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I-7014D

1-channel Transmitter Input with 7-segment LED Display

Features

- Current, Voltage and Transmitter Input
- High Resolution: 16-bit
- 50 Hz Event Counter (Digital Input)
- High/Low Alarm (Digital Output)
- 3000 VDC Intra-module Isolation
- Dual Watchdog
- Wide Operating Temperature Range: -25 to +75°C

Introduction

The I-7014 is an 1-channel Transmitter Input module that provides a +15 VDC isolated loop power supply for transmitter input, and is designed for both voltage and current input types. In addition, the module provides 1 Digital Input channel as a 50 Hz event counter and 2 Digital Output channels that can be used as a high/low alarm. The I-7014 also features 3000 VDC intra-module isolation.

Applications

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

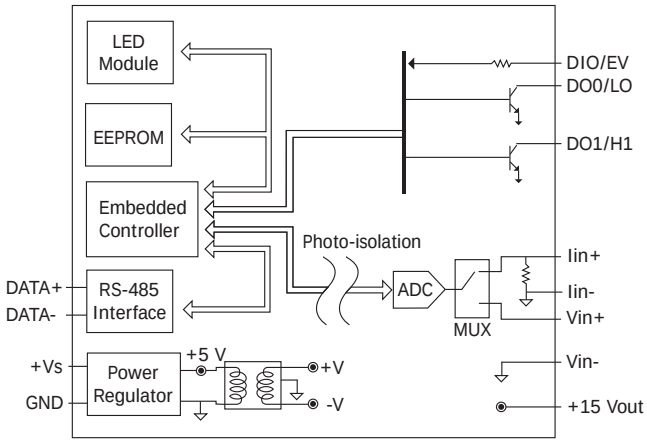
System Specifications

Model	I-7014D
Communication	
Interface	RS-485
RS-485 Bias Resistor	No (An RS-485 master is required to provide the bias.)
Format	N, 8, 1
Baud Rate	1200 to 115200 bps
Protocol	DCON
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)
LED Indicators/Display	
System LED Indicator	Yes, 1 as Power/Communication Indicator
I/O LED Indicators	-
7-Segment LED Display	Yes
Isolation	
Intra-module Isolation, Field-to-Logic	3000 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±2 kV Contact for each Terminal
EFT (IEC 61000-4-4)	±4 kV to Power Line
Surge (IEC 61000-4-5)	±0.5 kV for Power Line
Power	
Reverse Polarity Protection	Yes
Input Range	+10 ~ +30 VDC
Consumption	1.9 W
Mechanical	
Dimensions (L x W x H)	123 mm x 72 mm x 35 mm
Installation	DIN-Rail or Wall Mounting
Environment	
Operating Temperature	-25 to +75°C
Storage Temperature	-40 to +85°C
Humidity	10 to 95% RH, Non-condensing

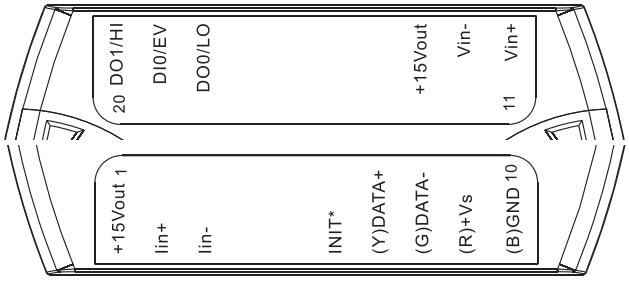
I/O Specifications

Model		I-7014D
Analog Input		
Channels		1
Wiring		Differential
Sensor Type		±150 mV, ±500 mV, ±1V, ±5 V, ±10 V, ±20 mA
Resolution		16-bit
Accuracy		±0.05%
Sampling Rate		10 Hz
Input Impedance	Voltage	30 kΩ
	Current	125 Ω
Isolated Loop Power		±15 VDC, 30 mA
Overvoltage Protection		±15 VDC
Open Wire Detection		-
Digital Input		
Channels		1
Contact		Dry
Sink/Source (NPN/PNP)		Source
ON Voltage Level		Close to GND
OFF Voltage Level		Open
Counter		Yes, 50 Hz, 16-bit
Input Impedance		3 kΩ
Overvoltage Protection		±30 VDC
Digital Output		
Channels		2
Type		Open Collector
Sink/Source (NPN/PNP)		Sink
Load Voltage		+3.5 ~ +50 VDC
Max. Load Current		30 mA/Channel
Power-on Value		Yes
Safe Value		Yes

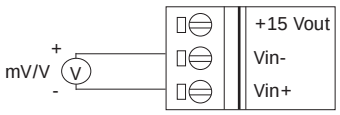
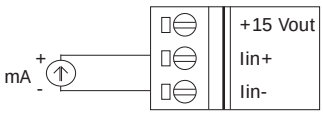
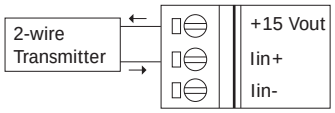
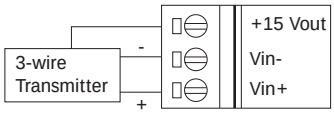
Internal I/O Structure

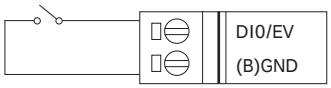
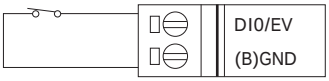


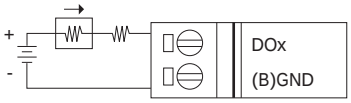
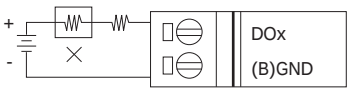
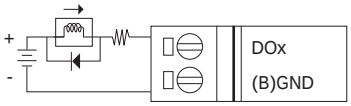
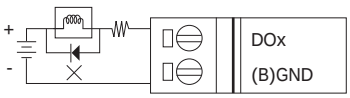
Pin Assignments



Wire Connections

Voltage Input Wire Connection	Current Input Wire Connection
	
2-wire Transmitter Wire Connection	**3-wire Transmitter Wire Connection**
	

Digital Input/Counter	Readback as 1	Readback as 0
	Open	Closed to GND
Dry Contact		

Digital Output	ON State Readback as 1	OFF State Readback as 0
Resistance Load		
Inductance Load		

Ordering Information

I-7014D CR	1-channe Transmitter Input with 7-segment LED Display using the DCON and Modbus Protocols (Blue Cover) (RoHS)

Accessories

	tM-7520U CR	RS-232 to RS-485 Converter (RoHS)	
	tM-7561 CR	USB to RS-485 Converter (RoHS)	
	tM-SG4 CR	RS-485 Bias and Termination Resistor Module (RoHS)	
	I-7514U CR	4-channel RS-485 Hub (RoHS)	
	SG-770 CR	7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)	
	SG-3000 Series	Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input Transformers	