

2701165

https://www.phoenixcontact.com/us/products/2701165

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Inline, Analog input terminal, transmission speed in the local bus: 500 kbps, Extreme conditions version, degree of protection: IP20, including Inline connector and labeling field



## Product description

The terminal is designed for use within an Inline station. The terminal has four inputs that can be configured independently of one another for measuring voltages or resistances or for RTDs. The sensors are connected using 2-conductor technology, so that a nominal resistance of at least  $1000~\Omega$  is recommended when sensors with a relatively small temperature coefficient (e.g., platinum sensors) are used. Resistance measurement with conversion into temperature values can be used for temperature measurement with NTC resistors. The advantage of these resistors is their large temperature coefficient. Thanks to special engineering measures and tests, the terminal can be used under extreme ambient conditions.

## Your advantages

- Voltage inputs 0 V ... 10 V
- · Inputs for temperature measurements
- · Connection of sensors in 2-conductor technology
- · Diagnostic and status indicators
- · Can be used under extreme ambient conditions
- Extended temperature range of -40 °C ... +70 °C (see "Tested successfully: use under extreme ambient conditions" in the data sheet)
- · Coated PCBs

#### Commercial data

| Item number                          | 2701165                        |
|--------------------------------------|--------------------------------|
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | DR18                           |
| Product key                          | DRHABA                         |
| GTIN                                 | 4046356716895                  |
| Weight per piece (including packing) | 89.6 g                         |
| Weight per piece (excluding packing) | 68 g                           |
| Customs tariff number                | 85389091                       |
| Country of origin                    | DE                             |



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## Technical data

#### **Dimensions**

| Width  | 12.2 mm  |
|--------|----------|
| Height | 140.5 mm |
| Depth  | 71.5 mm  |

#### Interfaces

#### Inline local bus

| Connection method    | Inline data jumper |
|----------------------|--------------------|
| Transmission speed   | 500 kbps           |
| Transmission physics | Copper             |

#### Input data

#### Analog:

| Data formats              | IB IL, IB ST, standardized representation, S7 compatible   |
|---------------------------|--|
| Filtering                 | None or mean value generation over 8 or 32 measured values |
| Limit frequency (3 dB)    | 6.6 Hz   |
| Measured value resolution | 16 bits (15 bits + sign bit)                               |

#### Analog

| Input filter time | 150 ms               |
|-------------------|----------------------|
|                   | 1200 ms              |
|                   | 4800 ms (adjustable) |

## Product properties

| Product type               | I/O component                                 |
|----------------------------|---|
| Product family             | Inline  |
| Туре                       | modular                                       |
| Scope of supply            | including Inline connector and labeling field |
| Special properties         | Extreme conditions version                    |
| Insulation characteristics |   |
| Overveltere esteren        | U (IFC 60664 4 FN 60664 4)                    |

| Overvoltage category | II (IEC 60664-1, EN 60664-1) |
|----------------------|------------------------------|
| Pollution degree     | 2 (IEC 60664-1, EN 60664-1)  |

#### Electrical properties

Potentials: Communications power (U<sub>L</sub>)

| _            |            |
|--------------|------------|
| Current draw | max. 65 mA |

## Connection data

#### Connection technology

| Connection name | Inline connector |
|-----------------|------------------|
|                 |                  |



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#### Conductor connection

| Connection method                | Spring-cage connection                   |
|----------------------------------|--|
| Conductor cross-section rigid    | 0.08 mm <sup>2</sup> 1.5 mm <sup>2</sup> |
| Conductor cross-section flexible | 0.08 mm <sup>2</sup> 1.5 mm <sup>2</sup> |
| Conductor cross-section AWG      | 28 16                                    |
| Stripping length                 | 8 mm                                     |

#### Inline connector

| Connection method                 | Spring-cage connection                   |
|-----------------------------------|--|
| Conductor cross-section, rigid    | 0.08 mm <sup>2</sup> 1.5 mm <sup>2</sup> |
| Conductor cross-section, flexible | 0.08 mm² 1.5 mm²                         |
| Conductor cross-section AWG       | 28 16                                    |
| Stripping length                  | 8 mm                                     |

#### Environmental and real-life conditions

#### Ambient conditions

| Ambient temperature (operation)          | -25 °C 55 °C (Standard)   |
|--|---|
|  | -40 °C 70 °C (Extended, see section "Tested successfully: use under extreme ambient conditions" in the data sheet.) |
| Degree of protection                     | IP20  |
| Air pressure (operation)                 | 70 kPa 106 kPa (up to 3000 m above sea level)   |
| Air pressure (storage/transport)         | 70 kPa 106 kPa (up to 3000 m above sea level)   |
| Ambient temperature (storage/transport)  | -40 °C 85 °C  |
| Permissible humidity (operation)         | 10 % 95 % (non-condensing)  |
| Permissible humidity (storage/transport) | 10 % 95 % (non-condensing)  |

## Standards and regulations

| Protection class | III (IEC 61140, EN 61140, VDE 0140-1) |
|------------------|---------------------------------------|
|------------------|---------------------------------------|

## Mounting

| Mounting type | DIN rail mounting |
|---------------|-------------------|
|---------------|-------------------|



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## Classifications

| ETIM 8.0    | EC001596 |  |
|-------------|----------|--|
| UNSPSC      |          |  |
| UNSPSC 21 0 | 32151600 |  |



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## Environmental product compliance

#### 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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