AUTOMATIONDIRECT.com
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STRIDE™ MANAGED INDUSTRIAL ETHERNET 16-PORT SWITCH – DATA SHEET

SE-SW16M

Description:

STRIDE SlimLine Industrial Managed Ethernet Switch, Metal housing, -40 to +75 deg. C operating temperature range, sixteen 10/100BaseT RJ45 Ethernet ports. Redundant power inputs with surge and spike protection, auto-crossover, 35 mm DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL/CUL1604 (Class I, Div. 2, Groups A, B, C, D) and CE marked.

NOTE: *DIMENSIONS, INSTALLATION AND WIRING INFORMATION IS SHOWN ON THE BACK OF THIS DATA SHEET.*

Copper RJ45 Ports:	
RJ45 ports	Shielded RJ45 10/100 fully 802.3 compliant
RJ45 speed and duplex	Configurable or 10/100 auto-negotiating
MDI / MDIX	Auto-mdi / mdix-crossover automatically supports either straight or crossed cables
Polarity	Auto-polarity for automatic correction of crossed TXD and RXD pairs
Modes	Full or half duplex operation with flow control supported on all ports

Console ports: USB and RS232 (RJ45)	
Management interfaces	Text (Telnet and SSH), CLI (command line interface) and SNMP (see the user manual for supported MIBs)
Console ports are located on the bottom surface of the switch.	

NOTE: *FOR ADDITONAL PRODUCT DETAILS, A USER MANUAL, SE-USER-M, IS AVAILABLE AS A DOWNLOADABLE PDF FILE FROM THE ONLINE DOCUMENTATION AREA OF THE* ***AUTOMATIONDIRECT*** *WEBSITE.*

General Specifications	
Ethernet switch type	Industrial Ethernet managed switch with 16 ports
Operating mode	Store and forward wire speed switching, non-blocking. Broadcast and multiport storm protection
Devices supported	All IEEE 802.3 compliant devices are supported
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)
Ethernet protocols supported	SNMPv1 / v2 / v3, RMON, DHCP, SNTP, TFTP, STP, RSTP, QoS / CoS / ToS / DS, IGMPv1 / v2, VLAN (tag and port based), HTTP, HTTPS (SSL and TSL), Telnet and SSH
Industrial protocols supported	Modbus / TCP, EtherNet / IP, PROFInet, Foundation Fieldbus HSE
MAC addresses	2048 addresses
Memory bandwidth	3.2 Gbps
Latency (typical)	10M ports 16 µs + frame time 100M ports 5 µs + frame time
Power input (typical - all ports active at 100 Mbps) Redundant input terminals	7.0 W
Input voltage	10-30 VDC (continuous) - Class 2 Power Supply
Reverse power protection	Yes
"OK" output Indicates power and operational status	Voltage same as switch input voltage Maximum current output 0.5 Amp
Transient protection	15,000 watts peak
Spike protection	5,000 watts (10x for 10 µS)
Ethernet isolation	1500 VRMS 1 minute
Operating temperature range	-40 to +75°C (cold startup at -40°C), -40 to +167°F (cold startup at -40°F)
Storage temperature range	-40 to +85 °C (-40 to +185 °F)
Humidity (non-condensing)	5 to 95% RH
Environmental Air	For use in Pollution Degree 2 environment. No corrosive gases permitted
Vibration and shock	IEC60068-2-6, -27 and -32
EMI emissions	FCC part 15, ICES-003, EN55022
EMC immunity	IEC61000-6-2, CE
Eye safety (fiber models)	IEC60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11
RoHS and WEEE	RoHS and WEEE compliant
Packaging and protection	Aluminum case; IP30
Agency Approvals	Electrical safety: UL1604 (Class 1, Div 2, Group A, B, C, D) E200031 CSA C22.2/14; EN61010-1, CE Marine and offshore rated per ABS

Safety Standards:

Electrical Safety

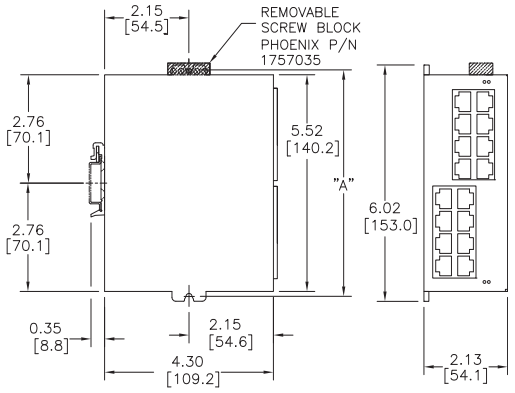
European Directives

US Emissions

WEEE Compliant

RoHS Compliant

Dimensions:



SCREW MOUNTING LOCATIONS	
SCREW SIZE	DIM "A"
#6	5.87 [149.1]
#8	5.92 [150.4]
#10	5.97 [151.6]
#12	6.02 [152.9]

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Installation – DIN Rail Mounting:

The switch can be snapped onto a standard 35 mm x 7.5 mm height DIN rail (Standard: CENELEC EN50022) and can be mounted either vertically or horizontally.

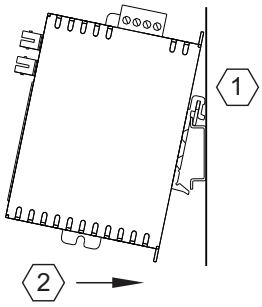
DIN rail mounting steps:

1. Hook top back of unit over the DIN rail.
2. Push bottom back onto the DIN rail until it snaps into place.

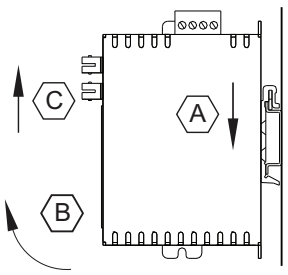
DIN rail removal steps:

A. Push the unit down to free the bottom of the DIN rail.
B. Rotate the bottom of the unit away from the DIN rail.
C. Unhook top of unit from DIN rail.

Mounting



Removal



WARNING

To minimize the risk of potential safety problems, you should follow all applicable local and national codes that regulate the installation and operation of your equipment. These codes vary from area to area and it is your responsibility to determine which codes should be followed, and to verify that the equipment, installation, and operation are in compliance with the latest revision of these codes.

Equipment damage or serious injury to personnel can result from the failure to follow all applicable codes and standards. We do not guarantee the products described in this publication are suitable for your particular application, nor do we assume any responsibility for your product design, installation, or operation.

If you have any questions concerning the installation or operation of this equipment, or if you need additional information, please call Technical Support at 770-844-4200.

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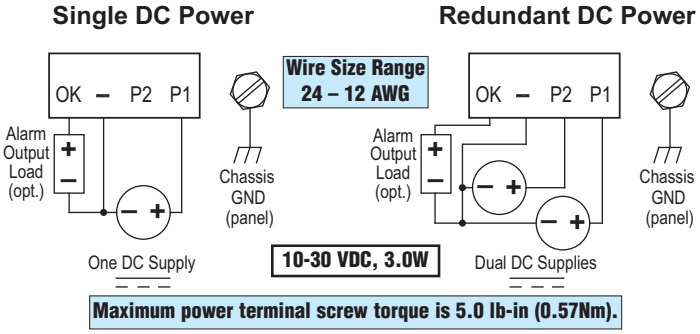
Power and Alarm Wiring:

A DC voltage in the range of 10 to 30 VDC needs to be applied between the P1 (plus) terminal and the Minus terminal as shown below. To maintain UL listing, this must be a Class 2 power supply. The chassis screw terminal should be tied to panel or chassis ground. To reduce down time resulting from power loss, the switch can be powered redundantly with a second power supply as shown below.

A recommended DC power supply is **AutomationDirect.com** Part number PSC-24-015.



Communication Ports Wiring:

The switch provides connections to standard Ethernet devices such as PLCs, Ethernet I/O, industrial computers and much more. Use data-quality (not voice-quality) twisted pair cable rated category 5 (or better) with standard RJ45 connectors. Straight-through or crossover RJ45 cable can be used for all devices the switch is connected to as all the ports are capable of auto-mdi/mdix-crossover detection.

NOTE: *THE FOLLOWING **AUTOMATIONDIRECT** PLC ETHERNET MODULES ARE NOT COMPATIBLE WITH THE **STRIDE** ETHERNET SWITCHES AND MEDIA CONVERTER WITH FIBER OPTIC CONNECTIONS BECAUSE THE MODULES HAVE A SPEED OF **10BASEF** (FIBER OPTIC) ONLY: ETHERNET COMMUNICATIONS MODULE, P/N H2-ECOM-F & H4-ECOM-F; ETHERNET BASE CONTROLLER MODULE, P/N H2-EBC-F & H4-EBC-F; ETHERNET REMOTE MASTER MODULE, P/N H2-ERM-F & H4-ERM-F.*

The RJ45 Ethernet port connector bodies on the switch are metallic and connected to the Chassis GND terminal. Therefore, shielded cables may be used to provide further protection. To prevent ground loops, the cable shield should be tied to the metal connector body at one end of the cable only. Electrical isolation is also provided on the Ethernet ports for increased reliability.

Additional Help and Support

- For additional product support, specifications, and installation, a User Manual, SE-USER-M, is available as a downloadable PDF file from the Online Documentation area of ***www.AutomationDirect.com***
- For additional technical support and questions, call our Technical Support team @ 770-844-4200.