

Datasheet

ADA-13020

ETHERNET to Current Loop converter



APPLICATION

ADA-13020 converter is used for data transmission between devices equipped with Current Loop interface via LAN/WAN network without interfering with data format. In the ETHERNET network converter can operate in Virtual Serial Port mode, TCP serial bridge mode, UDP serial bridge mode, TCP sockets, UDP sockets. The converter has screw terminal block for connection of Current Loop interface and power supply and RJ45 connector for Ethernet network connecting. Converter uses for operating signals RX+,RX-,TX+,TX- of Current Loop interface, connected via screw terminal block.

Over-voltage protection was made on base safety diodes and fuses on each Current Loop lines.

To Current Loop interface can be connected one device in point-to-point topology, operates in half duplex or full duplex mode.

This converter has internal, low energy surge protection for each Current Loop lines however it is recommended to use the external lightning arresters (typical protection of telephone line) for the lightning protection of lines

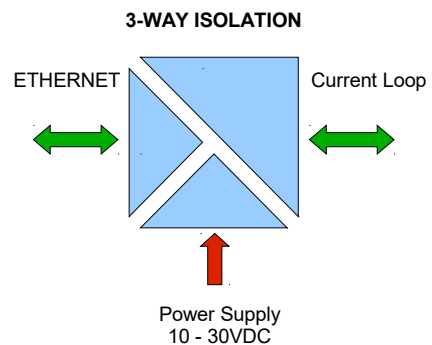
With converter are provided the drivers which installed in the operating system (Windows 98ME,2000,XP,2003,Vista,7, 8, 8.1, 10), will create an additional COM port. This port is the next free number eg COM3, can be used like a standard COM port. However, it is not the real port existing in a computer, but only a virtual, created by the system, therefore some programs running under DOS and links to this COM port may not function properly.

TECHNICAL DATA

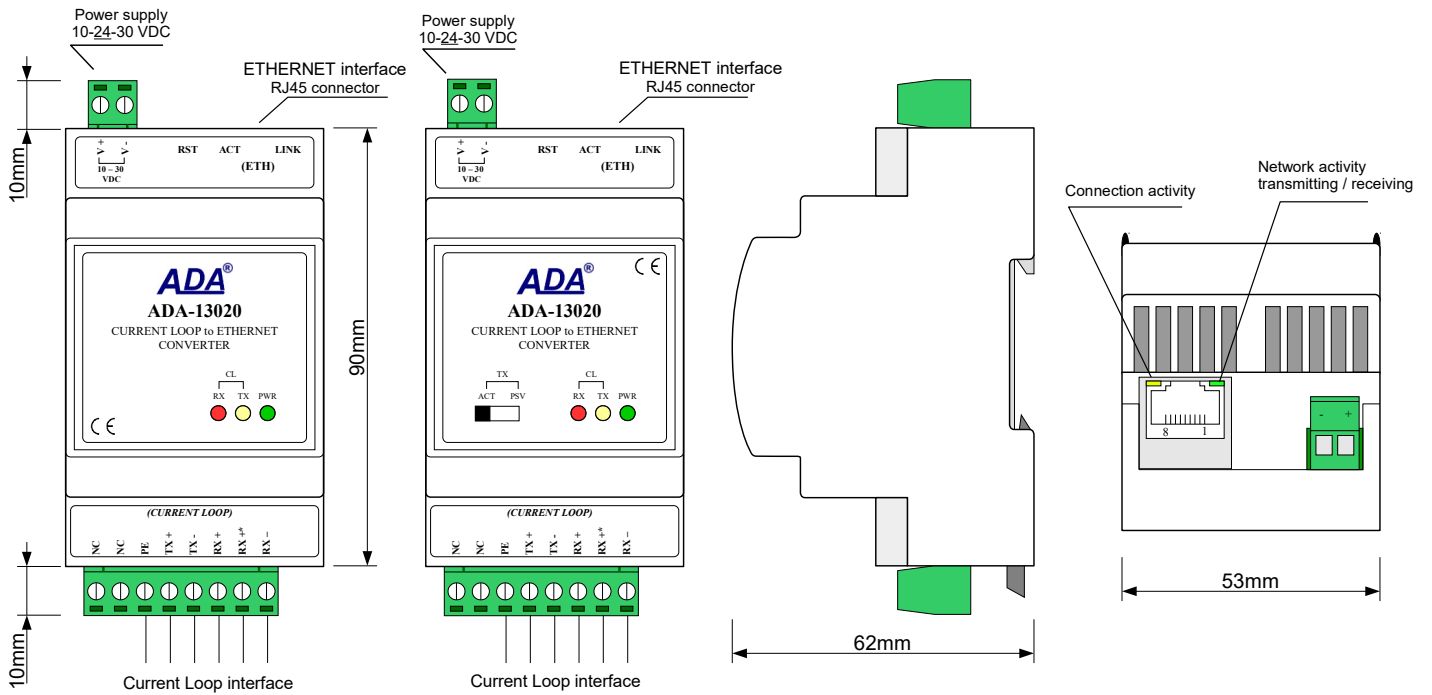
Transmission Parameters		
Interface	ETHERNET	Current Loop
Connector	RJ45	Screw terminal, max. wire \varnothing 2,5mm ² .
Max. Line length	LAN up to 150 m	Depend on baud rate up to few hundred meters
Max. number of connected device	Depend on addressing type in network	2 point-to-point or 15 in Current Loop network

Transmission line	4-pair twisted cable, UTP 4x2x0,5(24AWG), shield inside large interferences (STP 4x2x0,5(24AWG))	2-pair twisted cable, UTP Nx2x0,5(24AWG), shield inside large interferences (STP Nx2x0,5(24AWG))
Standards	IEEE 802.3	0-20mA(TTY), +/-20mA
Baud rate	10/100 Mbit/s	38,4 kbps (depend on length Current Loop line)
Transmission type	Asynchronism half duplex or full duplex,	
Optical Signalization	<ul style="list-style-type: none"> PWD – green LED (power supply) RX - red LED data reception on Current Loop port, TX - yellow LED data transmission via Current Loop port, 	
Electrical Parameters		
Power requirements	10 - 24 – 30 V DC	
Power Cable	Recommended length of power cable – up to 3m	
Power	3W	
Protection from reverse power polarization	YES	
Galvanic Isolation	1kV= or 3kV= (between power circuit and ETHERNET signal line) 1kV= or 3kV= (between power circuit and Current Loop signal line)	
Optoisolation	~3kV= (between signal lines Current Loop and ETHERNET)	
Electromagnetic compatibility	Resistance to disruptions PN-EN 55024. Emission of disruptions 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-13020 -	-	-	-	-
Electronic version:					
Basic		1			
Current Loop Voltage:					
24VDC			1		
12VDC			2		
Current Loop Type:					
± 20mA				1	
0 – 20mA (TTY active/passive transmitter, passive receiver)				2	
Galvanic Isolation:					
1kV=					2
3kV=					3
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-13020-1-1-1-2-3**

- 1 – basic electronic version,
- 1 – current loop voltage 24VDC,
- 1 – current loop type ± 20mA,
- 2 – galvanic isolation 1kV=,
- 3 – cover without inlets, plug-in screw terminal block.