Communication adapter
Ethernet / RS232

ELO E221

Characteristic

Easy installation – application profiles
Wide network protocols supported
Activity Indicators: Link, Activity, Tx, Rx
DIN rail mounting optional

Introduction

Nowadays, an Ethernet networking become widely used in the automation industry. The RS232 standard is intended to connect two devices with cable length up to 15 meters. The adapter E221 allows to join an RS232 device to the Ethernet thus to bridge a long distances.

Applications

The adapter altogether with supplied software allows various applications. There is configuration software supporting MS Windows operating system on enclosed CD-ROM, but Linux/Unix versions are also available.

The adapter can connect the RS232 device to the computer over the network; it is mapped as a virtual COM port – the **RealPort** profile.

Two RS232 devices can be connected over the Ethernet like they were connected by a serial cable – the **Serial Bridge** profile.

Another application of the adapter can integrate an serial device to the network over the TCP protocol as a TCP client or TCP server – the **TCP socket**.

The adapter can use the UDP protocol to communicate – the **UDP socket**.

Finally, there is a **Custom** profile, where the user can change all of the communication settings both serial and network layer.

Furthermore, the control signals of the RS232 interface can be used as a binary **GPIO port**, with five pins free configurable as output or input each, which can be used to control and state sampling of the remote device. It can be configured to aware (e.g. by an e-mail) based on states of those binary inputs.

Operation

The adapter converts RS232 data stream to the Ethernet layer. It can transfer all data and control signals of the RS232 except RI. The RS232 interface is terminated with DB9M connector, the Ethernet is interfaced with RJ-45 socket.

The adapter allows full duplex communication with the maximal speed 230 kbps. The Ethernet layer supports 10/100 Mbps speed.

Technical specification

Ethernet interface

Connector	RJ-45 socket UTP
Transmission speed	10/100Mbps auto
Operation	full/half duplex
IP assignment	statical,DHCP, autoIP
Supported protocols:	TCP, UDP, DHCP, SNMP, HTTP, SMTP, ARP, ICMP, ICMP
Encryption	SSL v3.0/TLS v1.0, AES 128bit

RS232 interface

Connector	DB9M (male), DTE
Transmission speed	up to 230 kbps
Transferred signals	TXD, RXD, RTS, CTS DTR, DSR, DCD
Data flow control	HW, SW(Xon/Xof)
GPIO port	5 inputs and/or outputs

Others

Configuration	web interface, HTTP(S)
Indicators:	Power - green
	Link - orange
	Activity - green
	Rx - green
	Tx - orange
Power supply	9-24 V DC
Current consumption	up to 150 mA @ 12V
Dimensions (WxLxH)	80 x 120 x 25 mm
Storage temperature	-10°C..+55°C
Operating temperature	0°C ... +50°C
Humidity	0..95% non condensing
Mounting	desktop, DIN rail opt.