115S Industrial Serial I/O

Flexible serial I/O with multiple application modes:

- Serial I/O multiplexer - transfer I/O via RS485 multidrop using WIBNet exception reporting protocol.
- Expansion I/O for ELPRO 105U/905U wireless I/O units - up to 10 x 115S units can be connected to each wireless unit via RS485.
- Modbus I/O - up to 99 x 115S units can be connected to each Modbus Master.
- I/O interface for ELPRO 802.11 wireless Ethernet and Serial Server units - up to 99 115S units per wireless units.

ELPRO TECHNOLOGIES
Industrial Wireless Technology

Features:

- Selectable communications protocol - Modbus (RTU and ASCII) or WIBNet (exception reporting, peer to peer with security encryption).
- Three I/O versions available:

<table>
<thead>
<tr>
<th>115S model</th>
<th>115S-11</th>
<th>115S-12</th>
<th>115S-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital input/outputs</td>
<td>16</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Analog inputs</td>
<td>0</td>
<td>4/8</td>
<td>0</td>
</tr>
<tr>
<td>Analog outputs</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Pulse inputs</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pulse outputs</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

- Each model has 8 (115S-11 has 16) digital I/O channels - each channel can be used as a volt free contact input or FET output (30VDC, 0.2A max).
- Each DIO channel can function as a pulse output to a maximum 15Hz with the first four DIO/pulse input channels on the 115S-11 to a maximum pulse rate of 1KHz. Pulse inputs provide both totalized count and pulse rate as separate values.
- Configurable analog inputs - 0-20/4-20mA: 0-10V. Selectable as 8 single terminal inputs (commoned) or 4 dual terminal ‘floating’ inputs (115S-12).
- Analog outputs are commoned with selectable supply/sink connections (115S-13).
- Each analog input has a high/low set point to determine a set-point status.
- Field test and display I/O inputs and/or force outputs, monitor and confirm communications and configure units with user friendly configuration software.

Applications

- Flow meter monitoring
- Storage tank monitoring
- Pipeline cathodic protection
- Pump stop-start
- Lighting bank control
- Power reticulation relay fault notifications
- Emergency shower notification
- Weather station reporting
- Bearing condition monitoring
- Modbus Slave I/O
115S Industrial Serial I/O Units

**Range 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:
115S -11 - up to 16 selectable I/O
115S -12 & -13 up to 8 selectable I/O

**Digital Outputs:**
FET outputs, 30VDC 200mA
115S -11 up to 16 selectable I/O
115S -12, -13 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%
115S -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 sink to common, 20 VDC for powering external loops provided, max loop resistance 1000 ohms, 0 – 20mA/0 – 10V, 12 bit, accuracy 0.1%
115S -13 - 8 channels, 160mA maximum total current

**Pulse Inputs:**
Specifications as per digital inputs.
Max pulse rate 1kHz, pulse width min 0.5ms
115S -11 - 4 inputs (DIO1-4)

**Pulse Outputs:**
Specifications as per digital outputs.
Max pulse rate 15.625Hz, pulse width min 32ms
115S -11, -12, -13 8 outputs (DIO1-8)

**Power Supply**
10.8 - 30 VDC, over-voltage and reverse power protected.
Internal monitoring of supply voltage.
Values may be transmitted to remote modules for monitoring.
Internal DC/DC converter provides 24VDC, 250mA for 115S-12: 20VDC, 160mA for 115S-13) 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

**Note:** Specifications subject to change without notice

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