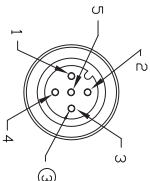
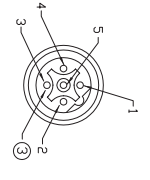


ITEM	COMPONENT	MATERIAL	FINISH
1	MINI INSERT	TPE	YELLOW
2	MICRO INSERT	NYLON 6/6	BLACK
3	CONTACT SOCKET	COPPER ALLOY	GOLD OVER NICKEL
4	CONTACT PIN	COPPER ALLOY	GOLD OVER NICKEL
5	RECEPTACLE SHELL	BRASS	NICKEL PLATED
6	HOUSING	PBT	BLACK
7	LABEL	ABS	WHITE
8	WINDOW	POLYCARBONATE	CLEAR

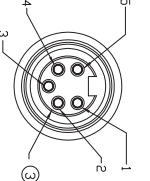
MATERIAL NUMBER	OLD PART NUMBER	INPUT INTERFACE	CONFIGURATION
112038-0030	TCDPB-8D0N-BIU	NP/N	16 INPUT
112038-0031	TCDPB-8D0P-BIU	PNP	16 INPUT
112038-0028	TCDPB-8C2N-BIU	NP/N	14 INPUT/2 OUTPUT
112038-0029	TCDPB-8C2P-BIU	PNP	14 INPUT/2 OUTPUT
112038-0026	TCDPB-8B4N-BIU	NP/N	12 INPUT/4 OUTPUT
112038-0027	TCDPB-8B4P-BIU	PNP	12 INPUT/4 OUTPUT
112038-0024	TCDPB-888N-BIU	NP/N	8 INPUT/8 OUTPUT
112038-0025	TCDPB-888P-BIU	PNP	8 INPUT/8 OUTPUT
112038-5004	TCDPB-88UP-BIU	PNP	8 INPUT/8 UNIVERSAL



FEMALE FACE VIEW

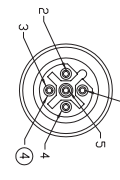


FEMALE FACE VIEW

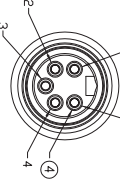


FEMALE FACE VIEW

DUAL INPUT  
PIN 1 V+  
PIN 2 EVEN # INPUT  
PIN 3 V-  
PIN 4 ODD # INPUT  
PIN 5 PE



MALE FACE VIEW



MALE FACE VIEW

DUAL OUTPUT  
PIN 1 VAUX+  
PIN 2 EVEN # OUTPUT  
PIN 3 VAUX-  
PIN 4 ODD # OUTPUT  
PIN 5 PE

MALE FACE VIEW  
PIN 1 NOT USED  
PIN 2 GREEN (BUS-A)  
PIN 3 NOT USED  
PIN 4 RED (BUS-B)  
PIN 5 SHIELD

MALE FACE VIEW  
PIN 1 GROUND  
PIN 2 GROUND  
PIN 3 PE  
PIN 4 BUS POWER  
PIN 5 AUXILIARY POWER

PROTECTION	IP67
OPERATING TEMPERATURE	-25°C TO 70°C
APPROVALS	PND AND CE
UL CERTIFICATIONS	UL LISTED FILE NO. E200650
PRODUCTS CERTIFIED BY UL IN ACCORDANCE WITH CANADIAN REQUIREMENTS	UL LISTED FILE NO. E200650

USER MANUAL IS LOCATED ON MOLEX WEBSITE.

PRE-RELEASE REFERENCE USE ONLY

RLSD DRAWING

EC NO: --  
DRWN: BWOODMAN 8/20/09  
CHK'D: --  
APPR: --

REV	DESCRIPTION
B	

GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE		DESIGN UNITS		THIRD ANGLE PROJECTION	
QUALITY SYMBOL		IN/MM		---		---			
4 PLACES ±.000	INCH	22/03/2010	DATE	---		---			
3 PLACES ±.001	INCH	22/03/2010	CHECKED BY	---		---			
2 PLACES ±.002	INCH	22/03/2010	DATE	---		---			
1 PLACE ±.003	INCH	22/03/2010	APPROVED BY	---		---			
ANGULAR ±.000°									
DRAWING WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS									
MATERIAL NO.		DOCUMENT NO.		SEE CHART		SD-112038-001 V1.1		SHEET NO.	
C		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		1 OF 1					

MOLEX INCORPORATED



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

22 Apr. 10  
DW200584

## PROFIBUS® Discrete I/O Modules

### IP67 Classic 60mm Format

#### 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

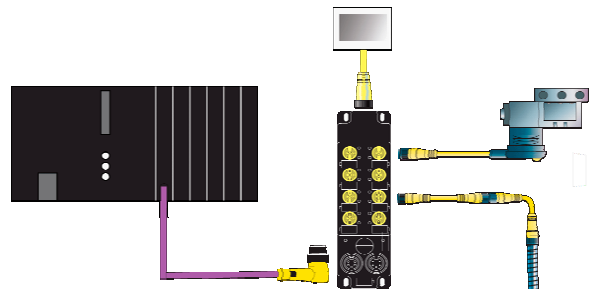
#### Typical Applications

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



### 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.



## 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):

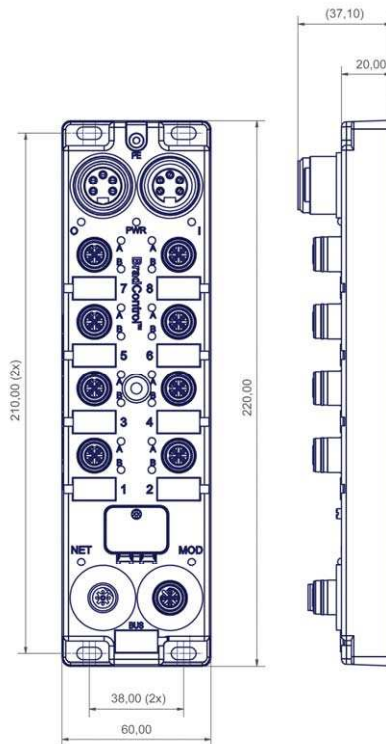
Green – external supply present

### 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

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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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