

## Basic features

|                            |  |
|----------------------------|--|
| <b>Approval/Conformity</b> | CE<br>cULus<br>EAC<br>WEEE   |
| <b>Scope of delivery</b>   | Part label (20x)<br>Port cover M12 (4x)<br>Grounding strap<br>Lock washer<br>Short guide<br>M4x6 screw |
| <b>Style</b>               | Two-row  |

## Display/Operation

|  |            |
|--|------------|
| <b>IO-Link communication indicator</b> | Green LED  |
| <b>Module supply indicator</b>         | Green LED  |
| <b>Sensor supply US indicator</b>      | Green LED  |
| <b>Switching function display</b>      | LED yellow |

## Electrical connection

|                                    |                                       |
|------------------------------------|---------------------------------------|
| <b>Connection (COM 1)</b>          | M12x1-Male, 4-pin, A-coded            |
| <b>Connection slots</b>            | 8x M12x1-Female, 5-pin, A-coded       |
| <b>Contact, surface protection</b> | nickel plated 2 µm/gold plated 0.4 µm |

## Electrical data

|   |               |
|---|---------------|
| <b>Burst</b>                                    | 4A            |
| <b>Configurable inputs/outputs</b>              | no            |
| <b>Current consumption without load, max.</b>   | 90 mA         |
| <b>ESD</b>                                      | 3A            |
| <b>IO-Link function</b>                         | Device        |
| <b>IO-Link ports, number</b>                    | 1             |
| <b>Operating voltage U<sub>b</sub></b>          | 18...30.2 VDC |
| <b>Rated operating voltage U<sub>e</sub> DC</b> | 24 V          |

I/O modules  
**BNI IOL-104-S01-Z012-C01**  
**Order Code: BNI003T**



**Environmental conditions**

|                                    |   |
|------------------------------------|---|
| <b>Ambient temperature</b>         | -5...70 °C  |
| <b>Ambient temperature UL max.</b> | 45 °C   |
| <b>EN 60068-2-6, Vibration</b>     | 61...500 Hz, constant acceleration 15 g<br>5...61 Hz, constant amplitude 1 mm |
| <b>Protection degree</b>           | IP67 when threaded in   |
| <b>Storage temperature</b>         | -25...70 °C   |

**Material**

|                           |                      |
|---------------------------|----------------------|
| <b>Gasket, material</b>   | FKM 75               |
| <b>Housing material</b>   | Zinc, Die casting    |
| <b>Housing shield</b>     | yes                  |
| <b>Surface protection</b> | Cu 15 µm<br>Ni 15 µm |

**Mechanical data**

|                              |                      |
|------------------------------|----------------------|
| <b>Dimension</b>             | 68 x 31.8 x 181.5 mm |
| <b>Mounting</b>              | 2-hole screw mount   |
| <b>Mounting ground strap</b> | M4 internal thread   |

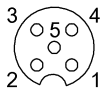
**Output/Interface**

|                                  |                        |
|----------------------------------|------------------------|
| <b>Additional function</b>       | Identification 2 bytes |
| <b>Cycle time min.</b>           | 3.0 ms                 |
| <b>Digital inputs</b>            | 16x PNP, Type 2        |
| <b>IO-Link version</b>           | 1                      |
| <b>Interface</b>                 | IO-Link 1.0            |
| <b>Process data IN</b>           | 6 bytes                |
| <b>Process data cycle min.</b>   | 18 ms                  |
| <b>Single-channel monitoring</b> | yes                    |
| <b>Transfer rate</b>             | COM2 (38.4 kBaud)      |

**Remarks**

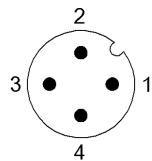
See short guide

**Connector Drawings**



**Input Ports**

- PIN 1: +24V, 100mA
- PIN 2: Input 2
- PIN 3: GND
- PIN 4: Input 1
- PIN 5: Function ground



**IO-Link**

- PIN 1: +24V
- PIN 2: n.c.
- PIN 3: GND
- PIN 4: C/Q, IO-Link DC-Channel