# PFN-2055
PROFINET I/O Module

■ Features

- Protocol: PROFINET IO Device
- PROFINET Conformance Class B and RT Class 1
- Cyclic Time: 1ms (min)
- Generic GSDML File Provided (Version 2.25)
- Do load voltage: +3.5 ~ +50 VDC
- Do load current: 700 mA/Channel (max.)
- Provide short-circuit protection on DO channels
- DI ON/OFF voltage level: +10 ~ +50 VDC / +4V max.
- 4 kV Contact ESD protection for any terminal
- Wide range of power input (+10 ~ +30 VDC) and operating temperature (-25 ~ +75°C)

■ Introduction

The PFN-2055 is one of the PROFINET IO series products produced by ICP DAS. It provides the PROFINET IO communication protocol with any PROFINET IO controllers. It has 8-channel isolated digital inputs and 8-channel isolated digital outputs, and it provides ±4kV ESD protection contacting for all terminals. You can access and configure it by using the GSDML file in any PROFINET Engineering tool.
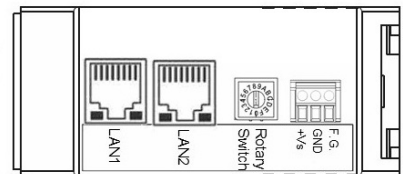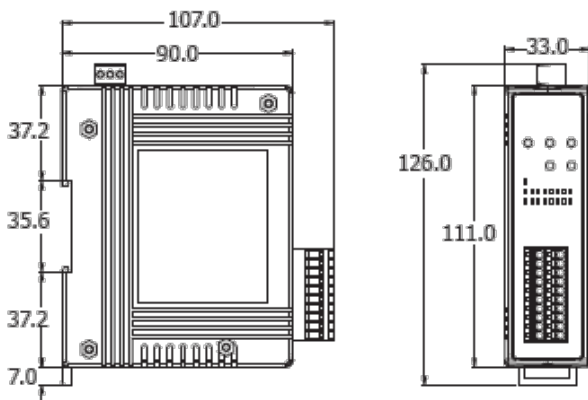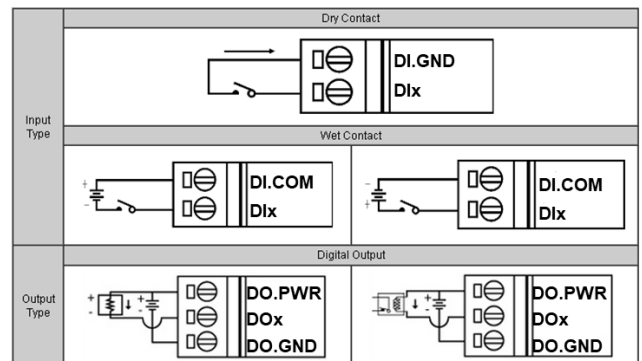
■ Internal I/O Structure

■ Dimensions (Units: mm)
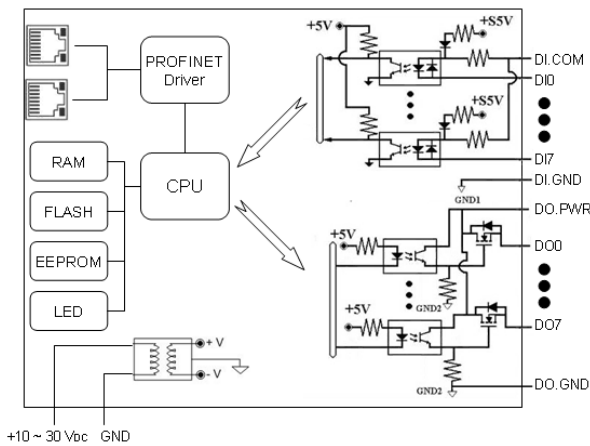
■ I/O Pin & Wire Connection
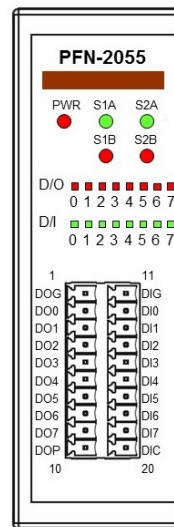
Terminal No.	Pin Assignment	Terminal No.	Pin Assignment
01	DO GND	11	DI GND
02	DO0	12	DI0
03	DO1	13	DI1
04	DO2	14	DI2
05	DO3	15	DI3
06	DO4	16	DI4
07	DO5	17	DI5
08	DO6	18	DI6
09	DO7	19	DI7
10	DO PWR	20	DI COM

Wire Connection

▣ Hardware Specifications

Hardware	
CPU	32-bit CPU Core
RAM/Flash/EEPROM	32 MB / 4 MB / 8 KB
Watchdog	CPU built-in
ESD Protection	4 kV class B
PROFINET Interface	
Protocol	PROFINET IO Device
Conformance Classes	Class B
Services	RTC, RTA, CL-RPC, DCP, LLDP, I&M
Cycle Time	1 ms (min)
Ethernet Interface	
Controller	10/100Base-TX Ethernet Controller (Auto-negotiating, Auto_MDIX)
Connector	RJ-45 x 2 (LED indicators) , Integrated 2-Port Switch
Services	ICMP, IGMP, ARP, DHCP, TELNET, TFTP, SNMP, VLAN Priority Tagging
Digital Input	
Channels	8, Dry Contact: Source, Wet Contact: Sink or Source
Dry Contact Level	Off Voltage Level : Open, On Voltage Level : Close to GND
Wet Contact Level	Off Voltage Level : +4 VDC max., On Voltage Level : +10 VDC to +50 VDC
Digital Output	
Channels	8, Sink, Open Collector
Load voltage	+3.5 ~ +50 VDC
Load current	700 mA/Channel (max.)
LED	
Round LED	PWR LED, S1A LED, S1B LED, S2A LED, S2B LED
Power	
Power supply	Unregulated +10 ~ +30 V_{DC}
Protection	Power reverse polarity protection, Over-voltage brown-out protection
Power Consumption	4 .5W
Mechanism	
Installation	DIN-Rail
Dimensions	33 mm x 107 mm x 126 mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75 ℃
Storage Temp.	-30 ~ 80 ℃
Humidity	10 ~ 90% RH, non-condensing

▣ Application
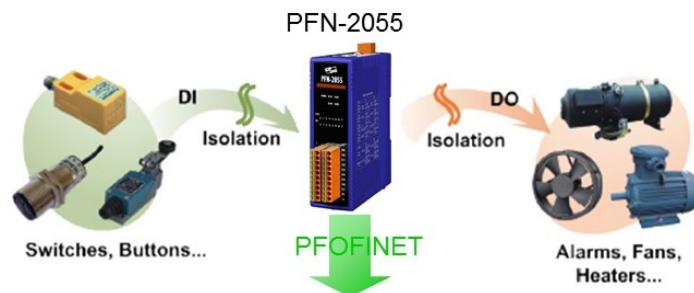
PFN-2055

▣ Ordering Information

PFN-2055 CR	PROFINET I/O Module (Isolated 8-ch DI & 8-ch DO) (RoHS)