The SCADASwitch SS10 is a datacom interface device for SCADA & industrial control applications where Modbus Multiplexing, RS232 Switching, RS485 Conversion, and Radio Keying is required. The SCADASwitch has 2 RS232 input ports and a RS232/RS485 output. With low power draw, small DIN rail mounting, and Class I Div 2 rating it is ideal for use in remote EFM/RTU applications.

**SPECIFICATIONS**

- 2 RS232 Input (1 DB9)
- 1 RS232 / RS485 (2/4 Wire) Wire-ORed Output
- Serial Speed: 1200BPS – 115KBPS Baud
- 9 - 30VDC Operation
- Low Current Draw – 6 ma@12VDC
- Class I Div 2 Rated
- -40 to 70 C Operation
- DIN Rail Mount
- Configuration via RS232 Terminal
- 2.5A Switched Power
- 1 DO

**APPLICATIONS**

- PLC, RTU, EFM, Power Meter, Data Logger
- Pipeline SCADA
- Oil & Gas RTU/EFM SCADA

**OPERATING MODES**

- **Modbus/ROC Multiplexing Mode** – Allows 2 SCADA Hosts to share single port of a RTU/EFM device.
- **RS232 Switch Mode** - Allows a configuration computer to connect to an RTU/EFM device without the need to disconnect the SCADA Host
- **Modbus Address Translation** - Translates Modbus address on Input Port to a different address on Output Port. This feature is useful when the same RTU exists on 2 different SCADA networks and is addressed with different Modbus address on each network.
- **Modbus Register Write Blocking** – Prevent Modbus Writes to PLC/RTU/EFM on a specific Input Port. This feature can be used to grant Read-Only access to a third party SCADA host.
- **RS232 Radio Keying** – Allows an RTU with nohandshaking signals to key a radio
- **RS485 Conversion** - Converts RS-232 to RS-485
- **Custom Protocol Conversion** – Upon special request, Bentek Systems can develop custom protocol conversion firmware for SCADASwitch (i.e. to enable Modbus protocol for specialized devices)
MODBUS MULTIPLEXING MODE
ALLOWS 2 SCADA HOSTS TO SIMULTANEOUSLY POLL THE SAME RTU / EFM DEVICE
WORKS FOR OTHER REQUEST / RESPONSE PROTOCOLS (ie Fisher ROC)

LOCAL OPERATOR INTERFACE (LOI) / PC CONFIGURATION MODE
ALLOWS CONFIGURATION PC TO CONNECT TO RTU / EFM WITHOUT HAVING TO PHYSICALLY DISCONNECT SCADA HOST

NORMAL
NOTHING CONNECTED TO COM1

CONFIGURATION
CONFIGURATION PC IS PLUGGED INTO COM1

SCADASWITCH DETECTS POWERED PC & RS232 CABLE ON COM1 AND SWITCHES ACTIVE PATH TO COM1 / COM3
COMMUNICATIONS TO COM2 IS BLOCKED
MODBUS ADDRESS TRANSLATION MODE

ENABLES SCADA HOSTS POLLING 2 DIFFERENT ADDRESSES ASSOCIATED WITH THE SAME PHYSICAL SLAVE DEVICE TO ACCESS IT

MODBUS REGISTER WRITE BLOCKING

GRANT 3rd PARTY SCADA HOST TO HAVE READ-ONLY ACCESS

RS-232 RADIO KEYING

allows RTU with no handshaking signals to key radio

RS-232 / RS-485 CONVERSION
## SCADA Switch SS10
### MODBUS MULTIPLEXER & RS-232 SWITCH

### General

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Requirements</strong></td>
<td>9-30Vdc; 5.8mAmin/9.0mAtyp/5Amax@12Vdc, ESD/Reverse Polarity Protected</td>
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<tr>
<td><strong>Switched Power OP</strong></td>
<td>Vin-0.5Vdc / 1.5A max continuous, 2.5A max peak, ESD Protected</td>
</tr>
<tr>
<td><strong>Physical Size</strong></td>
<td>2.75&quot; x 3.15&quot; x 1.5&quot; (70mm x 80mm x38mm)</td>
</tr>
</tbody>
</table>
| **Environmental**              | Operating Temperature: -40 Deg.C to 70 Deg. C  
Relative Humidity: Up to 90% RH (Non Condensing) |
| **Mounting**                   | 35mm DIN Railmount                           |
| **Status LEDs**                | Power Status Indicator, RX, TX               |
| **Terminal Block(TB)**         | Wire Gauge: 12-24AWG                         |
| **Weight**                     | 3 Oz. (84 Grams)                             |

### Communications

<table>
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<tbody>
<tr>
<td><strong>Serial Ports</strong></td>
<td>All ports: 115Kbps Max, Async, Data bits: 8/9, Parity: 0dd/Even/None,Stop bits: 1/2</td>
</tr>
<tr>
<td>COM 1: Input, RS-232, Tx,Rx,GND, No Flow Control, DB9F (DCE)</td>
<td>Flow Control: None/RTS/RTS&amp;CTS</td>
</tr>
<tr>
<td>COM 2: Input, RS-232, Tx,Rx,RTS,CTS,GND, 5 Pin TB</td>
<td></td>
</tr>
<tr>
<td>COM 3 RS-232: Output, RS-232, Tx,Rx,RTS,CTS,GND, 5pin TB</td>
<td></td>
</tr>
<tr>
<td>COM 3 RS-485: Output, 2-wire or 4-wire Half-duplex RS- 485, TX+, TX-, RX+, RX-</td>
<td>5 Pin TB</td>
</tr>
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</table>

### Agency Approvals

<table>
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<tbody>
<tr>
<td><strong>CSA</strong></td>
<td>Class I Div 2, Group C,D, T3C</td>
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