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**Part Number:** [1120955023](#)  
**Status:** **Active**  
**Overview:** [profibus solutions](#)  
**Description:** BradControl™ Class 60mm 8 Port IO module, 12 Inputs, 4 Outputs NPN

**Documents:**

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

UL E200650

**General**

Product Family Industrial I/O Modules  
 Series [112095](#)  
 IP Rating IP67  
 Overview [profibus solutions](#)  
 Product Name Profibus\*  
 Protocol N/A  
 Style Classic

**Physical**

Bus Input 5-pole Micro-Change® (M12)  
 Bus Output 5-pole Micro-Change® (M12)  
 Housing Width 60.00mm (2.362")  
 I/O Connector 5-pole Micro-Change® (M12)  
 I/O Signal Mix 12 input / 4 output  
 Ports 8  
 Power Input 5-pole Micro-Change® (M12)  
 Power Output 5-pole Micro-Change® (M12)  
 Temperature Range - Operating -20°C to +70°C  
 Vibration MIL-STD-2020F

**Electrical**

Current - Maximum per Contact 8A per module  
 Input Delay 2.5ms  
 Input Device Supply 200 mA per port at 25°C  
 Input Type PNP or Dry Contact

**Material Info**

Old Part Number TCDEM-8B4N-DYU

**Reference - Drawing Numbers**

Sales Drawing SD-112095-5021, SD-112095-5023



**EU RoHS**

**ELV and RoHS  
Compliant**  
**REACH SVHC  
Not Reviewed**  
**Halogen-Free  
Status  
Not Reviewed**

**China RoHS**

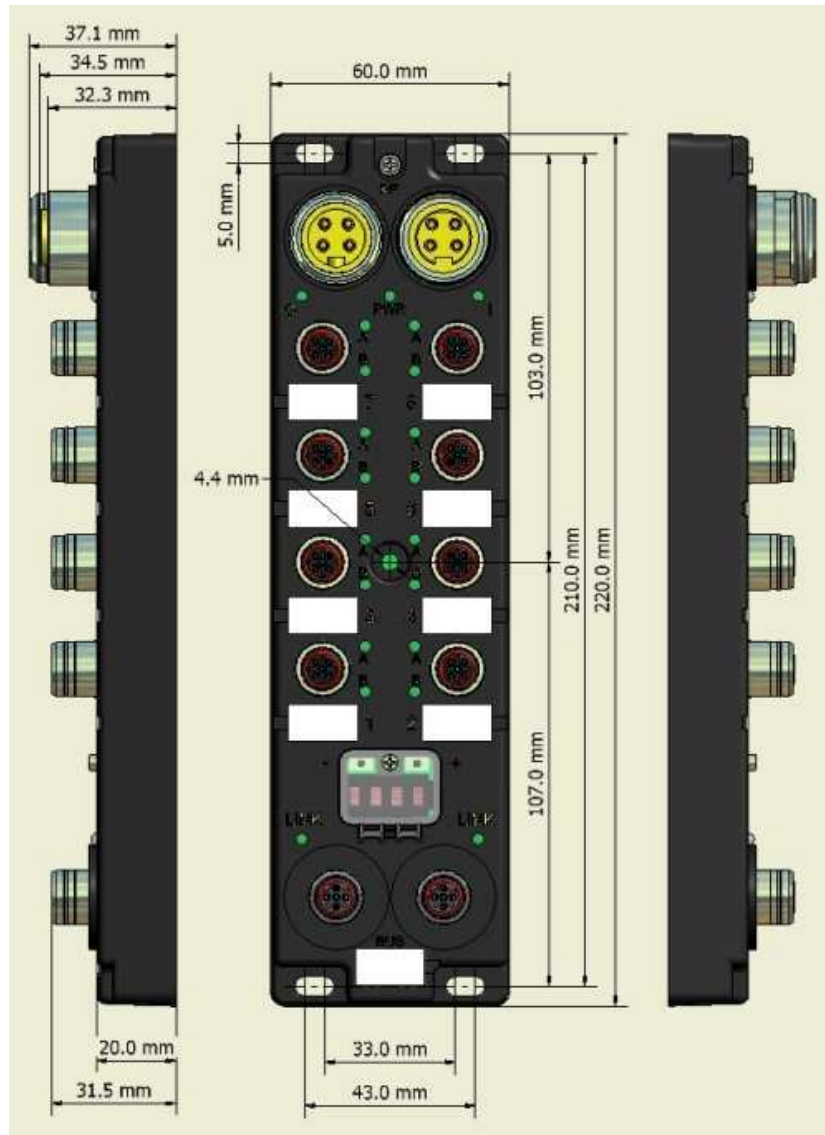


**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**  
[112095Series](#)



Part Number	Description
TCDEM-8D0N-DYU	IO:MDB/TCP:IP67:60MM:8P4:16DI:NPN
TCDEM-8C2N-DYU	IO:MDB/TCP:IP67:60MM:8P4:14DI/2DO:NPN
TCDEM-8B4N-DYU	IO:MDB/TCP:IP67:60MM:8P4:12DI/4DO:NPN
TCDEM-888N-DYU	IO:MDB/TCP:IP67:60MM:8P4:8DI/8DO:NPN
TCDEM-8D0P-DYU	IO:MDB/TCP:IP67:60MM:8P4:16DI:PNP
TCDEM-8C2P-DYU	IO:MDB/TCP:IP67:60MM:8P4:14DI/2DO:PNP
TCDEM-8B4P-DYU	IO:MDB/TCP:IP67:60MM:8P4:12DI/4DO:PNP
TCDEM-888P-DYU	IO:MDB/TCP:IP67:60MM:8P4:8DI/8DO:PNP
TCDEM-8YYX-DYU	IO:MDB/TCP:IP67:60MM:8P4:16 DCONFIG

REVISION: <b>A</b>	ECR/ECN INFORMATION: EC No: NA DATE: 2010/02 /01	TITLE: <b>Modbus TCP IO Block IP67 60MM M12 8 Ports with Power connector 4 Poles</b>	SHEET No. <b>1 of 1</b>
DOCUMENT NUMBER: <b>SD-112095-5021</b>	CREATED / REVISED BY: <b>SZOUTARD</b>	CHECKED BY: <b>SMENARD</b>	APPROVED BY: <b>SZOUTARD</b>



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

24 Mar. 10  
DW2007208

## HarshIO 600 eMB

## MODBUS TCP

### IP67 Modbus TCP I/O block

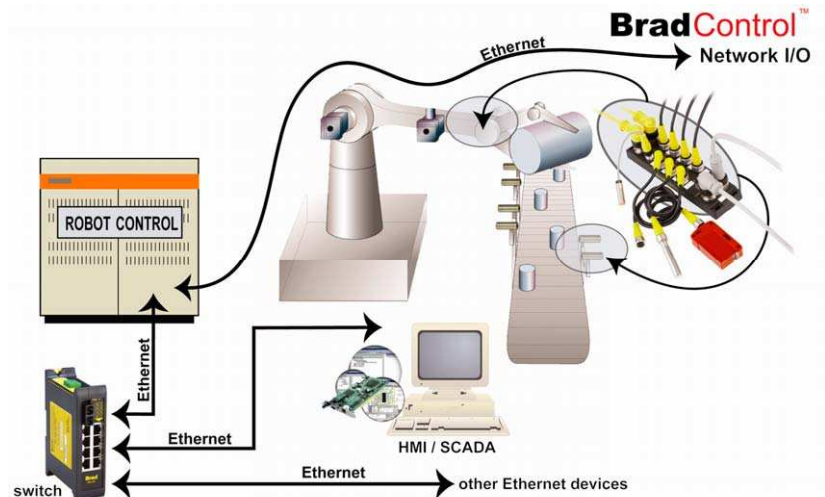


#### Features

- Supports Modbus TCP (TCP/IP & UDP)
- Accepts M12 threaded connectors or BradConnectivity™ Ultra-Lock™ connection system
- Standard hole pattern allows for interchangeability with popular I/O modules
- Supports PNP & NPN input devices
- Several I/O configurations to choose from
  - TCDEM-8YYX-DIU offers 16 points of configurable I/O where the user can configure each point as either an input, output or input/output
- Visible LEDs provide maintenance personnel with the ability to easily determine I/O, module & network status
- Rated IP67 for harsh environments
- Designed for direct machine mount applications
- IP addressing via Bootp, DHCP or static (through web interface, push button & Modbus commands)
- Scrolling 4 characters status display for IP addressing and module status
- Built-in 3-port Ethernet switch
  - 10/100 Mbps auto-sensing and crossover capability
- Built-in web server for remote monitoring, configuration and diagnostics
- Configurable I/O capability (through web interface & Modbus commands)
- Watchdog

### I/O Systems for Harsh Duty Environments

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



#### Typical Applications

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

Contained in an IP67 rated housing, 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.

Advanced network features such as 10/100 Mbps auto-sensing, web server capabilities and a flexible IP address setup method, make configuration and operation simple. Following traditional industrial fieldbus practices, standard M12 connectors from sensing devices or actuators plug directly into the I/O module. An environmentally sealed IP67 connection between the I/O module and the Ethernet network is created using the Ultra-Lock™ connection system built into the BradControl Ethernet I/O module.



## LED Indicators

### Module & Input Power (I):

Green –power present  
Off –power not connected

### Output Power (O):

Green –power present  
Off –power not connected

### Display Box:

Inform about Ethernet address, I/O and Watchdog status

### Input / Output (Ix / Ox):

Green – input/output on  
Red – input/output fault  
Off – input/output off

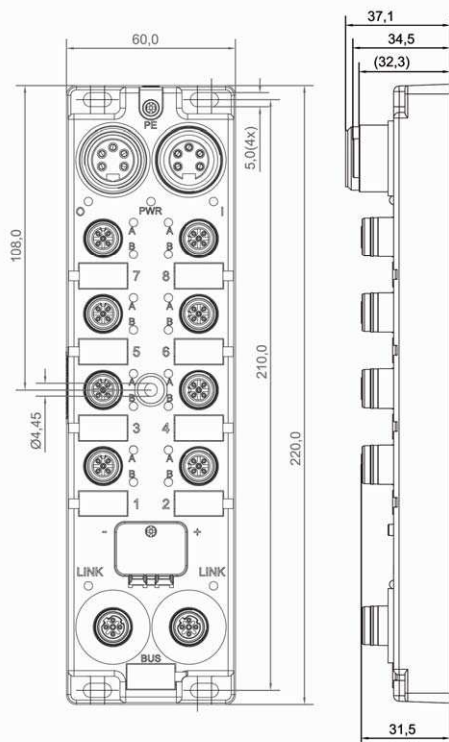
### Ethernet Link (LNK 1/2):

Solid Green – Ethernet link at 100 Mbit/s without activity.

Flashing Green – Ethernet link at 100 Mbit/s with activity.

Solid Yellow – Ethernet link at 10 Mbit/s without activity.

Flashing Yellow – Ethernet link at 10 Mbit/s with activity.



## Technical Information

<b>I/O Configurations</b>	16 inputs 14 inputs / 2 outputs 12 inputs / 4 outputs 8 inputs / 8 outputs 16 Universal & user configurable input / output channels
<b>I/O Connectors</b>	Micro-Change <sup>®</sup> 5-pole M12 female BradConnectivity <sup>™</sup> Ultra-Lock <sup>™</sup> , internally threaded
<b>Ethernet Connectors</b>	2 connectors 4-pole female M12 D-Coded Ultra-Lock Acting as a switch. Crossover capability
<b>Power Connectors</b>	Power in : male Mini-Change 4-pole or 5-pole Power out : female Mini-Change 4-pole or 5-pole
<b>Power Requirements</b>	Module & input power : 24 Vdc, Module output power : 24 Vdc (13 ↔ 28 V), 8A max per bloc
<b>Communications Rate</b>	10/100 Mbps auto-sensing, auto-detecting, full duplex
<b>IP Address Capabilities</b>	BOOTP (default), DHCP, static address
<b>Protocol</b>	Modbus (TCP & UDP) Function code: 01, 02, 03, 04, 05, 06, 15, 16, 23
<b>Input Type</b>	Compatible with dry contact and PNP or NPN 3-wire switches. Electronic short circuit protection
<b>Input Delay</b>	2.5 ms default or Configurable through Modbus messaging
<b>Input Device Supply</b>	200 mA per port at 25°C
<b>Output Load Current</b>	Maximum 2.0 A per channel Electronic short circuit protection
<b>Max. Switching Freq.</b>	200 Hz
<b>Housing Dimensions</b>	60mm x 220mm x 20mm (2.36 x 8.66 x .78 inches)
<b>Mounting Dimensions</b>	37.5 mm (1.48 inches) horizontal on centers 210 mm (8.27 inches) vertical on centers Center hole
<b>Operating Temperature</b>	-20°C to 70°C (-4°F to 158°F)
<b>Storage Temperature</b>	-40°C to 85°C (-40°F to 185°F)
<b>Protection</b>	IP67 according to IEC 60529
<b>Vibration</b>	IEC 60068-2-6
<b>Mechanical Shock</b>	10G, 11ms, 3 axis
<b>Approvals</b>	CE, UL, cUL

## Ordering Information

	Part Number	SAP number	Product Description
4-pin Power	TCDEM-8D0N-DYU	112095-5021	8-port, M12 Ultra-Lock, 16 input, NPN
	TCDEM-8C2N-DYU	112095-5022	8-port, M12 Ultra-Lock, 14 input, 2 output, NPN
	TCDEM-8B4N-DYU	112095-5023	8-port, M12 Ultra-Lock, 12 input, 4 output, NPN
	TCDEM-888N-DYU	112095-5024	8-port, M12 Ultra-Lock, 8 input, 8 output, NPN
	TCDEM-8D0P-DYU	112095-5025	8-port, M12 Ultra-Lock, 16 input, PNP
	TCDEM-8C2P-DYU	112095-5026	8-port, M12 Ultra-Lock, 14 input, 2 output, PNP
	TCDEM-8B4P-DYU	112095-5027	8-port, M12 Ultra-Lock, 12 input, 4 output, PNP
	TCDEM-888P-DYU	112095-5028	8-port, M12 Ultra-Lock, 8 input, 8 output, PNP
	TCDEM-8YXX-DYU	112095-5038	8-port, M12 Ultra-Lock, 16 I/O user configurable
5-pin Power	TCDEM-8D0N-D1U	112095-0007	8-port, M12 Ultra-Lock, 16 input, NPN
	TCDEM-8C2N-D1U	112095-0005	8-port, M12 Ultra-Lock, 14 input, 2 output, NPN
	TCDEM-8B4N-D1U	112095-0003	8-port, M12 Ultra-Lock, 12 input, 4 output, NPN
	TCDEM-888N-D1U	112095-0001	8-port, M12 Ultra-Lock, 8 input, 8 output, NPN
	TCDEM-8D0P-D1U	112095-0008	8-port, M12 Ultra-Lock, 16 input, PNP
	TCDEM-8C2P-D1U	112095-0006	8-port, M12 Ultra-Lock, 14 input, 2 output, PNP
	TCDEM-8B4P-D1U	112095-0004	8-port, M12 Ultra-Lock, 12 input, 4 output, PNP
	TCDEM-888P-D1U	112095-0002	8-port, M12 Ultra-Lock, 8 input, 8 output, PNP
	TCDEM-8YXX-D1U	112095-0009	8-port, M12 Ultra-Lock, 16 I/O user configurable

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