Brad® HarshIO 600 sDN

HarshIO IP67 I/O modules provide a reliable solution for connecting industrial controllers to I/O devices in harsh environments

Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>ODVA certified</td>
<td>IP67-rated, vibration and shock tested for on-machine mount and harsh environments</td>
</tr>
<tr>
<td>Accepts standard M12 threaded or Brad® Ultra-Lock® connectors</td>
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<tr>
<td>Standard hole housing pattern allows for interchangeability with popular I/O modules</td>
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<tr>
<td>Module supply and input power via CAN bus</td>
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<tr>
<td>Supports PNP &amp; NPN input devices</td>
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<tr>
<td>Visible diagnostic LEDs provide maintenance personnel with the ability to easily determine I/O, module &amp; network status</td>
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<tr>
<td>Short-circuit diagnostics per I/O channel</td>
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<tr>
<td>Complete module and channel diagnostics supported via DeviceNet®</td>
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<tr>
<td>Supports ODVA Group 2 DeviceNet®</td>
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<td>Server Slave functionality</td>
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<tr>
<td>Supports ADR and QuickConnect</td>
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<tr>
<td>Bus speed up to 500 Kbps</td>
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<tr>
<td>Module addressing: 1 – 99 by rotary switches</td>
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<tr>
<td>Built-in 2-port CAN for bus wiring topology</td>
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</tbody>
</table>

Applications

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

Typical System Architecture
**Specifications**

**I/O Configurations:**
- 16 inputs
- 8 inputs / 8 outputs

**I/O Connectors:**
- Female, Ultra-Lock® M12, A-Coded, 5-pole

**Bus Connectors:**
- Bus In: Male, 7/8, 5-pole
- Bus Out: Female, 7/8, 5-pole

**Power Connectors:**
- Power In: Male, 7/8, 4-pole
- Power Out: Female, 7/8, 4-pole

**Power Requirements:**
- Module input power: 24V DC
- Module output power: 24V DC

**Communication Rate:**
- Auto baud, 125, 250, 500 KBaud

**Address Settings:**
- 1 – 63 by 2 rotary switches

**Fieldbus Specifications:**
- DeviceNet® Slave
- I/O data access method according Polled, Cyclic, COS, Bit Strobe

**Input Type:**
- Compatible with dry contact, PNP or NPN, 2/3-wire sensors
- Electronic short circuit protection
- Input Delay: 3ms

**Input Device Supply:**
- 140mA per port at 25°C

**Output Load Current:**
- Maximum 1.0A per channel
- Electronic short circuit protection

**Mounting Dimensions:**
- 37.50mm horizontal on centers
- 210mm vertical on centers

**Housing Dimensions:**
- 60 x 220 x 20mm

**Operating Temperature:**
- -20 to +70°C

**Storage Temperature:**
- -25 to +85°C

**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:**
- CE, UL, cUL, ODVA Certification

**LED INDICATORS**

**Auxiliary Power:**
- Green - auxiliary power present
- Red - reverse polarity
- Off - auxiliary power not connected

**Input/Output (I/Ox):**
- Green - input/output on
- Red - input/output fault
- Off - input/output off

**DeviceNet® Network Status (NET):**
- Green - operational
- Green flash - connection not allocated
- Red flash - recoverable network error
- Red - bus off; unrecoverable network error
- Off - auto bauding

**I/O Diagnostics Error (MOD):**
- Green - baud rate establishing, module OK
- Green flash - auto bauding
- Red - configuration error

**Ordering Information**

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Engineering No.</th>
<th>Power Connector</th>
<th>No. of Ports</th>
<th>I/O Connectors</th>
<th>I/O Configurations</th>
<th>I/O Channels</th>
</tr>
</thead>
<tbody>
<tr>
<td>112092-0019</td>
<td>TCDDN-8D0N-10U</td>
<td>7/8&quot;, 4-pole</td>
<td>8</td>
<td>M12 Ultra-Lock®</td>
<td>16</td>
<td>NPN</td>
</tr>
<tr>
<td>112092-0020</td>
<td>TCDDN-888N-11U</td>
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<td>8</td>
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<tr>
<td>112092-0010</td>
<td>TCDDN-8D0P-10U</td>
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<td></td>
<td>M12 Ultra-Lock®</td>
<td>16</td>
<td>PNP</td>
</tr>
<tr>
<td>112092-5011</td>
<td>TCDDN-888P-11U (A)</td>
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<td></td>
<td>8</td>
<td>8</td>
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www.molex.com/link/harshio.html