



PROFI-5051

PROFIBUS Remote I/O Module

Features

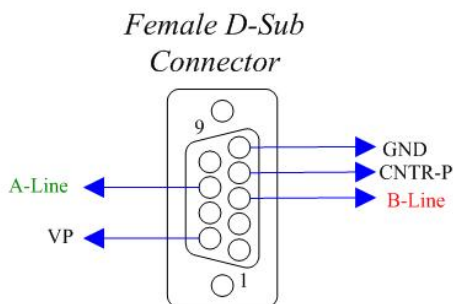
- Support for PROFIBUS DP-V0 protocol
- Detect transmission rate automatically (12Mbps)
- Address 0~99 set by rotary switches
- Network isolation protection
- 3000V_{DC} isolation protection on PROFIBUS
- 4KVESD protection (contact for any terminal)
- Wide range of power input (DC 10~40V_{DC}) and operating temperature (-25°C~+75°C)



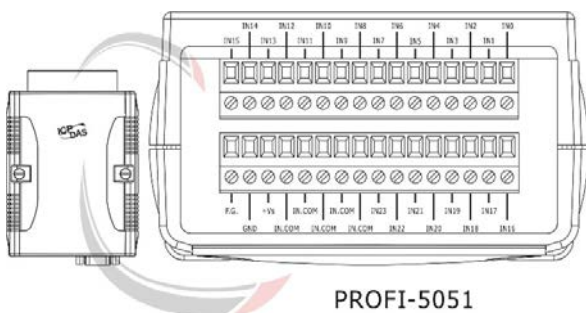
Introduction

The PROFI-5051 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-5051 provides $\pm 4\text{KV}$ ESD protection contacting for all terminals (include I/O Terminals and PROFIBUS connector). By applying the PROFI-5051, 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...

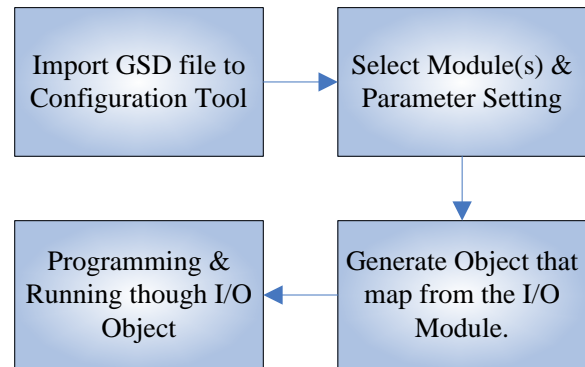
Pin Assignments



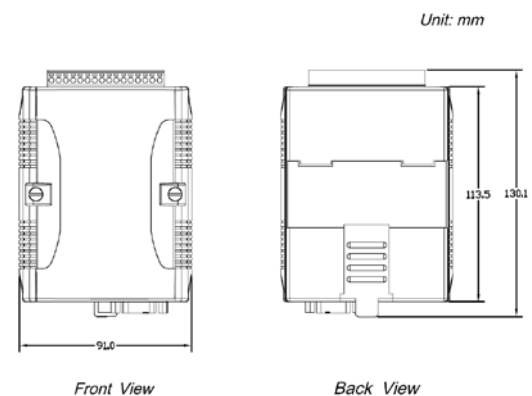
Pin No.	Signal	Meaning
3	B-Line	Receive/Transmit data - plus
4	CNTR-P	Repeater control signal, RTS signal
5	GND	Power ground of active terminator
6	VP	Power 5 volt of active terminator
8	A-Line	Receive/Transmit data - minus



Design Flowchart



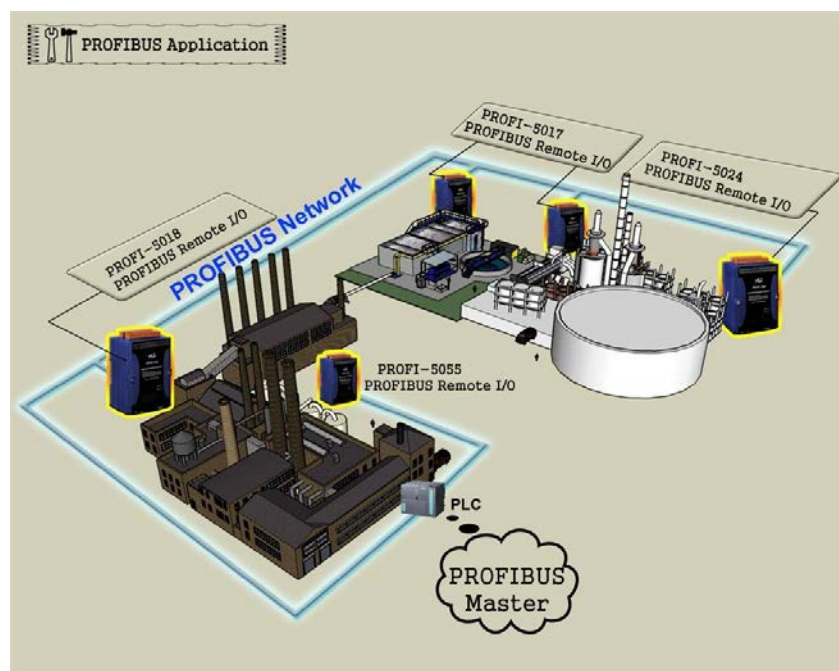
Dimensions (Units: mm)



Specifications

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 _{DC} for DC-to-DC, 2500 V _{rms} for bus-to-logic
Protocol	DP-V0
LED	
Round LED	PWR LED, RUN LED
Power	
Power supply	Unregulated +10 ~ +40 V _{DC}
Protection	Reverse polarity protection, Over-voltage brown-out protection
Power Consumption	1 W
I/O	
Digital Input	24 Channels (Sink or Source), Isolated with common ground (or source) Off Voltage Level: +4V Max. On Voltage Level: +10 ~ +50V Input Impedance: 10K Ω in series with opto-coupler Isolation Voltage: 3750 V _{rms}
Mechanism	
Installation	DIN-Rail
Dimensions	91 mm x 128 mm x 52 mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75 $^{\circ}$ C
Storage Temp.	-30 ~ 80 $^{\circ}$ C
Humidity	10~90% RH,non-condens

Application



Ordering Information

PROFI-5051 CR	PROFIBUS Remote I/O Module (24-Ch Isolated Digital Input)
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