# HarshIO IP67 Compact Modules for EtherNet/IP



HarshIO IP67 I/O Compact Modules for EtherNet/IP\* provide a reliable solution for connecting industrial controllers to I/O devices through on-machine mounting in harsh environments, saving precious control cabinet space and enabling localized troubleshooting and modification

### **Features and Benefits**

### Harsh-duty design

IP67 rating and construction materials eliminate need for a protective cabinet in harsh environments,. Tested to withstand shock, high-vibration and high temperature. Potted with resin and uses metallic connectors

#### Two integrated fieldbus ports

Enables wiring of the entire module application without an additional tee. Utilizes daisy-chain wiring topology which creates cost savings for the customer

### Versatile Interface

8 user configurable Inputs and Outputs. Supports PNP input sensoras. Visible diagnostic LEDs provide maintenance personnel with the ability to easily determine I/O, module & network status Tree rotary switches select IP Address Decreases modules commissioning times and simplifies device

replacement

Ambient-temperature resistance of 70°C Enhances design flexibility

environmental stresses

and can withstand harsh-duty



### **Compact Design**

30mm housing saves space on machines while using industrystandard M8 or M12 I/O connectivity Diagnostic notifications via fieldbus messaging and visible diagnostic LEDs Enables both internal and external solutions

> Mounting Holes Suitable for 2 screws

### 8-Port Model Shown Part Number: 112095-5071 Engineering Number: TBDEI-8YYP-D84

## **Applications**

### Industrial Automation

Compact Machines High-Speed Machines CNC Machines Food and Beverage Plastic Injection Robot & Tool Makers Material Handling Packaging Automatic Guided Vehicles



Food Processing



Automated Guided Vehicles



**CNC** Machines

# HarshIO IP67 Compact Modules for EtherNet/IP

# molex

# **Specifications**

### HARDWARE

Compact size: 30 x 175 x 20mm Operating Temperature: -25 to +70°C Storage Temperature: -40 to +90°C Housing material: PBT VALOX 420 SEO Black 7701

### POWER SUPPLY

- Power connector: M12, A-Coded, 5-pin, male, nickel brass Module & Input power: 24V DC, -15/+20%
- (protected against power crossing)
- Output power: 24V DC, -15/+20%
- (protected against power crossing)
- 2x Diagnostic LEDs (Logic/Input + Output) with detection of low voltage operation

### INPUT CHANNEL(S)

Connector: Ultra-Lock M12 5-pin A-Coded or M8 3-pole, Female, nickel brass Input type: PNP, Sinking, 2/3-wire sensors Sensor power supply: 250mA Input channel voltage ("1"): 10V ... 25V Input channel voltage ("0"): -0.2V ... 5V Electronic short circuit protection Input filter: 0.5 ... 3 ms (1 ms by default, filter step 0.5)

### OUTPUT CHANNEL(S)

Connector: Ultra-Lock M12 5-pin A-Coded or M8 3-pole, Female, nickel brass Output type: PNP, Sourcing Output current: 0.5A per channel Maximum output current: 4.0A at 25°C Electronic short circuit protection Switching frequency: 200 Hz

### FIELDBUS

Network IN connector: M12, 4-pin, female, D-Coded, stainless steel

Network OUT connector: M12, 4-pin, female, D-Coded, stainless steel

Diagnostic LED per port (Link / Speed / Activity) 3x Rotary switches (Static IP, DHCP, etc) Protocol: EtherNet/IP Adapter

Support of I/O and explicit messaging Ethemet Packet: Manage up to 3000 packet/sec Min refresh I/O Interval: 1ms Description file: Yes (EDS) ODVA certification

### SHOCK AND VIBRATION

MIL-STD-202F, method 204D, condition A (Vibration) MIL-STD-202F, method 213B, condition B (Mechanical Shock) MIL-STD-1344A (Thermal Shock)

**REGULATORY APPROVALS** CE REACH

# **Ordering Information**

Order No.	Engineering No.	Protocol	No. of Ports	Housing Size	I/O Connectors	I/O Configuration		I/O Channel
						Input	Output	1/0 Channel
<u>112095-5071</u>	TBDEI-8YYP-D84	EtherNet/IP	8	30mm	M8	8x User Configurable		PNP
<u>112095-5083</u>	TBDEI-4YYP-D8U		4		M12	8x User Configurable		PNP

## www.molex.com/link/harshio.html

Molex is a registered trademark of Molex, LLC in the United States of America and may be registered in other countries; all other trademarks listed herein belong to their respective owners.

