

Datasheet

ADA-1040A

Addressable converter baud rate and data format RS-232 to RS-485/RS-422



APPLICATION

ADA-1040A addressable converter enables adding the address to RS-232 interface not addressable device, this solves the problem of connecting these devices to multipoint RS-485 bus. At the same time the converter makes conversion of RS-232 standard to RS-485/RS-422 with the possibility of interference with the format of transmitted data. Depending on the configuration can be adjusted: baud rate, number of data bits, parity or no parity and number of stop bits – the setting can be different for RS-232 or RS-485/RS422 ports.

ADA-1040A does not require power supply from RS232 port, supports asynchronous data transitions rate up to 230,4 kbps. The converter has DB-9F (female) socket for RS232 connection and screw terminal block for connection of power supply and RS485/RS422 bus. Connector DB-9F is made like DCE, it let connect converter to other device using the extension cable RS232 (typical cable for modem connection) without crossing TX with RX.

Converter uses RX, TX, GND signals of RS232 for operating, connected via DB-9F connector. RTS signal of RS232 interface is used for data flow control type: RTSON, RTS-TOGGLE, RTS-OFF and CTS signal is not use, DTR signal is connected with DSR.

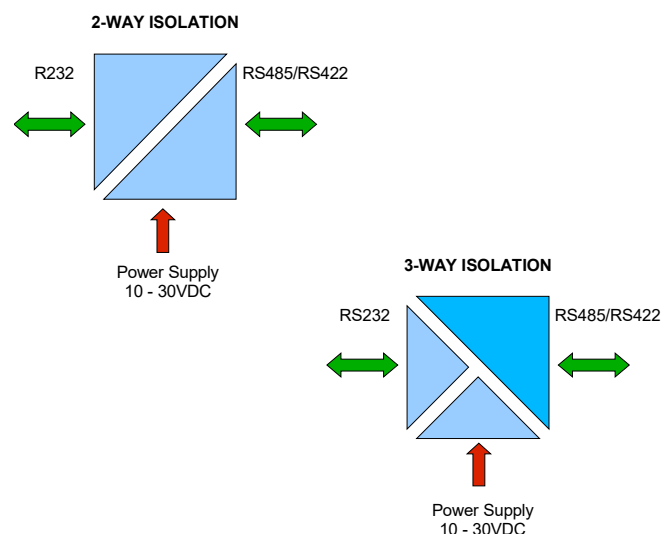
Surge protection on each RS485/422 lines, has been made on the base of diode suppressors and fuses.

TECHNICAL DATA

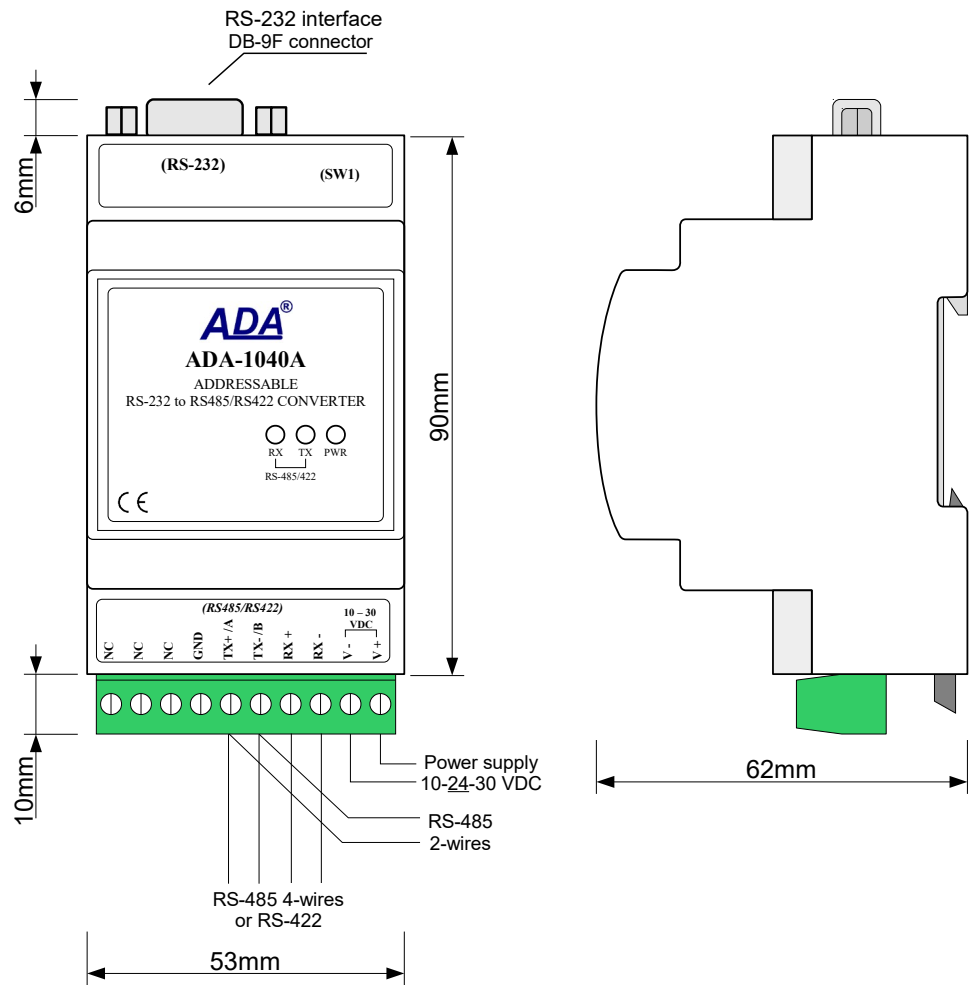
Transmission Parameters		
Interface	RS-232	RS-485/RS-422
Connector	DSUB-9 Female	Screw terminal block - max. Ø 2,5mm ²
Max. Line length	15 m	1200 m
Max. number of connected device	1	32 / 2

Transmission line	DB9F/DB9M multicore cable 9x0,34 shielded or 9-pair twisted cable, UTP 9x2x0,5 (24AWG) shield inside large interferences STP 9x2x0,5 (24AWG).	1-pair or 2-pair twisted cable, 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	Asynchronous full duplex, half duplex.	
Optical Signalization	<ul style="list-style-type: none">• PWD – green LED power supply,• RX - red LED data receiving on RS485/RS422,• TX - yellow LED data transmission via RS485/RS422.	
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 RS-232 and RS485/422 signal lines (depend on version)	
Optoisolation	3kV - between signals lines RS-232 and RS-485/422	
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-1040A -		
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-1040A-23-3**
23 - galvanic isolation: 1kV= 3-way,
3 - cover without inlets, plug-in screw terminal block