Brad® PROFINET* IO-Link* HarshIO Modules, designed for factory automation machine builders, bring versatility and cost-savings to complex system designs through PROFINET* controllers.

**Features and Advantages**

- Ultra-Lock® M12 Connectors
  Surpasses performance and reliability of traditional threaded connectors, delivering increased productivity and cost savings
- 1x IO-Link* Master and 1x Digital I/O per M12 port
  Each IO-Link* master channel can be configured as IO-Link* or Digital I/O point (Pin 4). Each digital channel can be configured as an Input or an Output point (Pin 2)
- Diagnostic LEDs
  Blue LEDs dedicated to IO-Link* communication status. Status and troubleshooting make easy with LEDs for power, network and I/O signals
- 3 Rotary Switches
  IP address setting
- 2-port Ethernet Switch
  For daisy chain of PROFINET* network. Manages new cybersecurity requirement (Netload) and Ethernet ring redundancy (MRP)
- Ethernet Metallic Plate
  Allow both ODVA and PI Ethernet grounding strategies
- Versatile PROFINET* I/O Module
  Specification v2.32 Class B
  Standard RT, Netload class A
  SNMP, LLDP, FSU ready.
  Easy replacement.
  Configuration via GSD File.
  I/O access to IO-Link* process, event and service data
- 4-pole and 5-pole power connector versions
  Ready for both America and Europe regions
- Seal rated IP67
  Designed for plant-floor and harsh industrial applications. Eliminates ingress of dust and light jets of water

**Applications**

- Industrial Automation
- Food and Beverage
  - Machine Manufacturers
- Machining Centers
  - Grinding and Milling
- Conveying and Sorting
  - Baggage Handling
  - Postal Sorting
  - Packaging Applications
- Automotive
  - Final Body Assembly
  - Power Train

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Specifications - HarshIO Modules

REFERENCE INFORMATION
HarshIO PROFINET* IO-Link* HarshIO Modules

IO-Link Channel(s)
Port Class A
Support COM1, COM2 and COM3
Compliant with IO-Link* version 1.1
Power Supply: max. 1.6A (pin 1)
Connector: M12, 4-pin, male, stainless steel

INPUT CHANNEL(S)
Input type: PNP, Sinking, IEC 61131-2 Type 3
Diagnostic LED
Short circuit protection and overcurrent protection
Sensor Power Supply: 0.2A (pin 1)
Input filter: 0.5 to 3ms (filter step 0.5)
Connector: M12, 4-pin, female, stainless steel

OUTPUT CHANNELS
Output type: PNP, Sourcing (Output [UL] power supply)
Output current: 0.5A per channel (max. 2A total for all outputs)
Diagnostic LED
Short circuit protection and overcurrent protection
Connector: M12, 4-pin, female, stainless steel

FIELDBUS
Network connectors: 2x Ultra-Lock M12, 4-pole, female,
D-Coded, stainless steel
Diagnostic LED per port [link / Speed / Activity]
3x Rotary switches (DPR, factory reset)
PROFINET IO-Device spec v2.3 Class-B
Support of IO and acyclic communications
Diagnostic alarms
Ethernet Packet: Manage up to 3000 packet/sec
Min refresh I/O Interval: 1ms
Topology: LLDP, sender/receiver, SNMP V1
Netload: Class 1
Description file: Yes (GSD)

GENERAL
IP67 housing
Dimensions: 238 x 60 x 39 mm
Operating temperature: -25° to +70° C
Storage temperature: -40° to +90° C
Relative Humidity: 10…95%, non-condensing
Firmware upgradable

www.molex.com/link/harshio.html

Specifications - IO-Link* Digital Hubs

REFERENCE INFORMATION
IO-Link Channel(s)
Port Class A
Support COM1, COM2 and COM3
Compliant with IO-Link* version 1.1
Power Supply: max. 1.6A (pin 1)
Connector: M12, 4-pin, male, stainless steel
Minimum Cycle Time: 1ms

SHOCK AND VIBRATION
Vibration: EN 60068-2-6 / EN 60068-2-29
Shock: EN 60068-2-6 / EN 60068-2-29

REGULATORY APPROVALS
IO-Link* certification
CE, RoHS, REACH, cULus / CSA 22.2
EMC: EN 61000-6-2 / EN 61000-6-4

INPUT CHANNEL(S)
Input type: PNP, Sinking, IEC 61131-2 Type 3
Diagnostic LED
Short circuit protection and overcurrent protection
Sensor Power Supply: 0.2A (pin 1)
Input filter: 0.5 to 3ms (filter step 0.5)
Connector: M12, 4-pin, female, stainless steel

OUTPUT CHANNELS
Output type: PNP, Sourcing (Output [UL] power supply)
Output current: 0.5A per channel (max. 2A total for all outputs)
Diagnostic LED
Short circuit protection and overcurrent protection
Connector: M12, 4-pin, female, stainless steel

GENERAL
IP67 housing
Dimensions: 152 x 54 x 29.6 mm
Operating temperature: -25° to +70° C
Storage temperature: -40° to +90° C
Relative Humidity: 10…95%, non-condensing
Housing material: PBT VALOX 420 SEO
Flammability Standard: UL 94 V-0

Ordering Information

<table>
<thead>
<tr>
<th>Engineering No.</th>
<th>Order No.</th>
<th>Description</th>
<th>Power Connector</th>
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<tbody>
<tr>
<td>TCIEP-888P-D1U</td>
<td>112095-5119</td>
<td>HarshIO PROFINET*, 8x IO-Link* + 8x Digital I/O User Configurable</td>
<td>5-pole M12 (Mini-Change®)</td>
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<td>TCIEP-888P-DYU</td>
<td>112095-5120</td>
<td>IP67 IO-Link* Digital I/O Hub, 8x M12 ports</td>
<td>4-pole M12 (Mini-Change®)</td>
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<td>TEDIO-8DOP-808</td>
<td>112103-5000</td>
<td>16x Inputs</td>
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<tr>
<td>TEDIO-8B4P-808</td>
<td>112103-5001</td>
<td>12x Inputs + 4x Outputs</td>
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</tbody>
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