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

PROFIBUS® Discrete I/O Modules

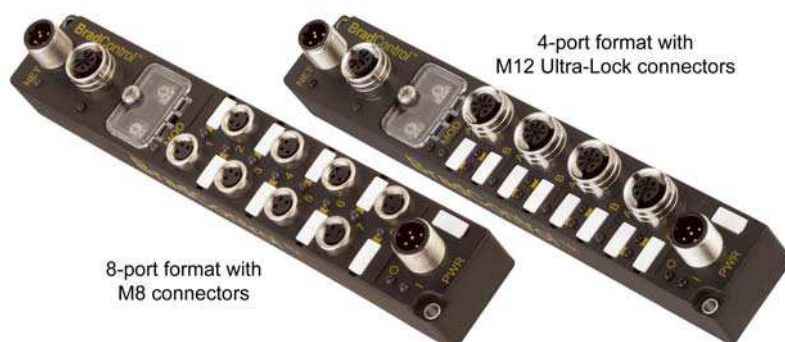
IP67 Compact 30mm Format

Features

- Compact design allows space savings for direct machine mount applications
- 4 port format uses standard M12 threaded connectors or BradConnectivity Ultra-Lock connection system
- Standard hole pattern allows for interchangeability with popular I/O modules
- Supports PNP and NPN inputs
- Choose from several I/O configurations
- Visible diagnostics through status LEDs
- Module and channel diagnostics supported through PROFIBUS
- Supports PROFIBUS Slave DP-V0 in accordance with EN 50170

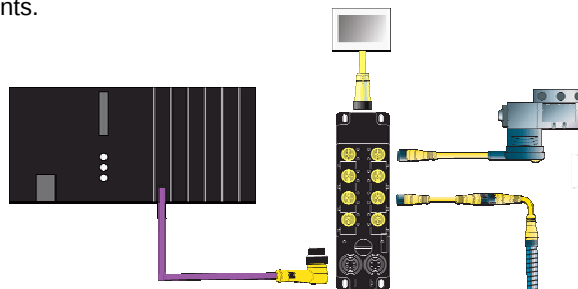
Typical Applications

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



I/O Systems for Harsh Environments

The BradControl™ 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 BradConnectivity™'s new 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.

Other features include the support of both PNP and NPN inputs and current sourcing outputs. Built-in diagnostic tools include the highly visible LEDs which provide maintenance personnel with the ability to easily determine I/O, module and network status.

PROFIBUS specific features include support of module and channel diagnostics through PROFIBUS and PROFIBUS Slave DP-V0 in accordance with EN 50170.

PROFIBUS® I/O Module



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 (I):

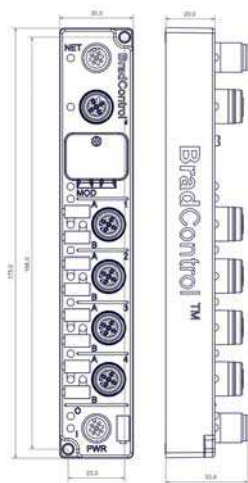
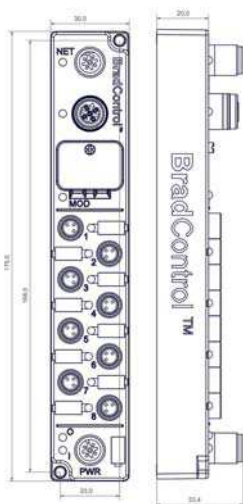
Green – external supply present

Input / Output:

(4 Port - 1A to 4B)

(8 Port - 1 to 8)

Green – input / output on
Red – input / output fault



Technical Information

I/O Configurations	8 inputs 8 outputs 4 inputs / 4 outputs 6 inputs / 2 outputs
I/O Connectors	5-pole female M12 BradConnectivity™ Ultra-Lock™ or 3-pole female threaded M8 connectors
Bus Connectors	Bus in: male reverse keyway M12 5-pole, B-Coded Bus out: female reverse keyway M12 5-pole, B-Coded
Power Connector	Power in: male Micro-Change® M12 5-pole
External Power Requirements	Module & input power: 24 Vdc, device current + module Output power: 24 Vdc (13 ... 28V), 4A max per module
Baud Rate Settings	Auto baud. All PROFIBUS® baud rates up to 12 Mbaud
Address Settings	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	140 mA per port at 25°C
Output Load Current	Sourcing, max 1.4 A per channel, max 4 A per module
Maximum Switching Frequency	200 Hz
Housing Dimensions	30 x 175 x 20 mm (1.18 x 6.89 x 0.78 inches)
Mounting Dimensions	23 mm (0.91 inches) horizontal on centers 168 mm (6.61 inches) vertical centers
Operating Temperature	-25°C to 70°C (-13°F to 158°F)
Storage Temperature	-25°C to 90°C (-13°F to 194°F)
RH Operating	5 to 95% non-condensing
EMC	IEC 61000-6-2
Protection	IP67 according to IEC 60529
Vibration	IEC 60068-2-6 conformance
Shock	10G, 11ms, 3 axis
Input Signal Voltage	"0": -2V ... 7 Volts / "1": 9 ... 30 Volts
Output Voltage	Auxiliary power value - 1 Volt.
Approvals	CE, UL, CUL, PNO certification

Ordering Information

Part Number	Product Description – Compact
TBDPB-480N-B8U	4 Port M12 – 8 inputs NPN
TBDPB-462N-B8U	4 Port M12 – 6 inputs NPN / 2 outputs
TBDPB-444N-B8U	4 Port M12 – 4 inputs NPN / 4 outputs
TBDPB-480P-B8U	4 Port M12 – 8 inputs PNP
TBDPB-462P-B8U	4 Port M12 – 6 inputs PNP / 2 outputs
TBDPB-444P-B8U	4 Port M12 – 4 inputs PNP / 4 outputs
TBDPB-408P-B8U	4 Port M12 – 8 outputs - sourcing
TBDPB-880N-B84	8 Port M8 – 8 inputs NPN
TBDPB-862N-B84	8 Port M8 – 6 inputs NPN / 2 outputs
TBDPB-844N-B84	8 Port M8 – 4 inputs NPN / 4 outputs
TBDPB-880P-B84	8 Port M8 – 8 inputs PNP
TBDPB-862P-B84	8 Port M8 – 6 inputs PNP / 2 outputs
TBDPB-844P-B84	8 Port M8 – 4 inputs PNP / 4 outputs
TBDPB-808P-B84	8 Port M8 – 8 outputs - sourcing

To contact us: www.woodhead.com

Reference Number: DW200585

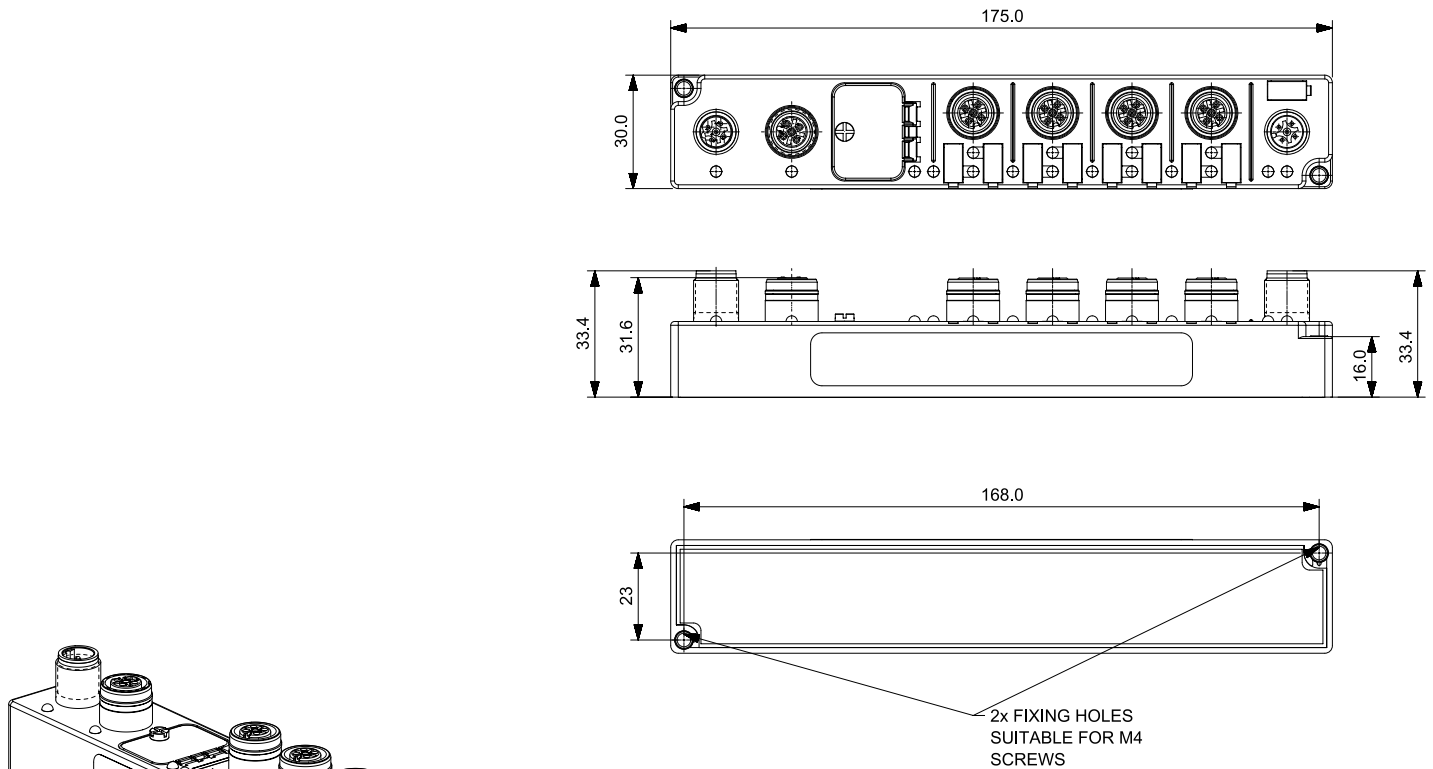
Date Published: September 2006

North America: US + 1-800-225-7724 - Canada, +1 (905) 624-6518

Europe: France, +33 (0)1 64 30 91 36 - Germany, +49 7252 94 96 0 - Italy, +39 026-6400321
United Kingdom, +44 1495 356300

Asia: China, +86 21-5835-9885 - Singapore, +65 6261-6533 - Japan, +81 3-5791-4621

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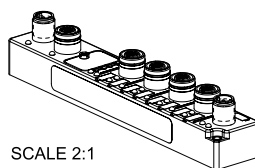


QUALITY SYMBOLS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
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▽ = 0			ULETENMEIER 2015/01/26								
▽ = 0			ANGULAR TOL ±	CHKD BY DATE				DBO PB 30 MM M12 5P MA BC U12 5P FE BC U12 5P 4PT FM AC M12 5P MA AC			
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▽ = 0						DOCUMENT NUMBER 1120380003 DOC TYPE PSD DOC PART 000 SHEET NUMBER 1 OF 3					

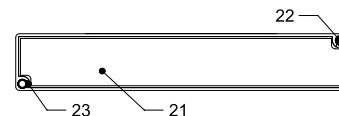
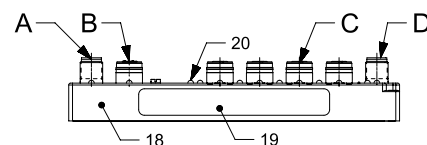
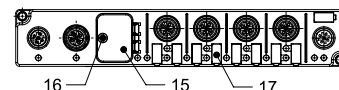
A BUS: 1x MALE M12 5P B-CODE WIRING INFORMATION: P1 - Power 5 VDC P2 - BUS A P3 - Ground P4 - BUS B P5 - Shield/PE		B BUS: 1x FEMALE M12 5P B-CODE WIRING INFORMATION: P1 - Power 5 VDC P2 - BUS A P3 - Ground P4 - BUS B P5 - Shield/PE		C OUTPUT / OUTPUT: 4X FEMALE M12 5P A-CODE WIRING INFORMATION: P1 - +24VDC P2 - B Input or Output P3 - Ground P4 - A Input or Output P5 - Shield/PE		D POWER: 1x MALE M12 5P AC-CODE WIRING INFORMATION: P1 - Module and Input power P2 - Output power P3 - Ground P4 - Ground P5 - Protected Earth	
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BILL OF MATERIAL

	ITEM	DESCRIPTION	MATERIAL	FINISH
C	1	CONTACT	COPPER ALLOY	GOLD OVER NICKEL
	2	INSERT	TPU	BLACK
	3	SHELL	BRASS	NICKEL PLATET
	4	SHELL	BRASS	NICKEL PLATET
	5	GASKET	FPM	RED
B	6	INSERT	TPU	BLACK
	7	CONTACT	COPPER ALLOY	GOLD OVER NICKEL
	8	SHELL	BRASS	NICKEL PLATET
	9	GASKET	FPM	RED
	10	INSERT	PUR	BLACK
	11	CONTACT	COPPER ALLOY	GOLD OVER NICKEL
	12	CONTACT	COPPER ALLOY	GOLD OVER NICKEL
	13	SHELL	BRASS	NICKEL PLATET
A	14	INSERT	TPU	BLACK
	15	WINDOW	PC	TRANSPARENT
	16	SCREW	V2A	V2A
	17	LABEL	PC	WHITE
	18	HOUSING	PBT	BLACK
	19	LABEL	PVC	YELLOW
	20	LED	PA	TRANSPARENT
	21	LABEL	PVC	WHITE
	22	SLEEVE	BRASS	NICKEL
	23	RESIN	EPOXY	TRANSPARENT



SCALE 2:1



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QUALITY SYMBOLS		2015/09/30	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION UNITS		SCALE		molex DBO PB 30 MM M12 5P MA BC U12 5P FE BC U12 5P 4PT FM AC M12 5P MA AC			
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■ = 0			A3								
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TABLE 1 UNIVERSAL PRINTING					
		PROFIBUS			
POWER TYPE	INPUT / OUTPUT	ENG.NO.	MOLEX P/N	3D MODEL NO.	
M12 MALE 5P	NPN	8I	TBDPB-480N-B8U	1120380009	1120380003 (PDM)
		6I/2O	TBDPB-462N-B8U	1120380007	
		4I/4O	TBDPB-444N-B8U	1120380005	
	PNP	8I	TBDPB-480P-B8U	1120380011	
		6I/2O	TBDPB-462P-B8U	1120380008	
		4I/4O	TBDPB-444P-B8U	1120380006	
		8O	TBDPB-408P-B8U	1120380003	

QUALITY SYMBOLS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									
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