 53 Ω/km (Signal line)<br>≤ 26 Ω/km (power line)                                                  |
| Insulation resistance                         | ≥ 5 MΩ*km                                                                                          |
| Nominal voltage, cable                        | 300 V AC                                                                                           |
| Test voltage Core/Core                        | 2000 V (50 Hz, 5 min.)                                                                             |
| Minimum bending radius, fixed installation    | 7.5 x D                                                                                            |
| Minimum bending radius, flexible installation | 10 x D                                                                                             |
| Smallest bending radius, fixed installation   | 64 mm                                                                                              |
| Smallest bending radius, movable installation | 85 mm                                                                                              |
| Dynamic load capacity (bending)               | Max. bending cycles: 1500000, Bending radius: 10 x D, Traversing path: 2 m, Traversing rate: 2 m/s |
| Flame resistance                              | DIN EN 50265                                                                                       |
| Resistance to oil                             | according to VDE 0472 Part 803                                                                     |

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|                                 |                                                            |
|---------------------------------|------------------------------------------------------------|
| Other resistance                | Highly resistant to acids, alkaline solutions and solvents |
| Special properties              | Silicone-free                                              |
| Ambient temperature (operation) | -40 °C ... 90 °C (cable, fixed installation)               |
|                                 | -5 °C ... 80 °C (Cable, flexible installation)             |

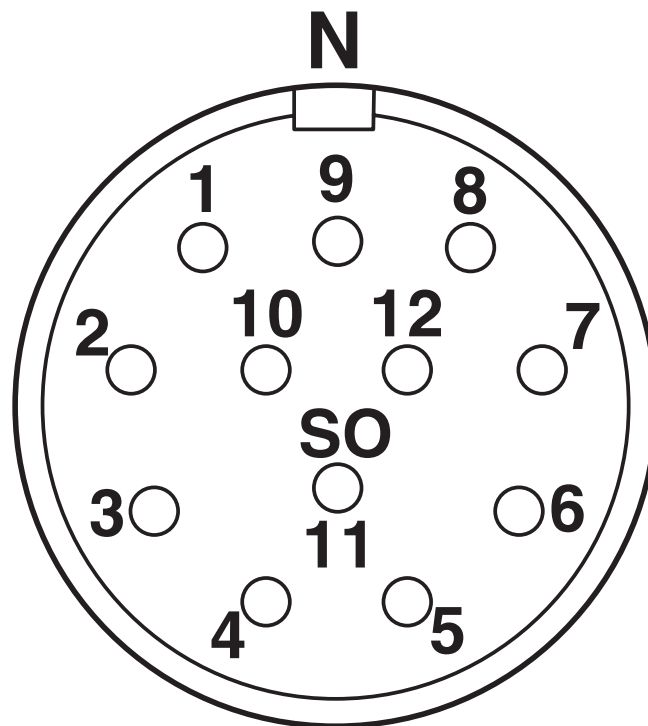
## Environmental and real-life conditions

### Ambient conditions

|                                                                   |                                   |
|-------------------------------------------------------------------|-----------------------------------|
| Degree of protection                                              | IP65                              |
|                                                                   | IP67                              |
| Ambient temperature (operation) (male connector/female connector) | -40 °C ... 125 °C (Plug / socket) |

## Drawings

Schematic diagram



Pin assignment M23 socket, 12-pos., female side view

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## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1684043>



**EAC**

Approval ID: 19060508

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27060311 |
| ECLASS-15.0 | 27060311 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001855 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 26121600 |
|-------------|----------|

## Environmental product compliance

## EU RoHS

|                                         |      |
|-----------------------------------------|------|
| Fulfills EU RoHS substance requirements | Yes  |
| Exemption                               | 6(c) |

## 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.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | e2eba4c3-e9d7-4f42-a5e1-c06e5d33e44d |