

## Datasheet

## ADA-4010

## RS-485 / RS-422 RS232 to Converter



## APPLICATION

ADA-4010 converts RS485/RS422 standard to RS232 without interfering with format of transmitted data. Converter does not require power supply from RS232 port and support the asynchronous transmission data with baud rate 230,4 kbps through four or two pairs of twisted-pair cables connected to screw terminals. ADA-4010 uses RX, TX, RTS and GND signals for operating, and RTS signal is looped with CTS and DTR with DSR, inside in the converter. Other signals are not connected. If the looping is not needed, can be not connected RTS or DTS to the terminal block. Overvoltage protection was made on base safety diodes and fuses on each RS485/RS422 lines.

To RS485/RS422 bus, created on the base ADA-4010 converters, can be connected up to 32 devices, operating in mode:

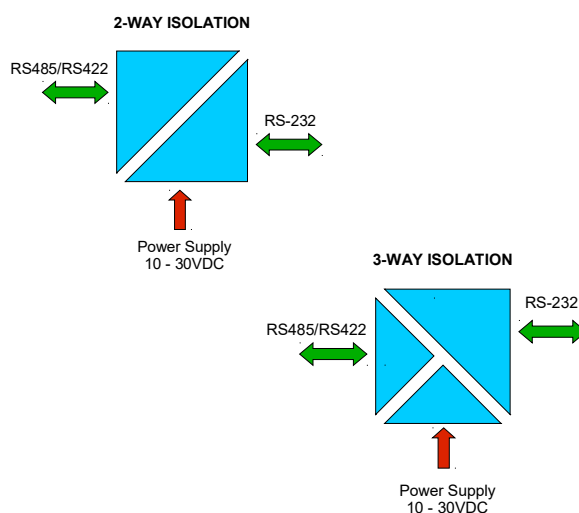
- half duplex (query / response) on 2-wires or 4-wires multi-point bus,
- full duplex on 4-wires bus.

## TECHNICAL DATA

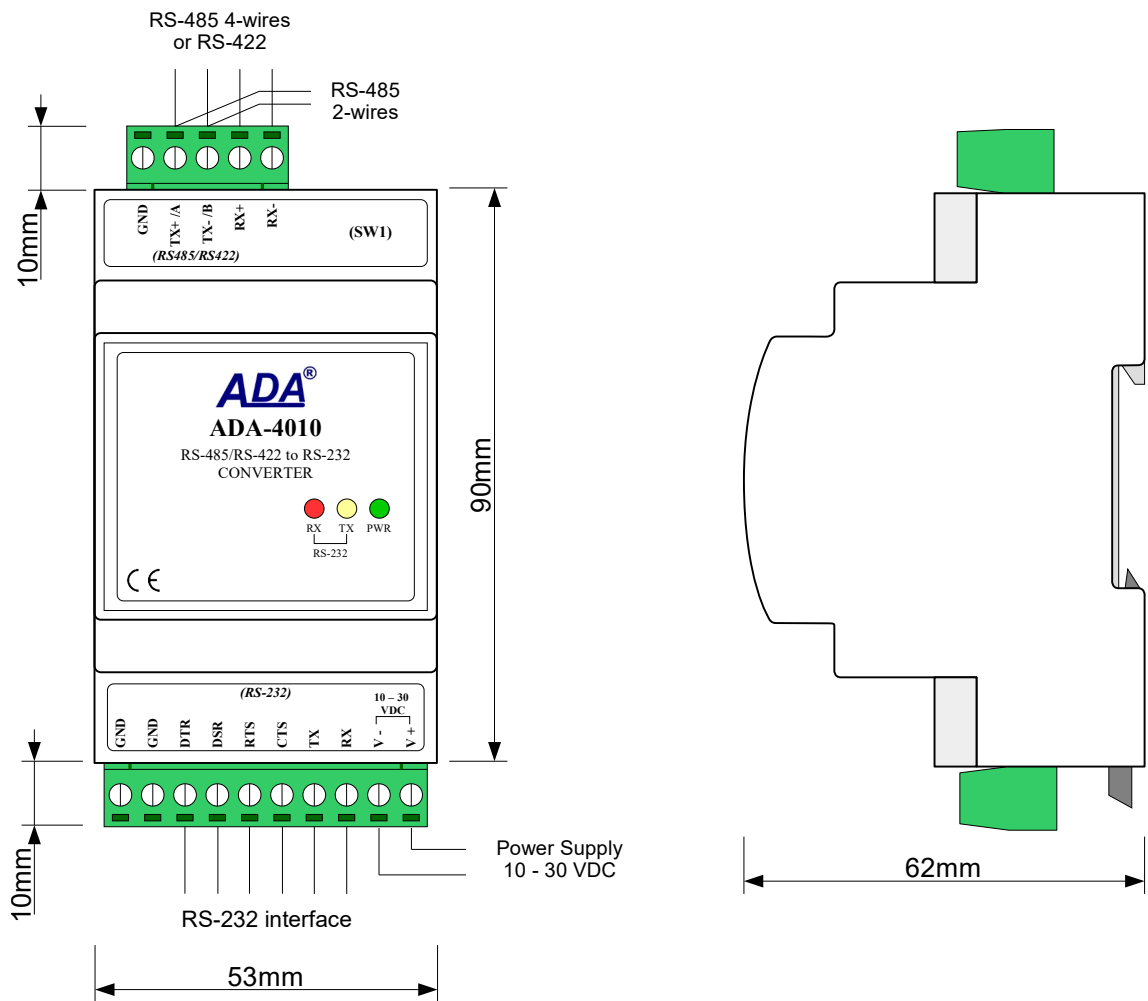
Transmission Parameters		
Interface	RS-485/422	RS-232
Connector	Screw terminal block - max. Ø 2,5mm <sup>2</sup>	Screw terminal block - max. Ø 2,5mm <sup>2</sup>
Max. Line length	1200 m	Up to 15 m
Max. number of connected device	32	1
Transmission line	1-pair or 2-pair twisted cable, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5 (24AWG)	1-pair or 2-pair twisted cable, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5 (24AWG)

Standards	EIA-485, CCITT V.11	EIA-232, CCITT V.24,
Max. baud rate	230,4 kbps	
Transmission type	Asynchronous full duplex, half duplex.	
Optical Signalization	<ul style="list-style-type: none"><li>• PWD – green LED power supply,</li><li>• RX - red LED data receiving on RS232,</li><li>• TX - yellow LED data transmission via RS232.</li></ul>	
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 and 2-way or 3-way	
Optoisolation	~3kV - between signal lines RS485/422 and RS-232	
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-4010 -		-		-	
<b>Electronic versions:</b>						
Basic,				1		
Special,				2		
<b>Galvanic isolation:</b>						
1kV= 2-way					2	
1kV= 3-way					23	
3kV= 2-way					3	
3kV= 3-way					33	
<b>Terminal &amp; Terminal Cover:</b>						
Cover without inlets, screw terminal block						1
Cover without inlets, screw terminal block						2
Cover without inlets, plug-in screw terminal block						3

Order example:

Product Symbol: **ADA-4010-1-23-3**

1 – basic version of electronic,  
23 – galvanic isolation 1kV=, 3-way  
3 – cover without inlets, plug-in screw terminal block,