

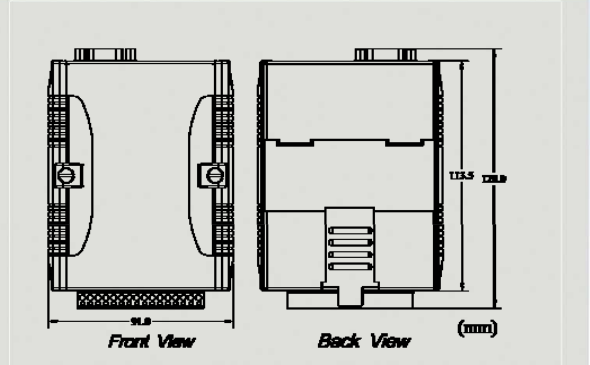


# PROFIBUS Series Products

## PROFIBUS Remote I/O Module



PROFI-5055



Dimensions

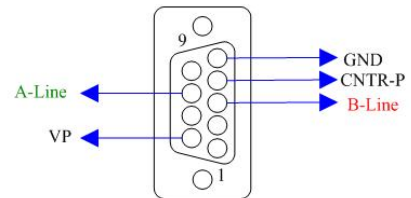
The PROFI-5055 is one of the PROFIBUS DP series products produced by ICP DAS. It provides the PROFIBUS DP communication protocol with any DP-Masters. The PROFI-5055 provides  $\pm 4\text{KV}$  ESD protection contacting for all terminals (include I/O Terminals and PROFIBUS connector). By applying the PROFI-5055, 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

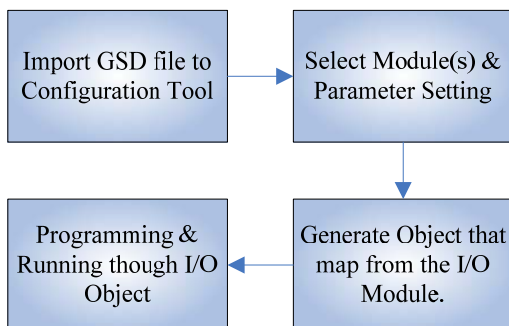
- Support for PROFIBUS DP-V0 protocol
- Detect transmission rate automatically(Max. 12Mbps)
- Address 0~99 set by rotary switches
- Network Isolation Protection
- $3000V_{DC}$  isolation protection on PROFIBUS side
- 4KV ESD Protection (contact for any terminal).
- Wide range of power input (DC 10~40V<sub>DC</sub>) and operating temperature (-25°C~+75°C)

### Pin Assignments

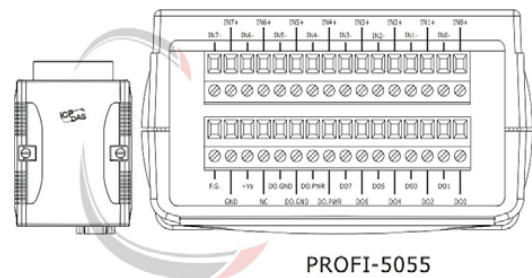
Female D-Sub Connector



### Design Flowchart



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

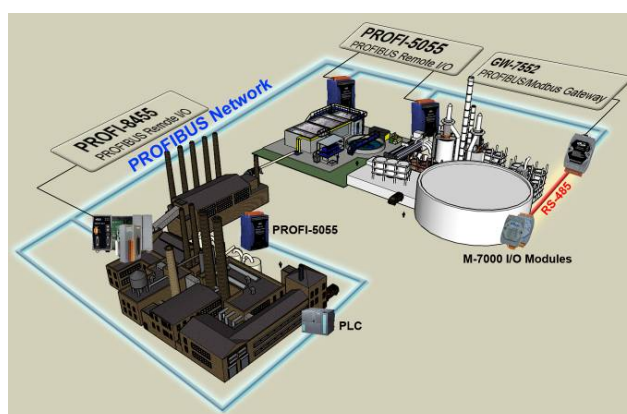


PROFI-5055

## Hardware Specifications

Hardware	
ESD Protection	4 kV class A
PROFIBUS Interface	
Controller	Profichip VPCLS2
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 <sub>DC</sub> for DC-to-DC, 2500 V <sub>rms</sub> for bus-to-logic
Protocol	DP-V0
LED	
Round LED	PWR LED, RUN LED
Power	
Power supply	Unregulated +10 ~ +40 V <sub>DC</sub>
Protection	Reverse polarity protection, Over-voltage brown-out protection
Power Consumption	1 W
I/O	
Digital Output	8 Channels (Sink), Isolated with common ground Load Voltage: +10 ~ +40V Maximum Load Current: 650mA w/o Short-Circuit Protection Isolation Voltage: 3750Vrms
Digital Input	8 Channels (Sink or Source), Isolated from each other Off Voltage Level: +4V Max. On Voltage Level: +10 ~ +50V Input Impedance: 10K $\Omega$ in series with opto-coupler Isolation Voltage: 3750Vrms
Mechanism	
Installation	DIN-Rail
Dimensions	91 mm x 128 mm x 52 mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75°C
Storage Temp.	-30 ~ 85°C
Humidity	5 ~ 95% RH, non-condensing

## Application



## Ordering Information

<b>PROFI-5055 CR</b>	PROFIBUS Remote I/O Module (8-Ch Isolated Digital Input & 8-Ch Isolated Digital Output)
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