

Datasheet

ADA-1040PC1

MODBUS-ASCII to MODBUS-RTU protocol converter



APPLICATION

Protocol converter **MODBUS-ASCII to MODBUS-RTU** ADA-1040PC1 is a device solves a problem of connection RS232 devices (communication MODBUS-ASCII protocol) to multipoint RS-485 bus with devices communicate by MODBUS-ASCII protocol.

Simultaneously, the converter can convert **RS232 to RS485/422** standards, with setting of data format. Depending on configurations, can be set baud rate, data bits, parity, number of stop bits. The setting can be different for RS232 and RS485/RS422 port.

The converter does not require power supply from RS232 port and support the asynchronous transmission data with baud rate 230,4 kbps.

ADA-1040PC1 has DB-9F connector for connecting RS232 interface and screw terminal block for connection of RS485/422 network and power supply.

DB-9F connector is DCE type to connecting RS232 interface in use of RS232 extension cable (a typical modem cable) without interleaving of Rx with Tx.

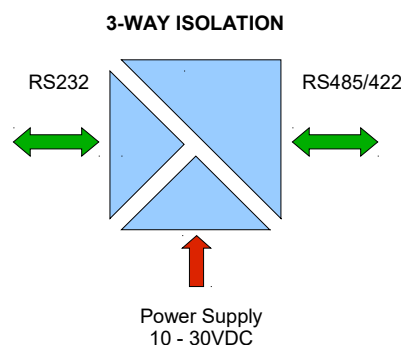
Overvoltage protection was made on base safety diodes and fuses on each RS485/RS422 lines.

TECHNICAL DATA

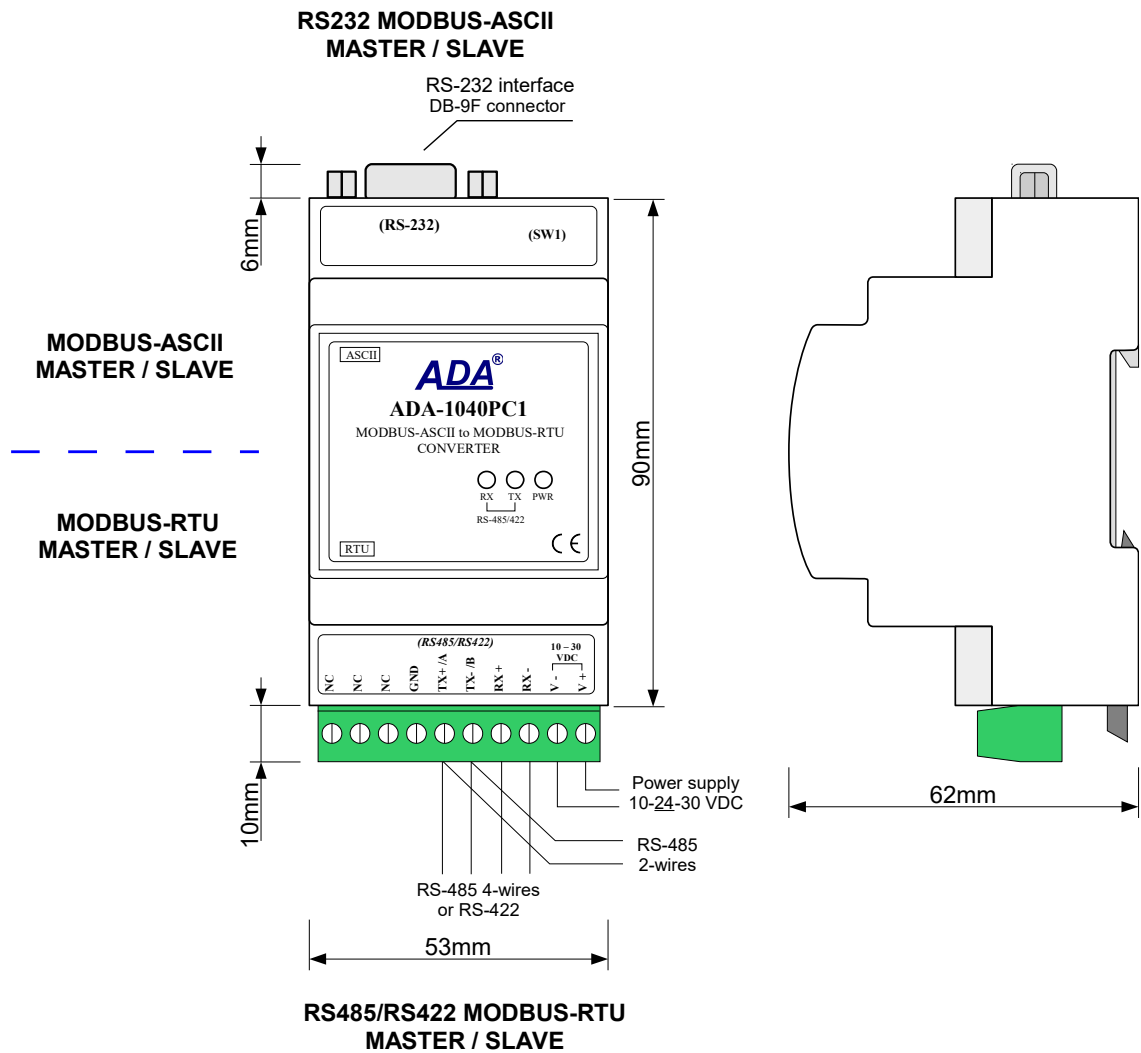
Transmission Parameters		
Interface	RS-232 (ASCII)	RS-485/RS-422 (RTU)
Connector	DSUB-9 socket, female	Screw terminal, wire max. Ø 2,5mm ²
Max. Line length	up to 15m	1200m
Max. number of connected device	1	32
Transmission line	DB9F/DB9M cable, multicore 9x0,34 shielded (up to 15m)	Twisted cable 1-pair or 2-pair, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5(24AWG)

Standards	EIA-232, CCITT V.24,	EIA-485, CCITT V.11
Max. baud rate	230,4 kbps	
Transmission type	Asynchronism full duplex, half duplex.	
Optical Signalization	• PWR – green LED power supply, • RX - red LED data receiving from RS485/RS422 interface, • TX - yellow LED data transmission through RS485/RS422 interface.	
Electrical Parameters		
Power requirements	10 - 24 – 30 V DC	
Power Cable	Recommended length of power cable – up to 3m.	
Power	<2W	
Protection from reverse power polarization	YES	
Galvanic Isolation	1kVDC or 3kVDC between power circuit and RS232 and RS485/422 signal line,	
Optoisolation	~3kV - between signal line RS-232 and RS485/422.	
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 (W x D x H)	53mm x 90mm x 62 mm	
Material	PC/ABS	
Degree of casing protection	IP40	
Degree of terminal protection	IP20	
Weight	0,10 kg	
According to standards	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-1040PC1 -		
Version:		
Standard	1	
3-way galvanic isolation:		
1kV=	23	
3kV=	33	

Order example:

Product Symbol: **ADA-1040PC1-1-23**

1 – standard version,
23 – 1kV=, 3-way galvanic isolation,