Industrial Wireless Ethernet

ELPRO 805U-E

Ethernet connectivity without the wiring

The 805U-E is an ideal solution for Ethernet connections in process control and automation applications – PLC’s, DCS, SCADA, data acquisition … the 805U-E can handle multiple applications simultaneously.

All in the same unit …

Maximum flexibility, while saving expensive wiring costs. Each module can be configured as a

- Access Point
- Bridge
- Repeater
- Client/Station
- Router

- 10/100 BaseT Ethernet, wireless data up to 77 Kbits/sec
- ELPRO’s proven Industrial Strength 869MHz 500mW radio technology

Long and short range applications …

- range 5km, license-free - repeater functionality increases wireless range even further
- excellent penetration in congested industrial environments - over 500 metres through buildings, factory walls and steelwork.

Security, reliability, redundancy …

- multiple layers of error-detection and correction
- automatic changeover of Access Point if the wireless link fails
- military-grade AES security encryption of wireless data
- 802.1d Spanning Tree functionality

Firewall protection and efficient wireless management …

- secure Firewall protection
- message filtering at MAC address level

Serial server interfaces …

- two serial interfaces, RS232 and RS485
- Modbus serial to Modbus TCP conversion
- discrete channel for status I/O, for failure status or external status transfer.

Easy to use configuration and powerful diagnostics …

- configuration and diagnostics via web-browser
- remote configuration and diagnostics via the wireless link.

Lifetime Warranty & first-class technical support

ELPRO’s industry-first Lifetime Warranty with 24 hour telephone technical support means you can use the 805U-E with confidence.
SPECIFICATIONS

Ethernet
10/100 BaseT RJ45
IEEE 802.3 compliant.
Bridge/router functions work with all Ethernet protocols
Embedded Protocols:
TCP/IP, UDP ARP, PPP, ICMP, HTTP, FTP, TFTP, TELNET

Serial
RS232 V.24 DCE 1.2 to 38.4 Kb/s
RS485 1.2 to 38.4 Kb/s
Serial server functionality, Modbus RTU to Modbus TCP conversion

Discrete I/O
One I/O channel
Input voltage-free contact / Output FET 30VDC 500mA

Networking
Configurable as Access Point or Client, Bridge or Router
Point-to-point, Point-to-multipoint, user configurable addressing
Repeater functionality MAC Filtering - whitelist or blacklist
Serial gateway TELNET Spanning Tree 802.1d

Radio
Single channel, synthesised transceiver
Frequency band 869.525 MHz 500 mW
869.850 MHz 5mW
Receiver sensitivity -108 dBm @ 10-6 BER
Data rates 7.2, 14.4, 38.4, 76.8 Kb/s or auto rate selection
Protocol CSMA/CA with 32 bit CRC and auto-correction
Radio range 5 km line-of-sight
Range may be extended using repeater features
SMA coaxial antenna connection

Security
128 bit AES encryption or 64 bit proprietary encryption (configurable)
Data modulation keying MAC Address filtering
Password protected configuration

On-line Configuration and Diagnostics
HTTP with remote configuration via wireless link
RF signal strength, Bit Error Rate, connection monitoring and statistics
PPP Protocol Access to diagnostics

General
Temperature -40 to +60 degC
Humidity 99% non-condensing
Power Supply 10 – 30VDC
Current Normal 280mA (12V), 150mA (24V)
Transmit 500mA (12V), 300mA (24V)
Case, heavy duty painted aluminum, DIN rail mounting
Size 4.5 x 5.5 x 1.2 in. / 114 x 140 x 30 mm
Weight < 0.8 lb / 0.4 kg
Indicators: Power/OK, Radio Rx and Tx, Radio Link, LAN Link/Activity,
Serial Activity, Digital I/O, LAN 10/100Mbit Link
Approvals EN 300 220, EN 301 489

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