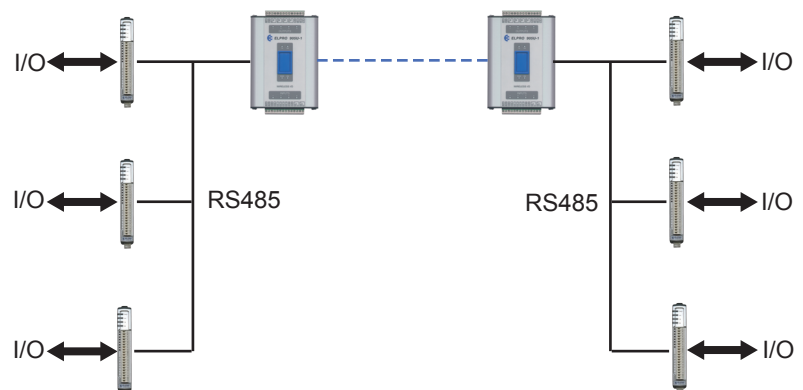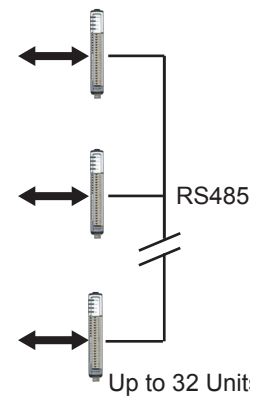# ELPRO 115S
Industrial Serial I/O

Serial I/O multiplexer, the transfer of I/O via RS485 - up to 32 units per multi-drop link.

Expansion I/O for Modbus devices - up to 31 x 115S units can be connected to each Modbus

Expansion I/O for 105U/905U wireless units - up to 31 x 115S units can be connected to each wireless unit via RS485.

Features

- Multi I/O channels - monitoring and control functions.

- Connected via RS485 multi-drop.

- Selectable communications via WIB-net or Modbus protocol (both RTU and ASCII formats).

- Sensor signals connected at one module (input signals) are transmitted to another module where the signals are re-created as output signals, or passed via serial or Ethernet data bus to a host device such as a PLC or SCADA system.

- Connect to 105U/905U wireless I/O units for I/O expansion - up to 31 serial addresses per wireless unit.

- Connect 115S units together to form a serial multi-drop I/O system - up to 32 serial addresses per multi-drop link   - no Master device is required to control communications.

- Connect up to 99 x 115S units as multi-drop Modbus I/O (RS485 extenders/isolators required for more than 31 units per single multi-drop length)

- RS485 multi-drop up to 2 km (1 mile) depending on installation environment.

- Four I/O versions available.

- *WIB-net* intelligent wireless protocol. Peer-to-peer communications. Exception reporting. Reliable self-checking messages. Any input on any unit can be linked to any output on any unit. Inputs can be linked to multiple outputs. Serial communications 9.6Kb/s

- Alternate Modbus RTU or Modbus ASCII slave protocol, serial communications configurable up to 115.2Kb/s, 7 or 8 data bit format.

- External I/O plus internally calculated values - analog setpoint status, pulse rate and pulse total, power supply voltage, power supply alarm.

Up to 32 Units

SPECIFICATIONS

General

Temperature   -40 to +60 degC (-40 to 140 degF).
Humidity 0-99% RH
EMC FCC Part 15, AS3548, 89/336/EEC
CSA Class 1 Div 2 hazardous areas (USA Canada)
Housing – high density thermo-plastic 5.91" x 7.09" x 1.38" (150 X 180 x 35mm) with DIN rail mounting.
Removable terminals up to 12 gauge (2.5 sqmm) wires.
LED indication for power supply, processor OK, serial TX and RX,digital I/O.

Inputs and Outputs

Digital Inputs

Suitable for voltage free contacts or NPN transistor, contact wetting current 5mA, inputs are surge protected
type -11 up to 16 selectable I/O
type -12,-13,-14 up to 8 selectable I/O

Digital Outputs

FET outputs, 30VDC 200mA
type -11 up to 16 selectable I/O
type -12 ,-13, -14 up to 8 selectable I/O

Analog Inputs

"floating" differential inputs, common mode voltage 27V, 24VDC for powering external loops provided, digital filtering 1 sec, 0-20mA/0-10V resolution 12 bit, accuracy 0.1% type -12 8 input channels, selectable as 4 dual-terminal floating inputs or 8 single-terminal commoned inputs.

Analog Outputs

selectable as current/voltage source or current link to common, max loop voltage 27V, max loop resistance 1000 ohms, 0 - 20mA/ 0 – 10V, 12 bit, accuracy 0.1% type -13   8 channels

Pulse Inputs

specifications as per digital inputs Max pulse rate 1kHz, pulse width min 0.5ms type -11   4 inputs (DIO1-4)

Pulse Outputs

specifications as per digital outputs Max pulse rate 15.625Hz, pulse width min 32ms type -11,-12,-13,-14   8 outputs (DIO1-8)

Power Supply

10.8 - 15.6VDC, over-voltage and reverse power protected
Internal monitoring of supply voltage. These values may be transmitted to remote modules for monitoring.
An internal DC/DC converter provides 24VDC 250mA for analog loop supply.

Serial Port

RS485 serial port configurable up to 115.2Kb/s, 7/8 data bits, n/e/o parity, 1 / 2 stopbits.
RS232 configuration port 9pin DB9 female connector, 9.6Kb/s, 8/n/1 RS485 max cable distance 2000 m terminal connections.

Weight

0.359 grams

Specifications subject to change without notice

ELPRO
Technologies

www.elprotech.com

bro_115S_1.0

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