

# STRIDE<sup>®</sup> PRO INDUSTRIAL UNMANAGED ETHERNET SWITCHES



**NOTE: DOWNLOAD USER MANUAL SEP-USER-M FROM THE PRODUCT MANUALS AREA OF AUTOMATIONDIRECT.COM FOR ADDITIONAL DETAILS.**

Stride PRO Unmanaged Models						
Part Number	RJ45		SFP	Input Power (Max.)	Operating Temperature	
	10/100	RJ45 GbE Non-PoE PoE				
<b>Fast Ethernet Switches</b>						
SEP1-SW5U	5	-	-	3W	-10 to +65 °C [+14 to +149 °F]	
SEP1-SW5U-T	5	-	-	3W	-40 to +75 °C [-40 to +167 °F]	
SEP1-SW8U	8	-	-	3.5W	-10 to +65 °C [+14 to +149 °F]	
SEP1-SW8U-T	8	-	-	3.5W	-40 to +75 °C [-40 to +167 °F]	
<b>Gigabit Ethernet Switches with SFP</b>						
SEP1-SW5UG-1P-T	-	4	-	1*	6.8W	-40 to +75 °C [-40 to +167 °F]
SEP1-SW6UG-1P-T	-	5	-	1*	7.3W	-40 to +75 °C [-40 to +167 °F]
SEP1-SW7UG-2P-T	-	5	-	2*	7.8W	-40 to +75 °C [-40 to +167 °F]
SEP1-SW10UG-2P-T	-	8	-	2*	13.5W	-40 to +75 °C [-40 to +167 °F]
SEP1-SW12UG-2P-T	-	10	-	2*	15W	-40 to +75 °C [-40 to +167 °F]
<b>PoE+ Gigabit Ethernet Switches</b>						
SEP1-SWP2A5UG-T	-	1	4	-	10.1W	-40 to +75 °C [-40 to +167 °F]
SEP1-SWP2A8UG-T	-	-	8	-	11.7W	-40 to +75 °C [-40 to +167 °F]
SEP1-SWP2A10UG-2P-T	-	-	8	2*	13.5W	-40 to +75 °C [-40 to +167 °F]

\* Optional SFP modules sold separately.

RJ45 Ports	
Ethernet Compliance	IEEE 802.3, 802.3u (10/100), IEEE 802.3ab (Gigabit) Ethernet
Auto-Crossover	Yes, straight-through or crossover cables
Auto-Sensing Operation	Yes, full and half duplex
Auto-Negotiating Speed	Yes
Flow Control	IEEE 802.3x, back pressure
Cable Requirements	10BaseT: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm 100BaseTX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm 1000BaseTX: UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm
Max. Cable Distance	100m [328ft]

SFP Ports	
Ethernet Compliance	IEEE 802.3, 802.3u, 802.3x for 10/100 Ethernet IEEE 802.3ab, 802.3z for Gigabit Ethernet
SFP (pluggable) ports accept 100/1000 Mbps Mini-GBIC (SFP) transceivers. See SFP module datasheet for optional fiber transceiver specifications	

General Specifications			
Specification	Fast Ethernet Models	Gigabit Models	PoE+ Models
Ethernet Standards	IEEE 802.3, 802.3u	IEEE 802.3, 802.3u, 802.3ab, 802.3z	IEEE 802.3, 802.3u, 802.3ab, 802.3af/at
Processing Type	Store and forward		
MAC Addresses	2K	8K	8K
Memory Buffer	448 kbit	4 Mbit	4 Mbit
Switching Fabric	1-1.6 Gbps	10-24 Gbps	10-24 Gbps
Packet Forwarding Rate	14.88 kpps for Ethernet ports 148.8 kpps for Fast Ethernet ports 14,888 kpps for Gigabit Ethernet ports		
Jumbo Frame Support	NA	9.6 kbyte	9.6 kbyte
Packaging and Protection	Metal case, IP30		
Mounting	DIN rail, panel mount		
Storage Temperature Range	-40 to +85 °C [-40 to +185 °F]		
Humidity (Non-Condensing)	5 to 95% RH		
Environmental Air	No corrosive gases permitted		
Vibration, Shock & Freefall	IEC60068-2-6, -27, -32		
EMI Emissions	FCC Part 15 Subpart B Class A, CE EN55032/EN61000-6-4 Class A		
EMS	CE EN55035/EN61000-6-2 Class A; IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field)		
RoHS	RoHS (Pb free) compliant		
Agency Approvals	CE, FCC, UL61010-1, UL61010-2-201, RoHS		

Power Details	
Power Input	Redundant input terminals, removable terminal block
Input Voltage	Class 2 power supply: 12-48 VDC (non-PoE models) 12-55 VDC (PoE+ models)
Reverse Power Protection	Yes
Power Consumption	See Models table
Relay Contact	24 VDC, 1A resistive, open on fault

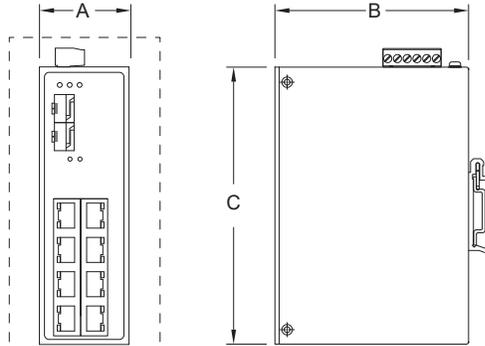
PoE Details			
Part Number	SEP1-SWP2A5UG-T	SEP1-SWP2A8UG-T	SEP1-SWP2A10UG-2P-T
PoE Ports	4	8	8
Max Power per Port	30W		
PoE Budget	90W @ 12V 120W @ 24V 120W @ 36-55V	90W @ 12V 150W @ 24V 200W @ 36V 240W @ 48-55V	90W @ 12V 150W @ 24V 240W @ 36-55V
PoE Standard	IEEE 802.3af/at (PoE+)		
PoE Pinout	V+, V+, V-, V-, for pin 1, 2, 3, 6 (Endspan, MDI Alternative A)		
PD (Powered Device) Detection	Yes - the switch port will detect the presence of a PoE enabled device before sending power. If a non-PoE device is detected, power will not be sourced on that port but Ethernet communications will be permitted.		
PoE Overload Protection	Yes		
Reverse Protection	Yes		
Redundancy Protection	Yes		

DIP Switch Settings (Gigabit and PoE Models)			
DIP Switch	Description	ON	OFF
1	QoS (Quality of Service)	Enable QoS function	Disable QoS function
2	BSP (Broadcast Storm Protection)	Enable broadcast storm protection	Disable broadcast storm protection
3	IGMP Snooping	Enable IGMP Snooping	Disable IGMP Snooping
4	VLAN	Enable VLAN function	Disable VLAN function
5	Port Mirror	Enable Port Mirror function	Disable Port Mirror function
6	Port Alarm	Enable Port Alarm function	Disable Port Alarm function

When DIP switch settings are changed, the FAULT LED will flash green. To apply the changes, press and hold the "AC/R" button for 5 seconds. The P1, P2 and FAULT LEDs will flash green and the device will reboot with the new settings.

Dimensions				
Part Number	Weight kg [lb]	Width (A)	Depth (B)	Height (C)
		mm [in]		
SEP1-SW5U	0.45 [0.99]	30 [1.18]	95 [3.74]	140 [5.51]
SEP1-SW5U-T				
SEP1-SW8U				
SEP1-SW8U-T				
SEP1-SW5UG-1P-T				
SEP1-SW6UG-1P-T	0.68 [1.5]	30 [1.18]	120 [4.72]	142 [5.59]
SEP1-SW7UG-2P-T				
SEP1-SW10UG-2P-T				
SEP1-SW12UG-2P-T	0.91 [2.0]	46 [1.81]	120 [4.72]	142 [5.59]
SEP1-SWP2A5UG-T				
SEP1-SWP2A8UG-T				
SEP1-SWP2A10UG-2P-T				

See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.



Front Panel LEDs				
LED	State	10/100 models	Non-PoE Gigabit models	PoE models
P1/P2	Green On	Power connected and operational		
	Off	No voltage		
FAULT	Red On	Power input 1 or 2 is inactive	Power input 1 or 2 is inactive, or port alarm active	
	Green Flash	NA	DIP switch changed, awaiting reset (5s hold)	
	Off	Power input 1 and 2 are both functional		
RJ45 Port LINK/ACT	Green On	Connected to network		
	Green Flash	Network activity		
	Amber On	NA	NA	PoE power delivery
	Amber Flash	NA	NA	Network active and PoE delivery
	Off	Not connected		
RJ45 Port SPEED	Green On	NA	Connected at 1 Gbps	
	Green Flash	NA	Port link fail	
	Amber On	Full duplex	Connected at 100 Mbps	
	Amber Flash	Packet collision	Port link fail	
	Off	Half duplex or not connected	Not connected	
SFP Port LINK/ACT	Green On	NA	Connected at 1 Gbps	
	Green Flash	NA	1 Gbps with network activity	
	Amber On	NA	Connected at 100 Mbps	
	Amber Flash	NA	100 Mbps with network activity	
	Off	NA	Not connected	

## Power Wiring:

The switch can be powered from the same DC source that is used to power your other devices. To maintain the UL listing, this source must be a Class 2 power supply. Apply the correct DC voltage between the P1+ terminal and the P1- terminal as shown below. Tie the chassis screw terminal 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.

## Installation:

**WARNING:** These devices are open-type. Install in an enclosure accessible only with a tool, suitable for the environment.

### DIN Rail Mounting:

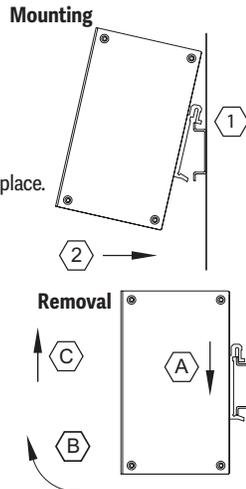
The switch can be mounted on a standard 35 x 7.5mm height DIN rail (Standard: CENELEC EN50022) installed either vertically or horizontally.

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:

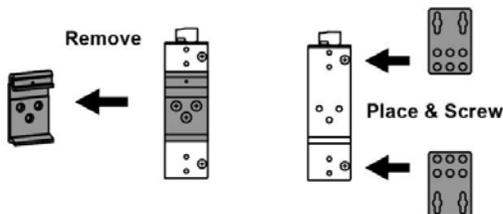
- A. Push the unit down to free the bottom of the DIN rail.
- B. Rotate the bottom of the unit away from the DIN rail.
- C. Unhook top of unit from DIN rail.



### Wall Mounting:

Follow the steps below to mount the switch using the wall mounting bracket. Bracket details and hole patterns differ between models.

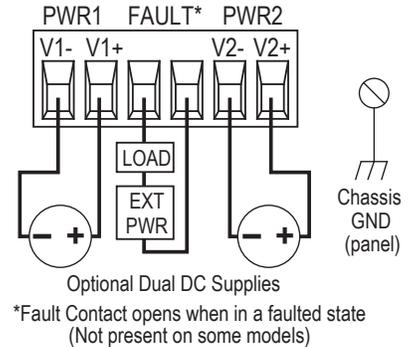
1. Remove the DIN rail bracket by loosening the screws.
2. Attach the wall mounting brackets on the top and bottom of the switch.
3. Mount switch to wall using slotted screw holes.



## Redundant DC Power

Required terminal screw torque is 7 lb-in [0.79 N-m].

Wire Size Range 20-18 AWG  
Wire Strip Length 7mm



**NOTE:** IF ONLY ONE POWER SUPPLY IS USED, JUMPER V1+ TO V2+ AND V1- TO V2- TO ELIMINATE POWER FAULT ALARM.

## 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 Cat5e (or better) with standard RJ45 connectors. Straight-through or crossover RJ45 cable can be used for all devices which are connected to the switch, as all the ports are capable of auto-mdi/mdix-crossover detection.

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. Electrical isolation is also provided on the Ethernet ports for increased reliability.

## Additional Help and Support

- For additional product support, specifications, and installation, download User Manual SE3-USER-M from the Product Manuals area of [www.AutomationDirect.com](http://www.AutomationDirect.com).
- For additional technical support and questions, call our Technical Support team @ 770-844-4200.

