

# STRIDE™ INDUSTRIAL UNMANAGED ETHERNET SWITCH 9-PORT WITH FIBER DATA SHEET



SE-SW9U-ST &  
SE-SW9U-SC

SE-SW9U-ST-WT &  
SE-SW9U-SC-WT

**Metal case designed  
for -40° to 85°C.**

## Description:

STRIDE SlimLine Industrial Unmanaged Ethernet Switch with four 10/100BaseT RJ45 Ethernet ports and one multimode 100BaseFX fiber port, ST or SC type connector depending on model. Redundant power inputs with surge and spike protection. Auto-crossover. DIN rail mounting. Supports store & forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), & CE. The -WT models have a metal case and are rated for a wider temperature range, from -40° to 85°C.

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

### Copper RJ45 Ports: (10/100BaseT)

<b>10/100BaseT ports</b>	Shielded RJ45
<b>Protocols supported</b>	All standard IEEE 802.3
<b>Ethernet compliancy</b>	IEEE 802.3, 802.3u, 802.3x
<b>Auto-crossover</b>	Yes, allows you to use straight-through or crossover wired cables
<b>Auto-sensing operation</b>	Yes, Full and half duplex
<b>Auto-negotiating</b>	Yes, 10BaseT and 100BaseT
<b>Auto-polarity</b>	Yes, on the TD and RD pair
<b>Flow control</b>	Automatic
<b>Ethernet isolation</b>	1500 VRMS 1 minute
<b>Plug and play</b>	Yes
<b>Cable requirements</b>	Twisted pair (Cat. 5 or better) (shielded recommended)
<b>Max. cable distance</b>	100 meters

### Fiber Port: (100BaseFX multimode)

<b>100BaseFX ports</b>	1
<b>Fiber port mode</b>	Multimode (mm)
<b>Fiber port connector</b>	ST - models SE-SW9U-ST and SE-SW9U-ST-WT SC - models SE-SW9U-SC and SE-SW9U-SC-WT
<b>Optimal fiber cable</b>	50/125 or 62.5/125 µm
<b>Center wavelength</b>	1300 nm
<b>Multimode</b>	Links up to 4 km typ.; 1300 nm; use with 50 or 62.5/125 µm fiber > Transmitter power (dB): -21 min, -17 typ, -14 max > Receiver sensitivity (dB): -34 typ, -31 max
<b>Nominal max. distance (full duplex)</b>	4 km
<b>Half and full duplex</b>	Full duplex
<b>Ethernet compliance</b>	100BaseFX
<b>Eye safety (laser)</b>	IEC 60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11



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

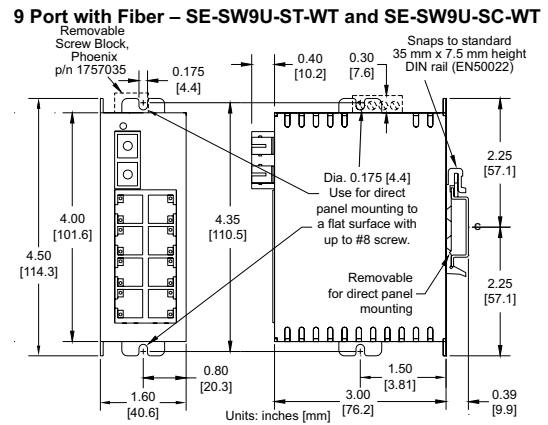
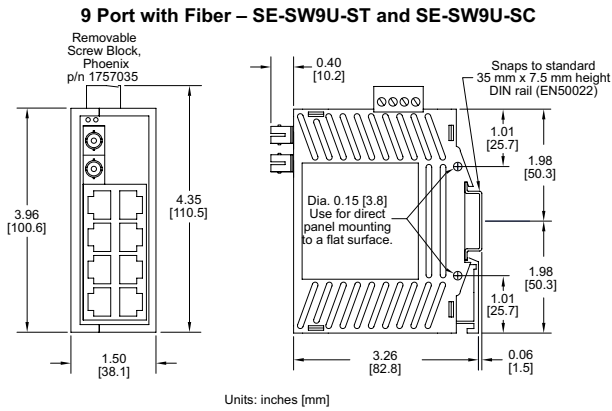
### General Specifications

<b>Ethernet switch type</b>	9 ports	
<b>Operating mode</b>	Store and forward wire speed switching, non-blocking	
<b>Devices supported</b>	All IEEE 802.3 compliant devices are supported	
<b>Standards</b>	IEEE 802.3, 802.3u, 802.3x	
<b>MAC addresses</b>	1024 addresses	
<b>Memory bandwidth</b>	3.2 Gbps	
<b>Latency for 10 Mbps ports</b>	16 us + frame time (typical)	
<b>Latency for 100 Mbps ports</b>	5 us + frame time (typical)	
<b>Power input</b>	Redundant Input Terminals	
<b>Input power (typical with all ports active at 100 Mbps)</b>	5.0 W	
<b>Input voltage</b>	10-30 VDC (continuous) - Class 2 Power Supply	
<b>Reverse power protection</b>	Yes	
<b>Transient protection</b>	15,000 watts peak	
<b>Spike protection</b>	5,000 watts (10x for 10 us)	
<b>Ethernet isolation</b>	1500 VRMS 1 minute	
<b>Operating temperature range</b>	SE-SW9U-ST SE-SW9U-SC	-10 to +60 °C (+14 to +140 °F), cold startup at -10 °C (+14 °F)
	SE-SW9U-ST-WT SE-SW9U-SC-WT	-40 to +85 °C (-40 to +185 °F), cold startup at -40 °C (-40 °F)
<b>Storage temperature range</b>	-40 to +85 °C (-40 to +185 °F)	
<b>Humidity (non-condensing)</b>	5 to 95% RH	
<b>Environmental Air</b>	No corrosive gasses permitted	
<b>Vibration and shock</b>	IEC68-2-6, -27	
<b>Agency Approvals</b>	UL/cUL 508, CSA C22 per EN61010-1, UL/cUL Haz Loc (Class 1, Div. 2, Groups A, B, C, D), CSA C 22.2/213 EN60079-15 (Zone 2, Category 3), CE (ATEX)	
<b>EMI emissions</b>	FCC part 15, ICES-003, EN61000-6-4	
<b>EMC immunity</b>	EN61000-6-2	
<b>Hazardous locations</b>	ULHaz Loc, CSA C22.2/213 (Class 1, Div.2) (file #E200031); EN60079-15 (Zone2)	
<b>RoHS and WEEE</b>	RoHS (Pb free) and WEEE compliant	
<b>Packaging and protection</b>	SE-SW9U-ST SE-SW9U-SC	UL94V0 Lexan, IP30
	SE-SW9U-ST-WT SE-SW9U-SC-WT	Aluminum IP40
<b>Dimensions (L x W x H)</b>	See mechanical diagrams for details	
<b>Weight</b>	SE-SW9U-ST SE-SW9U-SC	6 oz (0.17 kg)
	SE-SW9U-ST-WT SE-SW9U-SC-WT	8 oz (0.23 kg)

## Safety Standards:



## Dimensions:



## 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, plastic and metal case:

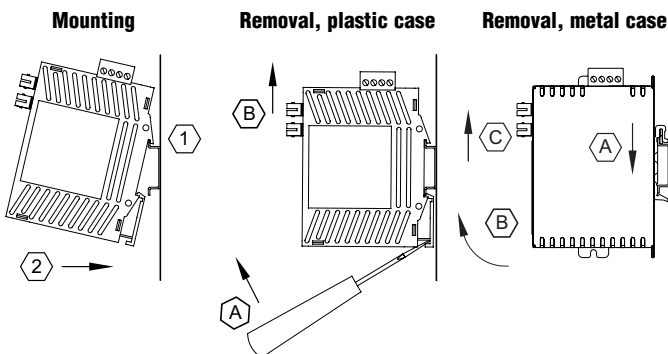
1. Hook top back of unit over the DIN rail.
2. Push bottom back onto the DIN rail until it snaps into place.

DIN rail removal steps, plastic case:

- A. Insert screwdriver into DIN clip and pry until it releases from the rail.
- B. Unhook top of unit from DIN rail.

DIN rail removal steps, metal case:

- 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 1, 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 1, 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 Classe 1, 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 ENDRITS 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.**

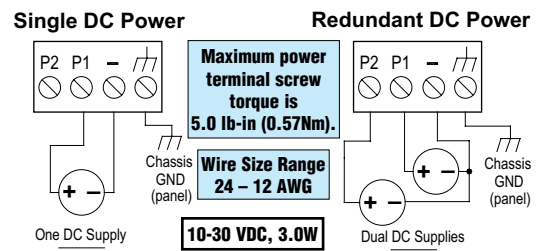
**AVERTISSEMENT – RISQUE D'EXPLOSION – DANS LES ENDRITS DANGEREUX OU POTENTIELLEMENT DANGEREUX, NE PAS SÉPARER UNE PARTIE DE L'UNITÉ SOUS TENSION. SEULEMENT UTILISEZ L'APPAREIL POUR LES CONNEXIONS INTERNES.**

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## Power Wiring:

The switch can be powered from the same DC source that is used to power your other devices. To maintain the UL508 listing, this must be a Class 2 power supply. 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. 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](http://www.AutomationDirect.com)
- For additional technical support and questions, call our Technical Support team @ 770-844-4200.