MQ-7251M
MQTT I/O Module with 16-ch DI

Features

- Built-in Web Server
- Web HMI
- Support for MQTT Protocol
- 2-port Ethernet Switch for Daisy-Chain Topology
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C
- Built-in I/O
  - ☐ DI 16 Channels

Introduction

The MQ-7251M is an Ethernet I/O device equipped with 16-channel DI, as well as the MQTT protocol is supported for connecting with a variety of digital sensors in Industrial Internet of Things (IIoT) applications. A friendly web-based user interface is provided for users to configure module, access the network connection status and I/O status via a normal web browser on a mobile device or computer.

The MQ-7251M features optical isolation for 2500 V_{DC} of transient overvoltage protection, but doesn't not provide channel-to-channel isolation. It can safely be used in applications where hazardous voltages are present.

System Specifications

Model	MQ-7251M
Software	
Built-in Web Server	Yes
Web HMI	Yes
Communication	
Ethernet Port	2 x RJ-45, 10/100 Base-TX, Switch Ports
Protocol	MQTT 3.1.1
Dual Watchdog	Yes, Module (0.8 seconds), Communication (Configurable)
PoE	-
LED Indicators	
for System Running	Yes
for Ethernet Link/Act	Yes
for DI/DO status	Yes
2-Way Isolation	
Ethernet	1500 V_{DC}
I/O	2500 V_{DC}
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal and ±8 kV Air for Random Point
EFT (IEC 61000-4-4)	±4 kV for Power Line
Power	
Reverse Polarity Protection	Yes
Powered from Terminal Block	+12 ~ +48 V_{DC}
Consumption	2.9 W
Mechanical	
Dimensions (L x W x H)	120 mm x 97 mm x 42 mm
Housing	Metal
Installation	Wall Mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

■ I/O Specifications

Model	MQ-7251M
Digital Input	
Channels	16
Contact	Wet
Sink/Source (NPN/PNP)	Sink/Source
ON Voltage Level	+10 V_{DC} ~ +50 V_{DC}
OFF Voltage Level	+4 V_{DC} Max.
Input Impedance	10 kΩ
Overvoltage Protection	+70 V_{DC}

■ Pin Assignments

+12 ~ +48 V_{DC}
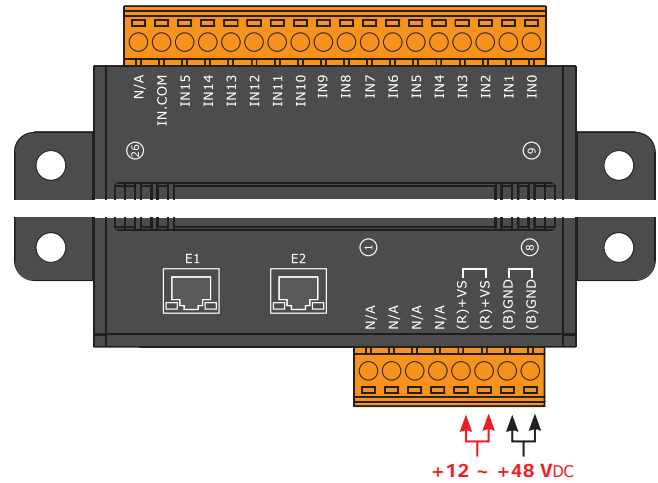
■ Wire Connections

Digital Input	Readback as 1	Readback as 0
Sink	+10 ~ +50 V_{DC}	OPEN or <4 V_{DC}
Source	+10 ~ +50 V_{DC}	OPEN or <4 V_{DC}

■ Dimensions (Units: mm)

Left View   Front View
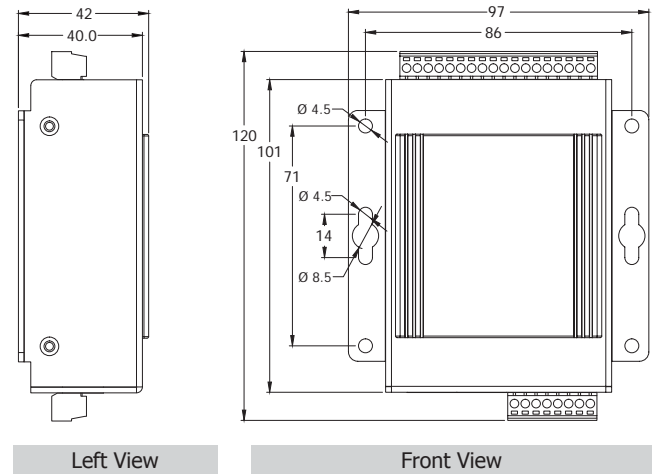
■ Ordering Information

MQ-7251M CR	MQTT I/O Module with 2-port Ethernet Switch, with 16-ch DI (RoHS)