

# REMOTE ACCESS SWITCH (ETHERNET MODEM)

The SLX-5MS-MDM is a Remote Access Switch (Ethernet Land-Line Modem) that combines an industrial telephone modem with a 5 port industrial Ethernet managed switch. This powerful combination allows you to easily and securely access your Ethernet network from any remote location over standard telephone lines. Avoid those costly site visits. Save time and money!

# **PRODUCT HIGHLIGHTS**

- Slim 5 port Industrial Ethernet managed switch with integrated industrial telephone modem
- Easy and secure dial-in and dial-out connections up to 56 Kbps using PPP (point-to-point protocol)
- Easy to configure management and modem functions including PPP, SNMP, VLAN, QoS, IGMP and much more
- Truly rugged design with -40 to 75°C operation

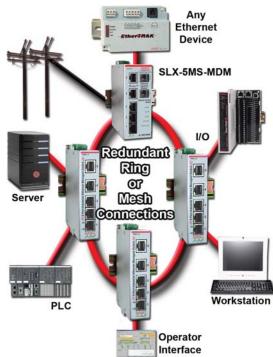
# REAL-TIME SECURE PERFORMANCE

- Advanced PSTN modem features
  - Make easy and secure dial-in connections
  - Automatic dial-out on a trigger input
  - Connection speeds up to Fast 56K (V.90)
  - Full data compression and error control supported
  - Compliant with telephone systems world-wide
- Advanced Ethernet switch features
  - □ Five 10/100 fast Ethernet ports
  - Auto-speed/duplex, auto-crossover & auto-polarity
  - Plug and play operation or full management ability
  - RSTP, VLAN, IGMP, QoS, SNMP and more
- Easy configuration with web or terminal interfaces
- Secure connections with HTTPS, SSL, SSH, SNMPv3 ...
- Router Information Protocol (RIP)

# TROUBLE FREE OPERATION

- High Mean Time Between Failure (MTBF) rating
- Free field-installable upgrades forever
- -40 to +75 °C operation no fans or moving parts!
- UL / CSA (CUL), CE and Hazloc (Zone 2) rated
- Enhanced surge and spike protection
- Dual (redundant) power inputs
- Alarm output and trigger input for PLC (or other device)





#### **NETWORKING FEATURES**

- Auto-detecting, auto-crossover and auto-polarity
- Store and forward wire speed switching
- Rapid Spanning Tree (RSTP) for fault-tolerant loops
- Priority queuing (QoS) for real-time performance
- SNMP v1 and V2 for network management
- SNMP v3 for authentication and encryption
- IGMP v1 & v2 for IP multicast filtering
- VLAN (port & tag based) for traffic segregation
- Message filtering to stop broadcast/multicast storms
- DHCP client for automatic IP address assignment
- RMON and port mirroring for diagnostics
- Configuration via secure (https) Web interface, Telnet / SSH (network), terminal (RS232) or SNMP (v1, v2, v3)
- Router Information Protocol (RIP)

## ETHERNET PERFORMANCE

- 5 Ethernet ports
- Ethernet switch type managed
- All IEEE 802.3 Ethernet protocols supported
- RJ45 ports (shielded) 10/100BaseTX
- RJ45 speed (10 or 100 Mbps) auto-negotiation
- RJ45 MDI/MDIX auto-crossover
- RJ45 TD and RD auto-polarity
- Typical latency for 10M ports =16 us + frame time; varies on load and settings
- Typical latency for 100M ports = 5 us + frame time; varies on load and settings
- Full or half duplex operation are configurable
- MAC addresses supported 2048
- Memory bandwidth 3.2 Gbps
- Ethernet isolation 1500 VRMS 1 minute

# **ETHERNET COMPLIANCE**

- IEEE 802.3 (10Mbps Ethernet supports legacy devices)
- IEEE 802.3u (Fast Ethernet 100Mbps for newer devices)
- IEEE 802.3x (Full-Duplex with Flow Control)
- IEEE 802.1D/w (Rapid Spanning Tree for redundant rings and Spanning Tree for interoperability)
- IEEE 802.1p (Priority Queuing QoS, CoS, ToS/DS)
- IEEE 802.1Q (VLAN for traffic segregation)

# **RS232 MANAGEMENT**

- RJ45 port
- Fixed baud rate, data bits, parity, stop bits, flow control 9600 Bps, 8, None, 1, None

#### INDUSTRIAL PHONE MODEM

- PSTN modem
- Maximum data rates 56 Kbps
- Compatibility V.90, V.34, V.32, V.32 bis, V.22, V.22 bis, V.21
- Data compression V.42 bis
- Error correction V.42 MNP or LAP
- Ringer 0.3
- Jacks 2 RJ11 (phone and line)
- Standard AT and S register command sets
- Country compatibility world-wide (100+ countries)
- Telecom ratings FCC Part 68; Industry Canada S03-8;
  CTR21 (98/482/EC); ACA TS 001 and ACA TS 002

#### **PLC INPUT & OUTPUT**

- Trigger (in) & alarm (out) signals
- PLC / Alarm output voltage; same as switch input power
- Maximum current output 0.5 Amp
- PLC / Trigger input voltage 10-30 VDC
- Typically current input 6.5 mA @ 24 VDC

#### **POWER INPUT**

- Input power (all ports active) 5.0 W typical
- Input voltage (all models) 10-30 VDC (continuous)
- Transient protection 15,000 watts peak
- Spike protection 5,000 watts (10 times for 10 uS)

## **ENVIRONMENTAL**

- Operating temperature range -40 to +75 °C (cold start at -40°C)
- Storage temperature range -40 to +85 °C
- Humidity (non-condensing) 5 to 95% RH
- Vibration IEC60068-2-6

## STANDARDS COMPLIANCE

- Electrical safety UL508/CSA C22.2/14; EN61010-1, CE
- EMI emissions FCC part 15, ICES-003; EN6100-6-4, CE
- EMC immunity IEC61000-6-2, CE
- Hazardous locations UL1604, CSA C22.2/213 (Class I, Div. 2); EN60079-15 (Zone 2, Category 3), CE (ATEX)

## **PHYSICAL**

- DIN rail or direct panel mounting (2 ways)
- Packaging (IP30) corrosion-resistant aluminum
- Weight 10 oz (0.28 kg)
- Dimensions see mechanical drawing

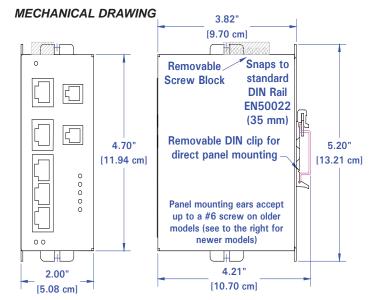
All specifications are subject to change. Consult factory for latest info.

## **ORDERING GUIDE**

SLX-5MS-MDM-1

5 port industrial Ethernet managed switch with integrated modem

Contact Sixnet for special Fiber models.



See the User Manual for a More Detailed Diagram



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