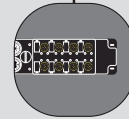# Compact 30mm I/O Modules

- 8 inputs
- 8 outputs
- 6 inputs / 2 outputs
- 4 inputs / 4 outputs

BradControl™ IP67 Compact 30mm I/O modules for PROFIBUS® provide a reliable solution for connecting industrial controllers to I/O devices in harsh environments.

Contained in a 30mm wide housing rated for IP67 environments, 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.

To facilitate input and output device wiring, two versions of the BradControl Compact 30mm I/O modules for PROFIBUS are available; an 8 port format using M8 style connectors and a 4 port format using standard M12 threaded connectors or the new BradConnectivity™ Ultra-Lock™ connection system, a "push-to-lock" method that provides a fast, simple and secure connection between the I/O module and I/O devices. With the Ultra-Lock connection system, performance and reliability are designed right into the connector! The unique radial seal design provides a reliable, operator independent seal each and every time. There's no chance for under– or over-tightening. When you hear and feel the connector click, you know it's locked in – there's no guesswork.
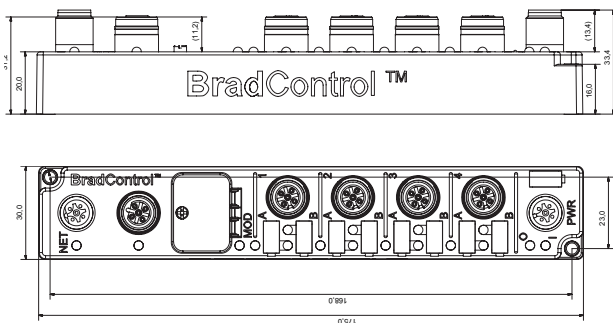
- Rated IP67 for harsh environments
- Designed for space savings in direct machine mount applications
- 4 port format uses standard M12 threaded connectors or BradConnectivity Ultra-Lock connection system
- Standard mounting hole pattern for interchangeability with popular I/O modules
- Supports PNP and NPN inputs
- Visible LEDs provide maintenance personnel with the ability to easily determine I/O, module and network status
- Module and channel diagnostics supported through Profibus
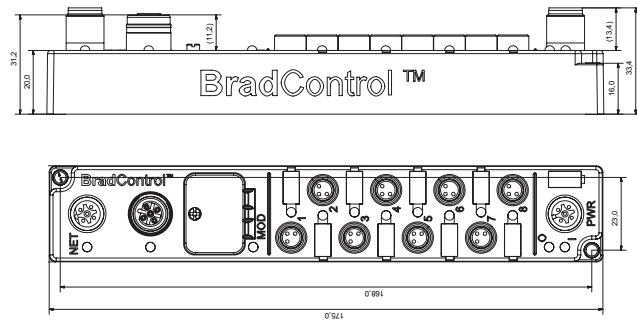- Supports Profibus Slave DP-V0 in accordance with EN 50170

MODULE DIMENSIONS

4 PORT FORMAT

8 PORT FORMAT

BradControl™
from Woodhead Industries

Specifications

I/O CONFIGURATIONS	8 inputs 4 inputs / 4 outputs	8 outputs 6 inputs / 2 outputs
I/O CONNECTOR	5 POLE FEMALE M12 BRAD CONNECTIVITY™ ULTRA-DOCK™ OR 3 POLE FEMALE THREADED M8 CONNECTORS	
BUS CONNECTOR	BUS IN: MALE REVERSE KEYWAY M12 5 POLE, B-CODED BUS OUT: FEMALE REVERSE KEYWAY M12 5 POLE, B-CODED BRAD CONNECTIVITY ULTRA-DOCK	
POWER CONNECTOR	POWER IN: MALE MICRO-CHANGE® M12 5 POLE	
EXTERNAL POWER REQUIREMENTS	MODULE & INPUT POWER: 24Vdc, DEVICE CURRENT + MODULE OUTPUT POWER: 24Vdc (3 W) 4 A MAX PER MODULE	
BAUD RATE SETTING	AUTO BAUD. ALL PROFIBUS® BAUD RATES UP TO 12 Mbaud	
ADDRESS SETTING	1 – 99 BY ROTARY SWITCHES 1 – 126 BY SET SLAVE ADDRESS COMMAND	
INPUT TYPE	DRY CONTACT, PNP OR NPN	
INPUT DELAY	3 ms	
INPUT DEVICE SUPPLY	400 mA PER PORT AT 8	
OUTPUT LOAD CURRENT	SOURCING, MAX 1 A PER CHANNEL MAX 4 A PER MODULE	
MAXIMUM SWITCHING FREQUENCY	0 Hz	
HOUSING DIMENSIONS	40x202 mm (1.8 X 8.9 INCHES)	
MOUNTING DIMENSIONS	23 mm (9.1 INCHES) HORIZONTAL ON CENTERS 8 mm (6 INCHES) VERTICAL CENTERS	
OPERATING TEMPERATURE	-25 TO 70 C (-13 TO 158 F)	
STORAGE TEMPERATURE	-25 TO 90 C (-13 TO 194 F)	
RH OPERATING	5 TO 95% NON-CONDENSING	
EMC	IEC 61131-2	
PROTECTION	IP67 ACCORDING TO IEC 60	
ICON	IEC 61131-2 CONFORMANCE	
SHOCK	0 G, 11 ms, 3 AXIS	
INPUT SIGNAL VOLTAGE	"0": -2 – 7 VOLTS / "1": 9 – 30 VOLTS	
OUTPUT VOLTAGE	AUXILIARY POWER VALUE – 1 VOLT	
APPROVALS	CE, UL, CUL, NO CERTIFICATION	

LED Indicators

PROFIBUS Network Status (NET)
Green – running
Red – device not configured

I/O Module Diagnostics (MOD)
Off – no fault
Red - fault

Module & Input Power ()
Green – external supply present

Output Power ()
Green – external supply present

Input / Output
(Port: A to B
8 Port: 1 to 8)
Green – input / output on
Red – input / output fault

Ordering Information

PART NUMBER	PRODUCT DESCRIPTION	FIGURE	PART NUMBER	PRODUCT DESCRIPTION	FIGURE
TBDPB-480N-B8U	4 PORT M12 – 8 INPUTS NPN	1	TBDPB-880N-B84	8 PORT M8 – 8 INPUTS NPN	2
TBDPB-462N-B8U	4 PORT M12 – 6 INPUTS NPN / 2 OUTPUTS	1	TBDPB-862N-B84	8 PORT M8 – 6 INPUTS NPN / 2 OUTPUTS	2
TBDPB-444N-B8U	4 PORT M12 – 4 INPUTS NPN / 4 OUTPUTS	1	TBDPB-844N-B84	8 PORT M8 – 4 INPUTS NPN / 4 OUTPUTS	2
TBDPB-480P-B8U	4 PORT M12 – 8 INPUTS PNP	1	TBDPB-880P-B84	8 PORT M8 – 8 INPUTS PNP	2
TBDPB-462P-B8U	4 PORT M12 – 6 INPUTS PNP / 2 OUTPUTS	1	TBDPB-862P-B84	8 PORT M8 – 6 INPUTS PNP / 2 OUTPUTS	2
TBDPB-444P-B8U	4 PORT M12 – 4 INPUTS PNP / 4 OUTPUTS	1	TBDPB-844P-B84	8 PORT M8 – 4 INPUTS PNP / 4 OUTPUTS	2
TBDPB-408P-B8U	4 PORT M12 – 8 OUTPUTS - SOURCING	1	TBDPB-808P-B84	8 PORT M8 – 8 OUTPUTS - SOURCING	2

BEST SELECTION, FAST DELIVERY

BradConnectivity™ products offer the benefits of quick-disconnect – fast machine commissioning, the elimination of wiring errors, and simple device additions and replacements – to Profibus networks. Mini-Change® connectors are used to provide the quick-disconnect feature to the auxiliary power for active I/O modules. Reverse Key Micro-Change® connectors are used to connect the data line from one device to another. Input and output connections connect into the blocks via reliable Micro-Change family of products. Profibus standard 9-Pin D-Sub connectors are pre-connected and tested to eliminate wiring errors caused by tradi-tional hard wiring. Whether it's active I/O modules or simple terminators, Brad® products offer a complete package to make Profibus truly a "plug-and-play" network.

Quad Beam™ design of contacts assures consistent pressure is maintained over the life of the connector, assuring reliable performance

E-coated coupling nut for resistance to weld slag. Anti-vibration feature prevents back-out. Stainless steel optional for food/beverage or outdoor environments.

Gold over nickel plating for highest reliability

MICRO-CHANGE CONNECTORS

BUS-LINE CONNECTORS

Gold over nickel plating for highest reliability

Overmolded materials designed for industrial environments and provide stress relief

Nickel-plated brass coupling and shell assembly provides grounding for a fully shielded head design. Anti-vibration feature prevents back-out.

D-SUB CONNECTOR

INTERFACE CONNECTIONS

D-sub connector with termination switch provides flexibility in the field

Variety of data line connections

Overmolded construction for stress relief, moisture and cutting fluid resistance

For product & technical information visit www.woodhead.com/eCatalog

BradConnectivity™
from Woodhead Industries