AUTOMATIONDIRECT.com
3505 HUTCHINSON ROAD
CUMMING, GA 30040-5860, USA

# 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 listed for Hazardous Locations (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) | |
|---|---|
| ***Ethernet ports (RJ45)*** | Browser (Secure), Text (Telnet and SSH), CLI (command line interface) and SNMP (see the user manual for supported MIBs) |
| ***Console ports: USB and RS232 (RJ45)*** | Text (Telnet), CLI (command line interface) |
| ***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)<br>IEEE 802.1D/w (Rapid Spanning Tree for redundant rings and Spanning Tree for interoperability)<br>IEEE 802.1p (Priority Queuing – QoS, CoS, ToS/DS)<br>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,<br>VLAN (tag and port based),<br>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<br>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<br>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),<br>-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.<br>No corrosive gases permitted |
| ***Vibration and shock*** | IEC60068-2-6, -27 |
| ***EMI emissions*** | FCC part 15, ICES-003, EN61000-6-4 |
| ***EMC immunity*** | EN61000-6-2, 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; IP40 |
| ***Agency Approvals*** | Electrical safety: UL Haz Loc (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**

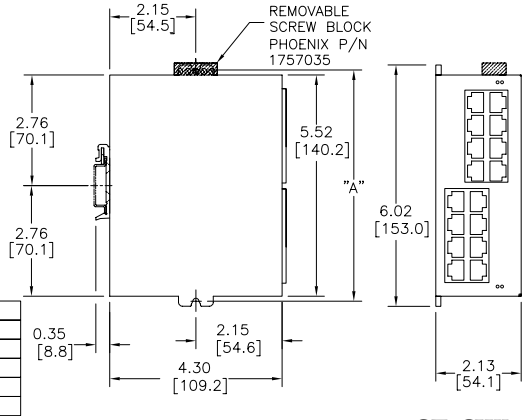
**US Emissions**

**WEEE Compliant**

**RoHS Compliant**

1-800-633-0405
www.AutomationDirect.com

## 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] |

**SE-SW16M**

## Installation – DIN Rail Mounting:

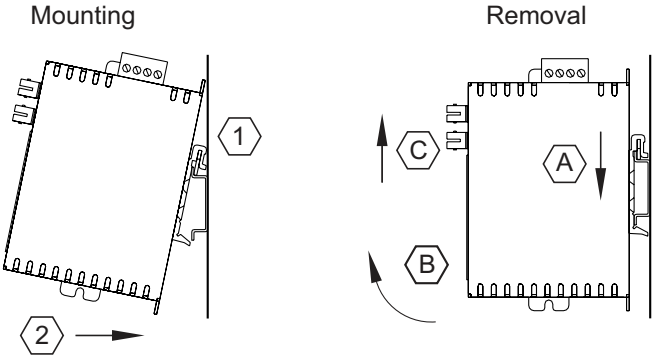
The switch can be snapped onto a standard 35 mm x 7.5 mm height DIN rail (Standard: CENELEC EN50022) and can be mounted either vertically or horizontally.

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.




## WARNING

**All power, input and output (I/O) wiring must be in accordance with Class I, Division 2 wiring methods and in accordance with the authority having jurisdiction.**
**"This Equipment is Suitable for Use in Class I, Division 2, Groups A, B, C, D or Non-Hazardous Locations Only".**

**WARNING - EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.**

**WARNING - EXPLOSION HAZARD - WHEN IN HAZARDOUS LOCATIONS, DISCONNECT POWER BEFORE REPLACING OR WIRING UNITS.**

**WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NONHAZARDOUS.**

**WARNING - EXPLOSION HAZARD - IN HAZARDOUS OR POTENTIALLY HAZARDOUS LOCATIONS, DO NOT SEPARATE ANY PART OF THE UNIT WHEN ENERGIZED. USE THE UNIT FOR INTERNAL CONNECTIONS ONLY.**

**Tout pouvoir, le câblage d'entrée et de sortie (I/O) doivent être conformes aux méthodes de câblage de Classe I, Division 2 et conformément à l'autorité compétente.**
**"Cet équipement est adapté pour une utilisation en Classe1, Division 2, Groupes A, B, C et D ou endroits non-dangereux seulement ".**

**AVERTISSEMENT - RISQUE D'EXPLOSION - LA SUBSTITUTION DE TOUT COMPOSANT PEUT NUIRE À LA CONFORMITÉ DE CLASSE I, DIVISION 2.**

**AVERTISSEMENT - RISQUE D'EXPLOSION - LORSQUE DANS DES ENDROITS DANGEREUX, DÉBRANCHEZ LE CORDON D'ALIMENTATION AVANT DE REMPLACER OU DE BRANCHER LES MODULES.**

**AVERTISSEMENT - RISQUE D'AVERTISSEMENT - NE DÉBRANCHEZ PAS L'ÉQUIPEMENT PENDANT QUE LE CIRCUIT EST DIRECT OU À MOINS QUE L'ENVIRONNEMENT SOIT CONNU POUR ÊTRE LIBRE DE CONCENTRATIONS INFLAMMABLES.**

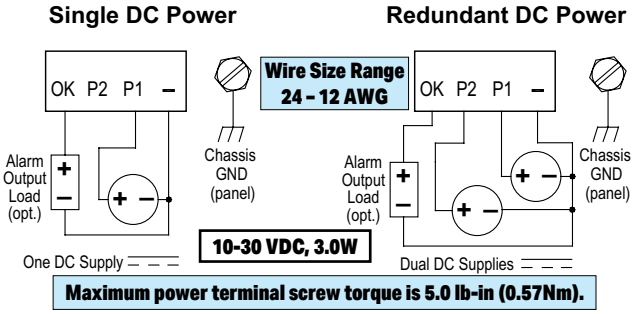
**AVERTISSEMENT - RISQUE D'EXPLOSION - DANS LES ENDROITS DANGEREUX OU POTENTIELLEMENT DANGEREUX, NE PAS SEPARER UNE PARTIE DE L'UNITE SOUS TENSION. SEULEMENT UTILISEZ L'APPAREIL POUR LES CONNEXIONS INTERNES.**

**Copyright 2024, *AutomationDirect.com* Incorporated/All Rights Reserved Worldwide**

## 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 PSL-24-030. When powering multiple switches from a common power supply, it is most reliable to power the switches sequentially rather than simultaneously. The characteristics of the power supply and the significant startup current of the switches may result in an error in booting the switches when powered simultaneously.




## 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.

1-800-633-0405
www.AutomationDirect.com