I-87069W I-87069PW

8-channel PhotoMOS Relay Output Module

Features

- 8 PhotoMos Relay Outputs
- 4 kV ESD Protection
- No Arcing, No Bounce, and No Switching Noise
- Photocouple Isolation
- Embedded Dual Watchdog
- Configurable Power-on Value Settings
- Configurable Safe Value Settings
- Wide Operating Temperature Range: -25 ~ +75°C

Introduction

Both the I-87069W and the I-87069PW features eight Form A PhotoMOS relay output channels. In comparison to electromechanical relays, the PhotoMOS relays provide a faster response time, greater electrical endurance, higher vibration and shock resistance. There are also no arcing, no bounce, and no switching noise for the PhotoMOS relay. There are options for configuring power-on and safe digital output values, and both the I-87069W and the I-87069PW each include eight LED indicators that are used to display channel status as well as providing 4 kV ESD protection.

Applications

- All Types of On/Off Control
- Industrial Automation
- Industrial Machinery
- Building Automation
- Food and Beverage Systems
- Semiconductor Fabrication
- Control Systems

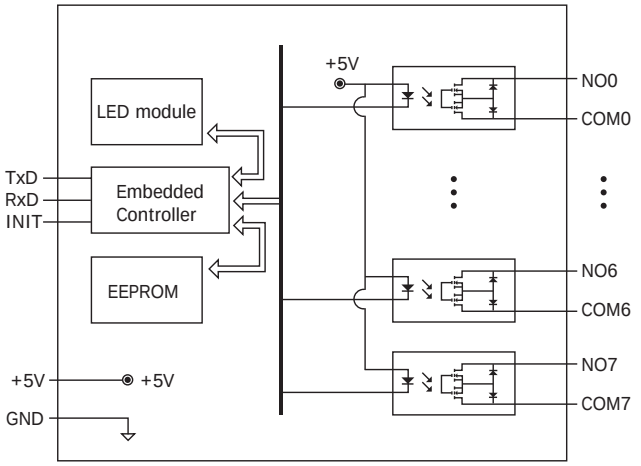
System Specifications

Models	I-87069W	I-87069PW
Communication		
Interface	RS-485	
Format	(N, 8, 1), (N, 8, 2), (O, 8, 1), (E, 8, 1)	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 seconds), Communication (Programmable)	
LED Indicator/Display		
System LED Indicator	1 LED as Power Indicator	
I/O LED Indicator	8 LEDs as PhotoMOS Output Indicators	
Isolation		
Intra-module Isolation, Field-to-Logic	5000 VDC	2000 VDC
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal	
	±8 kV Air for Random Point	
EFT (IEC 61000-4-4)	±4 kV for Power	
Power		
Power Consumption	0.3 W (Max.)	
Mechanical		
Dimensions (W x L x H)	30 mm x 102 mm x 115 mm	
Environment		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-30 ~ +75°C	
Humidity	10 ~ 95% RH, Non-condensing	

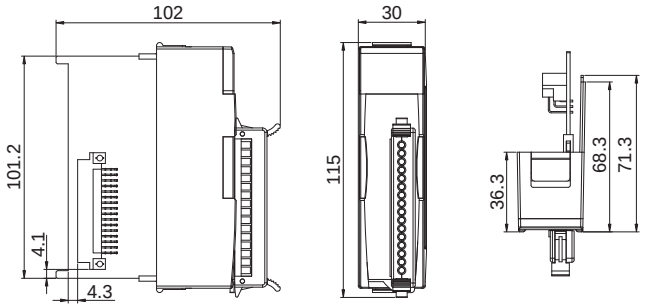
I/O Specifications

Models	I-87069W	I-87069PW
PhotoMOS Relay Output		
Output Channels	8	
Relay Type	PhotoMOS Relay, Form A	
Operating Load Voltage Range	350 V (AC peak or DC)	80 V (AC peak or DC)
Continous Load Current	0.13 A	1 A
Peak Load Current	0.4 A	3 A
Output Off State Leakage Current	1 uA	
Operating Time	2 ms (Max.)	5 ms (Max.)
Release Time	1 ms (Max.)	0.5 ms (Max.)
Electrical Endurance	No Arcing, No Bounce, and No Switching Noise	
Power-on Value	Yes	
Safe Value	Yes	

Internal I/O Structure

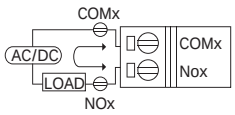
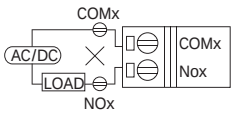


Dimensions (Units: mm)

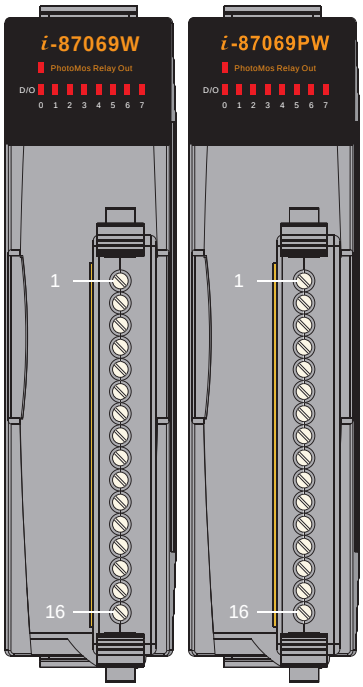


Left Side View | Front View | Top View

Wire Connections

PhotoMOS Relay	ON State Readback as 1	OFF State Readback as 0
Relay Output		

Pin Assignments



Terminal No.	Pin Assignment
01	NO0
02	COM0
03	NO1
04	COM1
05	NO2
06	COM2
07	NO3
08	COM3
09	NO4
10	COM4
11	NO5
12	COM5
13	NO6
14	COM6
15	NO7
16	COM7

Ordering Information

I-87069W-G CR	8-channel PhotoMOS Relay Output Module (Gray Cover) (RoHS)
I-87069PW-G CR	8-channel PhotoMOS Relay Output Module (Gray Cover) (RoHS)

Accessories

 SG-770 CR	7 channel differential or 14 channel single-ended surge protector (RoHS)