

## Distributed I/O device - FLM DIO 16/16 M12/8-DIAG - 2736738

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The local bus device has digital inputs and outputs. Functions: 16 digital inputs, 3 ms filter time, 16 digital outputs of 500 mA each, 500 kbaud/2 Mbaud selection, diagnostics strategy, short-circuit/overload protection, 8-pos. M12 fast connection technology.

### Product Features

- Flexible power supply concept
- SPEEDCON fast locking system
- Short-circuit and overload protection
- Diagnostic and status indicators
- Consistent connection via M12 connectors



### Key commercial data

|                                      |           |
|--------------------------------------|-----------|
| Packing unit                         | 1 pc      |
| Weight per Piece (excluding packing) | 448.6 GRM |
| Custom tariff number                 | 85176200  |
| Country of origin                    | Germany   |

### Technical data

#### Note

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

#### Dimensions

|                    |        |
|--------------------|--------|
| Width              | 70 mm  |
| Height             | 178 mm |
| Depth              | 50 mm  |
| Drill hole spacing | 168 mm |

#### Ambient conditions

|                                 |                  |
|---------------------------------|------------------|
| Ambient temperature (operation) | -25 °C ... 60 °C |
|---------------------------------|------------------|

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#### Ambient conditions

|  |   |
|--|---|
| Ambient temperature (storage/transport)  | -25 °C ... 85 °C                                  |
| Permissible humidity (storage/transport) | 95 %  |
| Air pressure (operation)                 | 80 kPa ... 106 kPa (up to 2000 m above sea level) |
| Air pressure (storage/transport)         | 70 kPa ... 106 kPa (up to 3000 m above sea level) |
| Degree of protection                     | IP65/IP67   |

#### General

|                  |                                      |
|------------------|--------------------------------------|
| Weight           | 400 g                                |
| Mounting type    | Wall mounting                        |
| Protection class | III, IEC 61140, EN 61140, VDE 0140-1 |
| Test section     | To I/O 500 V DC 1 min                |

#### Interfaces

|                              |                        |
|------------------------------|------------------------|
| Designation                  | Fieldline local bus    |
| Connection method            | M12 connector, B-coded |
| Designation connection point | Copper cable           |
| Transmission speed           | 500 kBit/s / 2 MBit/s  |
| Number of positions          | 5                      |

#### Power supply for module electronics

|                      |  |
|----------------------|--|
| Connection method    | M12 connector                          |
| Designation          | $U_L$                                  |
| Supply voltage       | 24 V DC                                |
| Supply voltage range | 18 V DC ... 30 V DC (including ripple) |

#### Fieldline potentials

|                                |  |
|--------------------------------|--|
| Voltage supply $U_L$           | 24 V DC                                    |
| Power supply at $U_L$          | max. 4 A                                   |
| Current consumption from $U_L$ | max. 100 mA (At 2 Mbaud)                   |
|                                | typ. 80 mA (At 2 Mbaud)                    |
|                                | max. 75 mA (At 500 kBaud)                  |
|                                | typ. 60 mA (At 500 kBaud)                  |
| Voltage supply $U_S$           | 24 V DC                                    |
| Power supply at $U_S$          | max. 4 A                                   |
| Current consumption from $U_S$ | typ. 20 mA (plus power supply for sensors) |
|                                | max. 1.2 A                                 |
|                                | max. 1.2 A                                 |
| Voltage supply $U_{A11}$       | 24 V DC                                    |
| Power supply at $U_{A11}$      | max. 4 A                                   |

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#### Fieldline potentials

|                                  |            |
|----------------------------------|------------|
| Current consumption at $U_{A11}$ | typ. 15 mA |
|                                  | max. 4 A   |
| Voltage supply $U_{A12}$         | 24 V DC    |
| Power supply at $U_{A12}$        | max. 4 A   |
| Current consumption at $U_{A12}$ | typ. 15 mA |
|                                  | max. 4 A   |

#### Digital inputs

|                                    |   |
|------------------------------------|---|
| Input name                         | Digital inputs  |
| Connection method                  | M12 connector, 8-pos.   |
|                                    | 2, 3-wire   |
| Number of inputs                   | 16  |
| Protective circuit                 | Short-circuit protection, overload protection of the sensor supply Protection against polarity reversal |
| Filter time                        | 3 ms  |
| Input characteristic curve         | IEC 61131-2 type 1  |
| Input voltage                      | 24 V DC   |
| Input voltage range "0" signal     | -30 V DC ... 5 V DC   |
| Input voltage range "1" signal     | 13 V DC ... 30 V DC   |
| Delay at signal change from 0 to 1 | 3 ms  |
| Delay at signal change from 1 to 0 | 3 ms  |

#### Digital outputs

|                                    |  |
|------------------------------------|--|
| Output name                        | Digital outputs  |
| Connection method                  | M12 connector, 8-pos.  |
|                                    | 2-wire   |
| Number of outputs                  | 16   |
| Protective circuit                 | Short-circuit protection, overload protection of the sensor supply Polarity protection diode |
| Maximum output current per channel | 500 mA   |

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27250302 |
| eCl@ss 4.1 | 27250302 |
| eCl@ss 5.0 | 27250302 |
| eCl@ss 5.1 | 27242604 |
| eCl@ss 6.0 | 27242604 |

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eCl@ss

|            |          |
|------------|----------|
| eCl@ss 7.0 | 27242604 |
| eCl@ss 8.0 | 27242604 |

ETIM

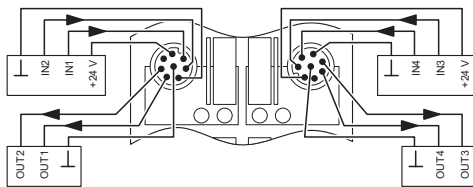
|          |          |
|----------|----------|
| ETIM 2.0 | EC001430 |
| ETIM 3.0 | EC001599 |
| ETIM 4.0 | EC001599 |
| ETIM 5.0 | EC001599 |

UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 43172015 |
| UNSPSC 7.0901 | 43201404 |
| UNSPSC 11     | 43172015 |
| UNSPSC 12.01  | 43201404 |
| UNSPSC 13.2   | 43201404 |

## Drawings

Connection diagram



Dimensioned drawing

