

## Datasheet

### ADA-4040PC2

### MODBUS-RTU Device Address Converter



## APPLICATION

ADA-4040PC2 address converter of device with MODBUS-RTU / JBUS protocol, is the converter solves a problem of connection devices having fixed address (SLAVE address) to multipoint RS485 bus, to which connected devices have colliding addresses with the address of the device. The address changing is made by setting the address on the BUS port in ADA-4040PC2 and setting device address with colliding address on the DEV port of the converter. Simultaneously, the converter can convert baud rate and format of transmitted data. Depending on configurations, can be set baud rate, data bits, parity, number of stop bits. The setting can be different for DEV and BUS ports. The convert allows connect RS422 devices to RS485 bus without any collisions. Additionally, ADA-4040PC2 separates devices connected to RS485 bus. Galvanic isolation of ADA-4040PC2, protect the system structured on RS422/485 bus and increases its reliability.

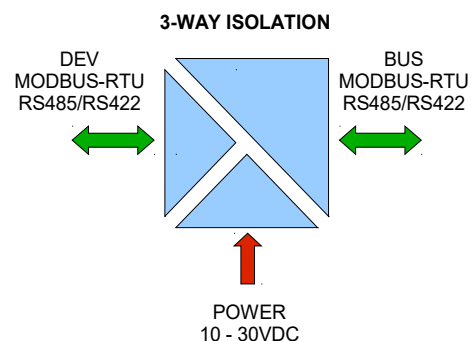
ADA-4040PC2 supports the asynchronous baud rate up to 230.4 kbps through four or two pairs of twisted-pair cables connected to screw terminals. The converter use RX+, RX-, TX+/A, TX-/B lines for functioning. It is possible to connect 32 devices to RS485/RS422 network constructed on base of ADA-4040PC2, working at the half duplex or full duplex mode. Over-voltage protection on each RS485/RS422 line was made on base of 600W over-voltage led and fuses.

## TECHNICAL DATA

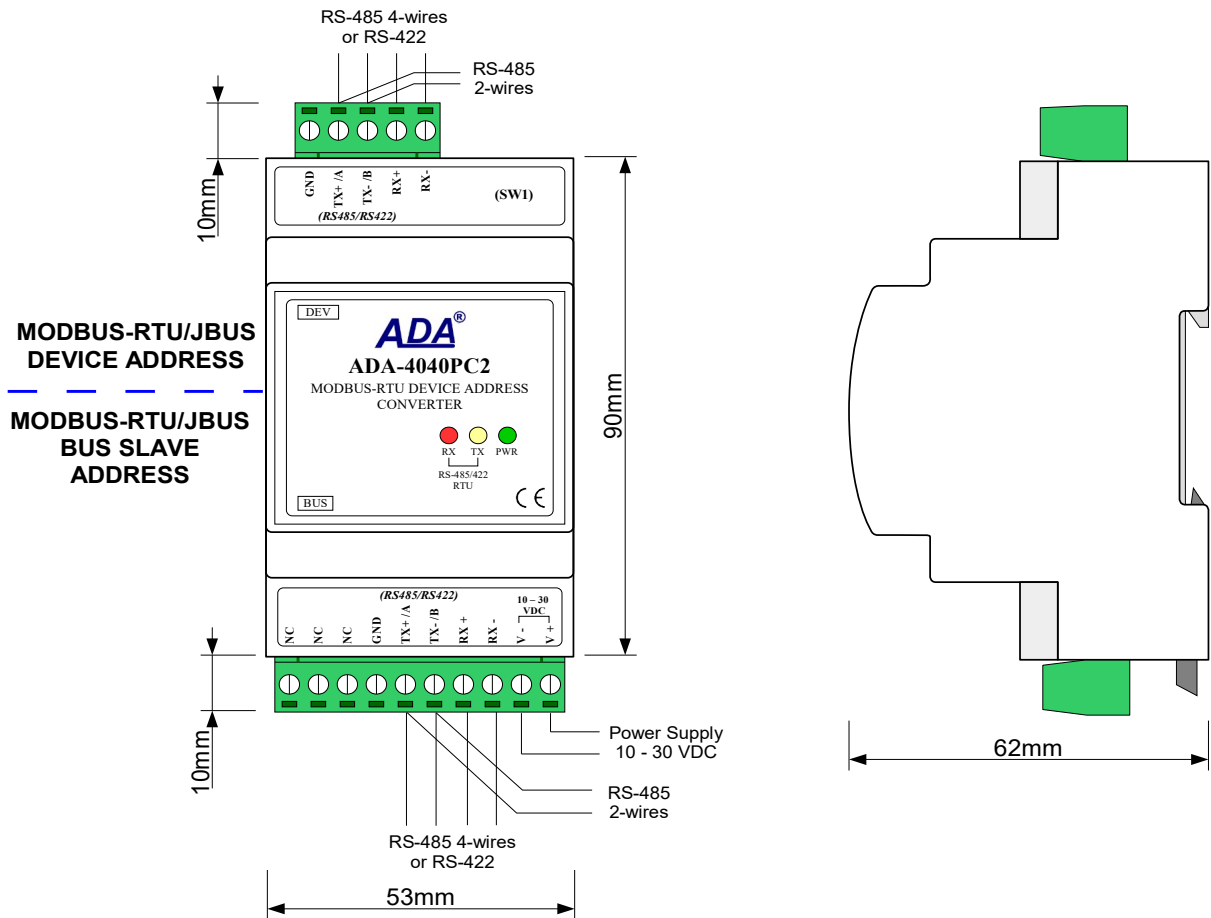
Transmission Parameters		
Interface	RS-485/RS-422 (ASCII)	RS-485/RS-422 (RTU)
Connector	Screw terminal, wire max. Ø 2,5mm <sup>2</sup> .	
Max. Line length	1200m (depends on baud rate)	
Max. number of connected device	up to 32	
Max. baud rate	300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 14400, 19200, 28800, 38400, 57600, 76800, 115200, 230400,	

<b>Data formats</b>	Data bits 5, 6, 7, 8, Parity: None, Parity, Odd, Number of stop bits: 1, 2,
<b>Transmission line</b>	Twisted cable 1-pair or 2-pair, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5(24AWG).
<b>Standards</b>	EIA-485, CCITT V.11
<b>Transmission type</b>	Asynchronous half duplex or full duplex
<b>Optical Signalization</b>	<ul style="list-style-type: none"> <li>• PWR – green LED power supply,</li> <li>• RX - red LED data receiving from BUS port – RS485/RS422,</li> <li>• TX - yellow LED data transmission through BUS port – RS485/RS422.</li> </ul>
<b>Electrical Parameters</b>	
<b>Power requirements</b>	10 - 24 – 30 V DC
<b>Power Cable</b>	Recommended length of power cable – do 3m
<b>Power</b>	<2W
<b>Protection from reverse power polarization</b>	YES
<b>Galvanic Isolation</b>	1kVDC or 3kVDC between power circuit and RS-485/RS-422 DEV and BUS signal line.
<b>Optoisolation</b>	~3kV - between signal line RS-485/RS-422 (DEV) and RS-485/RS-422 (BUS)
<b>Electromagnetic compatibility</b>	Resistance to disruptions according to the standard PN-EN 55024. Emission of disruptions according to the standard PN-EN 55022.
<b>Safety requiring</b>	According to the PN-EN60950 norm.
<b>Environment</b>	Commercial and light industrial.
<b>Environmental Parameters</b>	
<b>Operating temperature</b>	-30 ÷ 60°C
<b>Humidity</b>	5 ÷ 95% - non-condensing
<b>Storage temperature</b>	-40 ÷ 70°C
<b>Casing</b>	
<b>Dimensions (W x D x H)</b>	53mm x 90mm x 62 mm
<b>Material</b>	PC/ABS
<b>Degree of casing protection</b>	IP40
<b>Degree of terminal protection</b>	IP20
<b>Weight</b>	0,10 kg
<b>According to standards</b>	DIN EN50022, DIN EN43880
<b>Location during work</b>	Free
<b>Mounting method</b>	On the rail compliant with DIN35 / TS35 standard.

## GALVANIC ISOLATION



## DIMENSIONS AND CONNECTION



## VERSIONS

ADA-4040PC2 -		
<b>Version:</b>		
Standard	1	
<b>3-way galvanic isolation:</b>		
1kV=		23
3kV=		33

Order example:

Product Symbol: **ADA-4040PC2-1-23**

1 – standard version,

23 – 1kV=, 3-way galvanic isolation,