

## Excellent Integrated System Limited

Stocking Distributor

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[Molex Connector Corporation](#)  
[1120380024](#)

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22 Apr. 10  
DW200584

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

## Features

- **NEW module version! 8 inputs + 8 universal (inputs or outputs)**
- Classic design allows space savings for direct machine mount applications
- 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



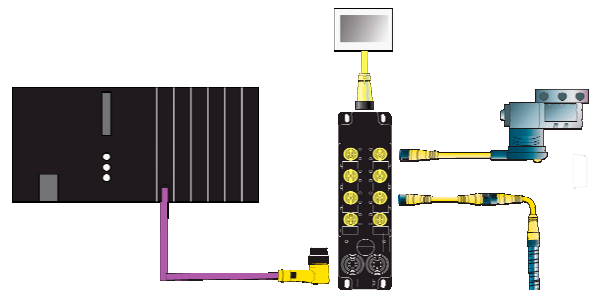
## PROFIBUS® Discrete I/O Modules

### IP67 Classic 60mm Format



### I/O Systems for Harsh Environments

The BradControl™ Classic 60mm I/O modules for PROFIBUS® provide a reliable solution for connecting industrial controllers to I/O devices in harsh environments.



Contained in a 60mm 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 BradControl Classic 60mm I/O modules accept standard threaded M12 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 BradConnectivity 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):

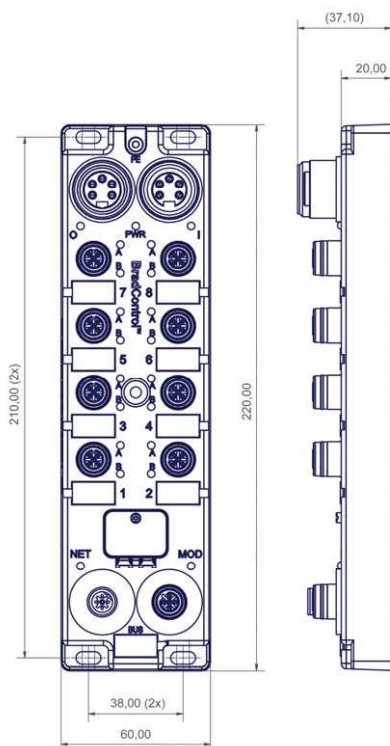
Green – external supply present

#### Output Power (O):

Green – external supply present

#### Input / Output (M12: 1A to 8B):

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



### Technical Information

I/O Configurations	16 inputs 14 inputs + 2 outputs 12 inputs + 4 outputs 8 inputs + 8 outputs 8 inputs + 8 configurable (inputs or outputs)
I/O Connectors	5-pole female M12 BradConnectivity™ Ultra-Lock™. Allows 2 input or 2 output channels per connector.
Bus Connectors	Bus in : male reverse-key M12 5-pole, B-Coded Bus out : female reverse-key M12 5-pole, B-Coded
Power Connectors	Power in : male Mini-Change® 5-pole Power out : female Mini-Change 5-pole
External Power Requirements	Module & input power : 24 Vdc, device current + module Output power : 24 Vdc (13 to 28 V), 8A max per module
Baud Rate Settings	Auto baud, All PROFIBUS® baud rates up to 12 MBaud
Address Settings	1 – 99 by rotary switches, (0 = factory default of 126) or 1 – 125 by Set_Slave_Address command
Input Type	Compatible with dry contact and PNP or NPN 3-wire switches. Electronic short circuit protection
Input Delay	0.5 ms
Input Device Supply	140 mA per port at 25°C
Output Load Current	Max 2.0 A per channel, electronic short circuit protection
Maximum Switching Frequency	200 Hz
Housing Dimensions	60mm x 220mm x 20mm (2.36 x 8.66 x .78 inches)
Mounting Dimensions	37.5 mm (1.48 inches) horizontal on centers 210 mm (8.27 inches) vertical on centers Center hole
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": -0.2 ↔ 5 Volts / "1": 10 ↔ 28 Volts
Output Voltage	Supply value less 1 Volt.
Approvals	CE, UL, CUL, PNO certification

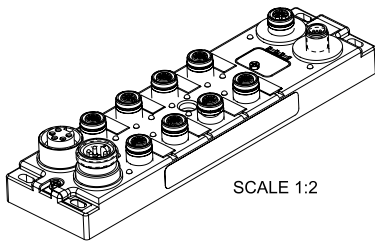
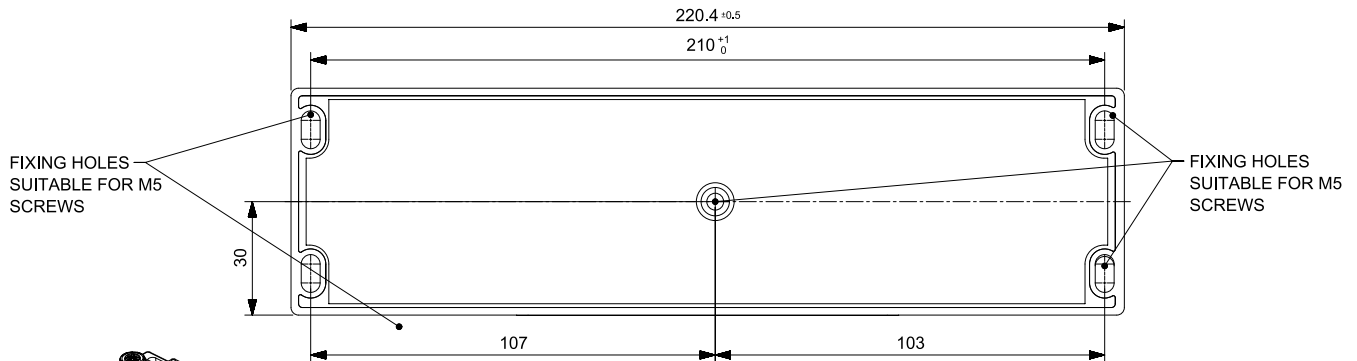
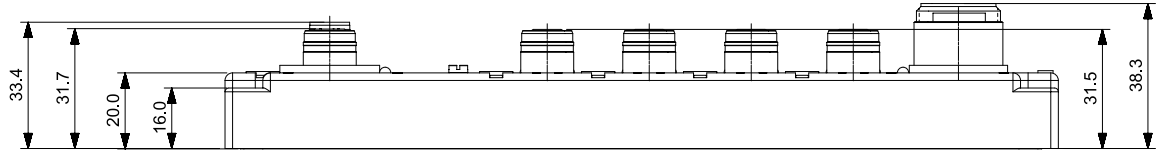
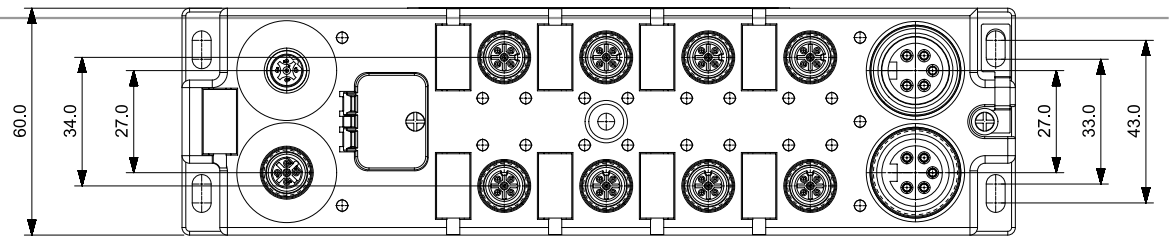
### Ordering Information

Part Number	SAP Number	Product Description
TCDPB-8D0N-B1U	1120380030	8 Port M12 – 16 inputs NPN
TCDPB-8C2N-B1U	1120380028	8 Port M12 – 14 inputs NPN + 2 sourcing outputs
TCDPB-8B4N-B1U	1120380026	8 Port M12 – 12 inputs NPN + 4 sourcing outputs
TCDPB-888N-B1U	1120380024	8 Port M12 – 8 inputs NPN + 8 sourcing outputs
TCDPB-8D0P-B1U	1120380031	8 Port M12 – 16 inputs PNP
TCDPB-8C2P-B1U	1120380029	8 Port M12 – 14 inputs PNP + 2 sourcing outputs
TCDPB-8B4P-B1U	1120380027	8 Port M12 – 12 inputs PNP + 4 sourcing outputs
TCDPB-888P-B1U	1120380025	8 Port M12 – 8 inputs PNP + 8 sourcing outputs
TCDPB-88UP-B1U	1120385004	8 Port M12 – 8 inputs PNP + 8 I/O configurable
















To contact us: [www.woodhead.com](http://www.woodhead.com)

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Europe: France: +33 2 32 96 04 20 – Germany: +49 7252 94 96 0 – Italy: +39 (02) 950551 – UK: +44 (1252) 720720  
Asia: China: +86 21-5048-0889 Singapore: +65 6-268-6868 – Japan: +81 46-265-2325 – Korea: +82 31-492-9000

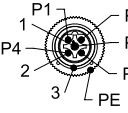
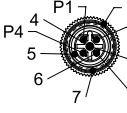
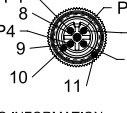
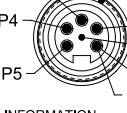
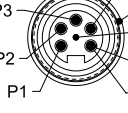
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SCALE 1:2

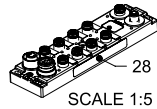
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 = 0			MM		1:1						
 = 0			DRWN BY		DATE						
 = 0			ULETTENMEIER		2015/01/19						
 = 0			ANGULAR TOL ±		DATE		DBO PB 60 MM 7/8" 5P AC MA FE U12 5P 8PT AC FE U12 5P 2PT BC				
 = 0			4 PLACES ±		CHKD BY						
 = 0			3 PLACES ±		DATE						
 = 0			2 PLACES ±		APPR BY						
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RELEASE STATUS	RO	RELEASE DATE	28.10.2015	17:28:47
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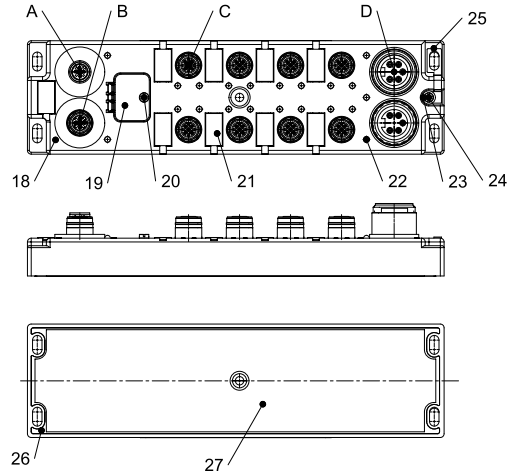
A BUS IN:		B BUS OUT:		C INPUTS / OUTPUTS:		D POWER IN		POWER OUT	
1x MALE M12 5P B-CODE		1x FEMALE M12 5P B-CODE		8x FEMALE M12 5P A-CODE		MALE 7/8" 5PIN		FEMALE 7/8" 5PIN	
<p>SCALE 1:1</p>  <p>WIRING INFORMATION</p> <p>1 - +5 VDC (Bus Power) 2 - Bus A 3 - 0 V (Ground) 4 - Bus B 5 - NC</p>		<p>SCALE 1:1</p>  <p>WIRING INFORMATION</p> <p>1 - +5 VDC (Bus Power) 2 - Bus A 3 - 0 V (Ground) 4 - Bus B 5 - NC</p>		<p>SCALE 1:1</p>  <p>WIRING INFORMATION</p> <p>P1 - +24 VDC P2 - B Input / Output P3 - 0 V (Ground) P4 - A Input / Output P5 - PE (Protected Earth)</p>		<p>SCALE 1:1</p>  <p>WIRING INFORMATION</p> <p>P1 - 0 V (Ground) P2 - 0 V (Ground) P3 - PE (Protected Earth) P4 - 24 VDC (Module and Inputs Power) P5 - 24 VDC (Outputs Power)</p>		<p>SCALE 1:1</p>  <p>WIRING INFORMATION</p> <p>P1 - 0 V (Ground) P2 - 0 V (Ground) P3 - PE (Protected Earth) P4 - 24 VDC (Module and Inputs Power) P5 - 24 VDC (Outputs Power)</p>	













## BILL OF MATERIAL

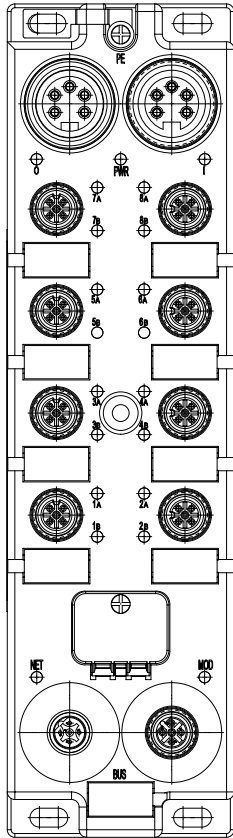
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2	CONTACT	COPPER ALLOY	NICKEL PLATET
3	SHELL	BRASS	NICKEL PLATET
4	INSERT	TPU	BLACK
5	GASKET	FPM	RED
6	CONTACT	COPPER ALLOY	NI AU
7	SHELL	BRASS	NI
8	INSERT	TPU	BLACK
9	CONTACT	COPPER ALLOY	NI AU
10	GASKET	FPM	RED
11	SHELL	BRASS	NI
12	INSERT	TPE	YELLOW
13	CONTACT	COPPER ALLOY	NI AU
14	SHELL	BRASS	NI
15	INSERT	TPE	YELLOW
16	CONTACT	COPPER ALLOY	NI AU
17	SHELL	BRASS	NI
18	HOUSING	PBT	BLACK
19	WINDOW	PC	TRANSPARENT
20	SCREW	V2A	V2A
21	LABEL	PC	WHITE
22	FIBER OPTIC	PA	TRANSPARENT
23	WASHER	BRASS	NI
24	SCREW	V2A	V2A
25	SHIELD PLATE	STAINLESS STEEL	STAINLESS STEEL
26	RESIN	EPOXY	TRANSPARENT
27	LABEL	PVC	WHITE
28	LABEL	PVC	YELLOW



SCALE 1:5



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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								SHEET NUMBER		2 OF 3			



UNIVERSAL PRINTING

TABLE 1		UNIVERSAL PRINTING		
POWER TYPE	INPUT / OUTPUT	ENG.NO.	MOLEX P/N	3D MODEL NO.
7/8" 5 POLE	NPN	16I	TCDPB-8D0N-B1U	1120380030
		14I / 20	TCDPB-8C2N-B1U	1120380028
		12I / 40	TCDPB-8B4N-B1U	1120380026
		8I / 80	TCDPB-888N-B1U	1120380024
	USER CONFIG.		TCDPB-8YYX-B1U	1120385005
	PNP	16I	TCDPB-8D0P-B1U	1120380031
		14I / 20	TCDPB-8C2P-B1U	1120380029
		12I / 40	TCDPB-8B4P-B1U	1120380027
		8I / 80	TCDPB-888P-B1U	1120380025
				1120380030 (PDM)

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QUALITY SYMBOLS		2015/10/21  EC NO: 101574 DRWN: AHLERS CHKD: APPR: REV:  A1	GENERAL TOLERANCES (UNLESS SPECIFIED)  ANGULAR TOL ±  4 PLACES ± 3 PLACES ± 2 PLACES ± 1 PLACE ± 0,3 0 PLACES ± 0,5  DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION UNITS		SCALE		<div>molex</div> DBO PB 60 MM 7/8" 5P AC MA FE U12 5P 8PT AC FE U12 5P 2PT BC  PRODUCT CUSTOMER DRAWING <table><tr><td>SERIES</td><td>MATERIAL NUMBER</td><td>CUSTOMER</td></tr><tr><td>112038</td><td>SEE TABLE 1</td><td>GENERAL MARKET</td></tr><tr><td>DOCUMENT NUMBER</td><td>1120380030</td><td>DOC TYPE</td><td>PSD</td><td>DOC PART</td><td>000</td><td>SHEET NUMBER</td><td>3 OF 3</td></tr></table>		SERIES	MATERIAL NUMBER	CUSTOMER	112038	SEE TABLE 1	GENERAL MARKET	DOCUMENT NUMBER	1120380030	DOC TYPE	PSD	DOC PART	000	SHEET NUMBER	3 OF 3
SERIES	MATERIAL NUMBER			CUSTOMER																			
112038	SEE TABLE 1			GENERAL MARKET																			
DOCUMENT NUMBER	1120380030			DOC TYPE	PSD	DOC PART	000			SHEET NUMBER	3 OF 3												
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