



Smart 4 I/O

SM4-IO-XX-1

Monitor and Control 4 Digital Inputs & 4 Relay Outputs Over Copper or Fiber Ethernet With Real-Time Alerts

The Smart 4 I/O is an Ethernet I/O controller that interfaces with field devices such as sensors, push buttons, alarms, locks and motors.

Each of the Digital Input and Relay Output channels are configurable through a built-in web management portal, and can be integrated with network management systems, industrial control systems, Internet of Things (IoT) frameworks, and REST-integrated automation platforms.

The Smart 4 I/O supports TLS/SSL encryption, IEEE 802.1X via RADIUS authentication (AAA), role based access control (RBAC), and event logging. The versatile 2-port (1xRJ45, 1xSFP) Ethernet interface offers network access redundancy and segmentation.

It can operate as a standalone unit, independently monitoring and controlling the state of its 4 inputs and 4 relay outputs, or pair with another Smart 4 I/O over a secure TLS/SSL-encrypted tunnel.

This System Pairing feature allows the Smart 4 I/O to transmit I/O bi-directionally across Ethernet between two remote locations.

*Smart 4 I/O*

Features

System

- 8 independent channels for monitoring and controlling 4 Digital Inputs and 4 Relay Outputs
- SPDT-style relays simplify Normally Open or Normally Closed relay configuration
- Optically isolated Digital Input channels that ensure signal integrity and protection against surges

Environment

- Hardened to operate in -40°C to +70°C (-40°F to +158°F)
- DIN rail or Wall Mount (Wall mount ears included)

Power

- 12-48VDC and 125VDC models available with redundant power terminals
- Relay Outputs support up to 3 Amps of current and 60 Watts of power

Quality

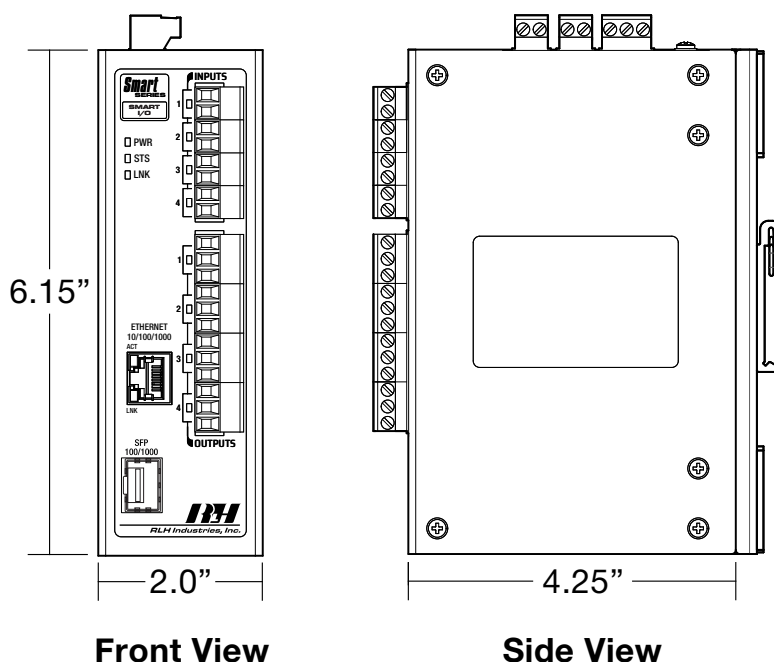
- Designed, Engineered, and Assembled in the USA
- Covered by our Lifetime Warranty

Ethernet IO

- 2-Port Gigabit Ethernet Interface featuring 1xRJ45 port (Copper) and 1xSFP port (Fiber Optics)
- User-friendly embedded web management portal
- Transport I/O between Smart Series units via System Pairing
- NMS and SCADA/DCS integration options include: SNMPv1/v2c/v3, Modbus TCP, and DNP3 TCP
- SNMP-driven I/O oversight with Trap Notifications and Receiver
- MQTT stack for Publish/Subscribe telemetry messaging
- RESTful API with GET/POST/PUT request support
- Encrypted, custom email alert generation during I/O state changes
- Time-stamped Event Log tool with Export-to-CSV feature



Dimensions



Ethernet I/O Specifications

Digital Inputs 1~4	Model: SM4-IO-DR-1	Dry Contacts (0-100 ohms) contact closure		
	Model: SM4-IO-24-1	Wet Contacts (8~27VDC / 5mA) contact closure		
	Model: SM4-IO-48-1	Wet Contacts (20~52VDC / 5mA) contact closure		
	Optical Isolation	3.5kV		
Digital Relay Outputs 1~4	Relay Type:	Mechanical, SPDT Relay, Form C, Normally Open/NO or Normally Closed/NC		
	Relay Ratings:	Max. Power	Max. Voltage	Max. Current
		60W / 125VA	220VDC / 250VAC	2A AC/DC
Ethernet Interface	1x RJ45 Port (10/100/1G), 1x SFP Port (100/1G)		*Data Transmission is auto-negotiated	
Compliant IEEE Standards	IEEE 802.3 10Base-T (Ethernet)		IEEE 802.3u 100Base-TX/FX (Fast Ethernet)	
	IEEE 802.3ab/z 1000Base-T/X (Gigabit Ethernet)		IEEE 802.1X (Port-Based Network Access Control)	
Network Protocols	HTTP/HTTPS, SMTP, DHCP, DNS, NTP, IEEE 802.1X/RADIUS, TLS/SSL Encryption			
	SNMPv1/v2c/v3, Modbus TCP, DNP3, MQTT, RESTful API			
System Pairing Topologies	One-to-One:	1x Smart I/O to 1x Smart I/O		
System Pairing Latency	One-to-One:	(TCP)	Typical 8ms, Maximum 45ms	
	* Latency specification listed is based on direct connections between Input Sensors and Relay Outputs			



General Specifications

LED Indicators	Power, CPU Status, System Pairing, Digital Inputs 1~4, Relay Outputs 1~4, Ethernet Link/Activity			
Power	Power Input	12-48VDC (11-53VDC)		
	-A powering option	125VDC (42~160V)		
	Dual Redundant Power Inputs - Polarity insensitive			
	Power Consumption	6 Watts Maximum		
DC Input Isolation (In/Out)	1.5kV	*For -A power option models only		
Overcurrent Protection	1.0A	Automatic Recovery		
System Status Alarm	Relay Type:	Mechanical, SPDT Relay, Form C, Normally Open/NO or Normally Closed/NC		
	Relay Ratings:	Max. Power	Max. Voltage	Max. Current
		60W / 125VA	220VDC / 250VAC	2A AC/DC
Operating Temperature	-40°C to +70°C (-40°F to +158°F)			
Storage Temperature	-40°C to +85°C (-40°F to +185°F)			
Humidity	95% non-condensing			
Dimensions	H 4.93" x W 2.0" x D 3.93" (125mm x 51mm x 100mm) - not including DIN clip			
Weight	1.6 lbs. (0.73kg)			
Mounting	Standard T-35 DIN rail clip and wall mount ears (Included)			
Compliance	RoHS and REACH			
Warranty	Lifetime - Visit www.fiber opticlink.com for warranty information and coverage details			

Ordering Information

Description	Part Number
Smart I/O 4, 4 Digital Inputs (Dry), 4 Digital Outputs, Powered by 12-48VDC	SM4-IO-DR-1
Smart I/O 4, 4 Digital Inputs (Wet 12-24V), 4 Digital Outputs, Powered by 12-48VDC	SM4-IO-24-1
Smart I/O 4, 4 Digital Inputs (Wet 24-48V), 4 Digital Outputs, Powered by 12-48VDC	SM4-IO-48-1

- Add **-A** to the end of the part number for 125 VDC input power option

Contact

By Mail:	ATTN: Sales RLH Industries, Inc. 936 N. Main Street Orange, CA 92867	
By Phone:	Local	714-532-1672
Sales/Service:	Toll Free	800-877-1672
By Email:	info@fiber opticlink.com	
By Fax:	714-532-1885	

Support

By Email:	support@fiber opticlink.com
By Phone:	Toll Free 855-754-2497