



## PROFI-5055

PROFIBUS Remote I/O Module

### Features

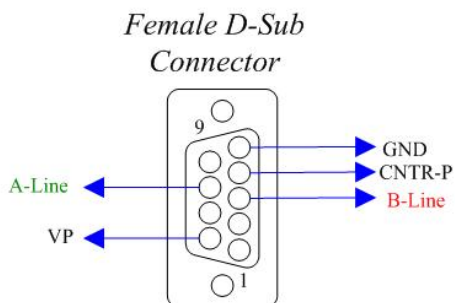
- Support for PROFIBUS DP-V0 protocol
- Detect transmission rate automatically (12Mbps)
- Address 0~99 set by rotary switches
- Network Isolation Protection
- 3000V<sub>DC</sub> isolation protection on PROFIBUS side
- 4kVESD protection (contact for any terminal)
- Wide range of power input (DC 10~40V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



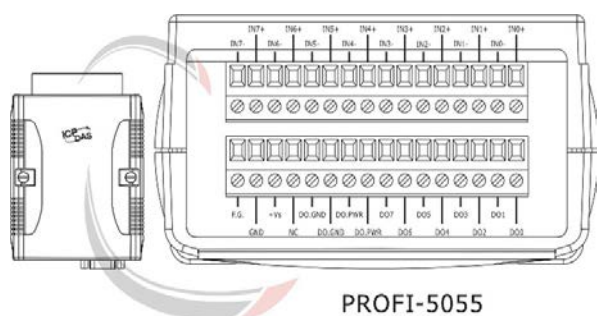
### Introduction

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...

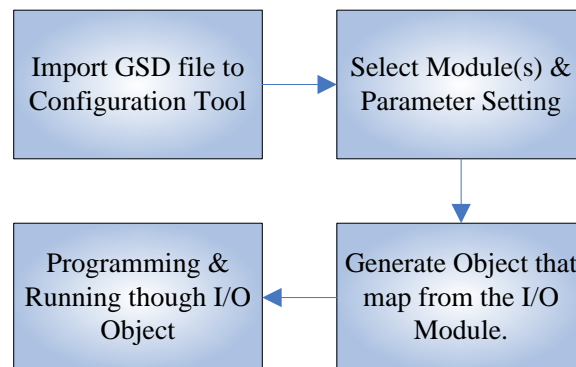
### Pin Assignments



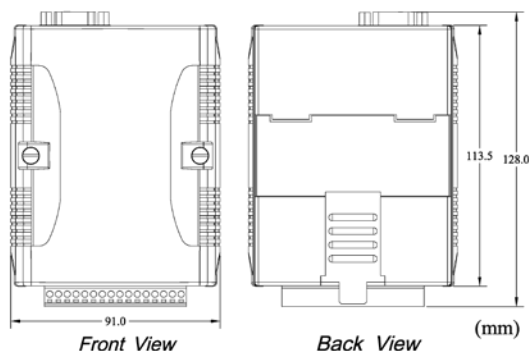
Pin No.	Signal	Meaning
3	B-Line	Receive/Transmit data - plus
4	CNTR-P	Repeater control signal, RTS signal
5	GND	Power ground of active terminator
6	VP	Power 5 volt of active terminator
8	A-Line	Receive/Transmit data - minus



### Design Flowchart



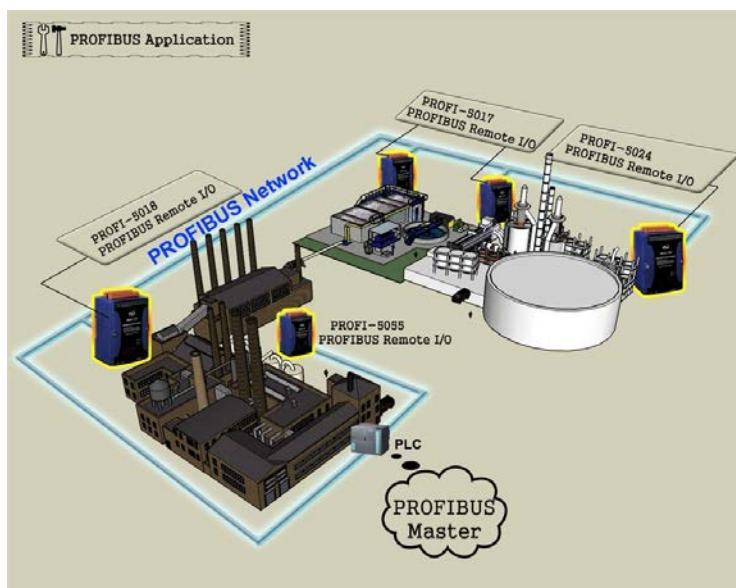
### Dimensions (Units: mm)



## Specifications

<b>Hardware</b>	
ESD Protection	4 kV class A
<b>PROFIBUS Interface</b>	
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
<b>LED</b>	
Round LED	PWR LED, RUN LED
<b>Power</b>	
Power supply	Unregulated +10 ~ +40 V <sub>DC</sub>
Protection	Reverse polarity protection, Over-voltage brown-out protection
Power Consumption	1 W
<b>I/O</b>	
Digital Output	8 Channels (Sink), Isolated with common ground Load Voltage: +10 ~ +40V Maximum Load Current: 650mA w/o Short-Circuit Protection Isolation Voltage: 3750V <sub>rms</sub>
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: 3750V <sub>rms</sub>
<b>Mechanism</b>	
Installation	DIN-Rail
Dimensions	91 mm x 128 mm x 52 mm (W x L x H)
<b>Environment</b>	
Operating Temp.	-25 ~ 75°C
Storage Temp.	-30 ~ 80°C
Humidity	10~90% RH,non-condens

## Application



## Ordering Information

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