PROFIBUS Series Products

PROFIBUS Remote I/O Module

CE FC
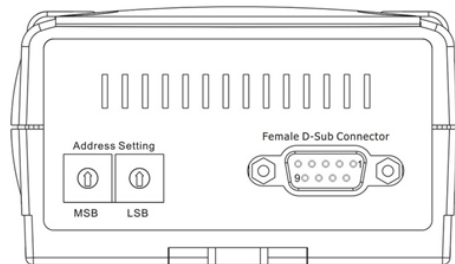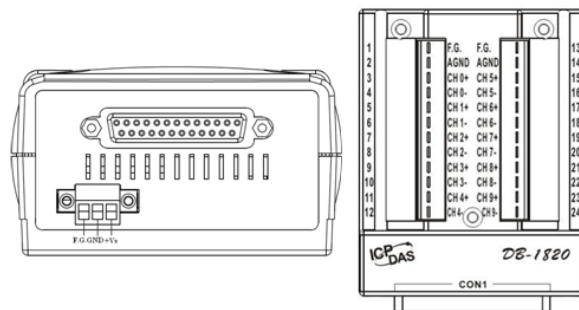

PROFI-5018

Dimensions

Front View   Left Side View
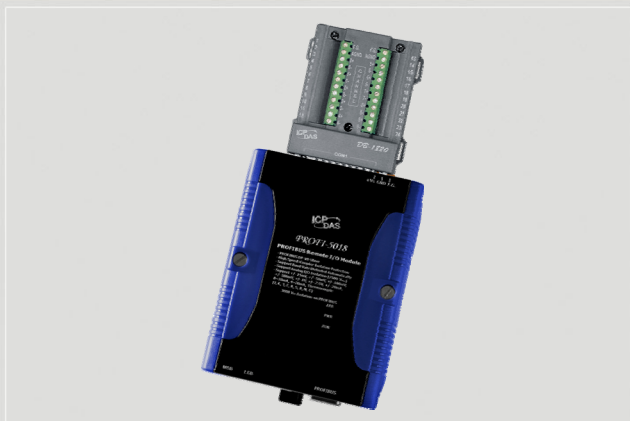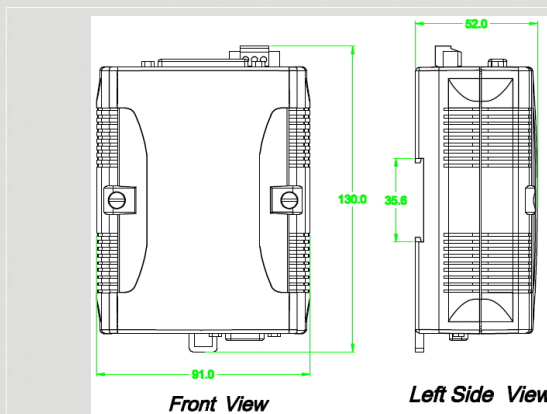
The PROFI-5018 is one of the PROFIBUS DP series products produced by ICP DAS. It provides the PROFIBUS DP communication protocol with any DP-Masters. The PROFI-5018 provides ±4kV ESD protection contacting for all terminals (include I/O Terminals and PROFIBUS connector). By applying the PROFI-5018, users can easily establish a PROFIBUS DP network with other DP-Masters. In advance, it can be used in the application of building automation, remote data acquisition, environment control and monitoring, laboratory equipment & research, factory automation, etc..
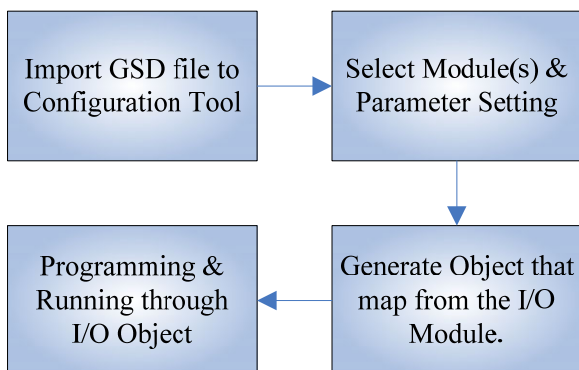
Features

- Support for PROFIBUS DP-V0 protocol
- Detect transmission rate automatically(Max. 12Mbps)
- Support device-related & channel-related diagnosis
- Address 0~126 set by rotary switches or SSA telegram
- 16-bits resolution & 100ksps AD converter
- Network isolation protection
- $3000V_{DC}$ isolation protection on PROFIBUS
- 4kV ESD protection (contact for any terminal)
- Wide range of power input (DC 10~40V_{DC}) and operating temperature (-25°C~+75°C)

Pin Assignments

Design Flowchart

Import GSD file to Configuration Tool → Select Module(s) & Parameter Setting → Generate Object that map from the I/O Module. → Programming & Running through I/O Object

Female D-Sub Connector

Pin No.	Signal	Meaning
3	A-Line	Receive/Transmit data-minus
4	CNTR-P	Repeater control signal, RTS signal
5	GND	Power ground of active terminator
6	VP	Power 5 volt of active terminator
8	B-Line	Receive/Transmit data-plus

ICP DAS Professional Provider of High Quality Industrial Data Acquisition and Control Products

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Hardware Specifications

Hardware	
CPU	80186, 80 MHz or compatible
SRAM/Flash/EEPROM	512 KB / 512 KB / 2 KB
Watchdog	Watchdog IC, CPU built-in
ESD Protection	4 kV class A
PROFIBUS Interface	
Controller	Siemens SPC3
Transceiver	ADI ADM2486
Connector	9-pin female D-Sub
Baud Rate (bps)	9.6 k, 19.2 k, 45.45 k, 93.75 k, 187.5 k, 500 k, 1.5 M, 3 M, 6 M, 12 M
Transmission Distance (m)	Depend on baud rate (for example, max. 1200 m at 9.6 kbps)
Isolation	3000 V_{DC} for DC-to-DC, 2500 Vrms for bus-to-logic
Protocol	DP-V0
UART Interface	
COM	RS-232 on board (For updating firmware)$_{Note\ 1.}$
I/0	
Analog Input	10 channel differential thermocouple input, Isolation Voltage:2500Vrms
Input Range	+/-15mV, +/-50mV, +/-100mV, +/-500mV, +/-1V, +/-2.5V, +/-20mA, 0~20mA, 4~20mA (requires optional external 125 Ohms resistor), Thermocouple Type: J, K, T, E, R, S, B, N, C
Accuracy	+/- 0.1 of FSR
LED	
Round LED	PWR LED, RUN LED, ERR LED
Power	
Power supply	Unregulated +10 ~ +40 V_{DC}
Protection	Power reverse polarity protection, Over-voltage brown-out protection
Power Consumption	3.5W
Mechanism	
Installation	DIN-Rail
Dimensions	91 mm x 130 mm x 52 mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75 ℃
Storage Temp.	-40 ~ 80 ℃
Humidity	5 ~ 95% RH, non-condensing

Note 1: CA-0904 : transform from 4-pin connector to 9-pin Female D-Sub connector.

Application
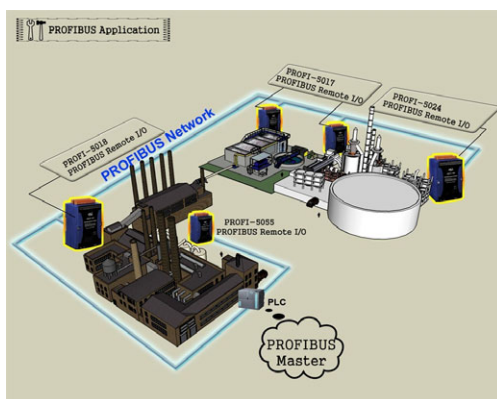
Ordering Information

PROFI-5018/S CR	PROFIBUS Remote I/O Module (10-channel Thermocouple Input Module) (ROHS) include PROFI-5018 module and a DB-1820 daughter board

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