

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

BradControl™ 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, BradControl 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 network 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 Ultra-Lock™ connection system which is built into the BradControl HarshIO module.

Brad® HarshIO 600 ePN

4-Pin and 5-Pin PROFINET IO Digital Modules

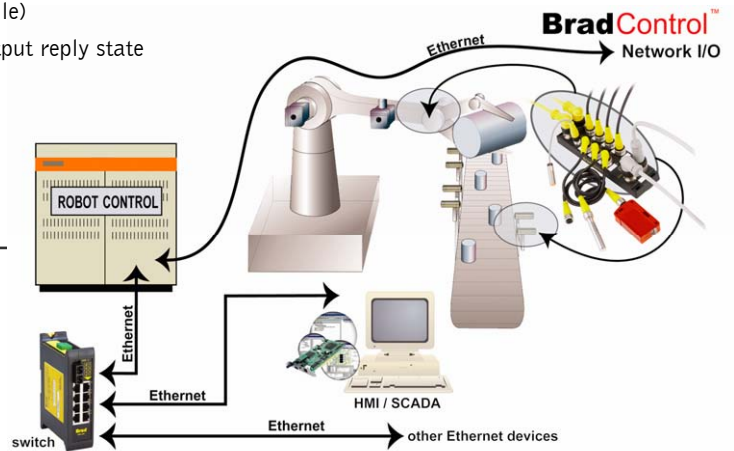


FEATURES AND BENEFITS

- Supports PROFINET IO according specification v2.2
- Accepts M12 threaded connectors or Brad Ultra-Lock connection system
- 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
- Scrolling 4 character status display for IP addressing and modules status
- Visible LEDs provide maintenance personnel with the ability to easily determine I/O, module & network status
- Error-memory for diagnostics via PROFINET
- Rated IP67 for harsh environments
- Designed for direct machine mount applications
- IP addressing: DCP or static (through web interface, push button & PROFINET command)
- Built-in 2-port Ethernet switch, 10/100 Mbps auto-sensing and crossover capability
- Built-in web server for remote monitoring, configuration and diagnostics
- Configurable I/O capability (through PROFINET GSD file)
- Watchdog with output reply state

APPLICATIONS

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



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

SPECIFICATIONS

Technical information

Protection:
IP67 according to IEC 60529, NEMA 6P

I/O Configurations:
16 inputs
14 inputs / 2 outputs
12 inputs / 4 outputs
8 inputs / 8 outputs
16 I/O Universal & user configurable

I/O Connectors:
Brad Ultra-Lock™ M12 female 5-pole, internally threaded

Ethernet Connectors:
Brad Ultra-Lock™ Ethernet M12 female, 4-pole D-coded acting as a switch, crossover capability

Power Connectors:
Power in: Male Mini-Change®, 5-pole
Power Out: Female, Mini-Change® 5-pole

Power Requirements:
Module input power: 24V DC
Module output power: 24V DC (13 to 8V), 8.0A max per module

Communication Rate:
10/100 Mbps auto-sensing, auto detecting, full duplex

IP Address Capabilities:
DCP (default), static address

Fieldbus Specifications:
PROFINET IO-Device (according to specification v2.2)

Input Type:
Compatible with dry contact and PNP or NPN 3-wire switches
Electronic short circuit protection

Input Delay:
2.5ms default or configurable through PROFINET messaging

Input Device Supply:
200mA per port at 25°C

Output Load Current:
Maximum 2.0A per channel
Electronic short circuit protection

Maximum Switching Frequency: 200 Hz

Housing Dimensions:
60x 220 x 20mm (2.36"x8.66"x.780")

Mounting Dimensions:
37.50mm (1.480") horizontal on centers
210mm (8.270") vertical on centers
Center hole

Operating Temperature: -20 to +70°C
Storage Temperature: -40 to +85°C

Vibration:
MIL-STD-202F, method 204D, condition A

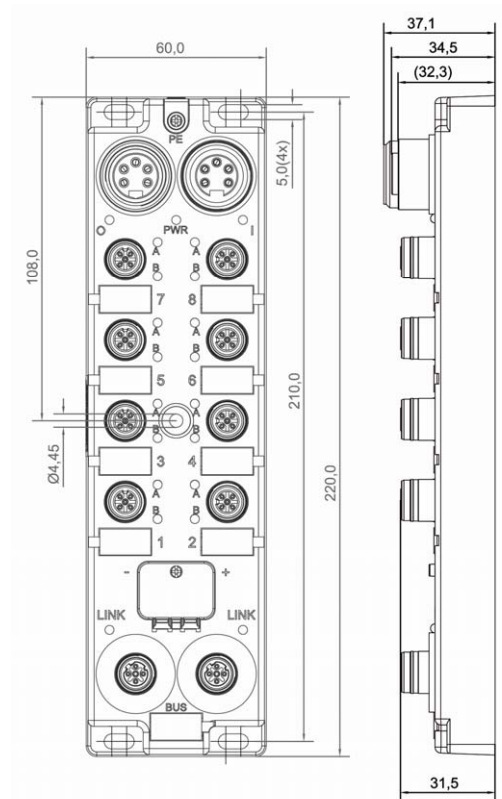
Mechanical Shock:
MIL-STD-202F, method 213B, condition B

Thermal Shock: MIL-STD-1344A

Approvals:
CE, UL, cUL, PROFINET Conformance tested

Brad® HarshIO 600 ePN

4-Pin and 5-Pin PROFINET IO Digital Modules



ORDERING INFORMATION

Order No.	Engineering No.	No. of Pins	No. of Ports	Connectors	I/O Configurations		I/O Channels
					Input	Output	
1120955029	TCDEP-8D0N-D1U	5-pin-power	8	M12 Ultra-Lock	16	0	NPN
1120955030	TCDEP-8C2N-D1U	5-pin-power	8	M12 Ultra-Lock	14	2	NPN
1120955031	TCDEP-8B4N-D1U	5-pin-power	8	M12 Ultra-Lock	12	4	NPN
1120955032	TCDEP-888N-D1U	5-pin-power	8	M12 Ultra-Lock	8	8	NPN
1120955033	TCDEP-8D0P-D1U	5-pin-power	8	M12 Ultra-Lock	16	0	PNP
1120955034	TCDEP-8C2P-D1U	5-pin-power	8	M12 Ultra-Lock	14	2	PNP
1120955035	TCDEP-8B4P-D1U	5-pin-power	8	M12 Ultra-Lock	12	4	PNP
1120955036	TCDEP-888P-D1U	5-pin-power	8	M12 Ultra-Lock	8	8	PNP
1120955037	TCDEP-8YYX-D1U	5-pin-power	8	M12 Ultra-Lock	16 I/O user configurable		Configurable