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

Brad® HarshIO 600 eIP

112095 Brad® HarshIO 600 eIP
EtherNet/IP
Digital I/O Modules
Classic 60.00mm

Brad® HarshIO Ethernet 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 Built-in 2-port Ethernet switch, web-server capabilities and a flexible IP address setup method, make configuration and operation simple. Following traditional industrial fieldbus practices, standard 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 Ethernet network is created using the Brad® Ultra-Lock® connection system which is built into the Brad® HarshIO module.

FEATURES AND BENEFITS

- **ODVA certified**
- Rated IP67 for harsh environments
- Designed for direct machine mount applications
- Tested to vibrations and shocks
- Overmolded module electronics
- Metallic connectors
- 4-pole and 5-pole power connector versions
- Standard hole housing pattern allows for interchangeability with popular I/O modules
- Supports PNP & NPN input devices
- Several I/O configurations to choose including fixed and user configurable versions
- Visible diagnostic LEDs provide maintenance personnel with the ability to easily determine I/O, module & network status
- Supports EtherNet/IP Adapter
- Advanced diagnostics
- Short-circuit diagnostics per I/O channel
- Complete module and channel diagnostics supported via EtherNet/IP
- Scrolling 4 characters status display for IP addressing and modules status
- IP addressing: BOOTP (default), DHCP, or static (through web interface, push button, or EtherNet/IP 0xF5/0xF6 objects)
- Built-in 2-port Ethernet switch, 10/100 Mbps auto-sensing and crossover capability
- Built-in web server for remote monitoring, diagnostics and GSD download
- Configurable I/O capability (through EtherNet/IP EDS file)
- Watchdog with output reply state

Brad® HarshIO 600 eIP I/O Module Classic

LED INDICATORS

- Module & Input Power (I):
  Green - power present
  Red - power fault
  Off - power not connected
- Output Power (O):
  Green - power present
  Off - power not connected
- 4-Digit Display:
  Informs about Ethernet address, I/O and Watchdog status
- Input/Output (Ix/Ox):
  Green - input/output on
  Red - input/output fault
  Off - input/output off
- Ethernet Link (Port 1 & 2)
  Solid Green– Ethernet link at 100 Mbit/s without activity
  Flashing Green– Ethernet link at 100 Mbit/s with activity
  Solid Yellow– Ethernet link at 10 Mbit/s without activity
  Flashing Yellow – Ethernet link at 10 Mbit/s with activity

APPLICATIONS

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

SPECIFICATIONS

Brad® HarshIO 600 eIP

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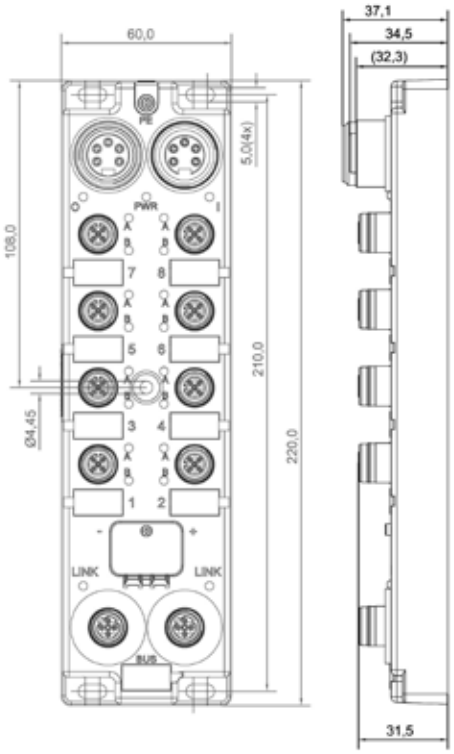
Classic 60.00mm

- I/O Configurations:
  - 16 inputs
  - 14 inputs / 2 outputs
  - 12 inputs / 4 outputs
  - 8 inputs / 8 outputs
  - 16 I/O Universal & User configureable
- I/O Connectors:
  - Female, Ultra-Lock® M12, A-Coded, 5-pole
- Bus Connectors:
  - Male, M12 Ultra-Lock®, D-Coded, 4-pole
- Power Connectors:
  - Power In: Male Mini-Change®, 4-pole or 5-pole
  - Power Out: Female, Mini-Change®, 4-pole or 5-pole
- Power Requirements:
  - Module input power: 24V DC
  - Module output power: 24V DC (16 to 28V), 8.0A max per module
- Communication Rate:
  - 10/100 Mbps auto-sensing, auto detecting, full duplex
- IP Address Capabilities:
  - BOOTP (default), DCP, static address
- Fieldbus Specifications:
  - EtherNet/IP Adapter
- Input Type:
  - Compatible with dry contact, PNP or NPN, 2/3-wire sensors
  - Electronic short circuit protection
- Input Delay:
  - 2.5ms default or configurable through EtherNet/IP
- Input Device Supply:
  - 200mA per port at 25°C
- Output Load Current:
  - Maximum 2.0A per channel
  - Electronic short circuit protection
- Maximum Switching Frequency: 200Hz
- Housing Dimensions:
  - 60 x 220 x 20mm (2.36"x 8.66"x 0.78")
- Mounting Dimensions:
  - 37.50mm (1.48") horizontal on centers
  - 210mm (8.270") vertical on centers
  - Center hole
- Operating Temperature: -20 to +70°C
- Storage Temperature: -40 to +85°C
- RH Operating: 5 to 95% non-condensing
- EMC: IEC 61000-6-2
- Protection:
  - IP67 according to IEC 60529, NEMA 6P
- Vibration:
  - MIL-STD-202F, method 204D, condition A
- Mechanical Shock:
  - MIL-STD-202F, method 213B, condition B
- Thermal Shock: MIL-STD-1344A
- Approvals:
  - CE, UL, cUL, ODVA



ORDERING INFORMATION

Order No.	Engineering No.	No. of Pins	No. of Ports	I/O Connectors	I/O Configurations		I/O Channels
					Input	Output	
1120955012	TCDEI-8D0N-DYU	4-pin-power	8	M12 Ultra-Lock	16	0	NPN
1120955013	TCDEI-8C2N-DYU				14	2	
1120955014	TCDEI-8B4N-DYU				12	4	
1120955015	TCDEI-888N-DYU				8	8	
1120955016	TCDEI-8D0P-DYU				16	0	PNP
1120955017	TCDEI-8C2P-DYU				14	2	
1120955018	TCDEI-8B4P-DYU				12	4	
1120955019	TCDEI-888P-DYU				8	8	
1120955020	TCDEI-8YYX-DYU				16 I/O User Configurable		Configurable
1120955003	TCDEI-8D0N-D1U	5-pin-power	8	M12 Ultra-Lock	16	0	NPN
1120955004	TCDEI-8C2N-D1U				14	2	
1120955005	TCDEI-8B4N-D1U				12	4	
1120955006	TCDEI-888N-D1U				8	8	
1120955007	TCDEI-8D0P-D1U				16	0	PNP
1120955008	TCDEI-8C2P-D1U				14	2	
1120955009	TCDEI-8B4P-D1U				12	4	
1120955010	TCDEI-888P-D1U				8	8	
1120955011	TCDEI-8YYX-D1U				16 I/O User Configurable		Configurable

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