IP67 HarshIO for CC-Link
IP67 Digital I/O Modules

HarshIO IP67 I/O Compact Modules for CC-Link provide a reliable solution for connecting industrial controllers to I/O devices through on-machine application in harsh environments, saving precious control cabinet space and enabling localized troubleshooting and modification.

Features and Benefits

<table>
<thead>
<tr>
<th>Feature</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>30mm housing dimension</td>
<td>Designed for use in compact machines where space is limited</td>
</tr>
<tr>
<td>IP67 Housing</td>
<td>To use directly on the machine. Dust, water and vibration resistant. Large temperature range. No need of protective cabinet</td>
</tr>
<tr>
<td>Diagnostics</td>
<td>Maintenance personnel can easily determine I/O, module and network statuses. Diagnostic capabilities via fieldbus messaging</td>
</tr>
<tr>
<td>Quick Commissioning</td>
<td>No software tool required for module commissioning. 2x rotary switches for setting station address</td>
</tr>
<tr>
<td>Integrated 2 fieldbus ports</td>
<td>Wire the entire application without additional Tee. Daisy-chain wiring topology results in cost savings for the customer</td>
</tr>
<tr>
<td>High ambient temperature-resistance</td>
<td>The module can operate withstanding ambient temperature of 70°C</td>
</tr>
<tr>
<td>Separate grounding (total isolation) between logic/input power and output power</td>
<td>Allows use of safety relays to detect system faults</td>
</tr>
<tr>
<td>Digital Output Modules Available</td>
<td>Allows control of industrial actuators (value, lamps, relays) connected to our modules</td>
</tr>
</tbody>
</table>

Applications

- **Complex machine builders**
- Compact machines
- High speed machines
- CNC machines
- Food processing
- Filling / Bottling
- Plastic injection
- **Factory automation**
  - Automotive
  - Robotic + Tool maker
  - Material Handling
  - Packaging
  - Automatic Guided Vehicles
- **Factory automation**
  - Automotive
  - Robotic + Tool maker
  - Material Handling
  - Packaging
  - Automatic Guided Vehicles
- **Factory automation**
  - Automotive
  - Robotic + Tool maker
  - Material Handling
  - Packaging
  - Automatic Guided Vehicles
Specifications

HARDWARE
Compact size: 30 x 175 x 20mm (1.18” x 6.89” x 0.78”)
Operating Temperature: -10°C up to +70°C
Storage Temperature: -20°C up to +85°C
Housing material: PBT VALOX 420 SEO Black 7701

POWER
Power connector: Male M8 (4-pole) or Female M12 (5-pole)
Module & Input power: 24 VDC, -15/+20% (protected against power crossing)
Output power: 24 VDC, -15/+20% (protected against power crossing)
2x Diagnostic leds (Logic/Input + Output) with detection of low voltage operation

INPUT CHANNEL(S)
Connector: Male M8 (3-pole) or Female M12 (5-pole)
Input type: PNP, Sinking, 2/3-wire sensors
Sensor power supply: 200 mA
Input channel voltage ("1"): 10V … 25V
Input channel voltage ("0"): -0.2V … 5V
Electronic short circuit protection: 400mA per port
Diagnostic Led
Input filter: 1ms

OUTPUT CHANNEL(S)
Connector: Male M8 (3-pole) or Female M12 (5-pole)
Output type: PNP, Sourcing, 2-wire actuators
Output current: 0.7 A per channel (4 A total per module)

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)

FIELDBUS
Network IN connector: M12, 4-pole, female, A-Coded
Network OUT connector: M12, 4-pole, female, A-Coded
Diagnostic leds (Send + Receive Activity)
2x Rotary switches (station address)
Protocol: CC-Link according CLPA spec v1.1
Support of I/O communication
Transmission Speeds: 156Kbps, 625Kbps, 2.5Mbps, 5Mbps and 10Mbps (Configuration via 4 DIP switches)
CLPA Certification

REGULATORY APPROVALS
CE, UL, cUL
RoHS, REACH

Ordering Information

<table>
<thead>
<tr>
<th>Order No.</th>
<th>Engineering No.</th>
<th>Protocol</th>
<th>No. of Ports</th>
<th>Housing Size</th>
<th>I/O Connectors</th>
<th>I/O Configurations</th>
<th>I/O Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>112101-5003</td>
<td>TBDCC-880P-844</td>
<td>CC-Link*</td>
<td>8</td>
<td>30mm</td>
<td>M8</td>
<td>8:0</td>
<td>PNP</td>
</tr>
<tr>
<td>112101-5004</td>
<td>TBDCC-844P-844-G</td>
<td></td>
<td>8</td>
<td>30mm</td>
<td>M8</td>
<td>4:4</td>
<td>PNP</td>
</tr>
<tr>
<td>112101-5006</td>
<td>TBDCC-480P-88U</td>
<td></td>
<td>4</td>
<td></td>
<td>M12</td>
<td>8:0</td>
<td>PNP</td>
</tr>
<tr>
<td>112101-5007</td>
<td>TBDCC-444P-88U-G</td>
<td></td>
<td>4</td>
<td></td>
<td>M12</td>
<td>4:4</td>
<td>PNP</td>
</tr>
</tbody>
</table>

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.