



I-9054P

8-channel Isolated DI and 8-channel Isolated DO Module

Features

- 8-channel Digital Input
- 8-channel Open Collector Output
- Sink-type Digital Output
- Channel Status LED Indicators
- 4 kV ESD Protection
- 3750 VDC Intra-module Isolation
- Wide Operating Temperature Range: -25 to +75 °C



Introduction

The I-9054P offers 8 channels for digital input, catering for both dry and wet contact, with an effective distance for dry contact of up to 500 meters and 8 digital output channels, each of which features Photocouple isolation and supports sink-type output using an open collector.

The I-9054P provides 16 LED indicators that can be used to monitor the DIO channel status. 4 kV ESD protection and 3750 VDC intramodule isolation are also provided to enhance noise immunity capabilities in industrial environments.

System Specifications

LED Display	
System LED Indicator	1 LED as Power Indicator
D/I LED Indicator	8 LEDs as Digital Input Indicators
D/O LED Indicator	8 LEDs as Digital Output Indicators
Isolation	
Intra-module Isolation, Field-to-Logic	3750 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal ±8 kV Air for Random Point
Power	
Power Consumption	1 W Max.
Mechanical	
Dimensions (W x L x H)	31 mm x 134 mm x 144 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 90% RH, Non-condensing

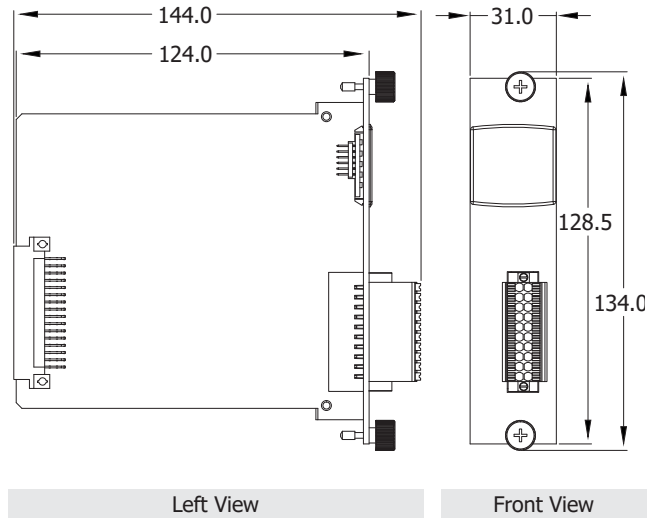
I/O Specifications

Digital Input		
Channels	8	
Sink/Source (NPN/PNP)	Sink/Source	
Input Type	Dry, Wet	
Dry Contact	On Voltage Level	Close to GND
	Off Voltage Level	Open
Wet Contact	On Voltage Level	+19 VDC ~ +30 VDC
	Off Voltage Level	+11 VDC Max.
Input Impedance	3 KΩ, 1W	
Effective Distance for Dry Contact	500 m Max.	
Low Pass Filter	OFF to ON	1 ms/5 ms/10 ms/20 ms/40 ms/70 ms (by Jumper select) or CPU parameter setting Default Setting is 10 ms
	ON to OFF	1 ms/5 ms/10 ms/20 ms/40 ms/70 ms (by Jumper select) or CPU parameter setting Default Setting is 10 ms
Digital Output		
Channels	8	
Sink/Source (NPN/PNP)	Sink	
Output Type	Isolated Open Collector	
Max. Load Current	500 mA/Channel	
Load Voltage	+10 VDC ~ +50 VDC	
Overvoltage Protection	60 VDC	
Overload Protection	1.1 A	
Short-circuit Protection	Yes	

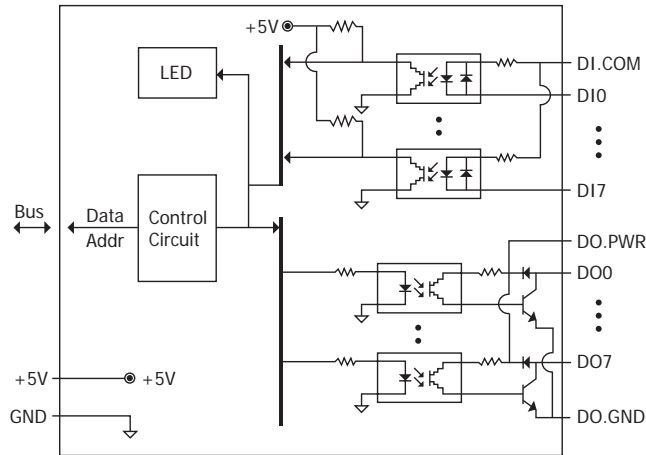
Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
Dry.GND	01	11 DO.GND
DI.COM	02	12 DO.PWR
DI0	03	13 DO0
DI1	04	14 DO1
DI2	05	15 DO2
DI3	06	16 DO3
DI4	07	17 DO4
DI5	08	18 DO5
DI6	09	19 DO6
DI7	10	20 DO7

Dimensions (Units: mm)



Internal I/O Structure



Wire Connections

Input Type	ON State LED ON Readback as 1	ON State LED OFF Readback as 0	Output Type	ON State LED ON Readback as 1	ON State LED OFF Readback as 0
Dry Contact	Close to GND	Open	Drive Relay	Relay ON	Relay OFF
Wet Contact (Sink)			Resistance Load		
Wet Contact (Source)					

Ordering Information

I-9054P CR	8-channel Isolated DI and 8-channel Isolated DO Module (RoHS)
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