PROFINET Series Products

PROFINET I/O Module

RoHS CE FC

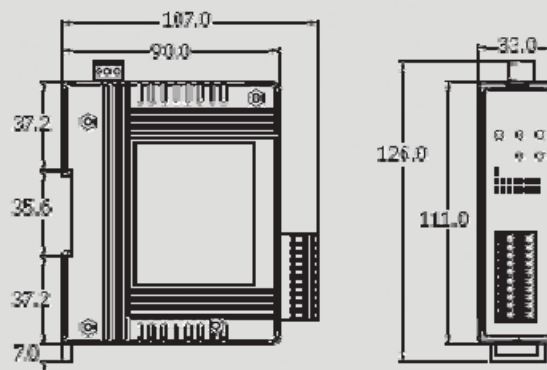### PFN-2042

Dimensions

The PFN-2042 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 16-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.

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
- 4 kV Contact ESD protection for any terminal
- Wide range of power input (+10 ~ +30 VDC) and operating temperature (-25 ~ +75°C)

Internal I/O Structure

I/O Pin & Wire Connection
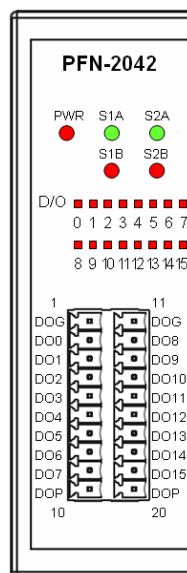
Terminal No.	Pin Assignment	Terminal No.	Pin Assignment
01	DO GND	11	DO GND
02	DO0	12	DO8
03	DO1	13	DO9
04	DO2	14	DO10
05	DO3	15	DO11
06	DO4	16	DO12
07	DO5	17	DO13
08	DO6	18	DO14
09	DO7	19	DO15
10	DO PWR	20	DO PWR
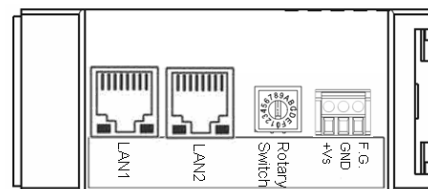
Wire Connection
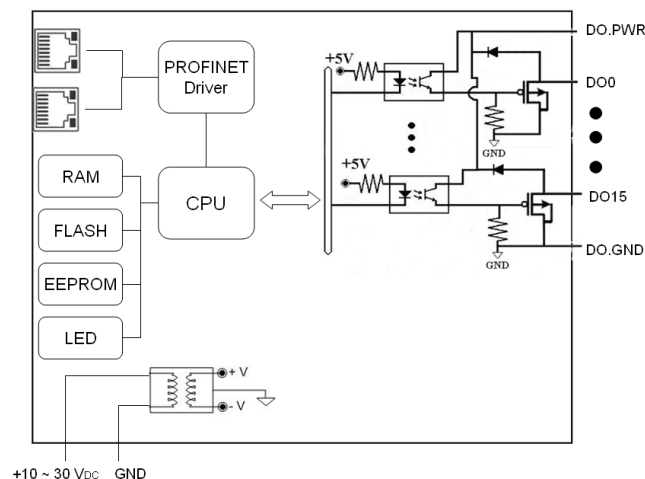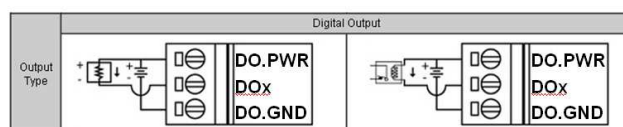
Hardware Specifications

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 Output	
Channels	16, Sink, Open Collector
Load voltage	+3.5 ~ +50 V_{DC}
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	4W
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

Applications
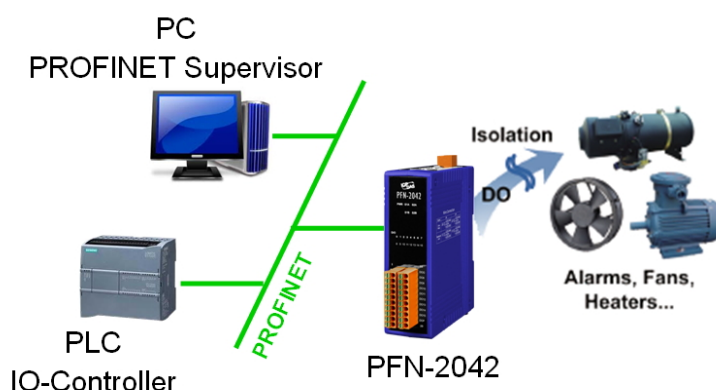
Ordering Information

PFN-2042 CR	PROFINET I/O Module (Isolated 16-ch DO) (RoHS)