Quantsen ® SmartIO IP67 EtherNet/IP or PROFINET Modules featuring Fast Start-Up technology are Industrial field intelligent distributed ones.They are used for signal acquisition and output control in a variety of industrial applications.

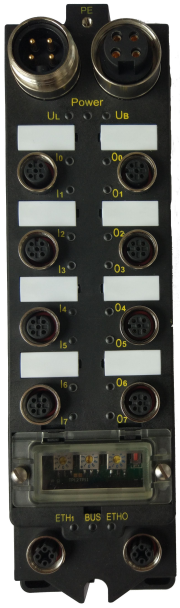
Quantsen Intelligent System

SmartIO Series with Fast Start-Up

Quantsen ® SmartIO EtherNet/IP modules provide a reliable solution for connecting industrial controllers to I/O devices in harsh duty environments. Machine mountable in an IP67 rated housing, SmartIO modules are ideally suited for industrial applications in harsh environments where liquids, dust or vibration may be present.
Modern industrial robots, with automatic tool change (ATC) capabilities increase the flexibility of production lines and reduce the number of robots required per cell. Achieving shorter production cycles is possible through minimising ATC time. The Quantsen ® SmartIO EtherNet/IP modules feature Fast Start Up (FSU) technology. This meets requirements from automobile manufacturers that stipulate the time between the power-on of an I/O device and the first cyclic input data being received should not exceed 500ms.
Advanced features such as built-in 2-port Ethernet switch and a flexible IP address-setup method make configuration and operation simple. Through the industrial ring structure, SmartIO modules can also provide network fault location function.

FEATURES AND BENEFITS

- Rated IP67 for harsh environments
- Designed for direct machine-mount applications
- Shock and vibration tested
- Overmolded module electronics
- Metallic connectors
- 4-pole 7/8 or M12 power connectors
- Accepts standard M12 threaded connectors
- Standard hole housing pattern allows for interchangeability with popular I/O modules
- Choice of fixed I/O module versions
- Supports customization
- Advanced diagnostics
- Short-circuit diagnostics and alarm per I/O channel
- Supports EtherNet/IP 2.1 or PROFINET 2.3
- Complete module and channel diagnostics supported via EtherNet/IP
- IP addressing: DHCP or static (through web server interface, push buttons)
- Built-in 2-port Ethernet switch, 10/100 Mbps auto-sensing and crossover capability
- Fast Start-Up capability to start and operate the module in less than 500ms
- Grounding isolation between input/logic ground and output ground for application using safety relays



SmartIO Module

MARKETS AND APPLICATIONS

- Factory Automation
  - All industries using robots for repetitive tasks with precision
  - Machine tool industry
  - Automotive
  - Material handling systems
  - Filling & packaging machines
  - Steel industry

SPECIFICATIONS

I/O Configurations:
16x inputs
8x inputs / 8x outputs
16x outputs
I/O Connectors:
Female, Standard M12, A-Coded, 5-pole

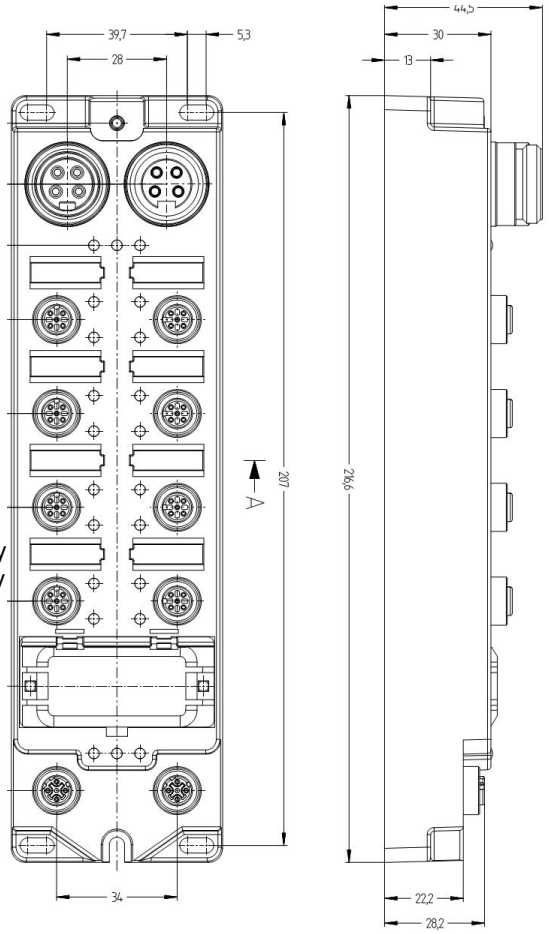
Bus Connectors:
Male, Standard M12, D-Coded, 4-pole
Power Connectors:
Power In: Male ,4-pole,4-M12
Power Out: Female, 4-pole,4-M12
Power Requirements:
Module input power: 24V DC (-15/ +20%)
Module output power: 24V DC (-15/ +20%)
8.0A max per module

Ethernet Switch:
2-port
10/100 Mbps (auto-negotiation), full duplex
Storm Protection

Input Type:
Compatible with dry contact, PNP or NPN, 2/3-wire sensors
Electronic short circuit protection
Input Delay:
2.5ms default

Input Device Supply:
200mA per port at 25°C
Output Load Current:
Maximum 2.0A per channel
Electronic short circuit protection

Vibration:
7g (15.7Hz to 500Hz), 3 axis
Mechanical Shock:
10g, 11ms, 3 axis
Thermal Shock:
MIL-STD-1344A



LED INDICATORS

Module and Input Power (UB):
Green – power present
Red – power not connected

Output Power (UL):
Green – power present
Red – power not connected

Power Indication(Power)
Green – UB/UL present
Red – UB/UL not connected

Input/Output (Ix/Ox):
Green – input/output on
Red – input/output fault
Off – input/output off

Ethernet Link (Port 1 and 2)
Green – Ethernet link, 100 Mbit/s, activity
Off – Ethernet link, 100 Mbit/s, no activity

ORDERING INFORMATION

Engineering No.	Description	Poles	Ports	I/O Connectors	I/O Configurations		I/O Channels
					Input	Output	
QS-ENIO88-LM12-P02	Classic 60mm	4-pole power	8	M12	8	8 (max 2A per channel)	PNP
QS-ENI16-LM12-PZ					16	0	
QS-ENO16-LM12-P02					0	16 (max 2A per channel)	
QS-ENIO88-LM12-N02					8	8 (max 2A per channel)	NPN
QS-ENI16-LM12-NZ					16	0	
QS-ENO16-LM12-N02					0	16 (max 2A per channel)	

EtherNet /IP™ is a trademark of Open DeviceNet Vendor Association, Inc
PROFINET™ ,PROFIBUS is a trademark of PI, Inc

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