Datasheet

ADA-13028L

ETHERNET to Current Loop CLO converter

APPLICATION

ADA-13028L converter is use for data transmission between devices equip with CLO Current Loop interface via LAN/WAN network. Operating in ETHERNET network can be in Virtual Serial Port mode, TCP serial bridge mode, UDP serial bridge mode. Converter can use protocols: TCP, UDP, DHCP, SNMP, SSL/TLS, Telnet, Rlogin, LPD, HTTP/HTTPS, SMTP, ICMP, IGMP, ARP. C be configured and managed via Internet browser – converter has implemented WWW server.

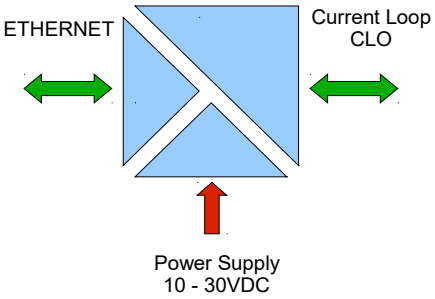
Converter uses the signals CLO+, CLO-, Rd- of Current Loop CLO interface. It is adapted for powering from the regular voltage external source which value should contain from 10V to 30V and was provided from the power pack about 3W power. Converter has implemented protection against opposite polarization of power supply and over-voltage protection on CLO bus. ADA-13028L has galvanic isolation between ETHERNET and Current Loop CLO interface and power supply and optoisolation in signal channel between ETHERNET and CLO interface. Converter has also inside over-voltage low-energy for each line of Current Loop interfaces but to the lightning protection of the connection you should use external lightning conductors e.g. typical protection a telephone line. We provide with converter the drivers which installed in the operating systems, 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 CLO**
Connector	RJ45	Screw terminal, wire diameter max 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 setting in the network	2 point-to-point or 15 in Current Loop CLO network
Transmission line	4-pair twisted cable, UTP 4x2x0,5(24AWG), shield inside large interferences (STP 4x2x0,5(24AWG)).	2-pair twisted cable, 24AWG, shield inside large interferences
Standards	IEEE 802.3	0-20mA /12VDC, 0-20mA /24VDC
Baud rate	10/100 Mbit/s	19,2 kbps (depend on length of Current Loop CLO line)
Transmission type	Asynchronism half duplex or full duplex,	
Optical Signalization	• PWR – green LED power supply, • RX - red LED data receiving from Current Loop CLO side, • TX - yellow LED data transmission through Current Loop CLO interface.	
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 CLO 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

3-WAY ISOLATION



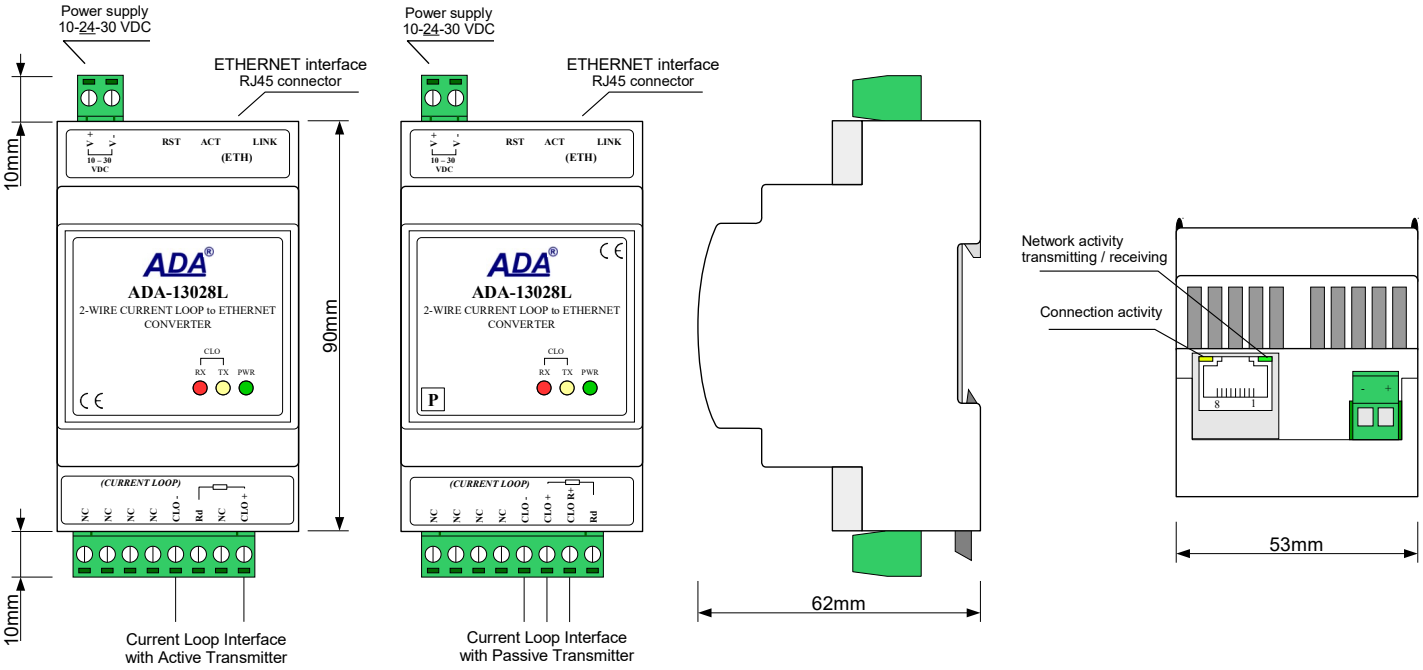
CEL-MAR sp.j.
Production Electronics Facility
Sciegiennego 219C str.
25-116 Kielce, POLAND

Office.....: office@cel-mar.pl
Sales department.....: sales@cel-mar.pl
Technical information....: support@cel-mar.pl

Tel.....: +48 41 362-12-46
Tel/fax.....: +48 41 361-07-70
Sales dep. GSM.....: +48 660-42-90-10
Technical dep.GSM.....: +48 604-097-864

www.cel-mar.pl/en

DIMENSIONS AND CONNECTION



VERSIONS

ADA-13028L - [ ] - [ ] - [ ] - [ ] [ ] [ ]

Electronic versions:

Standard	**1**

Current Loop Voltage:

24VDC	**1**
12VDC	**2**

Current Loop Current:

0 – 20 mA (standard)	**1**
0 – 30 mA	**2**
0 – 45 mA	**3**

Current Loop Type:

Active	**A**
Passive	**P**

Galvanic isolation:

1kV= 3-way	**2**
3kV= 3-way	**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:

Prod. symbol : **ADA-13028L-1-1-1-A-2-3**

1 – standard electronic version,
1 – current loop voltage 24VDC,
1 – current loop current: 0-20mA,
A – current loop type: Active,
2 – 1kV= galvanic isolation,
3 – cover without inlets, plug-in screw terminal block.

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