



PROFI-2542 PROFI-2542-SC

PROFIBUS to Single-mode Fiber Converter

Features

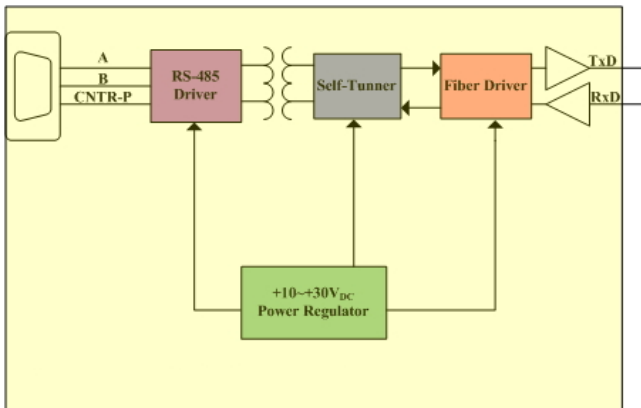
- Protocol : PROFIBUS DP
- Detect transmission rate (9.6 ~ 12000 kbps) automatically
- Max transmission speed up to 12 Mbps for PROFIBUS
- Transparency on both side
- Fiber Port: ST / SC (Single-mode)
- Wave Length: 1310 nm
- Network Isolation Protection: High Speed iCoupler
- 3000 VDC isolation protection on PROFIBUS side
- 4 kV ESD Protection
- Mount easily on DIN-rail



Introduction

The PROFI-2542(SC) is a PROFIBUS to single mode fiber optic converter which secures PROFIBUS data transmission via single mode fiber optic for providing immunity from EMI/RFI interference. It is used in PROFIBUS applications for transferring PROFIBUS signal from wire to single mode fiber optic and vice versa, and is the perfect solution for applications where transmission must be protected from electrical exposure, surges, lightning or chemical corrosion.

Block Diagram

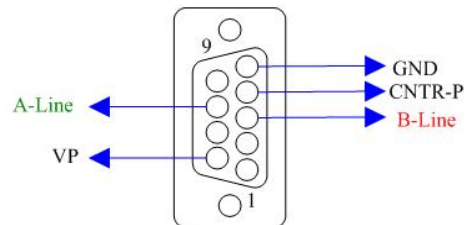


Maximum Cable Length

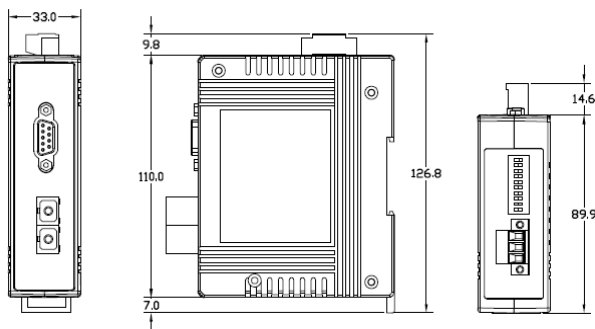
Transmission Rate (bps)	Transmission Distance per Segment (meter)
9.6K ~ 93.75K	1200
187.5K	1000
500K	400
1.5M	200
3M; 6M; 12M	100

Pin Assignments

Female D-Sub Connector



Dimensions (Units: mm)



Front View

Left Side View

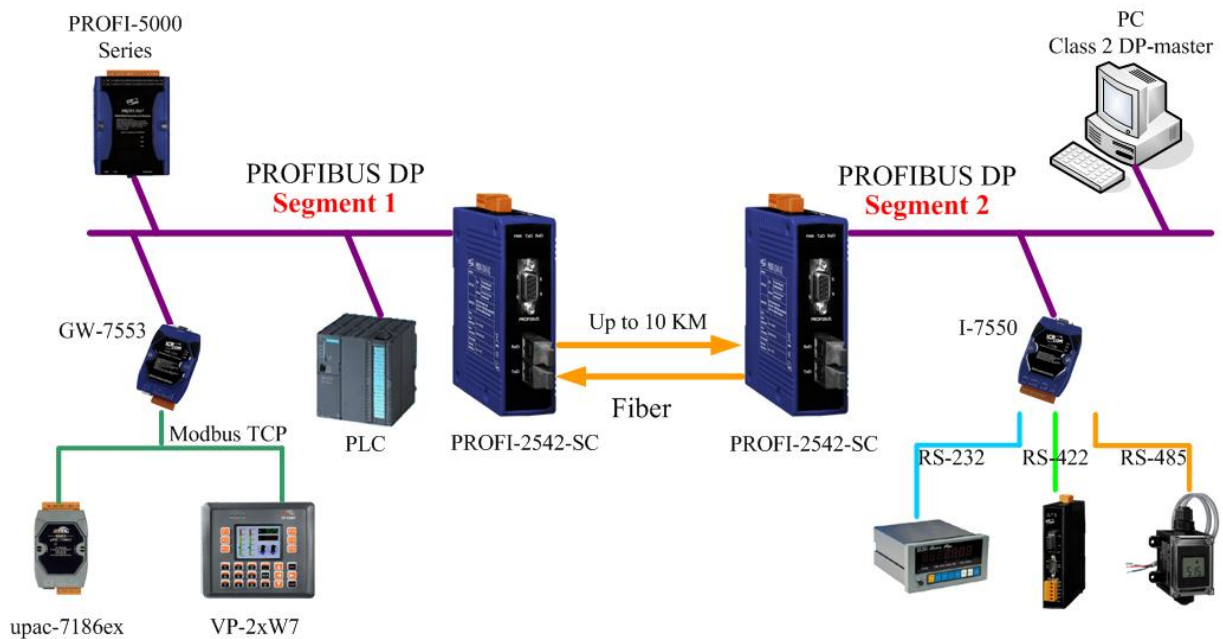
Top View

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

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
Fiber Interface	
Connector	ST / SC type ; Single mode ; 100 Base-FX
Wave Length	1310 nm
Fiber Cable	9/125um recommended
Transmission Distance	10 KM(indicative only)
LED	
Round LED	PWR LED, TxD LED, RxD 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 104.5mm (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

PROFI-2542 CR	PROFIBUS to Single mode Fiber Converter (ST type)
PROFI-2542-SC CR	PROFIBUS to Single mode Fiber Converter (SC type)