



P R O D U C T S

SCADASwitch SS10

MODBUS MULTIPLEXER & RS-232 SWITCH

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.



APPLICATIONS

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

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

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)

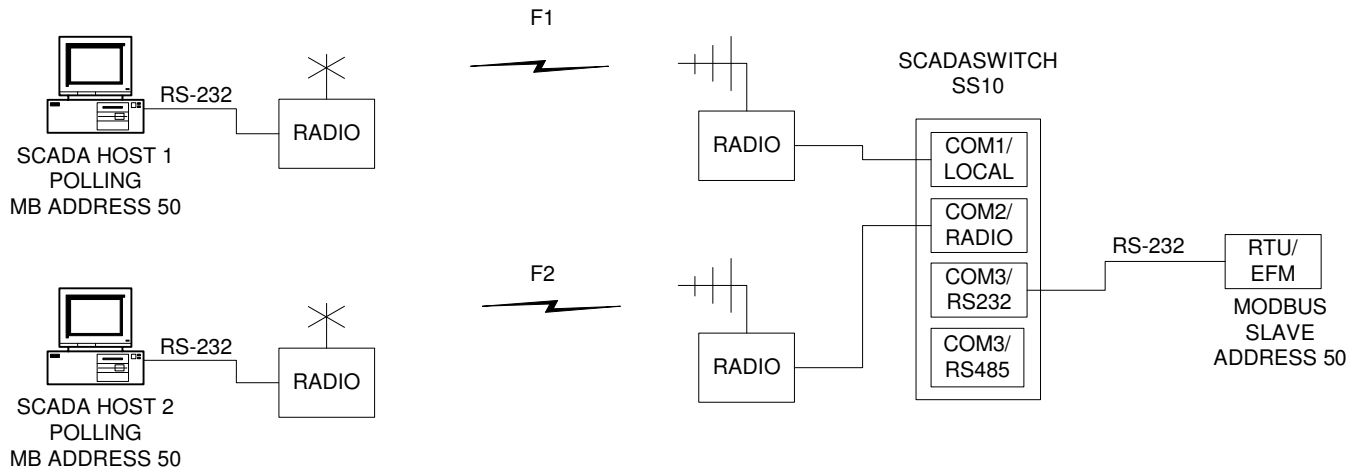
A P P L I C A T I O N S

SCADASwitch SS10

MODBUS MULTIPLEXER & RS-232 SWITCH

MODBUS MULTIPLEXING MODE

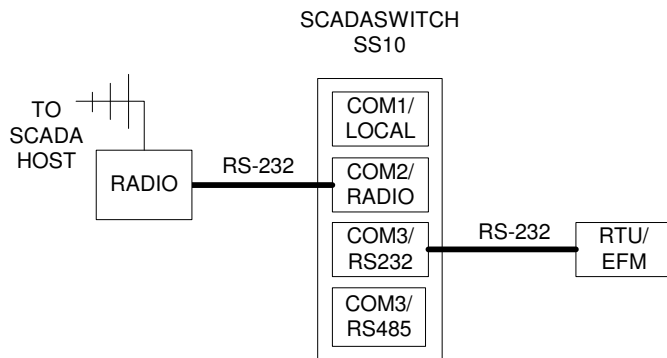
ALLOWS 2 SCADA HOSTS TO SIMULTANEOUSLY POLL THE SAME RTU / EFM DEVICE
WORKS FOR OTHER REQUEST / RESPONSE PROTOCOLS (ie Fisher ROC)



LOCAL OPERATOR INTERFACE (LOI) / PC CONFIGURATION MODE

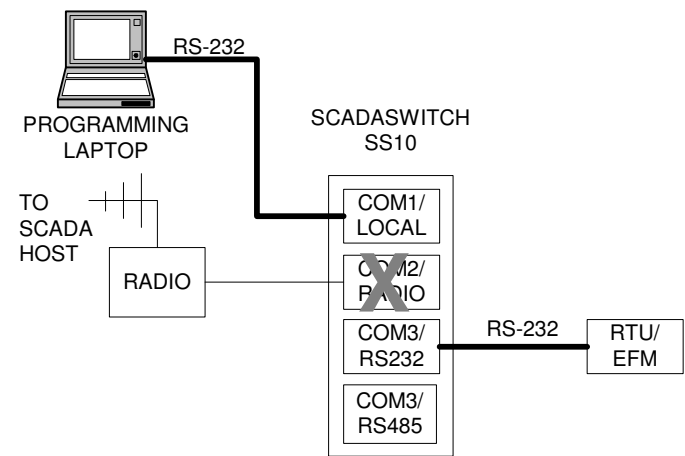
ALLOWS CONFIGURATION PC TO CONNECT TO RTU / EFM WITHOUT HAVING TO PHYSICALLY DISCONNECT SCADA HOST

NORMAL
NOTHING CONNECTED TO COM1



ACTIVE PATH IS **COM2 / COM3**

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

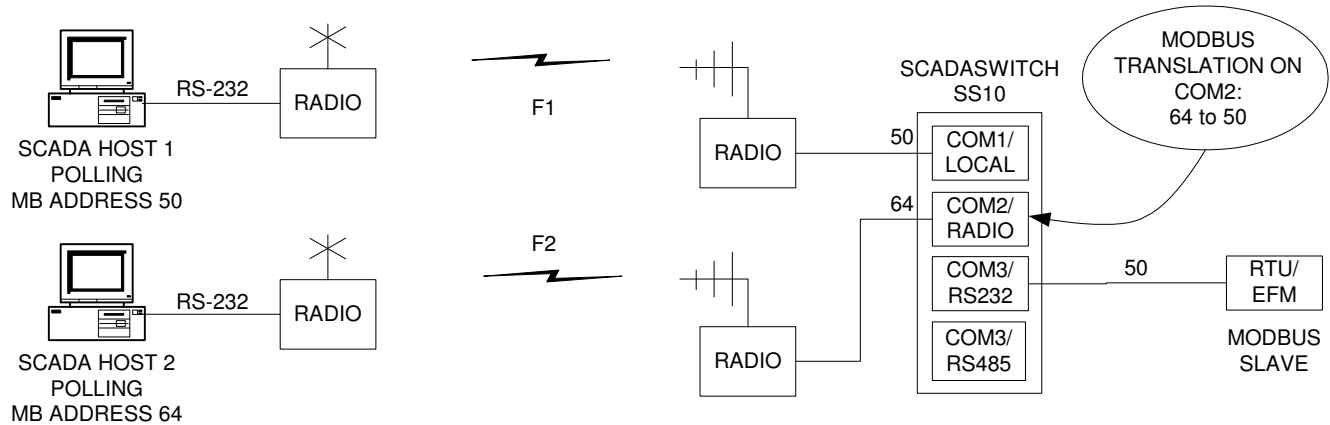
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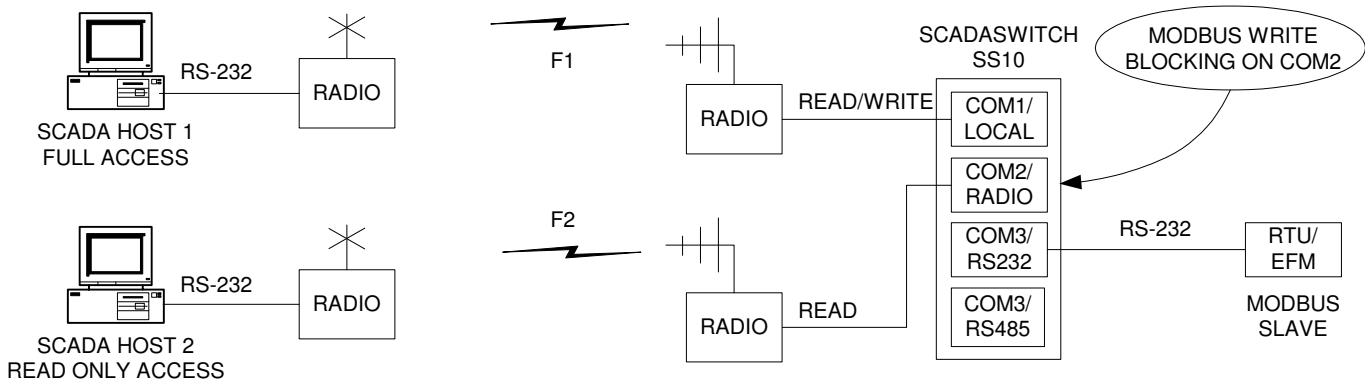
MODBUS ADDRESS TRANSLATION MODE

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



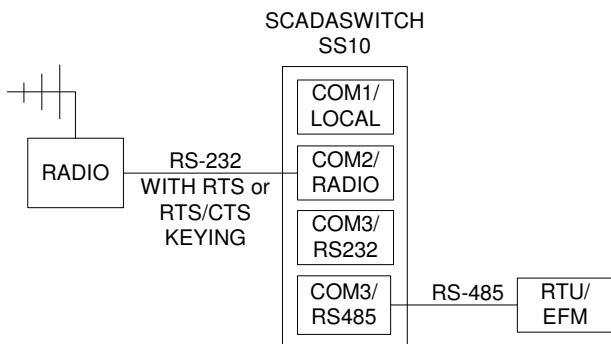
MODBUS REGISTER WRITE BLOCKING

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

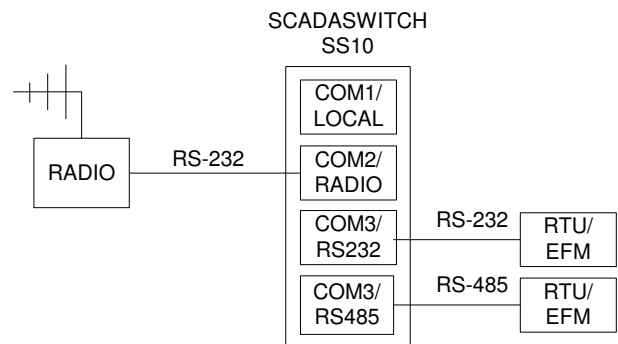


RS-232 RADIO KEYING

ALLOWS RTU WITH NO HANDSHAKING SIGNALS TO KEY RADIO



RS-232 / RS-485 CONVERSION





S P E C I F I C A T I O N S

SCADA Switch SS10

MODBUS MULTIPLEXER & RS-232 SWITCH

General

Power Requirements	9-30Vdc; 5.8mAmin/9.0mAtp/5Amax@12Vdc, ESD/Reverse Polarity Protected
Switched Power OP	Vin-0.5Vdc / 1.5A max continuous, 2.5A max peak, ESD Protected
Physical Size	2.75" x 3.15" x 1.5" (70mm x 80mm x38mm)
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

Serial Ports	All ports: 115Kbps Max, Async, Data bits: 8/9, Parity: Odd/Even/None, Stop bits: 1/2 COM 1: Input, RS-232, Tx,Rx,GND, No Flow Control, DB9F (DCE) COM 2: Input, RS-232, Tx,Rx,RTS,CTS,GND, 5 Pin TB Flow Control: None/RTS/RTS&CTS COM 3 RS-232: Output, RS-232, Tx,Rx,RTS,CTS,GND, 5pin TB COM 3 RS-485: Output, 2-wire or 4-wire Half-duplex RS- 485, TX+, TX-, RX+, RX- 5 Pin TB
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Agency Approvals

CSA	Class I Div 2, Group C,D, T3C
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**BENTEK
SYSTEMS**

315 - 3750 46th Ave. S.E
Calgary Alberta T2B 0L1 Canada
ph:(403)243-5135 fax:(403)243-5165
www.scadalink.com
sales@scadalink.com