

## I/O module - IB ST 24 AO 4/EF - 2700839

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>)



INTERBUS-ST analog output module, 4 outputs, 0 - 10 V,  $\pm 10$  V, 0 - 20 mA, 4 - 20 mA, consisting of: terminal part with screw connection and module electronics

**RoHS**

### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 046356 660501 |
| GTIN                                 | 4046356660501                                                                                           |
| Weight per Piece (excluding packing) | 580.000 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  | 118 mm |
| Height | 116 mm |
| Depth  | 117 mm |

#### Ambient conditions

|                                         |                                |
|-----------------------------------------|--------------------------------|
| Ambient temperature (operation)         | -25 °C ... 55 °C               |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C               |
| Permissible humidity (operation)        | 10 % ... 95 % (non-condensing) |

# I/O module - IB ST 24 AO 4/EF - 2700839

## Technical data

### Ambient conditions

|                                          |                                                   |
|------------------------------------------|---------------------------------------------------|
| Permissible humidity (storage/transport) | 10 % ... 95 % (non-condensing)                    |
| Air pressure (operation)                 | 80 kPa ... 106 kPa (up to 2000 m above sea level) |
| Air pressure (storage/transport)         | 80 kPa ... 106 kPa (up to 2000 m above sea level) |
| Degree of protection                     | IP20                                              |

### General

|                      |                                                                              |
|----------------------|------------------------------------------------------------------------------|
| Mounting type        | DIN rail mounting                                                            |
| Net weight           | 585 g                                                                        |
| Operating mode       | Process data mode with 4 words                                               |
| Diagnostics messages | Failure of the internal I/O supply I/O error message sent to the bus coupler |
|                      | F1 fuse failure I/O error message sent to the bus coupler                    |
|                      | I/O supply failure I/O error message sent to the bus coupler                 |

### Interfaces

|                      |                        |
|----------------------|------------------------|
| Designation          | ST local bus           |
| Number               | 2                      |
| Connection method    | ST local bus connector |
| Transmission speed   | 500 kbps               |
| Transmission physics | Copper                 |

### Power supply for module electronics

|                     |                                |
|---------------------|--------------------------------|
| Connection method   | ST local bus connector         |
| Designation         | Communications power           |
| Supply voltage      | 9 V DC (from the ST local bus) |
| Current consumption | typ. 54 mA                     |
|                     | max. 80 mA                     |
| Power consumption   | typ. 0.5 W                     |
| Designation         | U <sub>S</sub>                 |
| Voltage             | 24 V DC                        |

### Analog outputs

|                                 |                             |
|---------------------------------|-----------------------------|
| Number of outputs               | 4 (Voltage or current)      |
| Connection technology           | 2, 3-conductor              |
| Output name                     | Analog outputs              |
| D/A conversion time             | max. 1 ms (incl. slew rate) |
| D/A converter resolution        | 12 bit                      |
| Type of protection              | Transient protection        |
| Protective circuit/component    | Suppressor diode            |
| Representation of output values | 16 bit two's complement     |

## I/O module - IB ST 24 AO 4/EF - 2700839

### Technical data

#### Analog outputs

|                                 |                                  |
|---------------------------------|----------------------------------|
| Current output signal           | 0 mA ... 20 mA (SF and SF4 mode) |
|                                 | 4 mA ... 20 mA (Mode SF4)        |
| Load/output load current output | to 500 $\Omega$                  |
| Voltage output signal           | -10 V ... 10 V (Mode BP)         |
|                                 | 0 V ... 10 V (SF and SF4 mode)   |
| Load/output load voltage output | > 2 k $\Omega$                   |

#### Electrical isolation

|              |                                                       |
|--------------|-------------------------------------------------------|
| Test section | Bus/Outputs 500 V AC 50 Hz 1 min.                     |
|              | Supply voltage/Outputs 500 V AC 50 Hz 1 min.          |
|              | Supply voltage/Ground conductor 500 V AC 50 Hz 1 min. |
|              | I/O voltage/Ground conductor 500 V AC 50 Hz 1 min.    |

#### Standards and Regulations

|                                    |                                                                                                                                                                                                                                     |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunity to ESD                    | Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 Criterion B, 6 kV contact discharge, 8 kV air discharge                                                                |
| Immunity to EF                     | Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, Field intensity: 10 V/m                                                                                          |
| Immunity to burst                  | Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B, 2 kV                                                                                                            |
| Immunity to surge                  | Noise immunity test in accordance with EN 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B, supply lines DC: $\pm 0.5$ kV/ $\pm 0.5$ kV (symmetrical/asymmetrical), $\pm 1$ kV to shielded I/O cables |
| Immunity to conducted interference | Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V                                                                                                |
| Interference emission              | Noise emission test as per EN 61000-6-4 EN 55011 Class A                                                                                                                                                                            |
| Protection class                   | III (IEC 61140, EN 61140, VDE 0140-1)                                                                                                                                                                                               |

#### Environmental Product Compliance

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| REACH SVHC | Lead 7439-92-1                                                                                      |
| China RoHS | Environmentally Friendly Use Period = 50 years                                                      |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

### Classifications

#### eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27242601 |
| eCl@ss 11.0   | 27242601 |
| eCl@ss 4.0    | 27250300 |

## I/O module - IB ST 24 AO 4/EF - 2700839

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| 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 |
| 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 |