



PROFI-2510

Isolated PROFIBUS Repeater

Features

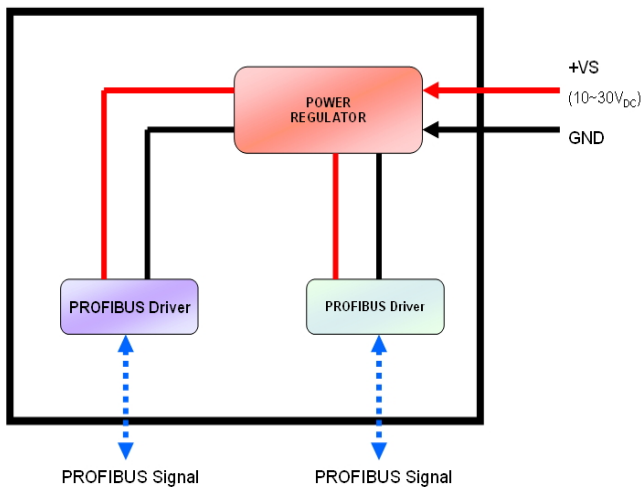
- Protocol : PROFIBUS DP
- Detect transmission rate (9.6 ~ 12000 kbps) automatically
- Max transmission speed up to 12 Mbps for PROFIBUS
- Network Isolation Protection: High Speed iCoupler
- 3000 VDC isolation protection on PROFIBUS side
- 4 kV ESD Protection
- Removable terminal block
- Mount easily on DIN-rail



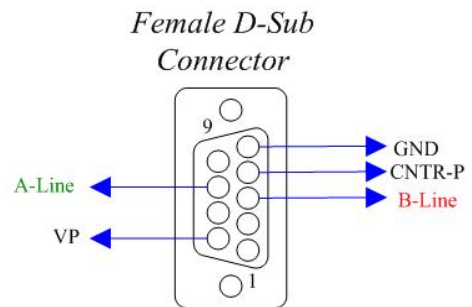
Introduction

The PROFI-2510 is a PROFIBUS repeater used to establish a physical coupling of two or more segments of a PROFIBUS system. It supports transmission rate of 9.6 Kbps to 12 Mbps and detects the rate automatically. Users can implement bus - star or tree topologies as well as the long drop lines with the PROFI-2510. Users can also extend the transmission of an existing network and increase the maximum number of bus nodes by using PROFI-2510.

Block Diagram



Pin Assignments

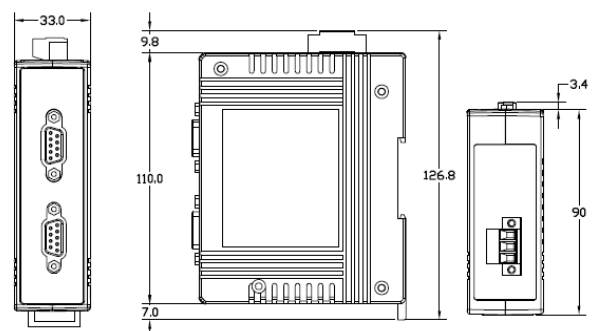


Pin No.	Signal	Meaning
3	B-Line	Receive/Transmit data - plus
4	CNTR-P	Repeater control signal, RTS signal
5	GND	Power ground of active terminator
6	VP	Power 5 volt of active terminator
8	A-Line	Receive/Transmit data - minus

Maximum Cable Length

Transmission Rate (bps)	Transmission Distance per Segment (meter)
9.6K ~ 93.75K	1200
187.5K	1000
500K	400
1.5M	200
3M; 6M; 12M	100

Dimensions (Units: mm)



Front View

Left Side View

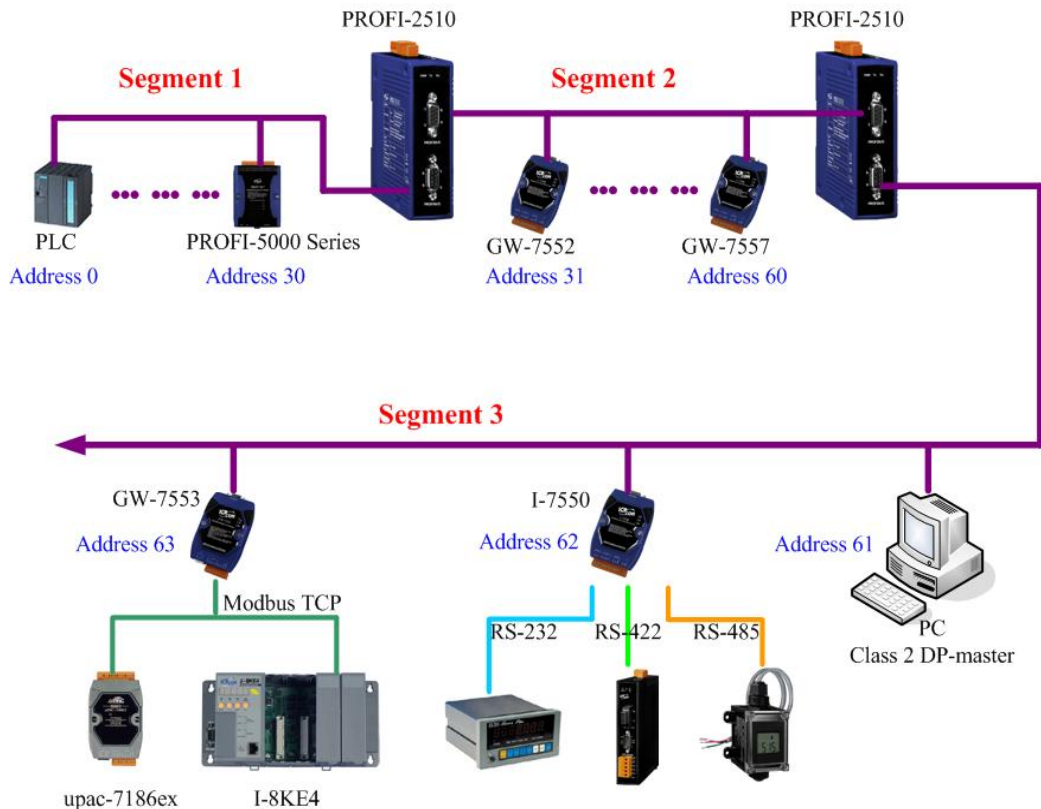
Top View

Hardware Specifications

Hardware	
ESD Protection	4 kV class A
PROFIBUS Interface	
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
LED	
Round LED	PWR LED, DP1 LED, DP2 LED
Power	
Power supply	Unregulated +10 ~ +30 V _{DC}
Protection	Power reverse polarity protection, Over-voltage brown-out protection
Power Consumption	1 W
Mechanism	
Installation	DIN-Rail
Dimensions	33mm x 126.8mm x 93.4mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75 °C
Storage Temp.	-30 ~ 85°C
Humidity	5 ~ 95% RH, non-condensing

Application

According to the PROFIBUS specification, up to 32 PROFIBUS devices are allowed per segment. The PROFIBUS repeater has not a PROFIBUS address, as show in the below.



Ordering Information

PROFI-2510 CR	Isolated PROFIBUS Repeater (RoHS)
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