

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)



Inline, Analog input terminal, Analog inputs: 4, 0 mA ... 20 mA, 4 mA ... 20 mA, connection technology: 2conductor, transmission speed in the local bus: 500 kbps, degree of protection: IP20, including Inline connector and labeling field

#### Your advantages

- 4 analog differential input channels for connecting current signals
- ☑ Connection of sensors in 2-conductor technology
- ☑ Current ranges: 0 mA ... 20 mA, 4 mA ... 20 mA
- Mean-value generation of the inputs
- Process data update of all channels in 250 μs
- ☑ Diagnostic and status indicators

# RoHS

#### Key Commercial Data

| Packing unit                         | 1 pc            |
|--------------------------------------|-----------------|
| GTIN                                 | 4 046356 566544 |
| GTIN                                 | 4046356566544   |
| Weight per Piece (excluding packing) | 80.000 g        |
| Custom tariff number                 | 85389091        |
| Country of origin                    | Germany         |

#### Technical data

#### Note

| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|
| Dimensions              |   |

| Width | 12.2 mm               |
|-------|-----------------------|
|       | 01/17/2022 Page 1 / 8 |



### Technical data

#### Dimensions

| Height             | 119.8 mm           |
|--------------------|--------------------|
| Depth              | 71.5 mm            |
| Note on dimensions | Housing dimensions |

#### Ambient conditions

| Ambient temperature (operation)          | -25 °C 55 °C                                  |
|--|---|
| Ambient temperature (storage/transport)  | -25 °C 85 °C                                  |
| Permissible humidity (operation)         | 10 % 95 % (according to DIN EN 61131-2)       |
| Permissible humidity (storage/transport) | 10 % 95 % (according to DIN EN 61131-2)       |
| 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) |
| Degree of protection                     | IP20  |

#### General

| Mounting type                 | DIN rail   |
|-------------------------------|--|
| Color                         | green  |
| Net weight                    | 66 g   |
| Note on weight specifications | with connector   |
| Diagnostics messages          | Failure of the internal I/O supply I/O error message sent to the bus coupler |
|                               | I/O supply failure Message in the diagnostic code (in the IB IL format)      |
|                               | Overrange or underrange Message in the diagnostic code (in the IB IL format) |
|                               | Configuration invalid Message in the diagnostic code (in the IB IL format)   |

#### Interfaces

| Designation          | Inline local bus   |
|----------------------|--------------------|
| Number               | 2                  |
| Connection method    | Inline data jumper |
| Transmission speed   | 500 kbps           |
| Transmission physics | Copper             |

#### Inline potentials

| Designation          | Communications power (U <sub>L</sub> )                         |
|----------------------|--|
| Supply voltage       | 7.5 V DC (via voltage jumper)                                  |
| Current consumption  | typ. 55 mA   |
|                      | max. 60 mA   |
| Designation          | Supply of analog modules (U <sub>ANA</sub> )                   |
| Supply voltage       | 24 V DC  |
| Supply voltage range | 19.2 V DC 30 V DC (including all tolerances, including ripple) |
| Current consumption  | typ. 30 mA   |



### Technical data

#### Inline potentials

|                   | max. 35 mA          |
|-------------------|---------------------|
| Power consumption | typ. 0.94 W (total) |

#### Analog inputs

| Description of the input       | Differential inputs, current                                    |
|--------------------------------|---|
| Input name                     | Analog inputs   |
| Number of inputs               | 4   |
| Connection method              | Inline connector  |
| Connection technology          | 2-conductor   |
| A/D conversion time            | max. 6.5 μs   |
| A/D converter resolution       | 12 bit  |
| Limit frequency (3 dB)         | 300 Hz  |
| Data formats                   | IB IL, S7-compatible  |
| Measured value resolution      | 13 bits (12 bits + sign bit)                                    |
| Measured value representation  | 13 bits (12 bits + sign bit)                                    |
| Current input signal           | 0 mA 20 mA  |
|                                | 4 mA 20 mA  |
| Input resistance current input | typ. 113 Ω  |
| Filtering                      | None or mean-value generation over 4, 16, or 32 measured values |

#### Electrical isolation

| Test section | 5 V supply, incoming remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.                              |
|--------------|--|
|              | 5 V supply, outgoing remote bus/7.5 V supply (bus logics) 500 V AC 50 Hz 1 min.                              |
|              | 7.5 V supply (bus logic), 24 V supply $U_{\mbox{\tiny ANA}}$ / I/O 500 V AC 50 Hz 1 min.                     |
|              | 7.5 V supply (bus logic), 24 V supply $U_{\mbox{\scriptsize ANA}}$ / functional ground 500 V AC 50 Hz 1 min. |
|              | I/O/functional ground 500 V AC 50 Hz 1 min.  |

#### Standards and Regulations

| Immunity to ESD   | Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2<br>Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B, 6<br>kV contact discharge, 8 kV air discharge                                    |
|-------------------|---|
| Immunity to EF    | Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2<br>Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field<br>intensity: 10 V/m  |
| Immunity to burst | Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV  |
| Immunity to surge | Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B, supply lines DC: ±1 kV/±1 kV (symmetrical/asymmetrical), shielded I/O cables: ±1 kV |



### Technical data

#### Standards and Regulations

| Immunity to conducted interference | Immunity test in accordance with EN 61000-6-2/IEC 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V |
|------------------------------------|--|
| Interference emission              | Noise emission test in accordance with EN 61000-6-4/IEC 61000-6-4<br>Class A   |
| Protection class                   | III (IEC 61140, EN 61140, VDE 0140-1)  |
| Environmental Product Compliance   |  |

| REACh SVHC | Lead 7439-92-1 |
|------------|----------------|

## Drawings

#### Connection diagram



#### Dimensional drawing



### Classifications

#### eCl@ss

| eCl@ss 10.0.1 | 27242601 |
|---------------|----------|
| eCl@ss 11.0   | 27242601 |
| eCl@ss 4.0    | 27250300 |
| eCl@ss 4.1    | 27250300 |
| eCl@ss 5.0    | 27250300 |
| eCl@ss 5.1    | 27242600 |
| eCl@ss 6.0    | 27242600 |
| eCl@ss 7.0    | 27242601 |
| eCl@ss 9.0    | 27242601 |

#### ETIM

| ETIM 3.0 | EC001596 |
|----------|----------|
| ETIM 4.0 | EC001596 |



### Classifications

#### ETIM

| ETIM 6.0 | EC001596 |
|----------|----------|
| ETIM 7.0 | EC001596 |

#### UNSPSC

| UNSPSC 6.01   | 43172015 |
|---------------|----------|
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11     | 43172015 |
| UNSPSC 12.01  | 43201404 |
| UNSPSC 13.2   | 32151602 |
| UNSPSC 18.0   | 32151602 |
| UNSPSC 19.0   | 32151602 |
| UNSPSC 20.0   | 32151602 |
| UNSPSC 21.0   | 32151602 |

## Approvals

#### Approvals

#### Approvals

UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

#### Approval details

| UL Listed  | UL<br>LISTED   | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 140324 |
|------------|----------------|---|---------------|
| cUL Listed | c UL<br>LISTED | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 140324 |
| EAC        | EAC            |   | EAC-Zulassung |

01/17/2022 Page 5 / 8



#### Approvals

cULus Listed

CUL US

#### Accessories

Accessories

Installation terminal block

Connection terminal block - AKG 4 GNYE - 0421029



Connection terminal block, nom. voltage: 300 V, nominal current: 41 A, connection method: Screw connection, Rated cross section: 4 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 6 mm<sup>2</sup>, mounting: Neutral busbar, color: green-yellow

Connection terminal block - AKG 4 BK - 0421032



Connection terminal block, nom. voltage: 300 V, nominal current: 41 A, connection method: Screw connection, Rated cross section: 4 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 6 mm<sup>2</sup>, mounting: Neutral busbar, color: black

Neutral conductor rail

Neutral busbar - NLS-CU 3/10 SN 1000MM - 0402174



Neutral busbar, DIN VDE 0611-4: 1991-02, material: Copper, tin-plated, color: silver

Pick-off terminal block



#### Accessories

Connection terminal block - AK 4 - 0404017



Connection terminal block, connection method: Screw connection, Rated cross section: 4 mm<sup>2</sup>, cross section: 0.5 mm<sup>2</sup> - 6 mm<sup>2</sup>, mounting: Neutral busbar, color: silver

#### Shield connection clamp

Shield connection clamp - SK 8 - 3025163



Shield connection clamp, for shield on busbars, contact resistance < 1 m $\Omega$ 

Shield connection clamp - SK 14 - 3025176



Shield connection clamp, for shield on busbars, contact resistance < 1 m $\Omega$ 

Shield connection clamp - SK 20 - 3025189



Shield connection clamp, for shield on busbars, contact resistance < 1 m $\Omega$ 

Shield connection clamp - SK 35 - 3026463



Shield connection clamp, for shield on busbars, contact resistance < 1 mΩ

01/17/2022 Page 7 / 8



#### Accessories

Support

Support bracket - AB-SK - 3025341



Support bracket for busbars

Support bracket - AB-SK 65 - 3026489



Support bracket, Bracket for busbars, set every 20 cm, length: 95.5 mm, width: 6.2 mm, number of positions: 1, color: gray

Support bracket - AB-SK/E - 3026476



Support bracket, Bracket for busbars, set every 20 cm, length: 10 mm, width: 56 mm, height: 20 mm, number of positions: 2, color: silver

Phoenix Contact 2022 © - all rights reserved http://www.phoenixcontact.com