
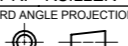
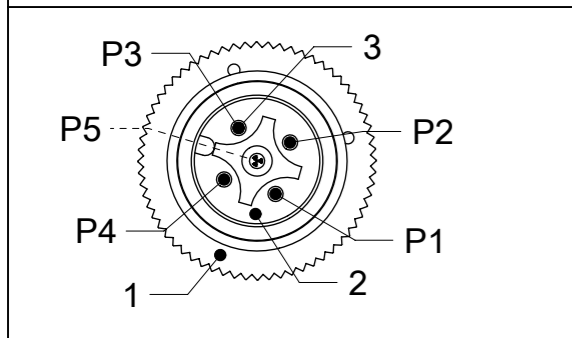


THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION											
DIMENSION UNITS		SCALE		CURRENT REV DESC: OBSOLETE PART NUMBERS							
mm		1:1									
GENERAL TOLERANCES (UNLESS SPECIFIED)											
ANGULAR TOL ± °				EC NO: 642013 DRWN: AKUMAR19 2020/07/20 CHK'D: GGA 2020/09/24 APPR: GGA 2020/09/24							
4 PLACES ±				INITIAL REVISION: DRWN: ULETTENMEIER 2015/01/26 APPR: RSILLER 2015/05/20							
3 PLACES ±											
2 PLACES ±				DOCUMENT NUMBER		DOC TYPE		DOC PART		REVISION	
1 PLACE ± 0.3				1120985001		PSD		000		B	
0 PLACES ± 0.5				MATERIAL NUMBER		CUSTOMER		SHEET NUMBER			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				THIRD ANGLE PROJECTION		DRAWING		SERIES		GENERAL MARKET	
						A3-SIZE		112098		1 OF 3	

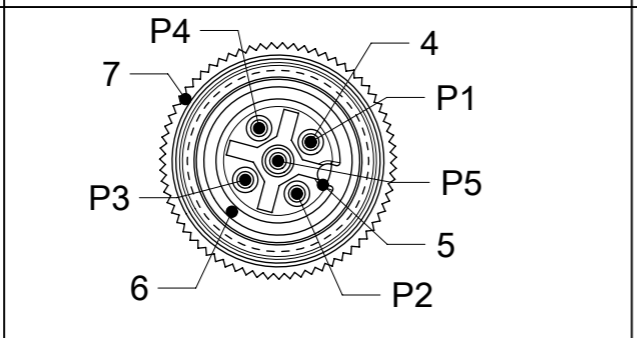
DOCUMENT STATUS	P1	RELEASE DATE	2020/09/24	04:15:12
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A
BUS IN:
1x MALE M12 5P A-CODE



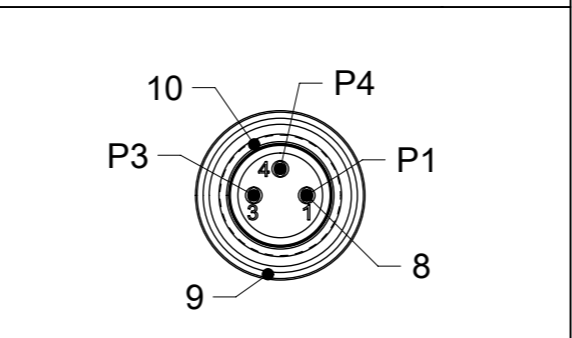
WIRING INFORMATION:
P1 - Drain
P2 - V+ (24VDC)
P3 - V- (0VDC)
P4 - CAN_H
P5 - CAN_L

B
BUS OUT:
1x FEMALE M12 5P A-CODE

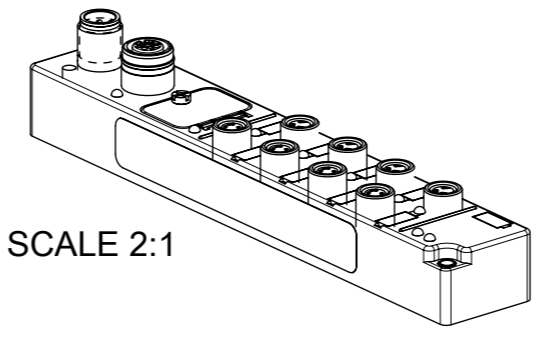
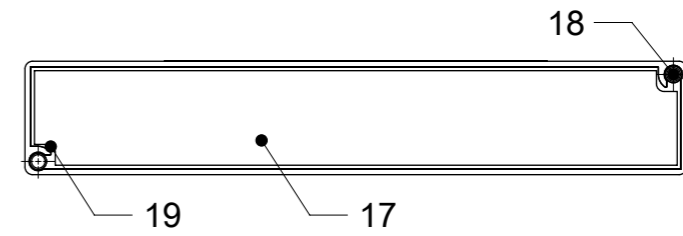
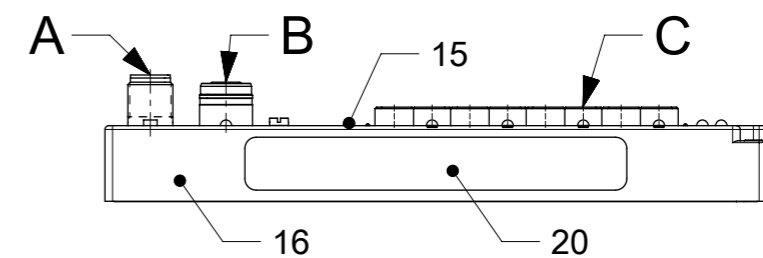
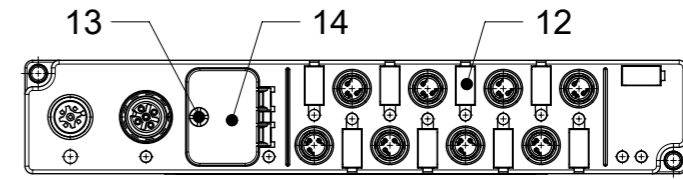


WIRING INFORMATION:
P1 - Drain
P2 - V+ (24VDC)
P3 - V- (0VDC)
P4 - CAN_H
P5 - CAN_L

C
INPUT / OUTPUT:
8x FEMALE M8 3P



WIRING INFORMATION
P1 - +24 VDC
P3 - 0 V (Ground)
P4 - Input or Output Signal



SCALE 2:1

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	LABEL	PC	WHITE
13	SCREW	V2A	V2A
14	WINDOW	PC	TRANSPARENT
15	LED	PA	TRANSPARENT
16	HOUSING	PBT	BLACK
17	LABEL	PVC	WHITE
18	SLEEVE	BRASS	NICKEL
19	RESIN	EPOXY	TRANSPARENT
20	LABEL	PVC	YELLOW

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DIMENSION UNITS mm	SCALE 1:1	CURRENT REV DESC: OBSOLETE PART NUMBERS	molex		
GENERAL TOLERANCES (UNLESS SPECIFIED)					
ANGULAR TOL ± °			PRODUCT CUSTOMER DRAWING		
4 PLACES ±		EC NO: 642013	DOCUMENT NUMBER		
3 PLACES ±		DRWN: AKUMAR19 2020/07/20	1120985001		
2 PLACES ±		CHK'D: GGA 2020/09/24	PSD 000 B		
1 PLACE ± 0.3		APPR: GGA 2020/09/24	REVISION		
0 PLACES ± 0.5		INITIAL REVISION:	SHEET NUMBER		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER	CUSTOMER
		A3-SIZE	112098	SEE TABLE	GENERAL MARKET

10

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2

1

F

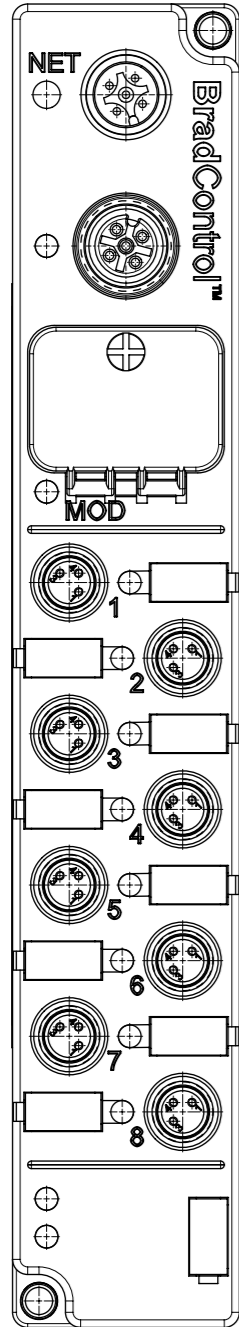
E

D

C

B

A



UNIVERSAL PRINTING

TABLE 1 UNIVERSAL PRINTING				
		CAN OPEN		
POWER TYPE	INPUT / OUTPUT	ENG.NO.	MOLEX P/N	3D MODEL NO.
M12 5 POLE	PNP	8I	TBDCO-880P-804	1120985007
		8I/O USER CONGIG.	TBDCO-8YYX-804	1120985008
			1120985001 (PDM)	

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DIMENSION UNITS	SCALE	CURRENT REV DESC: OBSOLETE PART NUMBERS								
mm	1:1									
GENERAL TOLERANCES (UNLESS SPECIFIED)		EC NO: 642013 DRWN: AKUMAR19 2020/07/20 CHK'D: GGA 2020/09/24 APPR: GGA 2020/09/24 INITIAL REVISION: DRWN: ULETTENMEIER 2015/01/26 APPR: RSILLER 2015/05/20					DBO CAN OPEN 30 MM M12 4P MA DC M12 4P FE DC M8 3P 8PT FE			
ANGULAR TOL	± °						PRODUCT CUSTOMER DRAWING			
4 PLACES	±						DOCUMENT NUMBER	DOC TYPE	DOC PART	REVISION
3 PLACES	±						1120985001	PSD	000	B
2 PLACES	±						MATERIAL NUMBER		CUSTOMER	
1 PLACE	± 0.3	SEE TABLE		GENERAL MARKET						
0 PLACES	± 0.5			SHEET NUMBER						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIRD ANGLE PROJECTION	DRAWING	SERIES	MATERIAL NUMBER		CUSTOMER		SHEET NUMBER	
			A3-SIZE	112098	SEE TABLE		GENERAL MARKET		3 OF 3	

9

8

7

6

5

4

3

2

1



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

CANopen® Discrete I/O Modules

IP67 Compact 30mm Format



Features

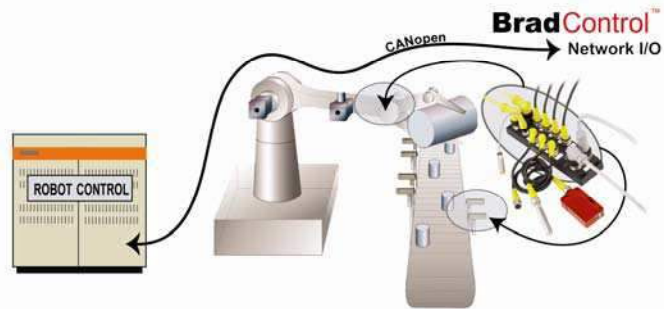
- Compact design allows space savings for direct machine mount applications
- 8 port format uses M8 threaded connectors
- Standard hole pattern allows for interchangeability with popular I/O modules
- Supports PNP and NPN inputs
- Choose from several I/O configurations
- Visible diagnostics through status LEDs
- Easy to set rotary node ID switches
- Supports CANopen DS401 profile

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 CANopen® provide a reliable solution for connecting industrial controllers to I/O devices in harsh environments.



CANopen

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, the BradControl Compact 30mm I/O modules for CANopen are available in an 8 port format using Nano-Change® 3-pole M8 style connectors.

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.

CANopen specific features include "Easy to Set" rotary node ID switches that support CANopen DS401 profile.

CANopen® I/O Module



LED Indicators

CANopen Network Status (NET):

Green – operational
 Single flash – stopped
 Blinking – pre-operational

ERR Diagnostics (MOD):

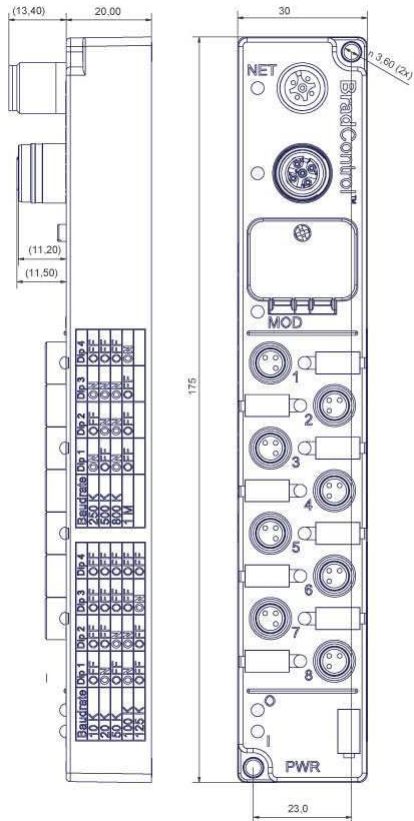
Green – no error
 Single flash – warning limit reached
 Double flash – error control event
 Triple flash – sync Error
 Red – bus off

Power (PWR):

Green – power present
 Off – power not connected

Input / Output:

(8 Port - 1 to 8)
 Green – input / output on
 Red – input / output fault



Technical Information

I/O Configurations	Full configurable
I/O Connectors – 8 Port	Nano-Change® 3-pole threaded M8 female
Bus Connectors	Micro-Change® 5-pole M12 Ultra-Lock™ male (bus in) Micro-Change 5-pole M12 Ultra-Lock™ female (bus out)
Power Requirements	Module & output power : 24 Vdc, input devices + module Output power : 24 Vdc (13 to 28V), 4A max per module
Baud Rate Settings	Auto baud 10, 20, 50, 100, 125, 250, 500, 800, 1000 K
Address Settings	1 – 100 using rotary switches
Input Type	Compatible with dry contact and PNP or NPN 3-wire switches. Electronic short circuit protection.
Input Delay	2.5 ms default or configurable through CANopen® object
Input Device Supply	200 mA per port at 25°C
Output Load Current	Maximum 2.0 A per channel Electronic short circuit protection
Maximum Switching Frequency	300 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 on centers Center hole
I/O Data	Synchronous Acyclic, Synchronous (Sync) and Asynchronous
Operating Temperature	-20°C to 70°C (-4°F to 158°F)
Storage Temperature	-25°C to 85°C (-13°F to 185°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
Approvals	CANopen certification, UL, CUL, CE

Ordering Information

Part Number	Product Description
TBDCO-880P-804	8 inputs PNP
TBDCO-862P-804	6 inputs PNP, 2 outputs sourcing
TBDCO-844P-804	4 inputs PNP, 4 outputs sourcing
TBDCO-808P-804	8 outputs sourcing
TBDCO-880N-804	8 inputs NPN
TBDCO-862N-804	6 inputs NPN, 2 outputs sourcing
TBDCO-844N-804	4 inputs NPN, 4 outputs sourcing
TBDCO-8YYX-804	8 universal or user configurable input / output channels

*Consult factory for availability

BradControl™

To contact us: www.woodhead.com

Reference Number: DW2007213 Date Published: February 2008

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United Kingdom: +44 1495 356300

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