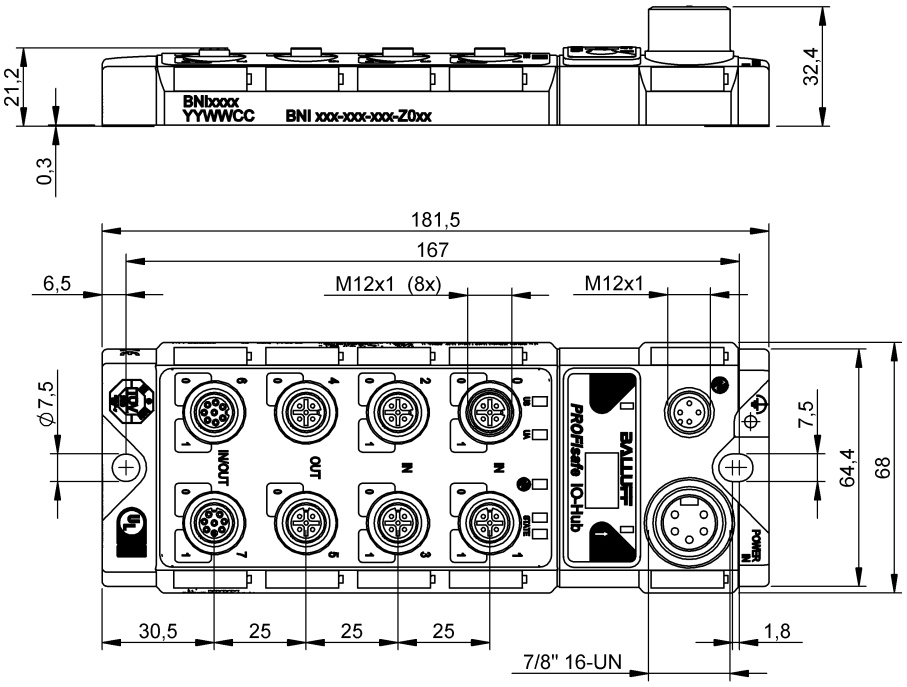
Safe Networking

BNI IOF-329-P02-Z038
Order Code: BNI0098

BALLUFF

SDRDR00002.SLDDRW



Basic features

Approval/Conformity	CE Safety cULus WEEE
Scope of delivery	Safety I/O module Part label (20x) Port cover M12 (4x) Grounding strap Lock washer M4x6 screw Short guide

Electrical connection

Connection (COM 1)	M12x1-Male, 4-pin, A-coded
Connection (supply voltage IN)	7/8"-Male, 5-pin
Connection slots	2x M12x1-Female, 8-pin, A-coded 6x M12x1-Female, 5-pin, A-coded

Electrical data

Burst	3A/4DS
ESD	4A
Operating voltage Ub	19.2...30 VDC
Output current max.	2 A
Total current max.	12.8 A

Environmental conditions

Ambient temperature	-5...55 °C
EN 60068-2-27, Shock	100 g, 6 ms
EN 60068-2-6, Vibration	15 g, 10…500 Hz
IP rating	IP67, when threaded in
Storage temperature	-25...70 °C

Safe Networking

BNI IOF-329-P02-Z038
Order Code: BNI0098

Functional safety

Device type (VDMA 66413)	1
HFT - Hardware failure tolerance (EN 62061)	1
MTTFd	1000 a
Mission Time	20 a
PFHd (EN 62061)	8 E-10 1/h
Performance Level	e
SFF Safe Failure Fraction (EN 62061)	90 %
SIL (IEC 61508)	3
Safety category (EN ISO 13849-1)	4
Type of the subsystem (EN/IEC 61508-2)	B

IO-Link

IO-Link Profil IDs	N/A

Interface

Digital inputs	14x PNP, Type 3
Digital outputs	2x PP 2x PNP
Interface	PROFIsafe over IO-Link 1.1
Number of safe inputs	12
Number of safe outputs	2
Transfer rate	COM2 (38.4 kBaud)

Material

Housing material	Zinc, Die casting, nickel-plated

Mechanical data

Dimension	68 x 32.4 x 181.5 mm

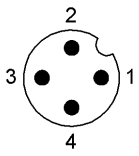
Range/Distance

Response time max.	20 ms

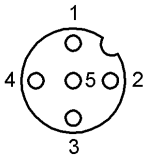
Remarks

see Manual

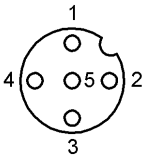
Connector Drawings



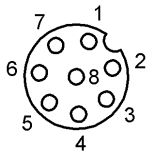
IO-Link port
PIN 1: +24 V IO-Link
PIN 2: n.c.
PIN 3: 0 V IO-Link (GND)
PIN 4: C/Q, IO-Link DC-Channel



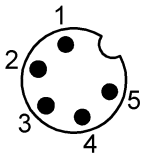
Safe inputs
PIN 1:U1/TPO1: +24 V, ≤500 mA
PIN 2: F-DI 2/Sln2
PIN 3: 0V / GND
PIN 4: F-DI 1/Sln1
PIN 5:U2/TPO2: +24 V, ≤200 mA



Safe outputs
PIN 1: n.c.
PIN 2: n.c.
PIN 3: UA: 0 V actuator voltage
PIN 4: F-DO 1: +24 V, ≤2 A
PIN 5: Function ground



Multi-function ports
PIN 1:U2/TPO2: +24 V, ≤200 mA
PIN 2: US: +24 V, ≤500 mA
PIN 3: F-DI 1/Sln1
PIN 4: F-DI 2/Sln2
PIN 5: DI 3
PIN 6:U1/TPO1: +24 V, ≤200 mA
PIN 7: 0V / GND
PIN 8: DO 1: +24 V, ≤2 A



Power Supplies
PIN 1: GND UA
PIN 2: GND US
PIN 3: Function ground
PIN 4: +24V, US
PIN 5: +24V, UA