

ADA-4040A

Addressable RS485 / RS422 Baud Rate Converter



APPLICATION

ADA-4040A addressable baud rate converter is device solving the problem of connecting no addressable devices equipped with the RS-422 or RS-485 interface to multipoint RS485 bus, by adding the address to device connected to RS2 port of converter. Converter enables to connect RS-422 devices to R-S485 bus without any interference. Can be adjust baud rate, number of bits, parity control or non parity or stop bits depending on the configuration – for RS1 and RS2 ports the configuration can be different. ADA-4040A additionally separates devices from RS-485 network and can be used as repeater of RS422/RS485 bus with speed conversion between next segments about the length up to 1200m. The converter's galvanic separation protect system constructed on RS-485/RS-422 network and increase functioning reliability.

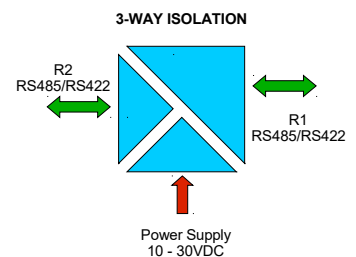
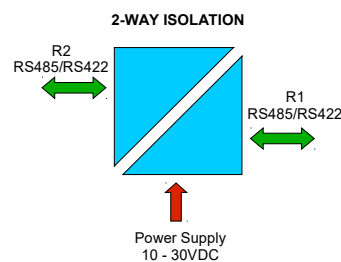
ADA-4040A supports an asynchronous baud rate up to 230.4 kbps through four or two pairs of twisted-pair cables connected to screw terminals. The converter use RX+, RX-, TX+/A, TX-/B lines for functioning. It is possible to connect 32 devices to RS485/RS422 network constructed on base of ADA-4040A, working 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

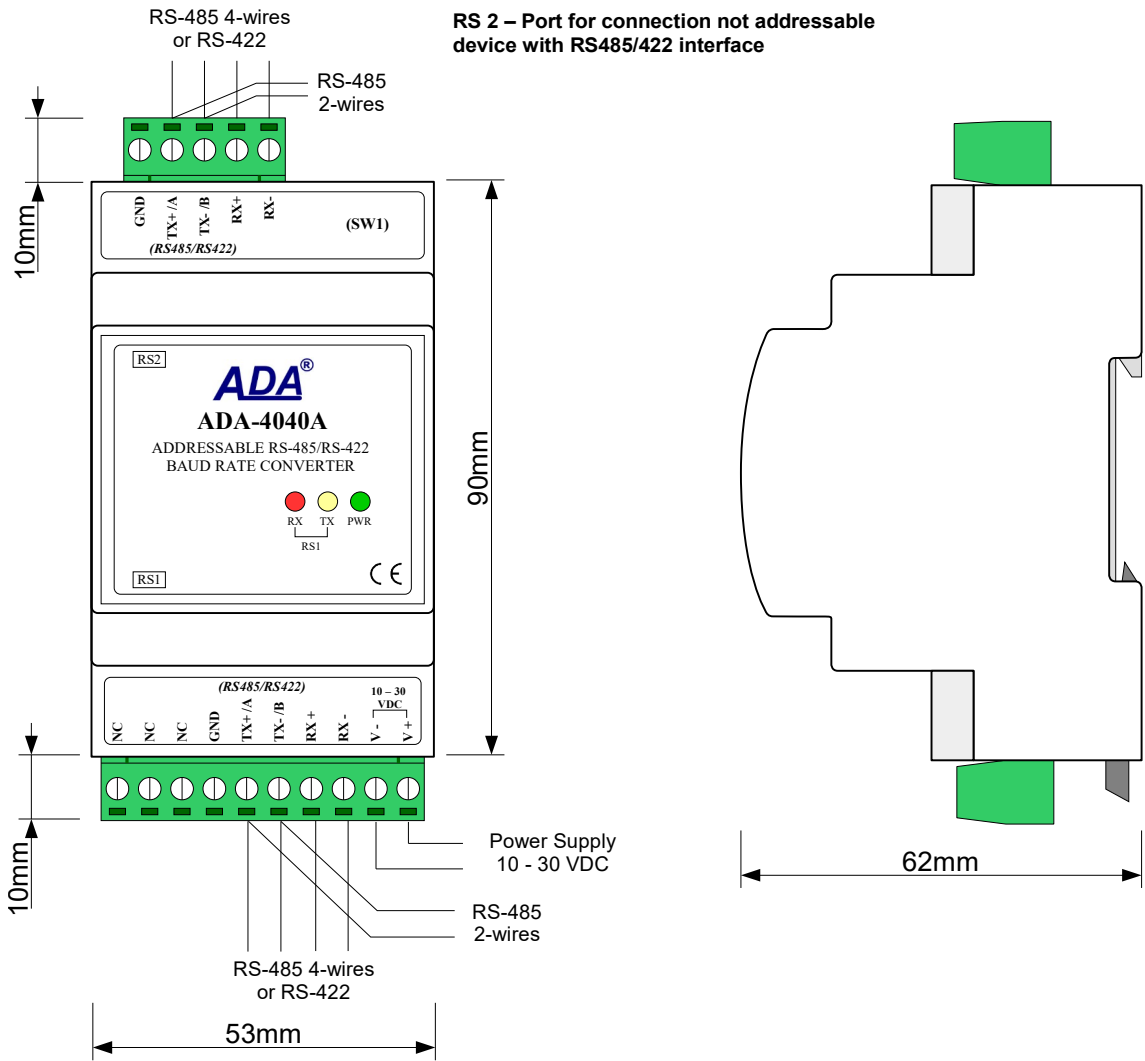
Transmission Parameters		
Interface	RS-485/RS-422 (RS1)	RS-485/RS-422 (RS2)
Connector	Screw terminal block - max. \varnothing 2,5mm ²	Screw terminal block - max. \varnothing 2,5mm ²
Line length	1200 m (depend on baud rate)	1200 m (depend on baud rate)
Max. number of connected device	32	
Baud rates	300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 14400, 19200, 28800, 38400, 57600, 76800, 115200, 230400,	
Data format	Data bit: 5, 6, 7, 8, Parity: None, Odd, Even, Number of stop bits: 1, 2,	

Transmission line	1-pair or 2-pair twisted cable, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5 (24AWG)
Transmission type	Asynchronous full duplex, half duplex.
Standards	EIA-485, CCITT V.11
Optical Signalization	<ul style="list-style-type: none"> • PWD – green LED power supply, • RX - red LED data receiving on RS1 – RS485/RS422 side, • TX - yellow LED data transmission via RS1 – RS485/RS422 Bus.
Electrical Parameters	
Power requirements	10 – 24 – 30 V DC
Power Cable	Recommended length of power cable – do 3m.
Power	<2W
Protection from reverse power polarization	YES
Galvanic Isolation	1kVDC or 3kVDC - between power circuit and RS-485/RS-422 (RS1,RS2) signal line
Optoisolation	~3kV - between signal lines RS-485/RS-422 (RS1) and RS-485/RS-422 (RS2)
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
Weight	IP20
Implementation of Standard	0,10 kg
Location during work	DIN EN50022, DIN EN43880
Mounting method	Free

GALVANIC ISOLATION



DIMENSIONS AND CONNECTION



VERSIONS

ADA-4040A -		
Galvanic isolation:		
1kV=, 2-way	2	
1kV=, 3-way	23	
3kV=, 2-way	3	
3kV=, 3-way	33	
Terminal & Terminal Cover:		
Cover without inlets, screw terminal block	1	
Cover with inlets, screw terminal block	2	
Cover without inlets, plug-in screw terminal block	3	

Order example:
 Product Symbol: **ADA-4040A-23-3**
23 – 3-way galvanic isolation on the level 1kV=,
3 - cover without inlets, plug-in screw terminal block,