

# FB2-S1-12SP-T-0-16-00-0-0 - Junction box



2316417

<https://www.phoenixcontact.com/us/products/2316417>

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Stainless steel field junction box with 16 ports for use in hazardous locations. Includes 12-spur block device coupler (FB-12SP) for Foundation Fieldbus or PROFIBUS PA, three terminal blocks for trunk cable connection (+, -, S).

## Product description

FF/PA - 12-spur block junction box

## Your advantages

- Single-sided plug configuration eliminates cable bend radius issues
- Provides current limiting short-circuit protection per spur
- Connect up to 12 Foundation Fieldbus or PROFIBUS PA field devices
- Terminator preinstalled

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2316417       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | DN11          |
| Product key                          | DNC1Z1        |
| GTIN                                 | 4055626301754 |
| Weight per piece (including packing) | 8,140 g       |
| Weight per piece (excluding packing) | 6,540 g       |
| Customs tariff number                | 85371098      |
| Country of origin                    | US            |

## Technical data

### Notes

#### Utilization restriction

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

### Product properties

|              |             |
|--------------|-------------|
| Product type | Control box |
|--------------|-------------|

### Electrical properties

#### Supply

|                          |                  |
|--------------------------|------------------|
| Max. current consumption | 6.5 mA (No-load) |
|                          | 680 mA (trunk)   |

### Ex data

#### Safety data

|   |                        |
|---|------------------------|
| Input voltage $U_i$   | 32 V (IIB (C/D))       |
|   | 24 V (IIC (A/B))       |
|   | 17.5 V (FISCO)         |
| Inductance $L_i$  | 4 $\mu$ H              |
| Capacitance $C_i$   | 0 $\mu$ F              |
| Max. output voltage $U_o$   | $U_{in}$ (Branch line) |
| Max. output current $I_o$   | 56 mA (per spur)       |
| Max. output power $P_o$   | 1.792 W                |
| Safety-related maximum voltage $U_m$  | 17.5 V                 |
| IIC/IIB (per spur): Max. external inductivity $L_o$ / Max. external capacitance $C_o$ | / 80 nF                |
|   | 0.26 mH                |

### Interfaces

|        |                     |
|--------|---------------------|
| Signal | FOUNDATION Fieldbus |
|        | PROFIBUS            |

#### Data

|                                       |  |
|---------------------------------------|--|
| No. of channels                       | 12   |
| Termination resistor                  | Integrated termination, activated with bridge located in correct terminals |
| Conductor cross-section flexible max. | 2.5 mm <sup>2</sup>  |
| Conductor cross-section flexible min. | 0.2 mm <sup>2</sup>  |
| Conductor cross-section, rigid max.   | 2.5 mm <sup>2</sup>  |
| Conductor cross-section, rigid min.   | 0.2 mm <sup>2</sup>  |
| Conductor cross-section AWG max.      | 12   |
| Conductor cross-section AWG min.      | 24   |

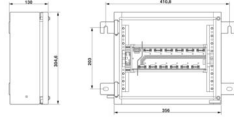
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## Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 355.6 mm   |
| Height              | 304.8 mm   |
| Depth               | 127 mm   |

## Material specifications

|                  |                            |
|------------------|----------------------------|
| Color (Housing)  | white aluminium (RAL 9006) |
| Housing material | Stainless steel            |

## Mechanical tests

|   |   |
|---|---|
| Corrosive resistance in accordance with ANSI-ISA 71.04-1985 - Severity level G3 | : |
|---|---|

## Environmental and real-life conditions

### Ambient conditions

|  |                         |
|--|-------------------------|
| Degree of protection                           | IP66                    |
| Ambient temperature (operation)                | -40 °C ... 70 °C        |
| Ambient temperature (storage/transport)        | -40 °C ... 70 °C        |
| Altitude                                       | 2000 m                  |
| Max. permissible relative humidity (operation) | < 95 % (non-condensing) |

## Approvals

### Conformity/Approvals

|             |                                       |
|-------------|---------------------------------------|
| Conformance | CE-compliant, additionally EN 61326-1 |
|-------------|---------------------------------------|

### Ex data

|                  |  |
|------------------|--|
| ATEX             | DEMKO 16ATEX1704X II 3 G D<br>Ex nA [ic] IIC T4 Gc, Ex nA nC [ic] IIC T4 Gc<br>Ex ic IIC T4 Gc, FISCO ic spurs<br>Ex tc IIIC T135 Dc IP66                                      |
| IECEX            | IECEX UL 16.0079X<br>Ex nA [ic] IIC T4 Gc, Ex nA nC [ic] IIC T4 Gc<br>Ex ic IIC T4 Gc, FISCO ic spurs<br>Ex tc IIIC T135 Dc IP66   |
| UL, USA / Canada | Class I, Zone 2, AEx nA [ic] IIC T4 Gc, AEx nA nC [ic] IIC T4 Gc<br>Entity/FISCO spurs<br>Class I, Div. 2, Groups A, B, C, D, T4<br>Class I, Zone 22, AEx tc IIIC T135 Dc IP66 |

## Standards and regulations

### Standards

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|                       |             |
|-----------------------|-------------|
| Standards/regulations | EN 61326-1  |
|                       | EN 60079-0  |
|                       | EN 60079-11 |
|                       | EN 60079-15 |

## Mounting

|               |                |
|---------------|----------------|
| Mounting type | Panel mounting |
|---------------|----------------|

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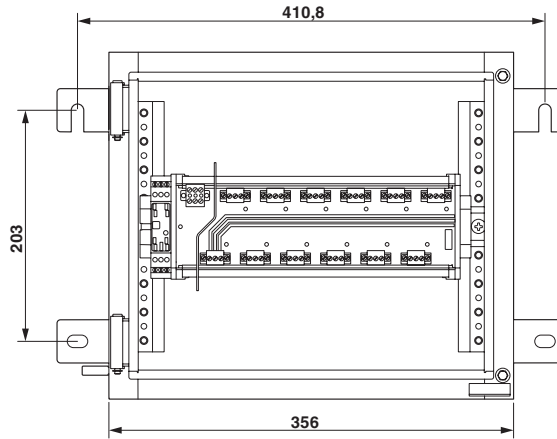
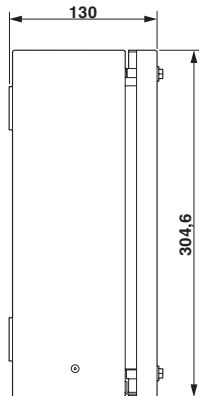


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## Drawings

Dimensional drawing



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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27180101 |
| ECLASS-15.0 | 27180101 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC000261 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 31261500 |
|-------------|----------|

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## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes                |
| Exemption                               | 6(c), 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.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | fb626b23-d6c7-4048-85ac-e27bf290cd8a |

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