MATERIAL NUMBER	OLD PART NUMBER	INPUT INTERFACE	CONFIGURATION
112038-0009	TBDPB-480N-B8U	NPN	8 INPUT
112038-0011	TBDPB-480P-B8U	PNP	8 INPUT
112038-0007	TBDPB-462N-B8U	NPN	6 INPUT/2 OUTPUT
112038-0008	TBDPB-462P-B8U	PNP	6 INPUT/2 OUTPUT
112038-0005	TBDPB-444N-B8U	NPN	4 INPUT/4 OUTPUT
112038-0006	TBDPB-444P-B8U	PNP	4 INPUT/4 OUTPUT
112038-0003	TBDPB-408P-B8U		8 OUTPUT

.90/23.0

Ø.14/3.6

PWR

6.61/168.0

6.89/175.0

MOD

NET

1.18/30.0

1.32/33.4

POWER SUPPLY
1-NOT USED
2-V+ Aux
3-V- Aux
4-PE
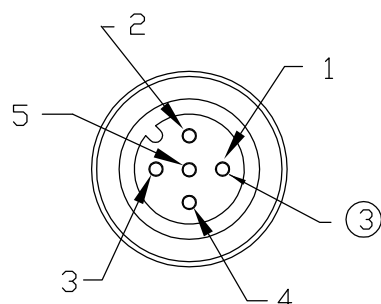5-NOT USED
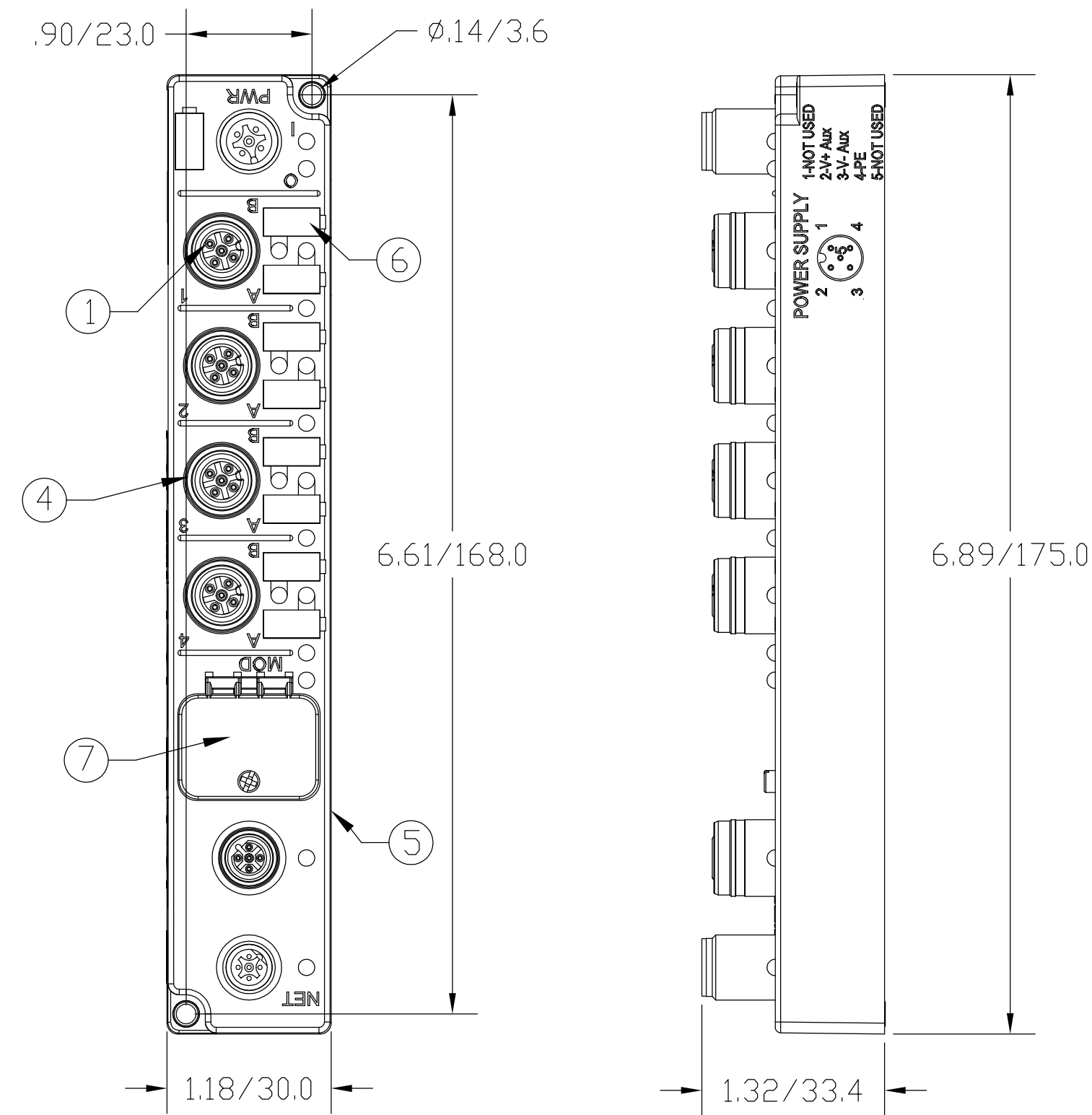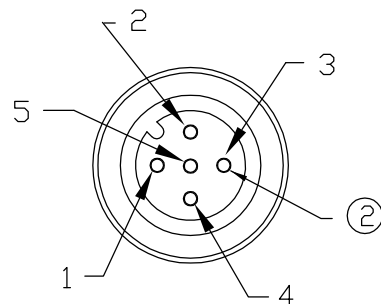
I/O CONNECTOR

FEMALE FACE VIEW

DUAL INPUT

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

DUAL OUTPUT

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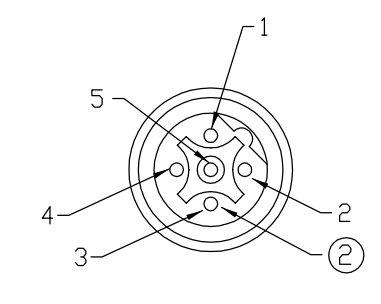PIN 2 EVEN # OUTPUT
PIN 3 VAUX-
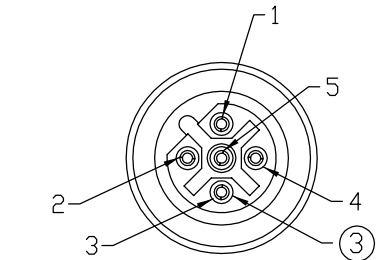PIN 4 ODD # OUTPUT
PIN 5 PE

POWER CONNECTOR

MALE FACE VIEW

PIN 1 GND
PIN 2 GND
PIN 3 PE
PIN 4 BUS POWER
PIN 5 AUX. POWER

NETWORK CONNECTOR

FEMALE FACE VIEW

MALE FACE VIEW

PIN 1 +5V
PIN 2 GREEN (BUS-A)
PIN 3 GND
PIN 4 RED (BUS-B)
PIN 5 PE/SHIELD

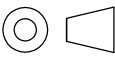| PROTECTION	IP67
OPERATING TEMPERATURE	0°C TO 70°C
APPROVALS	ODVA AND CE
UL CERTIFICATIONS	UL LISTED FILE NO. E200650
PRODUCTS CERTIFIED BY UL IN ACCORDANCE WITH CANADIAN REQUIREMENTS	UL LISTED FILE NO. E200650

USER MANUAL IS LOCATED ON MOLEX WEBSITE.

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

QUALITY SYMBOL
▼=0
⊂/=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	±----	±----
3 PLACES	±----	±----
2 PLACES	±----	±.01
1 PLACE	±0.3	±----
ANGULAR ±----°		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE
IN/MM

DRAWN BY: BW DATE 2009/08/20
CHECKED BY: KJ DATE 2009/08/20
APPROVED BY: JFMURPHY DATE 2009/08/26

MATERIAL NO.
SEE CHART

SIZE C

SCALE ----

DESIGN UNITS ----

⊚ ◁ THIRD ANGLE PROJECTION

TITLE
30MM 8 PORT PROFIBUS MPIS INPUT/OUTPUT

MOLEX INCORPORATED

DOCUMENT NO.
SD-112038-003

SHEET NO.
1 0F 1

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

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

4-port format with M12 Ultra-Lock connectors

8-port format with M8 connectors
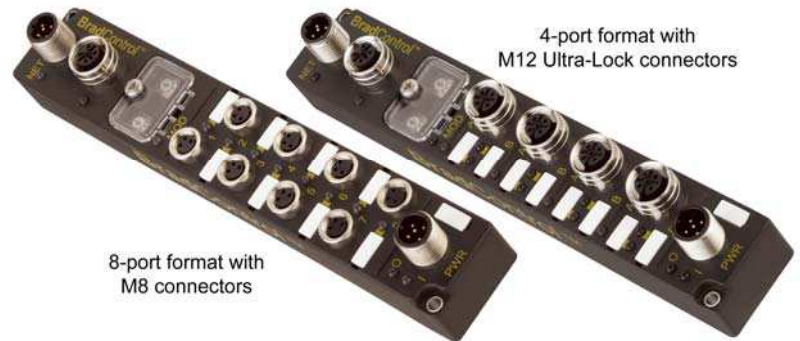
I/O Systems for Harsh Environments

The BradControl™ Compact 30mm I/O modules for PROFIBUS® provide a reliable solution for connecting industrial controllers to I/O devices in harsh environments.
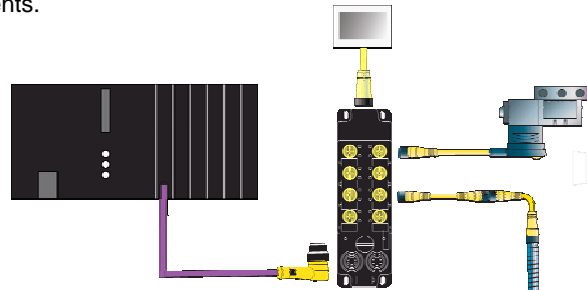
Contained in a 30mm wide housing rated for IP67 environments, BradControl I/O modules can be machine mounted and are able to withstand areas where liquids, dust or vibration may be present. This makes them ideally suited for many applications including material handling equipment and automated assembly 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.

BradConnectivity™ Ultra-Lock™ Connection System
Fast ~ Simple ~ Secure

PROFIBUS
PROCESS FIELD BUS

Woodhead

BradControl™
from Woodhead Industries

PROFIBUS® I/O Module

Active I/O Modules

BradControl™
from Woodhead Industries

LED Indicators

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

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

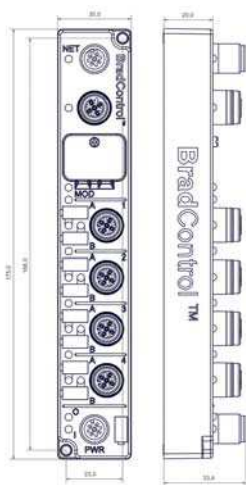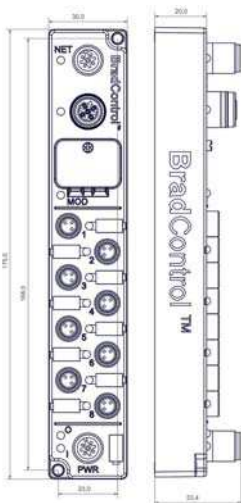**Module & Input Power (I):**
Green – external supply present

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