115S I/O Expansion Products

Input/output for expanding applications

Description

The ELPRO 115S series allows end users to readily accommodate changing I/O needs as project specifications evolve. The 115S series of products can be used with ELPRO transceiver-based I/O, gateway, Ethernet, and serial products to expand input and output count or act as a Modbus® slave I/O to connect other field devices.

Connected via RS-485 and communicating using ELPRO WIBNet™ or Modbus protocols, the 115S series is available in three versions with different numbers of I/O ports. Multiple 115S products may be daisy-chained to accommodate changing application needs.

Features

- Provides several I/O port variations for expanding applications
- Combine units (daisy chain) to accommodate additional I/O needs
- Serial modem expansion I/O for ELPRO transceiver I/O, gateway, and Ethernet products
- Modbus RTU slave I/O expansion capability
- Serial I/O multiplexer featuring ELPRO change-of-state WIBNet protocol

Applications

- Flow meter monitoring
- Storage tank monitoring
- Pipeline cathodic protection
- Pump stop-start
- Lighting bank control
- Emergency shower notification
- Weather station reporting
- Bearing condition monitoring
- Modbus slave I/O

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Specifications

SPECIFICATION	DESCRIPTION
Input and Output	
Digital input ① and output ②③④	115S-11: up to 16 115S-12: up to 8 115S-13: up to 8
Analog input	115S-11: 0 115S-12: 4 floating/8 commoned (0–20 mA/0–10V) 115S-13: 0
Analog output	115S-11: 0 115S-12: 0 115S-13: 8 sink/source (0–20 mA/0–10V)
Pulse input (3)	115S-11: 4 (first four DI only) (maximum rate 1 kHz) 115S-12: 0 115S-13: 0
Pulse output (3,5)	115S-11: 8 115S-12: 8 115S-13: 8
Serial Port	
RS-232	9-pin DB-9 female connector DCE (Modbus only)
RS-485	2-pin terminal block, non-isolated ⑥ Modbus and ELPRO protocol
Data rate (bps)	1200 bps, 115.2 kbps (defaults, configurable)
Serial settings	7/8 data bits, stop/parity (configurable)
Compliance	
EMC	FCC Part 15; CE; EN 55022; EN 55024
Hazardous area	UL Class I Div 2, IECEx nA IIC, ATEX Zone 2
Safety	EN 60950
Power Supply	
Nominal supply	10.8–30 Vdc, under/over voltage protection
Average current draw	150 mA @ 12V, 90 mA @ 24V
Analog loop supply	Internal DC/DC converter: 24 Vdc 115S-12: max. 270 mA @ 24 Vdc 115S-13: max. 160 mA @ 24 Vdc

SPECIFICATION	DESCRIPTION
LED Indication and Diagnostics	
LED indication	Power, OK, RX, TX, I/O status Refer to product manual for further information
General	
Size	5.91" x 7.09" x 1.38" (150 mm x 180 mm x 35 mm)
Housing	High temperature polycarbonate
Mounting	DIN rail mounting
Terminal blocks	Removable, max. conductor 14 AWG, 0.1 $in.^2$ (2.5 mm^2)
Temperature rating	–40 to +140°F (–40 to +60°C)
Humidity rating	0–99% RH noncondensing
Weight	1.1 lbs (0.5 kg)

Note: Specifications are subject to change.

① All digital inputs voltage free contacts
② All digital outputs FET (30 Vdc/0.2A)
③ Pulse and digital I/O are same connection.
④ Selectable digital inputs and outputs are combined channels; when a channel isused as an output, it is not available as an input.
⑤ All pulse outputs to maximum 100 Hz
⑥ Maximum distance 4000' (1200m)

Ordering

PRODUCT CODE	DESCRIPTION
115S-11	Serial I/O, ELPRO/Modbus RS-485, 16 DIO, 10.8–30 Vdc input
115S-12	Serial I/O, ELPRO/Modbus RS-485, 8 DIO, 8 AI, 10.8–30 Vdc input
115S-13	Serial I/O, ELPRO/Modbus RS-485, 8 AO, 10.8–30 Vdc input

Accessories

No accessories are required with this product.

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