



Digital Input

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RS-485 Remote I/O Modules



I-87053W

I-87053PW

16-channel Isolated Digital Input Module with 16-bit Counters

Introduction

I-87053W offers 16 channels for digital input which cover dry contact and wet contact as well. Its effective distance for dry contact is up to 500 meters. All of its channels are not only with isolation but also able to be used as counters. I-87053W has 16 LED indicators for channel status as well as qualification for 4 kV ESD protection and 3750 V_{DC} intra-module isolation.

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I-87KW Series

System Specifications

| Models | I-87053W | I-87053PW |
|--|---|-----------|
| Communication | | |
| Interface | RS-485 | |
| Format | N, 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/Communication Indicator | |
| I/O LED Indicator | 16 LEDs as High/Low Alarm Signals | |
| Isolation | | |
| Intra-Module Isolation, Field-to-Logic | 3750 V _{rms} | |
| EMS Protection | | |
| ESD (IEC 61000-4-2) | 4 kV Contact for Each Terminal | |
| | 8 kV Air for Random Point | |
| Power | | |
| Power Consumption | 0.8 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 | -40 ~ +85°C | |
| Humidity | 10 ~ 95% RH, Non-condensing | |

I-87053W/I-87053PW

Features

- Support Digital Inputs (Dry and Wet)
- Photocouple Isolation
- Long Distance Measurement
- 4 kV ESD Protection
- 3750 V_{DC} Intra-module Isolation
- RoHS Compliant
- Wide Operating Temperature Range: -25 ~ +75°C



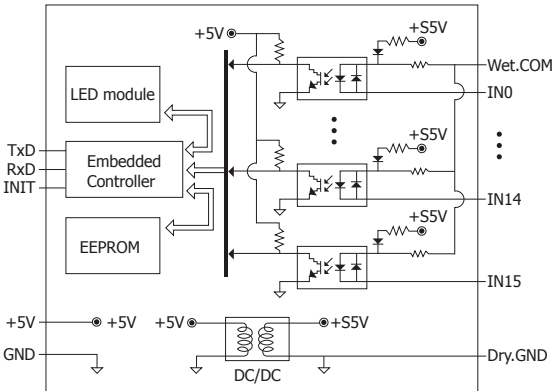
Applications

Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote Diagnosis, Testing Equipment.

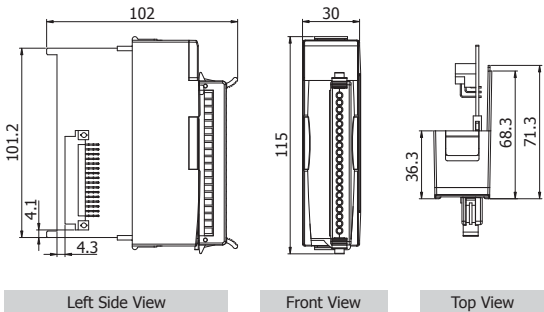
I/O Specifications

| Models | I-87053W | I-87053PW |
|------------------------------------|----------------------|--|
| Digital Input | | |
| Channels | 16 | |
| Type | Dry+Wet | |
| Sink /Source (NPN /PNP) | Sink, Source | |
| Dry Contact | On Voltage Level | Close to GND. |
| | Off Voltage Level | Open |
| Wet contact | On Voltage Level | +3.5 V _{DC} ~ +30 V _{DC} |
| | Off Voltage Level | +1 V _{DC} Max. +11 V _{DC} Max. |
| Input Impedance | 3 kΩ, 0.33 W | |
| Counters | Channels | 16 |
| | Max. Counts | 16-bit (65535) |
| | Max. Input Frequency | 100 Hz |
| | Min. Pulse Width | 5 ms |
| Channel to Channel Isolation | Yes | |
| Low Pass Filter | Yes | |
| Effective Distance for Dry Contact | 500 m Max. | |

Internal I/O Structure



Dimensions (Units: mm)



Wire Connections

| Input Type | ON State Readback as 1 Close to GND | OFF State Readback as 0 Open |
|----------------------|---|------------------------------------|
| Dry Contact | | |
| Wet Contact (Sink) | | |
| Wet Contact (Source) | | |

Pin Assignments

| Terminal No. | Pin Assignment |
|--------------|----------------|
| 01 | IN0 |
| 02 | IN1 |
| 03 | IN2 |
| 04 | IN3 |
| 05 | IN4 |
| 06 | IN5 |
| 07 | IN6 |
| 08 | IN7 |
| 09 | IN8 |
| 10 | IN9 |
| 11 | IN10 |
| 12 | IN11 |
| 13 | IN12 |
| 14 | IN13 |
| 15 | IN14 |
| 16 | IN15 |
| 17 | Wet.COM |
| 18 | Wet.COM |
| 19 | Dry.GND |
| 20 | Dry.GND |

Ordering Information

| | |
|----------------|---|
| I-87053W-G CR | 16-channel Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS) |
| I-87053PW-G CR | 16-channel Isolated Digital Input Module with 16-bit Counters (Gray Cover) (RoHS) |

Accessories

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