DATASHEET

PROFINET Industrial I/O Modules›

PROFINET Industrial I/O Modules are robust and durable IP67-rated input/output (I/O) modules designed for connecting industrial controllers and devices in harsh-duty environments to enable fast and versatile automation of industrial networks that use the PROFINET protocol.

ADVANTAGES AND FEATURES

Is resistant to vibration and dust
Resin potting seals cables against environmental ingress for on-machine mounting.

Provides flexibility to configure module for multiple applications
Users can choose between fixed and configurable digital I/O channels, with various input and output combinations available, to improve versatility and reduce costs.

Reduces installation time with M12 Ultra-Lock push-to-lock connectors
Fast and secure Ultra-Lock connectors enable quick changeovers and are compatible with threaded connectors for greater flexibility.

Accelerates time to market with off-the-shelf options
Delivery is available in six to eight weeks.

Protocol	PROFINET
Ingress Protection	IP67 rated
Mounting	On machine
Form Factor	60.00mm
Connector Types	5-pole M12 Ultra-Lock, 5-pole Mini-Change
Operating Temperatures	-20 to +70°C

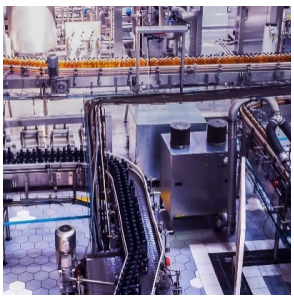
Enables simplified networking for industrial networks
Modules are compliant with the PROFINET protocol. Ethernet ring redundancy (MRP feature) and Fast Start-Up (FSU) capability to start and connect the module in less than 500 milliseconds minimize installation time and downtime.

Communicates module and network status quickly via integrated diagnostic features
Maintenance personnel can easily determine I/O, module and network status by using diagnostic capabilities via an embedded web server, fieldbus messaging and diagnostic LED indicators.

MARKETS AND APPLICATIONS

Industrial Automation
Automotive assembly lines
CNC machines
Complex factory automation devices
Conveyors
Material handling devices
Robotic cells
Warehouse automation systems

Automotive Assembly Lines



Conveyors

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SPECIFICATIONS

Reference Information

Packing: Carton
Designed in: Millimeters
PI PROFINET Conformance: Yes
RoHS: Yes
CE: Yes
REACH: Yes
cULus/CSA: Yes (CSA 22.2)
EMC: EN 61000-6-2/EN 61000-6-4
I/O Configurations:
- 16 inputs
- 12 inputs + 4 outputs
- 8 inputs + 8 outputs
- 16 I/O user configurable

Fieldbus

PROFINET: Yes, I/O device (according to specification v2.2)
Conformance: Class B (CC-B)
I/O Update Rate: Up to 1 millisecond
Data Access:
- Cyclic (for I/O data)
- Acyclic (for read/write alarms, module configuration and diagnostic)

PROFIenergy: Yes
SNMP V1/V2/V3: Yes
LLDP: Yes (sender/receiver)
MRP: Yes (client)
Fast Start-Up: Yes
I&M: Yes
Upload GDS File: Yes (via integrated web)
IP Address Capabilities: DCP (default) or static
Easy Replacement: Based on DCP/LLDP
Fallback Process Output Value: Via GSD

Physical

Dimensions: 220.00 by 60.00 by 37.50mm
Housing: IP67 rated
Housing Material: PBT VALOX 420 SEO
Operating Temperatures: -20 to +70°C
Storage Temperatures: -40 to +85°C
Relative Humidity: 10 to 95%, non-condensing
Firmware: Upgradeable

Input Channels

Input Type: PNP, sinking, IEC 61131-2- Type 3
Diagnostic LEDs: Yes
Sensor Power Supply: 140mA (pin 1), short circuit protection and overcurrent protection
Input Filter: 5 milliseconds
Connector: M12, 4-pin, female, A-code, Nickel Brass

Power Connectors

Power In: Male Mini-Change, 5 pole
Power Out: Female Mini-Change, 5 pole
Protection Against Power Crossing: Yes

Output Channels

Output Type: PNP, sourcing
Output Current: 2.0A per channel (max. 8.0A at 25°C)
Diagnostic LEDs: Yes
Short Circuit and Overcurrent Protection: Yes
Connector: M12, 4-pin, female, A-code, Nickel Brass
Switching Frequency: 200 Hz

Shock and Vibration

Mechanical Shock: EN 60068-2-6/EN 60068-2-29
Vibration: EN 60068-2-6/EN 60068-2-29

Ethernet Switch

Network Connectors: 2 x M12, 4-pole, female, D-code, Nickel Brass
Diagnostic LEDs: Yes (per port, link/speed/activity)
Data Speed: 2 port, 10/100 Mbps (auto-negotiation)

Power Requirements

Module Input Power: 24V DC (-15/+20%)
Module Output Power: 24V DC (-15/+20%), 8.0A max. per module
Diagnostic LEDs: Yes (logic/input and output) with detection of high- and low-voltage operation

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Order No. 987652-7411 USA/0k/GF/2024.06