

Brad® HarshIO 600 Digital I/O

molex®

EtherNet/IP™

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



Brad IP67 EtherNet/IP*
Digital I/O Module

Applications

Factory automation

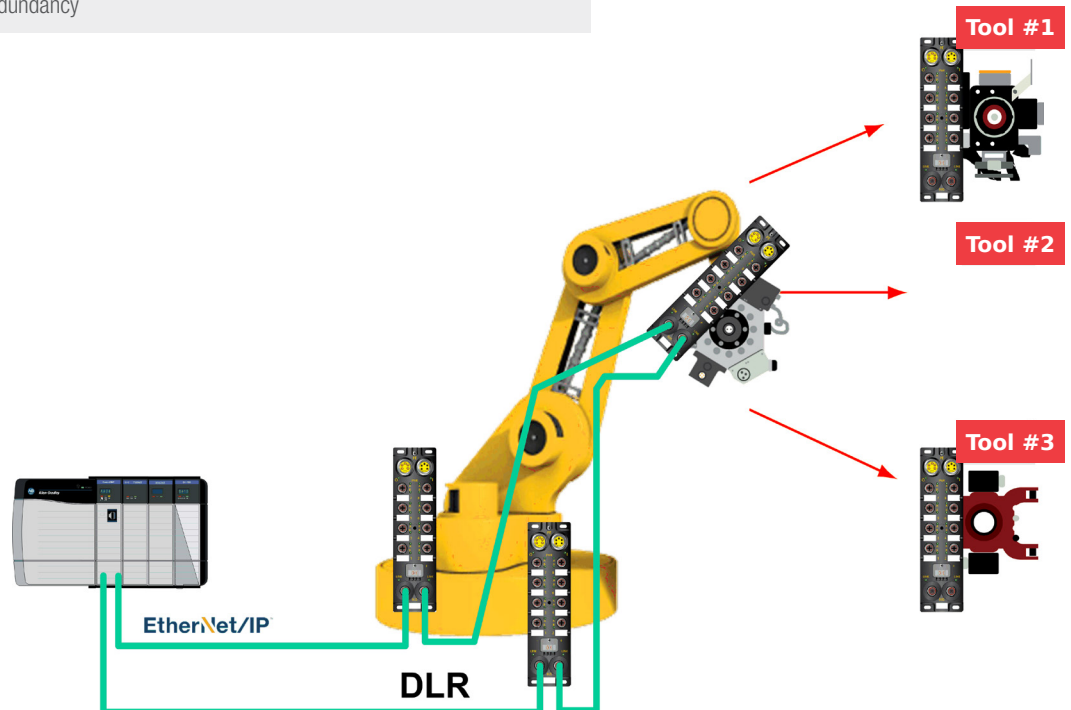
- Automotive manufacturing
(assembly line, body shop, powertrain)
- Material handling and packaging
- Conveying

Machine builders

- Complex machines
- CNC machines
- Robotics

Process control

- Food and beverage
- Oil & Gas
- Pharmaceutical



Typical System Architecture

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

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)

QuickConnect: Yes (Class A)

ACD: Yes
 IP Address Capabilities (via 3 rotaries): DHCP, Static Address, Stored (EtherNet/IP 0xF5 / 0xF6 objects)
 EDS file

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

Order No.	Engineering No.	Power Connectors	Description	I/O Configuration	
				Inputs	Outputs
112095-5137	TCDEI-8D0P-DYU-G02	7/8" 4-pole	HarshIO Digital Module, EtherNet/IP, DLR, QuickConnect	16	-
112095-5138	TCDEI-888P-DYU-G02			8	8

*EtherNet /IP™ and the EtherNet/IP™ logo are trademarks of Open DeviceNet Vendor Association, Inc
 †Logix™, RSLogix™ and RSLinx™ are trademarks of Rockwell Automation