I-7066

I-7066D

M-7066P

M-7066PD

7-ch PhotoMOS Relay Module

## Features

- I-7066(D)
  - PhotoMOS Relay: 0.13 A @ 350 V (AC peck or DC)
- M-7066P(D)
  - PhotoMOS Relay: 1 A @ 80 V (AC peck or DC)
- 7 PhotoMOS Relay Outputs
- No Arcing, No Bounce, and No Switching Noise
- Photocoupler Isolation
- Configurable Power-on Value and Safe Value Settings
- Built-in Dual Watchdog

## Introduction

Both the I-7066 and the M-7066P feature seven 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-7066D and the M-7066PD each include seven LED indicators that are used to display channel status as well as providing 4 kV ESD protection.

## System Specifications

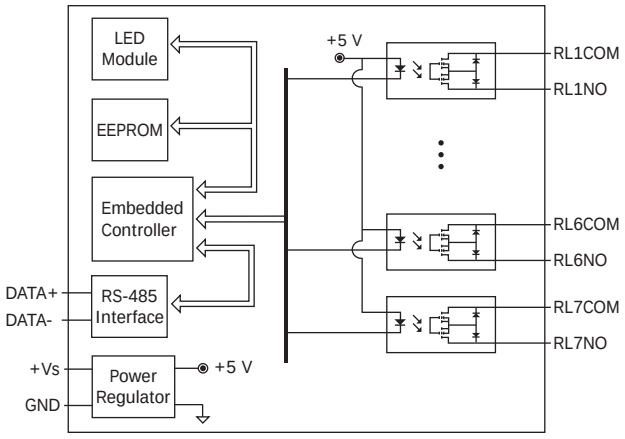
| Model | I-7066 | I-7066D | M-7066P | M-7066PD |
|---|---|---|---|---|
| **CPU Module** | | | | |
| Watchdog Timer | Module, Communication (Programmable) | | | |
| **Display** | | | | |
| Type | 7066D/66PD: I/O LED Indicator | | | |
| **Isolation** | | | | |
| Intra-module Isolation | 5000 VDC | | 2000 VDC | |
| **EMS Protection** | | | | |
| EFT (IEC 61000-4-4) | ±4 kV for 8 Relay and Power Line<br>±2 kV for RS-485 Port Line | | | |
| ESD (IEC 61000-4-2) | ±4 kV Contact for Each Terminal<br>±8 kV Air for Random Point | | | |
| **LED Indicators** | | | | |
| Status | 1 x Power and Communication | | | |
| | 7066D/66PD: 7 x Relay Output | | | |
| **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 | DCON | | Modbus RTU, DCON | |
| **Power** | | | | |
| Reverse Polarity Protection | Yes | | | |
| Input Range | +10 ~ +30 VDC | | | |
| Consumption | 0.4 W | 0.8 W | 0.5 W | 0.9 W |

## I/O Specifications

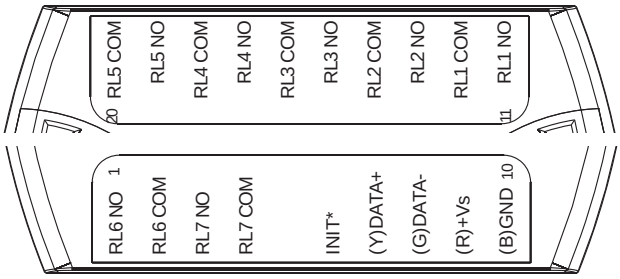
| Model | I-7066(D) | M-7066P(D) |
|---|---|---|
| **Relay Output** | | |
| Channels | 7 (Form A) | |
| Type | PhotoMOS Relay | |
| Contact Rating | AC peck or DC: | |
| | 350 V @ 0.13 A | 80 V @ 1 A |
| | 0.24 A @ 220 VDC<br>0.25 A @ 250 VAC | |
| Leakage Current | 1 uA | |
| Operate Time | 2 ms Max. | 5 ms Max. |
| Release Time | 1 ms Max. | 0.2 ms Max. |
| Electrical Endurance | Long Life, No Arcing, No Bounce, No Switching Noise | |
| Power on Value | Programmable | |
| Safe Value | Programmable | |

| 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

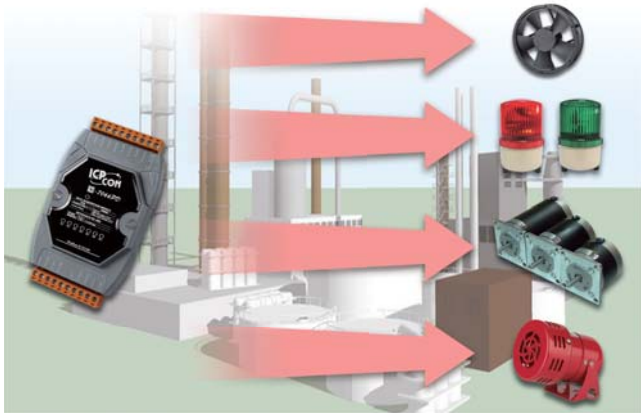



## Pin Assignments

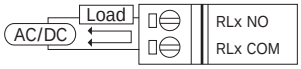
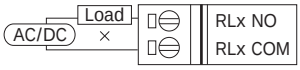



## Applications

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



## Wire Connections

| Relay Output | ON State<br>Readback as 1 |
|---|---|
| Relay Output |  |
| | **OFF State<br>Readback as 0** |
| |  |

## Ordering Information

| | |
|---|---|
| **I-7066 CR** | 7-ch PhotoMOS Relay (0.13 A @ 350 V) Module using DCON Protocol (Blue Cover) (RoHS) |
| **I-7066D CR** | 7-ch PhotoMOS Relay (0.13 A @ 350 V) Module with LED Display using DCON Protocol (Blue Cover) (RoHS) |
| **M-7066P-G CR** | 7-ch PhotoMOS Relay (1 A @ 80 V) Module using DCON and Modbus Protocols (Gray Cover) (RoHS) |
| **M-7066PD-G CR** | 7-ch PhotoMOS Relay (1 A @ 80 V) Module with LED Display, using DCON and Modbus Protocols (Gray Cover) (RoHS) |

## Accessories

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