



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

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## 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

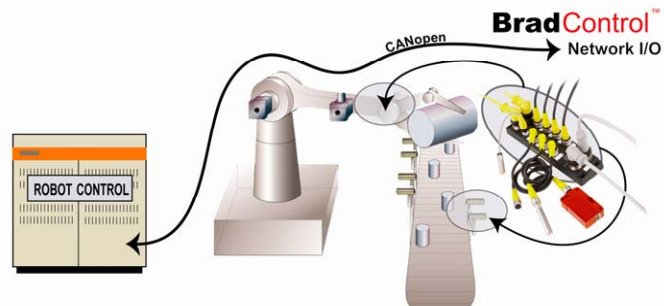
- **Machine tool industry**
- **Material handling systems**
- **Filling & packaging**
- **Steel industry**

CANopen



### 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.



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.



## 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

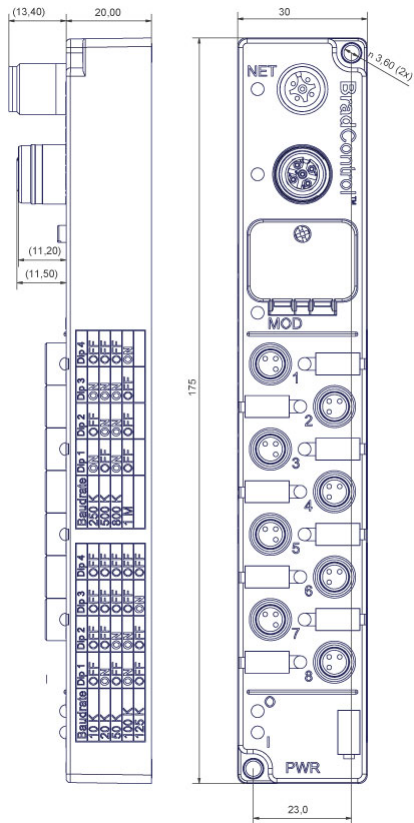
### Power (PWR):

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	SAP number	Product Description
TBDCO-880P-804	112098-5007	8 inputs PNP
TBDCO-862P-804	112098-5005	6 inputs PNP, 2 outputs sourcing
TBDCO-844P-804	112098-5003	4 inputs PNP, 4 outputs sourcing
TBDCO-808P-804	112098-5001	8 outputs sourcing
TBDCO-880N-804	112098-5006	8 inputs NPN
TBDCO-862N-804	112098-5004	6 inputs NPN, 2 outputs sourcing
TBDCO-844N-804	112098-5002	4 inputs NPN, 4 outputs sourcing
TBDCO-8YYX-804	112098-5008	8 universal or user configurable input / output channels

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