

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

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Brad® HarshIO PROFIBUS 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 PROFIBUS network is created using the Brad® Ultra-Lock® M12 connection system which is built into the Brad® HarshIO module.

Brad® HarshIO 300 sPB

112038 PROFIBUS Digital I/O Modules
Compact 30.00mm



Brad® HarshIO 300 sPB I/O Modules Compact

FEATURES AND BENEFITS

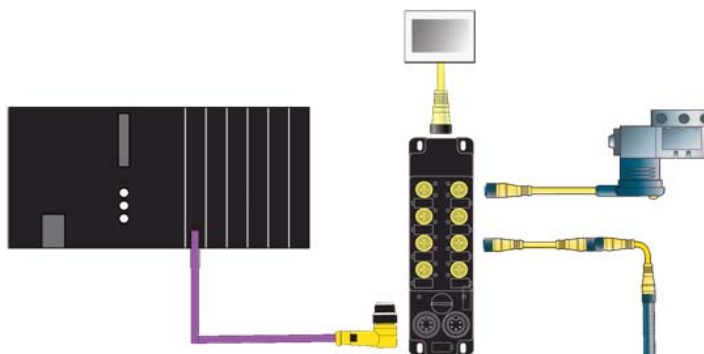
- **PNO certified**
- Rated IP67 for harsh environments
- Compact 30mm design allows space savings for direct machine mount applications
- Tested to vibrations and shocks
- Overmolded module electronics
- Metallic connectors
- 4 ports I/O version accepts standard M12 threaded or Brad Ultra-Lock connectors
- Standard hole housing pattern allows for interchangeability with popular I/O modules
- Supports PNP & NPN input devices
- Choose from several I/O configuration module versions
- 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 PROFIBUS
- Supports PROFIBUS DP-V0 Slave up to 12 Mbps
- Module addressing: 1 – 99 by rotary switches or 1 – 125 by Set_Slave_Address command
- Built-in 2-port PROFIBUS for bus wiring topology

LED INDICATORS

- Module & Input Power (I):
Green - power present
Off - power not connected
- Output Power (O):
Green - power present
Off - power not connected
- Digital Input/Output (Ix/Ox):
Green - input/output on
Red - input/output fault
Off - input/output off
- PROFIBUS Network Status (NET):
Green - running
Red - module not configured
- I/O Module Diagnostics (MOD):
Off - no fault
Red - fault

APPLICATIONS

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



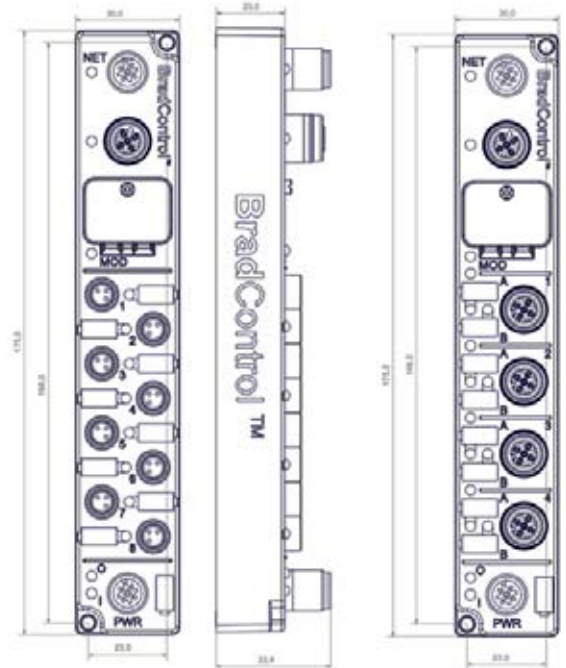
SPECIFICATIONS

Included Hardware / Software

- I/O Configurations:
 - 8 inputs
 - 8 outputs
 - 4 inputs / 4 outputs
 - 6 inputs / 2 outputs
- I/O Connectors:
 - Female, Ultra-Lock™ M12, A-Coded, 5-pole or
 - Female, M8, 3-pole
- Bus Connectors:
 - Bus In: Male, M12, B-Coded, 5-pole
 - Bus Out: Female, M12, B-Coded, 5-pole
- Power Connectors:
 - Power In: 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
 - All PROFIBUS baud rates up to 12 Mbaud
- Address Settings:
 - 1 - 99 by 2 rotary switches, or
 - 1 - 125 by Set_Slave_Address command
- Fieldbus Specifications:
 - PROFIBUS DP-V0 Slave according to EN 50170
- Input Type:
 - Compatible with dry contact, PNP or NPN, 2/3-wire sensors
 - Electronic short circuit protection
- Input Delay:
 - 3ms default or configurable through PROFIBUS slave parameter
- Input Device Supply:
 - 140mA per port at 25°C
- Output Load Current:
 - Maximum 1.4A per channel, max 4.0A per module
 - Electronic short circuit protection
- Maximum Switching Frequency: 200Hz
- Housing Dimensions:
 - 30x 175 x 20mm (1.18"x6.89"x0.78")
- Mounting Dimensions:
 - 23mm (0.91") horizontal on centers
 - 168mm (6.61") vertical on centers
 - Center hole
- Operating Temperature: -25 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, PNO Certification

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ORDERING INFORMATION

Order No.	Engineering No.	No. of Pins	No. of Ports	I/O Connectors	I/O Configurations		I/O Channels
					Input	Output	
112038-0009	TBDPB-480N-B8U	5-pin-power	4	M12 Ultra-Lock	8	0	NPN
112038-0007	TBDPB-462N-B8U				6	2	
112038-0005	TBDPB-444N-B8U				4	4	
112038-0011	TBDPB-480P-B8U				8	0	PNP
112038-0008	TBDPB-462P-B8U				6	2	
112038-0006	TBDPB-444P-B8U				4	4	
112038-0003	TBDPB-408P-B8U				0	8	
112038-0019	TBDPB-880N-B84	5-pin-power	8	M8	8	0	NPN
112038-0017	TBDPB-862N-B84				6	2	
112038-0015	TBDPB-844N-B84				4	4	
112038-0021	TBDPB-880P-B84				8	0	PNP
112038-0018	TBDPB-862P-B84				6	2	
112038-0016	TBDPB-844P-B84				4	4	
112038-0014	TBDPB-808P-B84				0	8	

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