



## M-7017mC-16

16-ch Current Input Module with Data Logger

### Features

- 16 Current Inputs
- Built-in Resistor to Simplify Current Measurement
- Jumper Selectable Differential or Single-ended Wiring
- 16-bit Resolution
- Adjustable Sampling Rate (Fast/Normal Mode)
- Storage for up to 100,000 Records from 16 Current Inputs
- Built-in Dual Watchdog



### Introduction

The M-7017mC-16 is a 16-channel current input module that is specifically designed to measure current only. Its user-friendly design saves both time and effort when measuring current thanks to built-in resistors, meaning that you can now measure current directly without needing to add an external resistor. The module also provides 4 kV ESD protection and 110 VDC overvoltage protection for the current input, and features 3000 VDC intra-module isolation and open wire detection for 4 ~ 20 mA input. The sampling rate on the M-7017mC-16 is adjustable, meaning that either fast mode or normal mode can be selected. The M-7017mC-16 contains a data logger that can be used to record the current input from all 16 channels, including date and time stamps, and is able to store up to 100,000 downloadable records.

### Applications

- Building Automation
- Machine Automation
- Remote Diagnosis
- Factory Automation
- Remote Maintenance
- Testing Equipment

### System Specifications

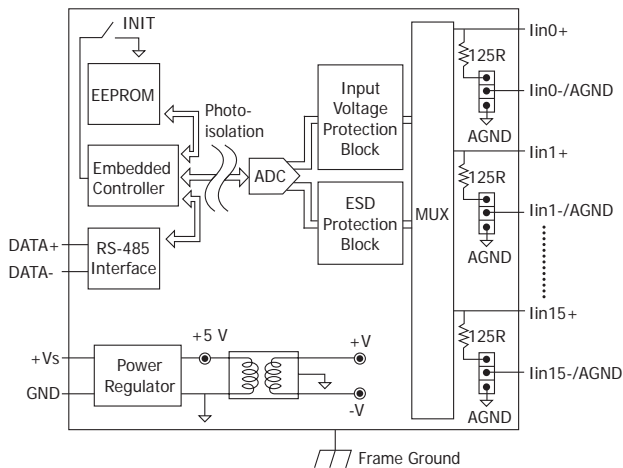
Data Logger	
Max. Records	Up to 100,000 records from 16 current input channels
CPU Module	
Real Time Clock	Yes
Watchdog Timer	Module, Communication (Programmable)
Isolation	
Intra-module Isolation	3000 VDC
EMS Protection	
EFT (IEC 61000-4-4)	±4 kV for Power Line
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal
Surge (IEC 61000-4-5)	±2 kV for Power Line
LED Indicators	
Status	1 x Power and Communication
COM Ports	
Ports	1 x RS-485
Baud Rate	1200 ~ 115200 bps
Data Format	(N, 8, 1) (N, 8, 2) (E, 8, 1) (O, 8, 1)
Protocol	Modbus RTU, DCON
Power	
Reverse Polarity Protection	Yes
Input Range	+10 ~ +48 VDC
Consumption	0.6 W

### I/O Specifications

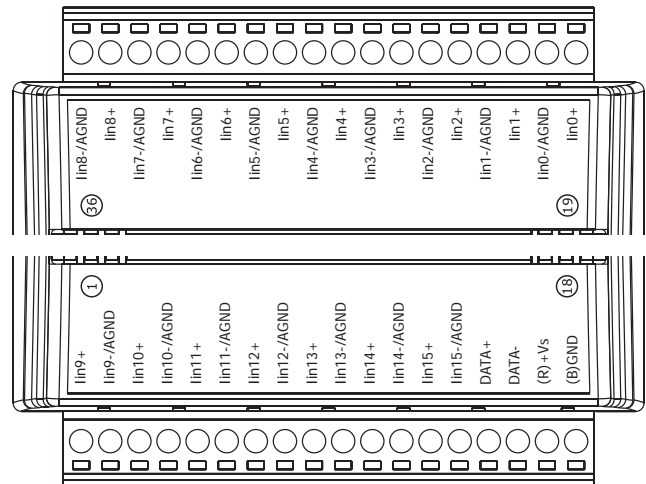
Analog Input		
Channels	16 Differential or Single-ended Wiring (Jumper Selectable)	
Range	±20 mA, 0 ~ +20 mA, +4 ~ +20 mA	
Resolution	16-bit	
Accuracy	Normal Mode	±0.1% of FSR
	Fast Mode	±0.2 % of FSR
Sampling Rate	Normal Mode	10 Hz
	Fast Mode	200 Hz
Common Voltage Protection	25 VDC	
Overvoltage Protection	110 VDC	
Overcurrent Protection	50 mA at 110 VDC	
Individual Channel Configuration	Yes	
Open Wire Detection	For 4 ~ 20 mA Only	

Mechanical	
Dimensions (mm)	72 x 123 x 35 (W x L x H)
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 95% RH, Non-condensing

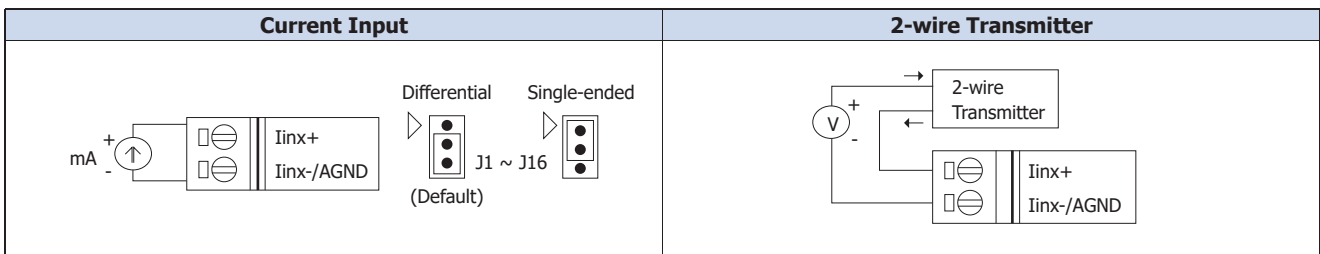
## Internal I/O Structure



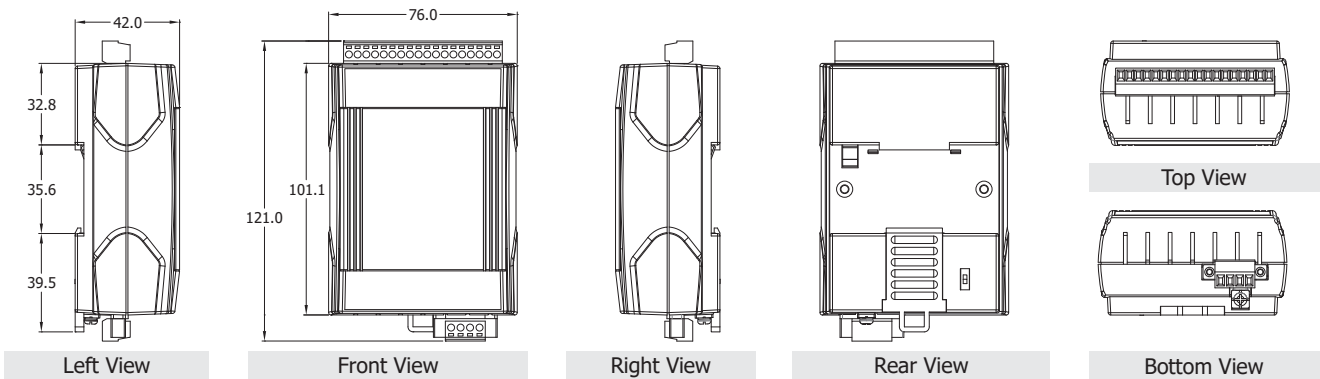
## Pin Assignments



## Wire Connections



## Dimensions (Units: mm)



## Ordering Information

<b>M-7017mC-16-G CR</b>	16-ch Current Input Module with Data Logger using DCON and Modbus Protocols (Gray Cover) (RoHS)
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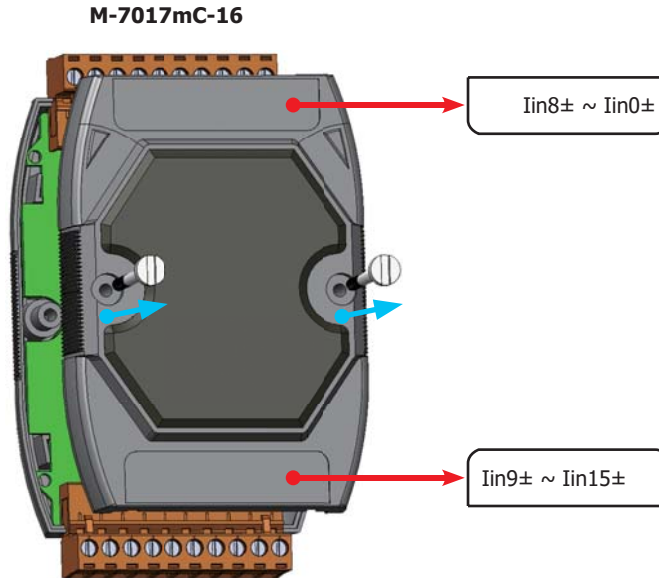
## Accessories

<b>tM-7520U CR</b>	Tiny Isolated RS-232 to RS-485 Converter (RoHS)	<b>I-7514U CR</b>	Isolated 4-channel RS-485 Repeater/Hub/Splitter (Gray Cover) (RoHS)
<b>tM-7561 CR</b>	Tiny USB to Isolated RS-485 Converter with CA-USB18 Cable (RoHS)	<b>SG-770 CR</b>	7/14 channel Surge Protector (RoHS)
<b>tM-SG4 CR</b>	RS-485 Pull-high/Pull-low and Termination Resistor Module (RoHS)	<b>SG-3000 Series</b>	Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input Transformers

## Jumper

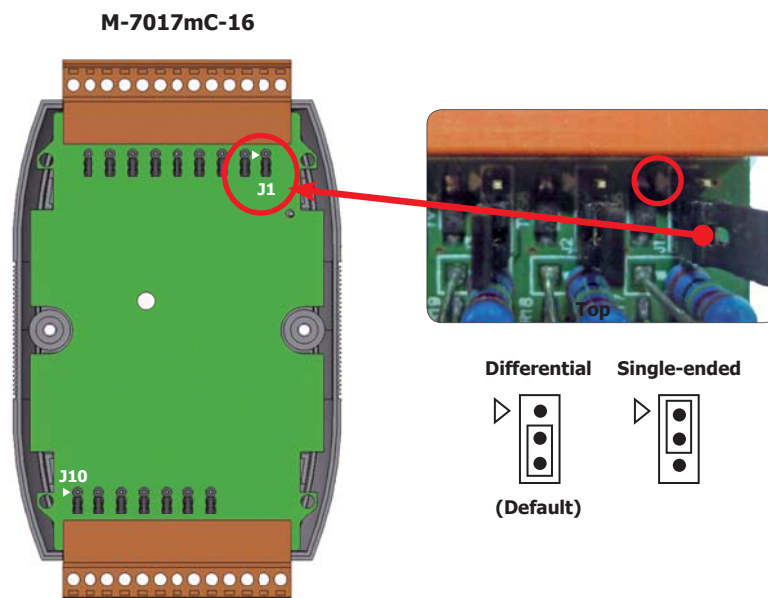
### Notice:

1. Remove the top cover of the module before adjusting the jumper. Additionally, some modules may have two screws on the back cover.



2. Users can locate the Jx/JPx jumpers on the board by checking the I/O labels on the cover.

Channel	Iin8±	Iin7±	Iin6±	Iin5±	Iin4±	Iin3±	Iin2±	Iin1±	Iin0±
Jumper	J9	J8	J7	J6	J5	J4	J3	J2	J1



Channel	Iin9±	Iin10±	Iin11±	Iin12±	Iin13±	Iin14±	Iin15±
Jumper	J10	J11	J12	J13	J14	J15	J16