



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

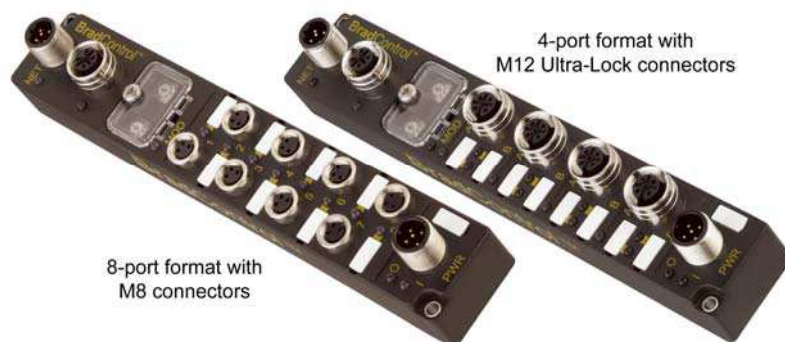
IP67 Compact 30mm Format

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

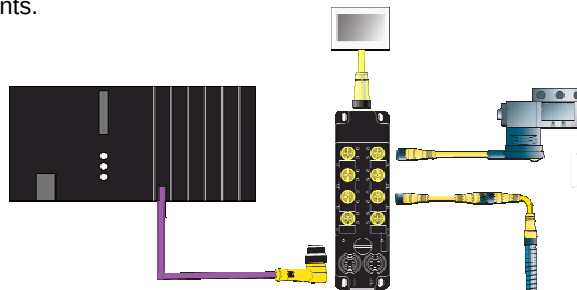
Typical Applications

- 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.



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):

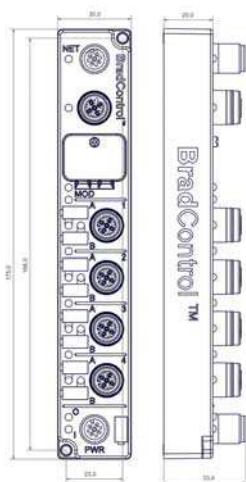
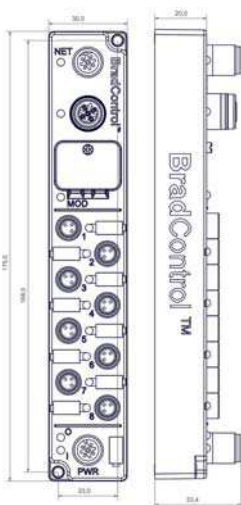
Green – external supply present

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

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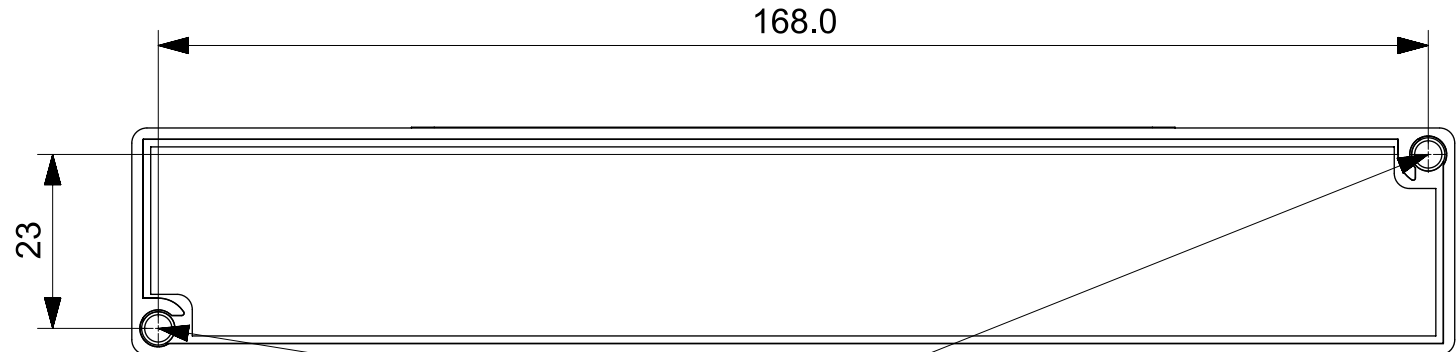
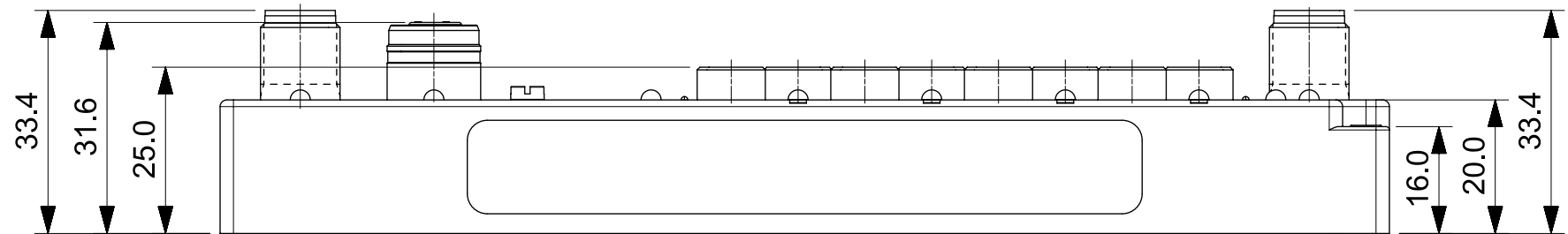
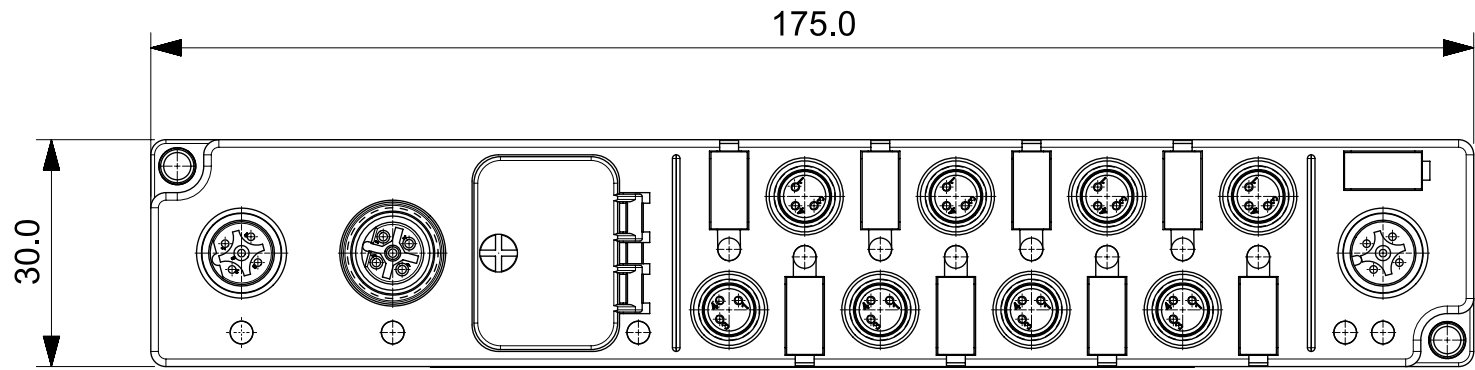
BradControl™
from Woodhead Industries

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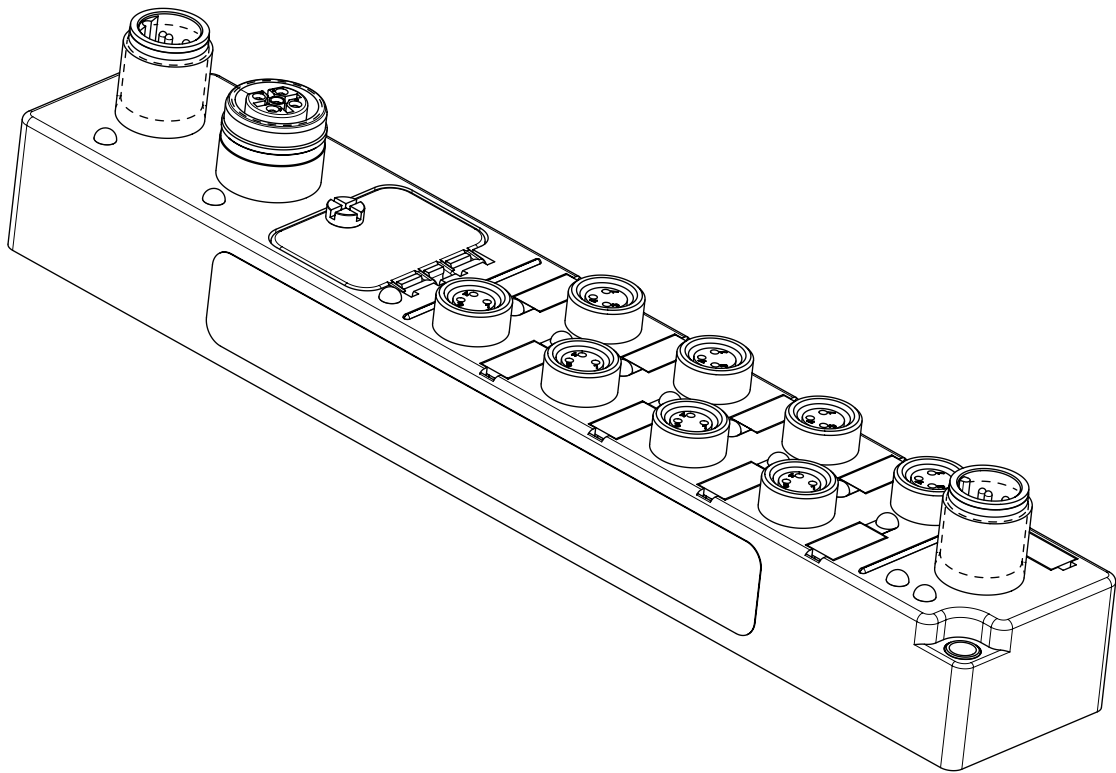
Europe: France, +33 (0)1 64 30 91 36 - Germany, +49 7252 94 96 0 - Italy, +39 026-6400321
United Kingdom, +44 1495 356300

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

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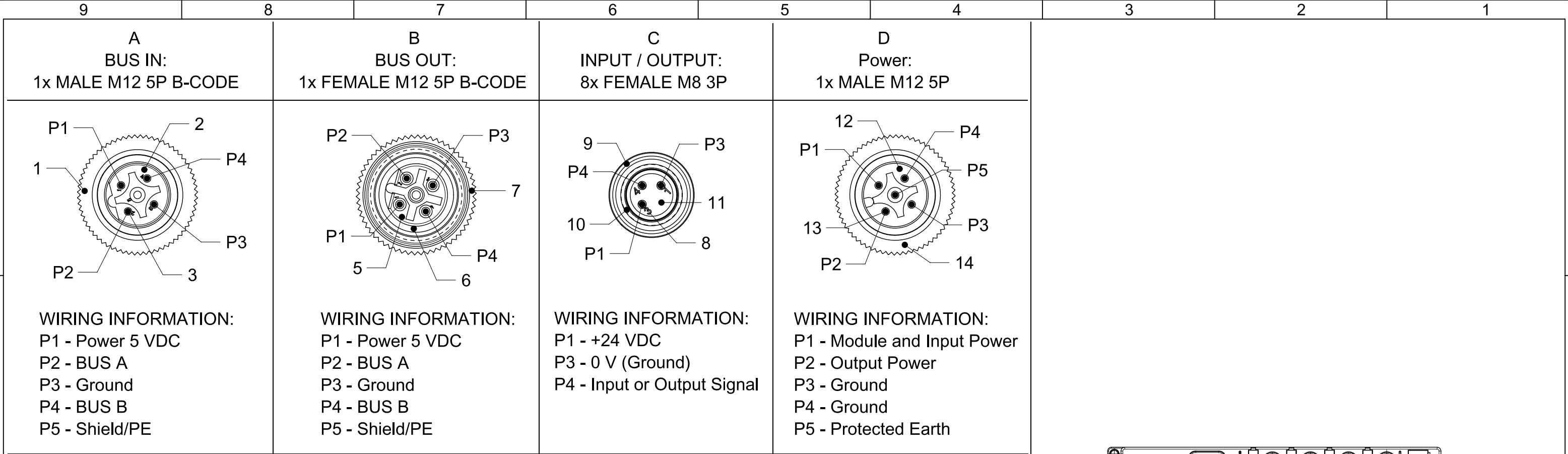


2x FIXING HOLES
SUITABLE FOR M4
SCREWS



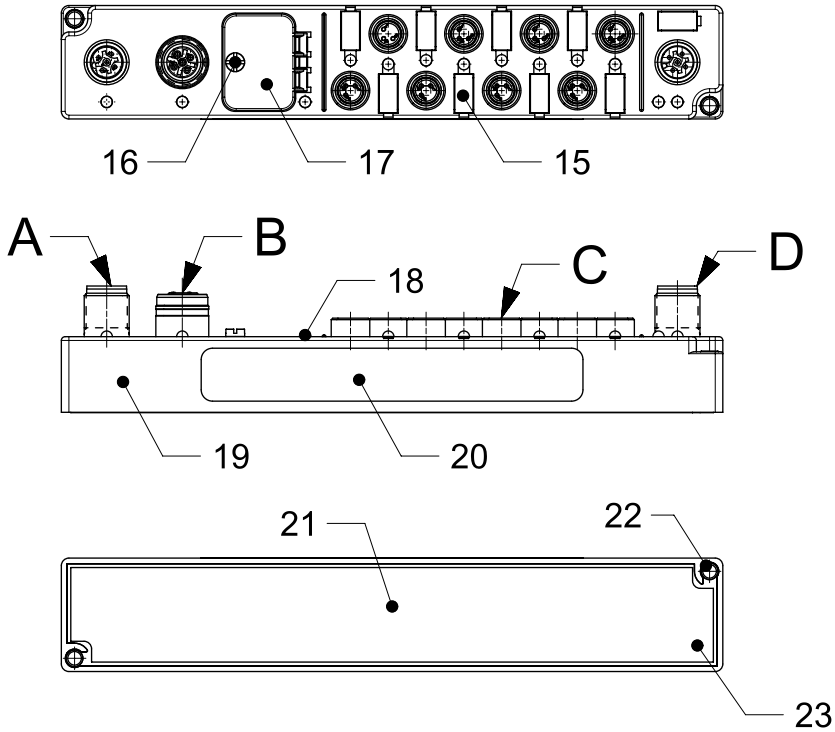
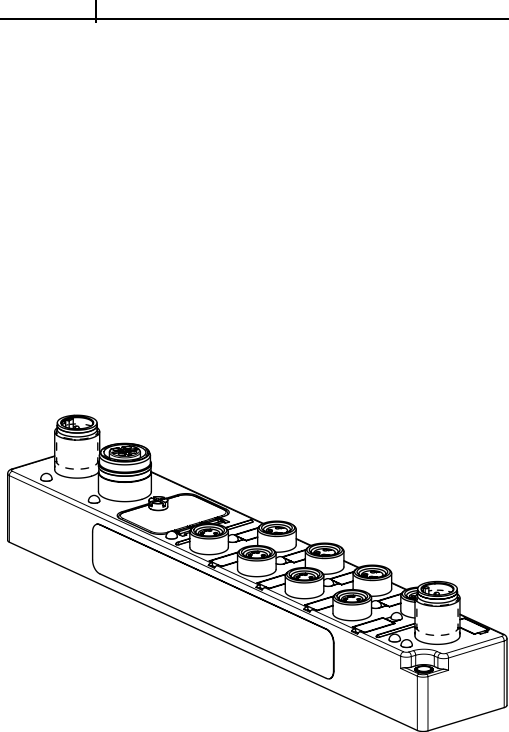
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RELEASE STATUS	P1	RELEASE DATE	23.10.2015	08:35:11
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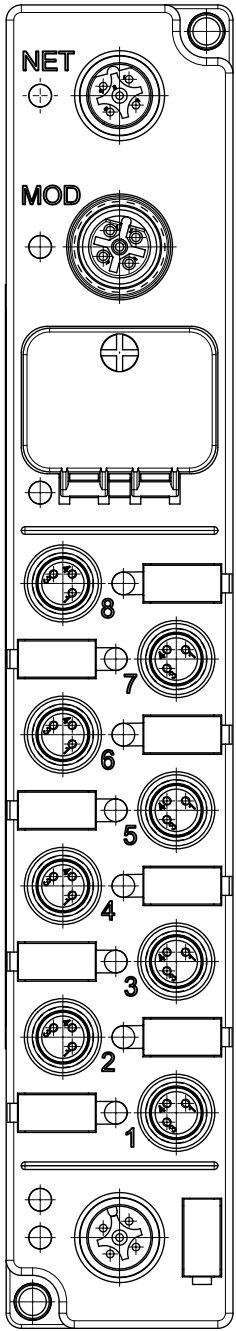


BILL OF MATERIAL

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



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= 0			APPR BY		DATE							
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= 0					DOCUMENT NUMBER		DOC TYPE		DOC PART		SHEET NUMBER	
= 0					1120380014		PSD		000		2 OF 3	



UNIVERSAL PRINTING

TABLE 1 UNIVERSAL PRINTING					
			PROFIBUS		
POWER TYPE	INPUT / OUTPUT		ENG.NO.	MOLEX P/N	3D MODEL NO.
M12 5 POLE	NPN	8I	TBDPB-880N-B84	1120380019	1120380014 (PDM)
		6I/20	TBDPB-862N-B84	1120380017	
		4I/40	TBDPB-844N-B84	1120380015	
	PNP	8I	TBDPB-880P-B84	1120380021	
		6I/20	TBDPB-862P-B84	1120380018	
		4I/40	TBDPB-844P-B84	1120380016	
		80	TBDPB-808P-B84	1120380014	

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					MM	1:1						
	= 0			ANGULAR TOL ± °		DRWN BY		DBO PB 30 MM M12 5P MA BC U12 5P FM BC M8 3P 8PT AC M12 5P AC					
	= 0			4 PLACES	±	ULETTENMEIER		2015/01/27					
	= 0			3 PLACES	±	CHK'D BY		DATE					
	= 0			2 PLACES	±	APPR BY		2015/05/20					
	= 0			1 PLACE	± 0.3	RSILLER		PRODUCT CUSTOMER DRAWING					
	= 0			0 PLACES	± 0.5	DRAWING SIZE		SERIES	MATERIAL NUMBER	CUSTOMER			
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	= 0							DOCUMENT NUMBER		DOC TYPE	DOC PART	SHEET NUMBER	
		A2				1120380014		PSD	000	3 OF 3			