

Datasheet

ADA-4028LA

Addressable RS485/422 to 2-WIRE Current Loop CLO Baud Rate Converter



APPLICATION

ADA-4028LA addressable baud rate converter is device solving the problem of connecting no addressable devices equipped with the Current Loop CLO interface to multipoint RS485/422 bus by adding the address to the no-addressable device. At the same time the converter converts RS485/422 standard to Current Loop CLO standard with possibility of changing the baud rate and format of the transmitted data. Depending on the configuration can be set the baud rate, number of data bites, parity (None, Odd, Even) and number of stop bits. The setting can be different for Current Loop CLO port and RS485/422 port.

ADA-4028LA supports the asynchronous baud rate up to 230,4 kbps via one or two pairs of twisted-pair cables of RS485/422 interface, and up to 19,2 kbps on 2-wire Current Loop CLO bus.

ADA-4028LA converter with active transmitter allows connection to the RS485/422 bus devices with passive Current Loop CLO interface eg. energy meters like POZYTON LZQM, ELSTER A1500, PAFAL and others, with possibility of conversion the format and baud rate between connected devices to Current Loop CLO interface and RS485/422 bus.

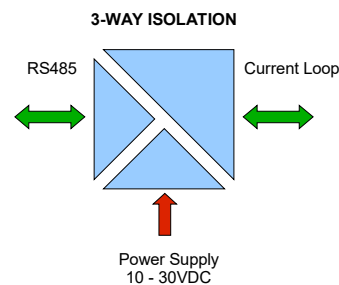
ADA-4028LA is equipped with screw terminal block for connection of RS485/422, Current Loop CLO and power supply. Over-voltage protection on each RS485/422 lines and Current Loop, was made on the base over-voltage LED's and the fuses. To RS485/422 bus created by the use ADA-4028LA, is possible to connect 32 devices, operating in half duplex mode (query /response) on 2 or 4 wires multipoint bus or full duplex on 4-wire bus. To Current Loop CLO bus created by the use ADA-4028LA (active), is possible to connect 4 devices operating in half duplex mode.

The converter has an internal low-energy surge protection for each line of Current Loop CLO interface. However, for the lightning protection should be used external lightning arresters such as the typical phone line protection.

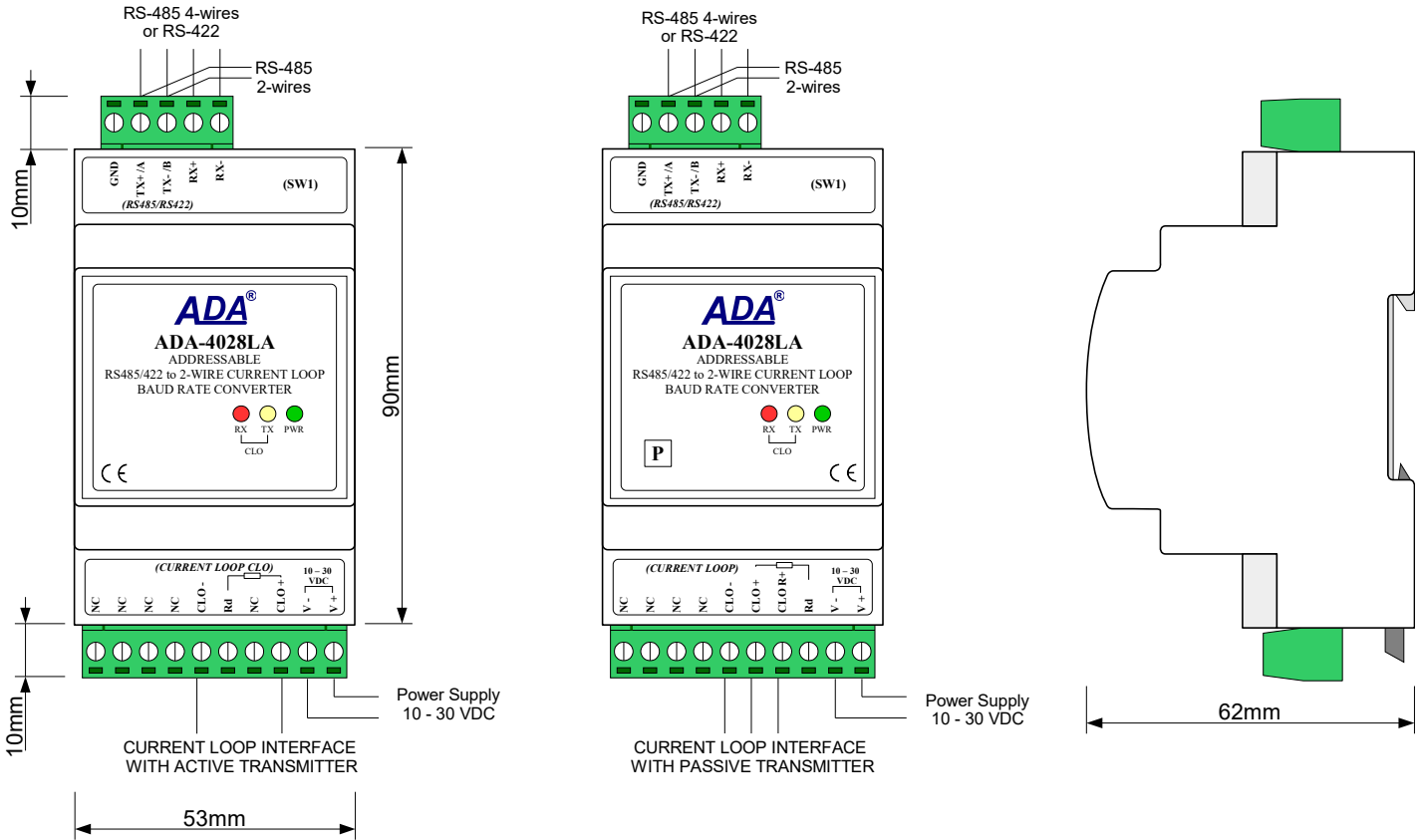
TECHNICAL DATA

Transmission Parameters		
Interface	RS-485/RS-422	Current Loop
Connector	Screw terminal, wire max. Ø 2,5mm ²	Screw terminal, wire max. Ø 2,5mm ²
Max. Line length	up to 1200 m	Depend on baud rate, several kilometres
Max. number of connected device	up to 32	Up to 1
Max. baud rate	230,4 kbps	19,2 kbps
Transmission line	Twisted cable 1-pair or 2-pair, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5(24AWG).	2-pair twisted cable, UTP Nx2x0,5 (24AWG), shield inside large interferences STP Nx2x0,5(24AWG).
Standards	EIA-485, CCITT V.11	0-20mA or 0-30mA
Transmission type	Asynchronism full duplex, half duplex.	
Optical Signalization	<ul style="list-style-type: none"> PWR – green LED power supply, RX - red LED data receiving from Current Loop, TX - yellow LED data transmission through Current Loop CLO. 	
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	1kV= or 3kV= DC between power circuit and RS485/422 signal line	
Optoisolation	3kV= between signal line RS-485/422 and Current Loop	
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-4028LA -					
Electronic versions:					
Standard	1				
Current Loop Voltage:					
24VDC		1			
12VDC		2			
Current Loop Current:					
0 – 20 mA (standard)			1		
0 – 30 mA			2		
Current Loop Type:					
Active				A	
Passive				P	
Galvanic isolation:					
1kV= 3-way					2
3kV= 3-way					3

Order example:

Prod. symbol : **ADA-4028LA-1-1-1-A-2**

- 1 – standard electronic version,
- 1 – current loop voltage 24VDC,
- 1 – current loop current: 0-20mA,
- A – current loop type: Active,
- 2 – 1kV= galvanic isolation,