

The Brad® HarshIO IP67 I/O modules provide a reliable solution for connecting industrial controllers to I/O devices in harsh environments



Brad® HarshIO 300 sDN

112092 DeviceNet Digital I/O Modules
Compact 30.00mm

Brad® HarshIO DeviceNet modules provide a reliable solution for connecting industrial controllers to I/O devices in harsh duty environments. Contained in an IP67 rated housing, Brad® I/O modules can be machine mounted and are able to withstand areas where liquids, dust or vibration may be present. This makes them ideally suited for many applications including material handling equipment and automated assembly machinery.

Advanced module features such as short-circuit detection, and visible diagnostic LEDs offer easy-of-use and operation simple. Following traditional industrial fieldbus practices, standard M8 or M12 connectors from sensing devices or actuators plug directly into the I/O module. An environmentally sealed IP67 connection between the I/O module and the CAN network is created using the Brad® Ultra-Lock® M12 connection system which is built into the Brad® HarshIO module.



FEATURES AND BENEFITS

- **ODVA certified**
- Rated IP67 for harsh environments
- Compact 30mm design allows space savings for direct machine mount applications
- Tested to vibrations and shocks
- Overmolded module electronics
- Metallic connectors
- Standard hole housing pattern allows for interchangeability with popular I/O modules
- Several I/O modules versions
- Module supply and input power via CAN bus
- Supports PNP & NPN input devices
- Visible diagnostic LEDs provide maintenance personnel with the ability to easily determine I/O, module & network status
- Advanced diagnostics
- Short-circuit diagnostics per I/O channel
- Complete module and channel diagnostics supported via DeviceNet
- Supports ODVA Group 2 DeviceNet Server Slave functionality
- Supports ADR and Quick-Connect
- Bus speed up to 500 Kbps
- Module addressing: 1 – 99 by rotary switches
- Built-in 2-port CAN for bus wiring topology



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LED INDICATORS

- Auxiliary Power:
 - Green - auxiliary power present
 - Red - reverse polarity
 - Off - auxiliary power not connected
- Input/Output (Ix/Ox):
 - Green - input/output on
 - Red - input/output fault
 - Off - input/output off
- DeviceNet Network Status (NET):
 - Green - operational
 - Green flash - connection not allocated
 - Red flash - recoverable network error
 - Red - bus off; unrecoverable network error
 - Off - auto bauding
- I/O Diagnostics Error (MOD):
 - Green - baud rate establishing, module OK
 - Green flash - auto bauding
 - Red - configuration error

APPLICATIONS

- Machine tool industry
- Material handling systems
- Filling & packaging machines
- Steel industry

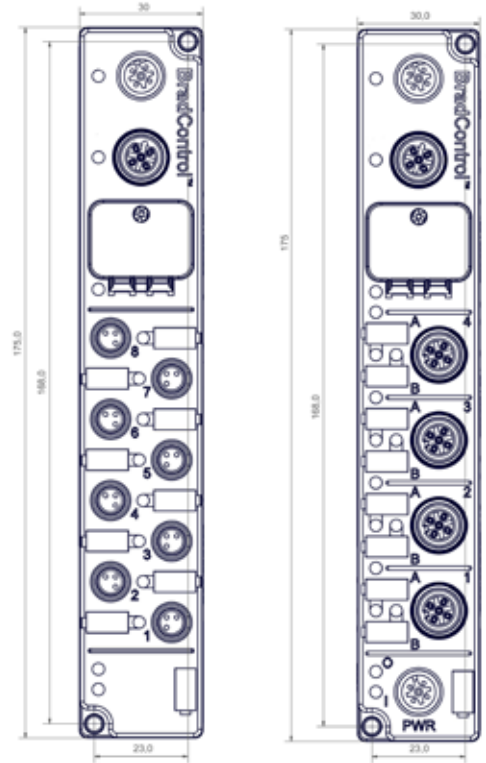


SPECIFICATIONS

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- I/O Configurations:
 - 8 inputs
 - 4 inputs / 4 outputs
- I/O Connectors:
 - Female, Ultra-Lock™ M12, A-Coded, 5-pole or
 - Female, M8, 3-pole
- Bus Connectors:
 - Bus In: Male, M12, A-Coded, 5-pole
 - Bus Out: Female, M12, A-Coded, 5-pole
- Auxiliary Power Connector:
 - Male, M12, A-Coded, 5-pole
- Power Requirements:
 - Module input power: 24V DC
 - Module output power: 24V DC (16 - 28V), 4.0A max per module
- Communication Rate:
 - Auto baud, 125, 250, 500 Kbaud
- Address Settings:
 - 1 – 63 by 2 rotary switches
- Fieldbus Specifications:
 - DeviceNet Slave
 - I/O data access method according Polled, Cyclic, COS, Bit Strobe
- Input Type:
 - Compatible with dry contact, PNP or NPN, 2/3-wire sensors
 - Electronic short circuit protection
- Input Delay: 3ms
- Input Device Supply:
 - 140mA per port at 25°C
- Output Load Current:
 - Maximum 1.0A per channel, max 4.0A per module
 - Electronic short circuit protection
- Maximum Switching Frequency: 200Hz
- Housing Dimensions:
 - 30x 175 x 20mm (1.18" x 6.89" x 0.78")
- Mounting Dimensions:
 - 23mm (0.91") horizontal on centers
 - 168mm (6.61") vertical on centers
 - Center hole
- Operating Temperature: -20 to +70°C
- Storage Temperature: -25 to +90°C
- RH Operating: 5 to 95% non-condensing
- EMC: IEC 61000-6-2
- Protection: IP67 according to IEC 60529
- Vibration: IEC 60068-2-6 conformance
- Mechanical Shock: 10G, 11ms, 3 axis
- Approvals: CE, UL, cUL, ODVA Certification



ORDERING INFORMATION

Order No.	Engineering No.	No. of Pins	No. of Ports	I/O Connectors	I/O Configurations		I/O Channels
					Input	Output	
112092-0018	TBDDN-480N-80U	5-pin-aux. power	4	M12	8	0	NPN
112092-5004	TBDDN-444N-88U				4	4	
112092-0007	TBDDN-480P-80U				8	0	PNP
112092-0006	TBDDN-444P-88U				4	4	
112092-0022	TBDDN-880N-804	-	8	M8	8	0	NPN
112092-0008	TBDDN-880P-804				8	0	PNP

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