Brad® HarshIO 600 Digital I/O

HarshIO IP67 I/O Modules for EtherNet/IP® featuring device level ring (DLR) and QuickConnect functionality deliver significant operational advantages of speed and versatility for industrial applications

Features and Benefits

- IP67-rated, dust and water resistant module, tested to withstand shock, high-vibration and high temperatures
- Module is potted with resin with stainless steel connectors
- Designed for harsh environments and direct on-machine mounting without need for protective cabinet
- I/O module versions: 16 inputs and 12 inputs + 8 outputs
- 3 rotary switches for IP address management
- Complete power isolation between input/logic and auxiliary output for application using safety protection relays
- Compatible with all Rockwell Logix® controllers
- Easy commissioning with RSLogix® / Studio 5000
- Upload EDS file from module using RSLinx®
- QuickConnect functionality meets requirements from automobile robotic applications using automatic tool changer; power-up and operate in less than 350ms
- Integrated 2-port switch
- Daisy-chain wiring possible; wire entire application without switches; achieve cost savings
- DLR Client support for Ethernet media redundancy

Applications

- Factory automation
  - Automotive manufacturing
    - (assembly line, body shop, powertrain)
  - Material handling and packaging
  - Conveying
- Machine builders
  - Complex machines
  - CNC machines
  - Robotics
- Process control
  - Food and beverage
  - Oil & Gas
  - Pharmaceutical

Typical System Architecture
Brad® HarshIO 600 Digital I/O

Specifications

POWER REQUIREMENTS
Module logic/input power: 24V DC (-15/+20%)
Module auxiliary output power: 24V DC (-15/+20%), 8.0A max per module

POWER CONNECTORS
Power In: Male Mini-Change, 4-pole
Power Out: Female, Mini-Change, 4-pole
Protected against power crossing

I/O CONNECTORS
Female, Ultra-Lock® M12, A-Coded, 4-pole

FIELDBUS CONNECTORS
Fieldbus, Male, Brad Ultra-Lock® M12, D-Coded, 4-pole

FIELDBUS
EtherNet/IP Adapter
RPI: 1ms minimum
Data access:
  Implicit messages (for I/O data)
  Explicit messages (for read/write module configuration and diagnostic)

ETHERNET SWITCH
2-port, 10/100 Mbps (auto-negotiation), full duplex, Storm Protection, DLR Client

DIGITAL INPUTS
Sinking PNP
Compatible with dry contact and 2/3-wire sensors
Electronic short circuit protection
Input Delay: 5 ms
Sensor Power Supply: 140 mA per port at 25°C
Diagnostic leds

DIGITAL OUTPUTS
Sourcing PNP
Output Current: 2.0A max. per channel
Electronic short circuit protection
Maximum Switching Frequency: 200 Hz
Diagnostic leds

GENERAL
IP67 housing
Dimensions: 220 x 60 x 20mm
Operating temperature: -25° to +70°C
Storage temperature: -40° to +70°C
Relative Humidity: 10 to 95%, non-condensing
Firmware upgradable

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)

CERTIFICATIONS / REGULATORY APPROVALS
ODVA conformance
CE, RoHS, REACH, UL/cUL

Ordering Information

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Engineering No.</th>
<th>Power Connectors</th>
<th>Description</th>
<th>I/O Configuration</th>
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</thead>
<tbody>
<tr>
<td>112095-5137</td>
<td>TCDEI-800P-DYG-G02</td>
<td>7/8” 4-pole</td>
<td>HarshIO Digital Module, EtherNet/IP, DLR, QuickConnect</td>
<td>16/8</td>
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<td>TCDEI-888P-DYG-G02</td>
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