

## ● SIO-D-310ML: 10DI / 8DO RS485 I/O Module



Order Information:

Model No.: SIO-D-310ML

## ● FEATURES

### ➤ Protocol Support

Modbus RTU/ASCII

### ➤ Support Interface

RS485 up to 1152.kbps

10DI: Sink Type, Photo coupler Isolation

8DO: Open Collector 0.5A, Photo coupler Isolation

### ➤ Setting

Console Mode Setting

DIP Switch for Modbus ID

### ➤ Security

Setup Login in Password Protect

Access Password Protect

Firmware Upgradeable

Support New Version Firmware Upgradeable

### ➤ Low Power Consumption

Less than 2W Power Consumption

### ➤ High Reliability

RTOS inside, Build in Watchdog, Power Good, Software Watchdog

Working 24Hours per day

### ➤ Low Cost

## ● GENERAL DESCRIPTIONS

SIO-D-3xx Series, included SIO-D-310ML, SIO-D-318ML, SIO-D-302ML, are the RS485 I/O using the ARM Cortex M3's family microprocessor as the RS485 I/O controller with limit devices. It can provide you lower cost, and useful distributed I/O module. The configuration of SIO-D-3xx is using the console mode and DIP Switch for the Modbus ID setting.

## ● APPLICATIONS

Input Detector

Output Control

Lighting Control

Emergency Help Request System

Automatic Control

Machine Control

Alarm System

Security System

There are 10DI/8DO offered by the SIO-D-310ML, 18DI offered by the SIO-D-318ML, 2DI/16DO offered by the SIO-D-302ML. Each input or output of the SIO-D-3xx series is isolated with photo coupler. Here provided the good operation quality for the applications.

● **SPECIFICATION**

• **Digital Input**

Input Type	Sink Type, for Dry Contact
Number of Input	10
Input Low	0~3VDC
Input High	5~30VDC
Photo Coupler Isolation Protection	3750Vrms or 5000Vrms

• **Digital Output**

Output Type	Open Collector
Number of Output	8
Maximum Voltage	50VDC
Maximum Current	500mA
Photo Coupler Isolation Protection	3750Vrms or 5000Vrms

• **Modbus Address**

Modbus Setting	8 Pin DIP Switch
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• **Serial Interface**

Protocol	Modbus RTU/ASCII Slave
Number of Ports	1
Serial Standards	RS485-3w x1
Connectors	Terminal Block
ESD Protection	15 kV for all signals
RS-485 Data Direction Control	automatic data direction control
Photo Coupler Isolation Protection	UL recognized: 3750 VAC for 1 min. per U.L.

• **Serial Communication Parameters**

Data Bits	7, 8
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Stop Bits	1, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS, DTR/DSR (RS-232 only)
Baudrate	300 bps to 115.2 kbps, option to 50 bps ~ 921.6 kbps

**• Serial Signals**

RS-485-3w	Data+, Data-, SGND
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**• Software**

Configuration Options	Terminal
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**• Physical Characteristics**

Housing	PC (polycarbonate)
Weight	300 g
Dimensions	Without ears:
	25 x 80 x 102 mm
	With ears:
	25 x 94 x 102 mm

**• Environmental Limits**

Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-40 to 85 °C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	Up to 2000 m (795 hPa), higher altitudes on demand

Note

**• Power Requirements**

Input Voltage	12 to 36 VDC
Power Connector	Terminal block
Power Consumption	60 mA @ DC24V
Isolation	1500Vrms

**• Standards and Certifications**

EMC	CE
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**• Reliability**

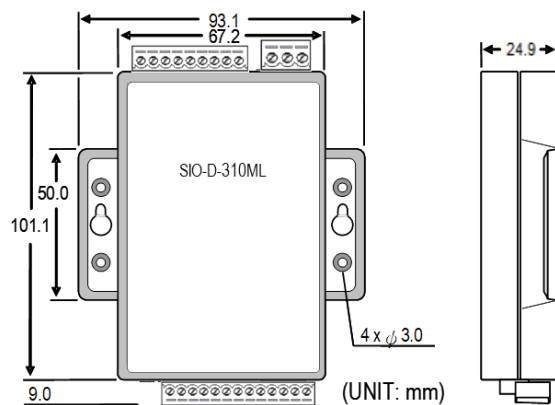
MTBF (mean time between failures)

• **Warranty**

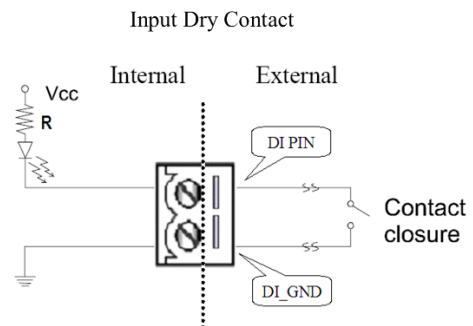
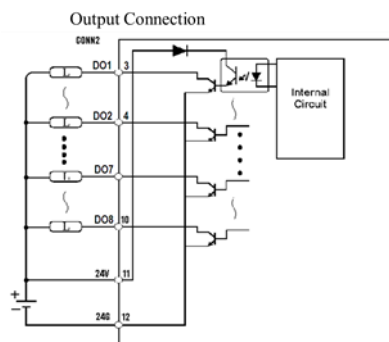
Warranty Period                      1 year

Details                                      See <http://www.infosystem.com.tw>

● **Dimension**



● **Connection**



● **Configuration**

- RS485 Console Setting
- DIP Switch for Modbus ID

● **Installation**

- Wall Mount
- Din Rail (Optional Din Rail Kit)