

Datasheet

ADA-7040BP

Multimode Fiber Optic to PROFIBUS-DP (RS485) Converter



APPLICATION

ADA-7040BP fiber optic converter is a device use for connecting devices with PROFIBUSDP(RS485) interface, without interfering with the data format. Using of fiber optic provides complete isolation between connected devices and resistance to interference on the transmission bus. The fiber optic connection is implemented by a line consisting of two multimode fibers - one fiber for TX signal and one for RX signal. The use of two such converters can be used to communicate devices far away from each other, eg I / O modules, controllers, etc.

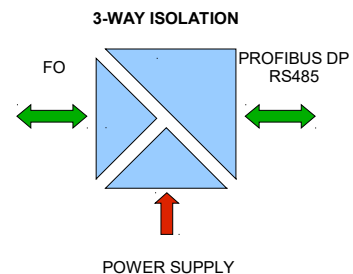
ADA-7040BP is equipped with screw terminal block for connection of PROFIBUS-DP(RS485) bus, and power supply. The converter supports data rates of up to 1.5Mbps, and uses to operate lines A, B. To PROFIBUS-DP(RS485) bus built on the ADA-7040BP can be connected 32 devices. Overvoltage protection was made on base safety diodes and fuses on each RS485/RS422 lines.

TECHNICAL DATA

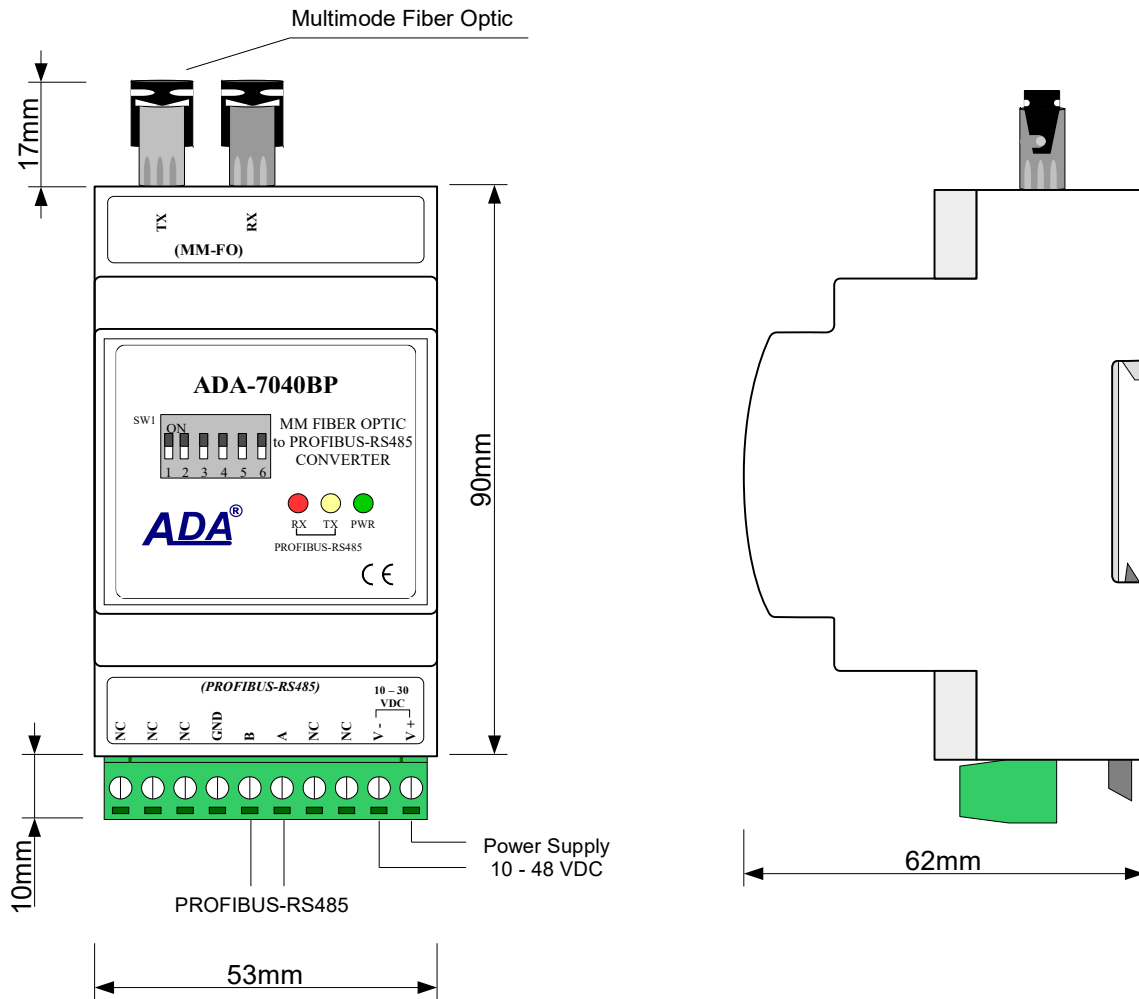
Transmission Parameters		
Interface	Fiber optic	PROFIBUS-DP(RS485)
Connector	ST® * type - transmitter and receiver for an optical wavelength from 792nm to 865nm,	Screw terminal block - max. Ø 2,5mm ²
Max. Line length	- up to 2000m for fibre type 50/125 mm, optical power budget Tx/Rx 9,6[dB], - up to 2500m for fibre type 62,5/125 mm, optical power budget Tx/Rx 15[dB], - up to 2000m for fibre type 100/140 mm, optical power budget Tx/Rx 15[dB], - up to 1500m for fibre type 200 mm HCS, optical power budget Tx/Rx 20[dB], - up to 20m for fibre type POF/1mm	1200 m

Max. number of connected device	1	32
Transmission line	Two multimode fibers optic: - ST-850 connectors, fiber type 50/125 mm, 62,5/125 mm, 100/140mm, 200mm HCS.	Shielded cable A-type: Impedance 135 – 165 W Capacity <30pF/m Resistance <=110 W/km Wire diameter >0.64mm Wire section >0.34mm ²
Max. baud rate	up to 1.5 Mbps, depend on length of PROFIBUS-DP (RS485).	
Transmission type	Asynchronous full duplex, half duplex.	
Standards	IEC 61158	
Optical Signalization	<ul style="list-style-type: none"> • PWR – green LED power supply, • RX - red LED data receiving from PROFIBUS-DP (RS485), • TX - yellow LED data transmission through PROFIBUS-DP (RS485) 	
Electrical Parameters		
Power requirements	10 - 24 – 48 V DC	
Power cable	Recommended length of power cable < 3m	
Power	< 3W	
Protection from reverse power polarization	YES	
Galvanic isolation	3kV between power supply and FO and RS485	
Optoisolation	3kV – between signal lines FO and RS-85	
Electromagnetic compatibility	Resistance to disruptions according to the standard PN-EN 55024. Emission of disruptions according to the standard PN-EN 55022.	
Safety requiring	According to the PN-EN60950 norm.	
Environment	Commercial and light industrial.	
Environmental Parameters		
Operating temperature	-30 ÷ 60°C	
Humidity	5 ÷ 95% - non-condensing	
Storage temperature	-40 ÷ +70 °C	
Casing		
Dimensions	53mm x 90mm x 62 mm,	
Material	ABS/PC	
Degree of casing protection	IP40	
Degree of terminal protection	IP20	
Weight	0,10 kg	
According to standard	DIN EN50022, DIN EN43880	
Location during work	Free	
Mounting method	On the rail compliant with DIN35 / TS35 standard.	

GALVANIC ISOLATION



DIMENSIONS AND CONNECTION



VERSIONS

	ADA-7040BP -	-	
Electronics version:			
Basic		1	
Special		2	
Fiber connectors:			
ST - type 850nm fiber connector			1

Order example:
 Product Symbol: **ADA-7040BP-1-1**
 1 – Basic electronics version,
 1 – ST-type 850nm fiber connectors,

* ST is a trademark of AT&T company.