



## MQ-7255M

MQTT I/O Module with 8-ch DI, 8-ch DO

### Features

- Built-in Web Server
- Web HMI
- Support for MQTT Protocol
- Support Modbus TCP Protocol
- 2-port Ethernet Switch for Daisy-Chain Topology
- Dual Watchdog
- Built-in I/O
  - DI: 8 Channels
  - DO: 8 Channels



### Introduction

The MQ-7255M is an Ethernet I/O device equipped with 8-channel DI and 8-channel DO, as well as the MQTT and Modbus TCP protocols, which are supported for connecting with a variety of digital sensors in Industrial Internet of Things (IIoT) applications. A web-based user interface is provided to configure the module, monitor the network connection status and I/O status, and control digital output channels on the module via a normal web browser on a mobile device or computer. The MQ-7255M features optical isolation for 2500 VDC of transient overvoltage protection, but doesn't provide channel-to-channel isolation. Each output channel can drive up to 650 mA load, together with configurable power-on value and safe value. It can safely be used in applications where hazardous voltages are present.

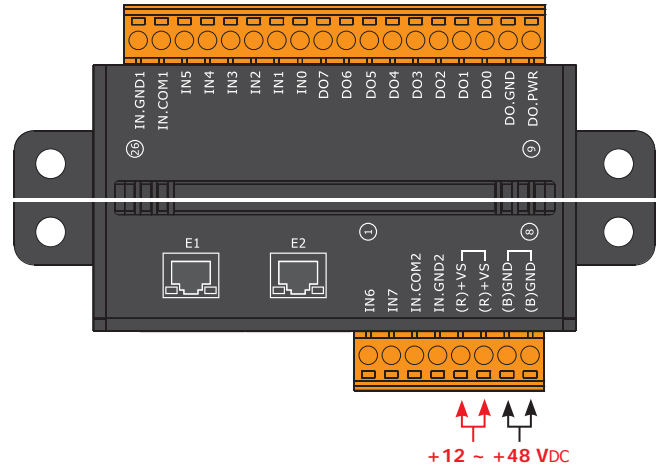
### System Specifications

Model	MQ-7255M
<b>CPU Module</b>	
Watchdog Timer	Yes, Module (0.8 second), Communication (Programmable)
<b>EMS Protection</b>	
EFT (IEC 61000-4-4)	±2 kV for Power Line
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal and ±8 kV Air for Random Point
Surge (IEC 61000-4-5)	±2 kV for Power Line
<b>Software</b>	
Built-in Web Server	Yes
<b>Ethernet</b>	
Ports	2 x RJ-45, 10/100 Base-TX, Switch Ports
Protocol	MQTT 3.1.1 Modbus TCP
Isolation	1500 VDC
<b>Power</b>	
Reverse Polarity Protection	Yes
Consumption	3.9 W Max.
Powered from Terminal Block	12 ~ 48 VDC
<b>Mechanical</b>	
Casing	Metal
Dimensions (mm)	97 x 120 x 42 (W x L x H)
Installation	DIN-Rail or Wall mounting
<b>Environmental</b>	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

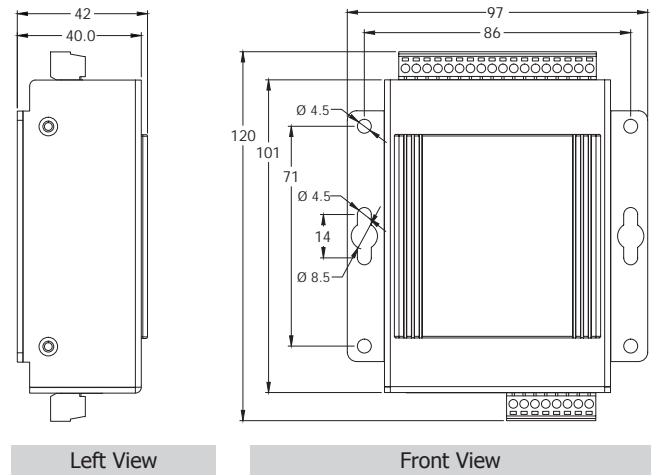
## I/O Specifications

Model	MQ-7255M
<b>Digital Input</b>	
Channels	8
Type	Dry, Wet
Sink/Source (NPN/PNP)	Dry: Source Wet: Sink, Source
ON Voltage Level	Dry: Close to GND Wet: +10 VDC ~ +50 VDC
OFF Voltage Level	Dry: Open Wet: +4 VDC max.
Input Impedance	10 kΩ
Overvoltage Protection	+70 VDC
Effective Distance	500 M Max.
<b>Digital Output</b>	
Channels	8
Type	Isolated Open Collector
Sink/Source (NPN/PNP)	Source
Load Voltage	+10 VDC ~ +40 VDC
Max. Load Current	650 mA/channel at 25°C
Overvoltage Protection	47 VDC
Short-Circuit Protection	Yes
Power on Value	Yes, Programmable
Safe Value	Yes, Programmable

## Pin Assignments



## Dimensions (Units: mm)



## Wire Connections

Digital Input	Readback as 1	Readback as 0
Sink	+10 ~ +50 VDC	OPEN or <4 VDC
Source	+10 ~ +50 VDC	OPEN or <4 VDC

Digital Output	ON State Readback as 1
Source	
	OFF State Readback as 0
Sink	

Digital Input	ON State Readback as 1	OFF State Readback as 0
Dry Contact		

## Ordering Information

MQ-7255M CR	MQTT I/O Module with 2-port Ethernet Switch, with 8-ch DI and 8-ch DO (RoHS)
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