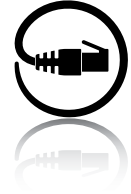


# Stride SE2 Series Managed Industrial Ethernet Switches



RoHS Compliant

Stride SE2 Series Managed Models				
Part Number	Price	Ethernet Ports	Fiber Ports	Input Power (max)
SE2-SW8M	\$460.00	8	–	8.1 W
SE2-SW8M-2P	\$700.00	6	2 GbE SFP*	9.1 W
SE2-SW8M-2C1	\$586.00		2 SC	8.1 W
SE2-SW8M-2T1	\$586.00		2 ST	
SE2-SW16M	\$907.00	16	–	18W
SE2-SW18MG-2P	\$1,351.00	16, 2 GbE combo	2 GbE SFP combo*	

*\*Optional SFP modules sold separately.*

## Features

- Modbus TCP management capability
- EtherNet/IP management capability
- Wide temp range
- DIN-rail mount with optional panel mount accessory
- Metal housing
- 12, 24 VDC redundant input
- Gigabit Ethernet (GbE) models
- Haz Loc
- 5-year warranty

## Panel Mounting Brackets

Stride SE2 series DIN-rail mounted switches can be panel mounted with the addition of the optional panel mounting brackets SE2-PM1 or SE2-PM3.



SE2-Series Panel Mounting Brackets		
Part Number	Price	For use with switch model
SE2-PM1	\$17.00	SE2-SW5Ux, SE2-SW8U-x, and SE2-MCx
SE2-PM3	\$22.00	SE2-SWPx, SE2-SW8UG-T, SE2-SW10UG-2P-T, SE2-SW16U-T, SE2-SW18U-2G-T and all SE2 managed switches

# Stride SE2 Series Managed Industrial Ethernet Switches

## Specifications

General Specifications	
<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>MAC Addresses</b>	8K 16K for SE2-SW8M-2P
<b>Ethernet Protocols Supported</b>	SNMPv1 / v2 / v3, RMON, DHCP, SNMP, TFTP, STP, RSTP, QoS / DS, IGMPv1 / v2, VLAN (tag and port based), HTTP, HTTPS (SSL and TLS), Telnet, SSH and more
<b>Industrial Protocols Supported</b>	Modbus TCP, EtherNet/IP, PROFINet, Foundation Fieldbus HSE and others
<b>Packet Forwarding Rate</b>	1.4 Mpps – SE2-SW8M 1.4 Mpps–SE2-SW8M-2C1 1.4 Mpps–SE2-SW8M-2T1 5.5 Mpps–SE2-SW8M-2P 5.4 Mpps–SE2-SW16M 5.4 Mpps–SE2-SW18MG-2P
<b>Latency</b>	< 10 $\mu$ s
<b>Operating Temperature Range</b>	-40 to +75°C (-40 to +167°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 gases permitted
<b>Vibration, Shock &amp; Freefall</b>	IEC60068-2-6, -27, -32
<b>EMI Emissions</b>	FCC CFR47 Part 15, EN55032/CISPR32, Class A
<b>EMS</b>	IEC61000-4-2 (ESD): $\pm$ 8kV (contact), $\pm$ 15kV (air) IEC61000-4-3 (RS): 10V/m (80MHz ~ 2GHz) IEC61000-4-4 (EFT): Power Port $\pm$ 4kV; Data Port: $\pm$ 2kV IEC61000-4-5 (Surge): Power Port: $\pm$ 2kV/DM, $\pm$ 4kV/CM; Data Port $\pm$ 2kV IEC61000-4-6 (CS): 10V (150kHz ~ 80MHz)
<b>RoHS and WEEE</b>	RoHS (Pb free) and WEEE compliant
<b>Packaging and Protection</b>	Metal case, IP40
<b>Hazardous Locations</b>	ANSI/ISA 12.12.01-2015 & CSA22.2 No. 213-15 (Class I, Div.2) (file #E200031)
<b>Agency Approvals</b>	UL/cUL 508, CE

Power Details	
<b>Power Input</b>	Redundant Input Terminals
<b>Input Voltage</b>	Class 2 Power Supply: 12-24 VDC
<b>Reverse Power Protection</b>	Yes
<b>Wire Size and Torque</b>	18-12 AWG, max wire length 3m (9.84 ft); Wire strip length 7mm; Torque: 3.5 lb-in (0.4 N-m)
<b>Power Consumption</b>	Refer to Stride SE2 Series Managed Models table

SC or ST Fiber Port: (100BaseFX multimode)	
<b>100BaseFX Ports</b>	2
<b>Fiber Port Connector</b>	ST or SC, by model
<b>Optimal Fiber Cable</b>	50/125 or 62.5/125 $\mu$ m
<b>Center Wavelength</b>	1300 nm
<b>Multimode</b>	Links up to 4 km typ.; > Transmitter power (dBm): -21 min, -17 typ, -14 max > Receiver sensitivity (dBm): -34 typ, -31 max
<b>Nominal Max. Distance (full duplex)</b>	4 km
<b>Eye Safety (laser)</b>	IEC 60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11

RJ45 Ports	
<b>Port Type</b>	Shielded RJ45
<b>Ethernet Compliance</b>	IEEE 802.3i, 802.3u, 802.3x for 10/100 Ethernet IEEE 802.3ab, 802.3z for Gigabit Ethernet
<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 Speed</b>	Yes
<b>Flow Control</b>	Automatic
<b>Cable Requirements</b>	Twisted pair (Cat5e or better) (shielded recommended)
<b>Max. Cable Distance</b>	100 meters

SFP Ports	
SFP (pluggable) ports accept Mini-GBIC (SFP) transceivers with a speed of 1000Mbps or 100Mbps	
See SFP datasheet for optional fiber transceiver specification	

Console ports: USB	
<b>Management Interfaces</b>	Browser,Text (Telnet and SSH), CLI (command line interface) and SNMP (see the user manual for supported MIBs)

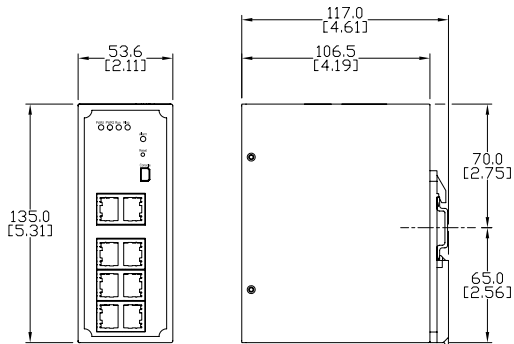
# Stride SE2 Series Managed Industrial Ethernet Switches

## SE2 Series DIN Rail mounted switches

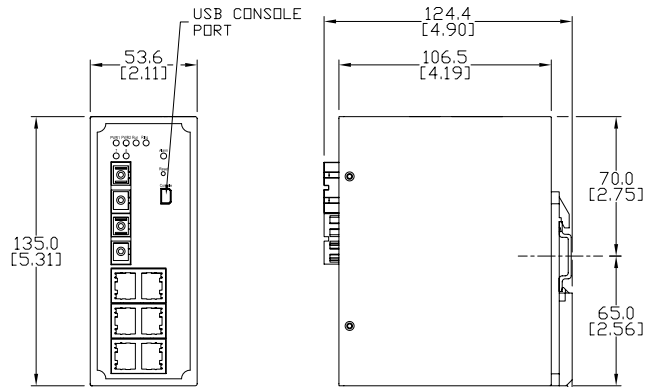
Allow 20mm (0.79") clearance around the switch for cooling

## Dimensions

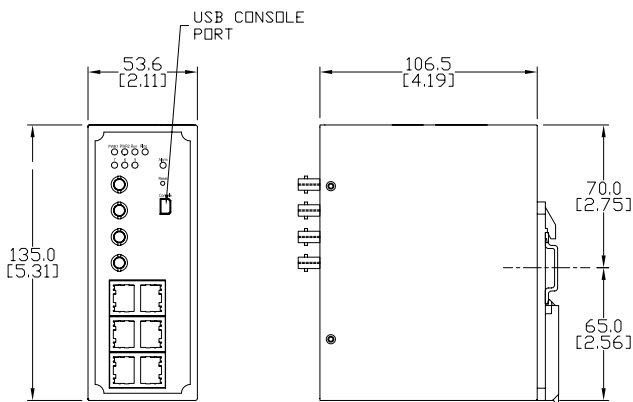
mm [inches]



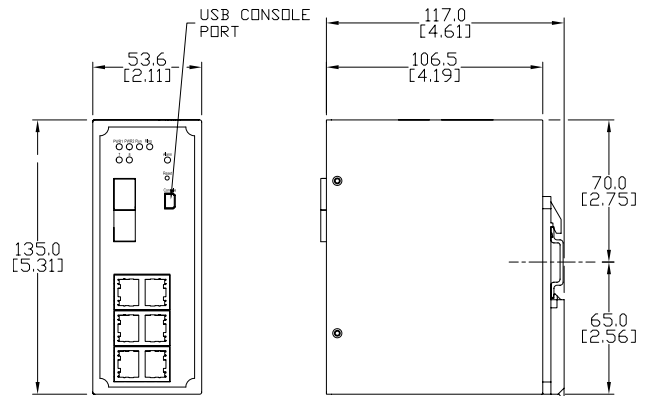
**SE2-SW8M**



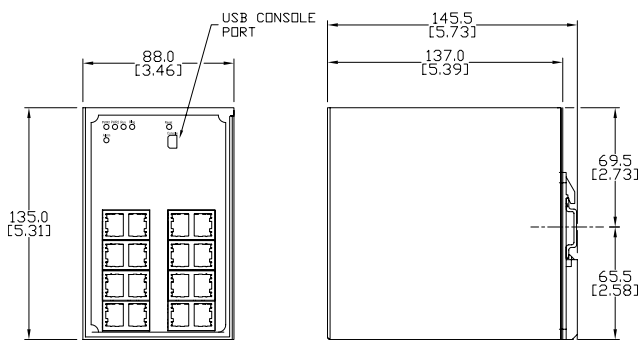
**SE2-SW8M-2C1**



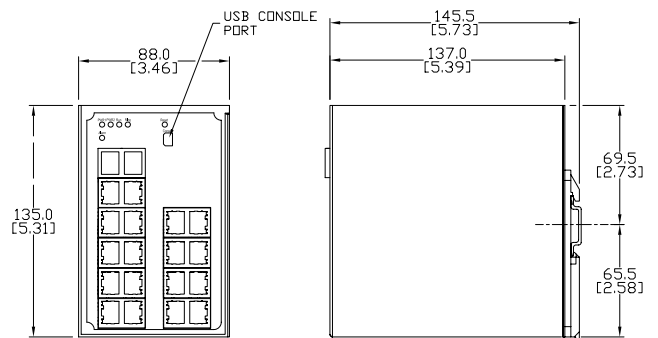
**SE2-SW8M-2T1**



**SE2-SW8M-2P**



**SE2-SW16M**



**SE2-SW18MG-2P**

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

# Stride Industrial Ethernet Fiber Transceivers

## Fast Ethernet

### Description:

STRIDE 100Mb Small Form Factor Pluggable (SFP) transceiver modules (Transmit/Receive). Hot Swappable. 1310nm wavelength. Data transmission up to 4km multimode fiber (SFP-4K-FMF) or 30km singlemode fiber (SFP-30K-FSF). LC duplex receptacle, SFP Multi-Source Agreement compliant.



**NOTE: PORT SPEED SETTINGS FOR THE STRIDE SWITCH MUST BE MANUALLY SET TO 100 MBPS.**

Part Number	Mode	Light Source	Max Trans. Distance	Price
SFP-4K-FMF	Multi-mode	1310 nm, FP	4km	\$108.00
SFP-30K-FSF	Single-mode		30 km	\$51.00

**Note: Use only Gigabit speed SFPs with SE2-SW10UG-2P-T**

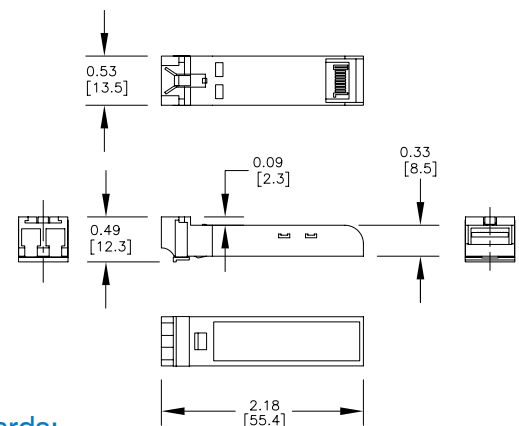
Transmitter Optical characteristics				
Parameter (unit)		Minimum	Typical	Maximum
Output optical power (dBm)	SFP-4K-FMF	-9		0
	SFP-30K-FSF	-15		-8
Extinction Ratio (dB)	SFP-4K-FMF	8.2		
	SFP-30K-FSF			
Center Wavelength (nm)	SFP-4K-FMF	1261	1310	1360
	SFP-30K-FSF			
Spectral width - RMS (nm)	SFP-4K-FMF			7
	SFP-30K-FSF			4
Rise / Fall Time - 10% - 90% (ns)	SFP-4K-FMF			2
	SFP-30K-FSF			

Receiver Optical characteristics			
Parameter (unit)		Minimum	Maximum
Sensitivity (dBm)	SFP-4K-FMF		-30
	SFP-30K-FSF		-34
Operating Wavelength (nm)	SFP-4K-FMF	1260	1620
	SFP-30K-FSF		
Loss of Signal - Deasserted (dBm)	SFP-4K-FMF		-30
	SFP-30K-FSF		-35
Loss of Signal - Asserted (dBm)	SFP-4K-FMF	-45	
	SFP-30K-FSF		
Loss of Signal - Hysteresis (dB)	SFP-4K-FMF	0.5	
	SFP-30K-FSF		

General Specifications		
Connector Type	Type LC connector with bail latch	
Operating Temperature range	-40 to +85 °C (-40 to +185 °F)	
Storage temperature range	-40 to +85 °C (-40 to +185 °F)	
Humidity (non-condensing)	5 to 95% RH	
Link Speed	Gigabit Ethernet	
Laser Type	FP laser diode (Class 1 laser safety standard IEC 60825 compliant)	
Media	SFP-4K-FMF	Multi-mode Fiber
	SFP-30K-FSF	Single-mode Fiber
Fiber	SFP-4K-FMF	62.5 / 125 µm
	SFP-30K-FSF	9 / 125 µm
Code	SFP-4K-FMF	FX5
	SFP-30K-FSF	100LX
Distance	SFP-4K-FMF	4km
	SFP-30K-FSF	30 km
Compliances	SFP-4K-FMF	125Mbps IEEE802.3u 100BASE-FX compliant 125Mbps FDDI ISO/IEC 9314-1 compliant
	SFP-30K-FSF	125Mbps IEEE802.3ah 100BASE-LX10 compliant 155Mbps ITU-T G957 STM S-1.1/L-1.1 compliant 155Mbps SONET OC-3 IR-1/LR-1 compliant
Inputs / Outputs	AC-coupled differential inputs and outputs	

### Dimensions

Inches [mm]



### Safety Standards:



# Stride Industrial Ethernet Fiber Transceivers Gigabit Ethernet

## Description:

STRIDE Gigabit (1.25GB) Small Form Factor Pluggable (SFP) transceiver module (Transmit/Receive). Hot Swappable. Short or long wavelength of 850nm or 1310nm, dependant on model. Supports data transmission up to 550 meters, 2km, 10 km, or 30 km on a single-mode or multi-mode fiber, dependant on model. LC duplex receptacle, SFP Multi-Source Agreement compliant.



Part Number	Mode	Light Source	Max Trans. Distance	Price
SFP-500-GMF	Multi-mode	850 nm, VCSEL	550m	\$85.00
SFP-2K-GMF				
SFP-10K-GSF	Single-mode	1310 nm, FP	10 km	\$89.00
SFP-30K-GSF				
Note: Use only Gigabit speed SFPs with SE2-SW10UG-2P-T				

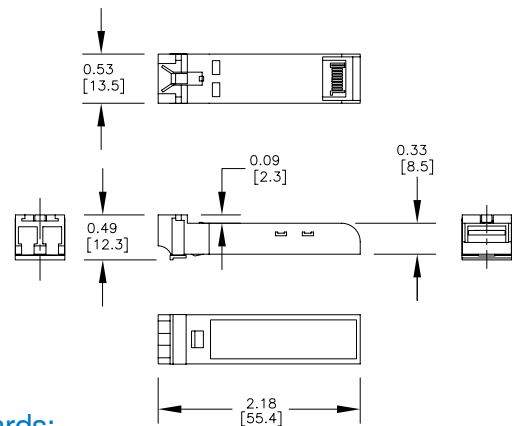
Transmitter Optical characteristics				
Parameter (unit)		Minimum	Typical	Maximum
Output optical power (dBm)	SFP-500-GMF	-9.5		-4
	SFP-2K-GMF	-9		-1
	SFP-10K-GSF	-9.5		-3
	SFP-30K-GSF	-2	1	3
Extinction Ratio (dB)	SFP-500-GMF	9		
	SFP-2K-GMF			
	SFP-10K-GSF			
	SFP-30K-GSF			
Center Wavelength (nm)	SFP-500-GMF	830	850	860
	SFP-2K-GMF	1270		1355
	SFP-10K-GSF	1285	1310	1343
	SFP-30K-GSF	1270		1355
Spectral width - RMS (nm)	SFP-500-GMF			0.85
	SFP-2K-GMF			4
	SFP-10K-GSF			2.8
	SFP-30K-GSF			1
Rise / Fall Time - 20% - 80% (ps)	SFP-500-GMF			260
	SFP-2K-GMF			
	SFP-10K-GSF			
	SFP-30K-GSF			

Receiver Optical characteristics				
Parameter (unit)		Minimum	Maximum	
Sensitivity (dBm)	SFP-500-GMF		-17	
	SFP-2K-GMF		-19	
	SFP-10K-GSF		-20	
	SFP-30K-GSF		-23	
Operating Wavelength (nm)	SFP-500-GMF	770	860	
	SFP-2K-GMF	1260	1610	
	SFP-10K-GSF	1270	1355	
	SFP-30K-GSF		1580	
Return Loss (dB)	SFP-500-GMF	12		
	SFP-2K-GMF			
	SFP-10K-GSF			
	SFP-30K-GSF			
Loss of Signal - Deasserted (dBm)	SFP-500-GMF		-17.5	
	SFP-2K-GMF		-19	
	SFP-10K-GSF		-20	
	SFP-30K-GSF		-23	
Loss of Signal - Asserted (dBm)	SFP-500-GMF	-35		
	SFP-2K-GMF			
	SFP-10K-GSF			
	SFP-30K-GSF			
Loss of Signal - Hysteresis (dB)	SFP-500-GMF	0.5		
	SFP-2K-GMF			
	SFP-10K-GSF			
	SFP-30K-GSF			

General Specifications		
Connector Type	Type LC connector with bail latch	
Operating Temperature range	-40 to +85 °C (-40 to +185 °F)	
Storage temperature range	-40 to +85 °C (-40 to +185 °F)	
Humidity (non-condensing)	5 to 95% RH	
Link Speed	Gigabit Ethernet	
Laser Type	SFP-500-GMF	VCSEL laser diode (Class 1 laser safety standard IEC 60825 compliant)
	SFP-2K-GMF	FP laser diode
	SFP-10K-GSF	(Class 1 laser safety standard IEC 60825 compliant)
	SFP-30K-GSF	DFB laser diode (Class 1 laser safety standard IEC 60825 compliant)
Media	SFP-500-GMF	Multi-mode Fiber
	SFP-2K-GMF	
	SFP-10K-GSF	Single-mode Fiber
	SFP-30K-GSF	
Fiber	SFP-500-GMF	50 / 125 μm and 62.5 / 125 μm
	SFP-2K-GMF	
	SFP-10K-GSF	
	SFP-30K-GSF	
Code	SFP-500-GMF	SX
	SFP-2K-GMF	SX2
	SFP-10K-GSF	LX
	SFP-30K-GSF	1hx
Distance	SFP-500-GMF	550m
	SFP-2K-GMF	2km
	SFP-10K-GSF	10 km
	SFP-30K-GSF	40 km
Compliances	SFP-500-GMF	1.0625Gbps Fiber Channel FC-PI 100-M5-SN-I compliant
		1.0625Gbps Fiber Channel FC-PI 100-M6-SN-I compliant
		1.25Gbps IEEE 802.3z 1000BASE-SX compliant
	SFP-2K-GMF	1.25Gbps IEEE 802.3ah 1000BASE-SX compliant
SFP-10K-GSF	1.0625Gbps Fiber Channel FC-PI 100-SM-LC-L compliant	
SFP-30K-GSF	1.25Gbps IEEE 802.3 1000BASE-LX compliant	
SFP-30K-GSF	1.25Gbps Gigabit Ethernet compliant	
Inputs / Outputs	AC-coupled differential inputs and outputs	

## Dimensions

Inches [mm]



## Safety Standards:



# Stride Managed Industrial Ethernet Switches

## Industrial Hardened Full Feature Layer 2 Switch



For detailed specifications on all models, see following pages

		SE Series	SE2 Series
<b>Price</b>			
		starting at \$384 (5 port)	starting at \$460 (8 port)
<b>Full Feature Layer 2 Switch</b>			
		✓	✓
<b>Industrial Temperature Ranges</b>			
	<b>Wide Temp</b>	-40 to +75°C	-40 to +75°C
<b>Ethernet Connectivity</b>			
	<b>RJ45 Ports</b>	up to 1000 Mbps	up to 1000 Mbps
	<b>Fiber Optic Ports</b>	✓	✓
	<b>SFP Ports</b>	✓	✓
<b>Port Count</b>			
		5,8,10,16	8,16,18
<b>Industrial Protocol Management</b>			
	<b>Modbus TCP</b>	Read	Full Management
	<b>EtherNet/IP</b>	—	Full Management
<b>Network Redundancy</b>			
	<b>STP/RSTP</b>	✓	✓
	<b>Proprietary Fast Recovery</b>	Real-Time Ring	AD-Ring/AD-RP
<b>Mounting</b>			
	<b>DIN Rail Mount</b>	✓	✓
	<b>Panel Mount</b>	Integrated	Optional accessory
<b>Input Power</b>			
	<b>Redundant Power Inputs</b>	✓	✓
	<b>Reverse Polarity Protection</b>	✓	✓
	<b>Power LED</b>	✓	✓
	<b>Power Alarm</b>	✓	✓
<b>Agency Approvals</b>			
	<b>UL508 / 61010</b>	✓	✓
	<b>Haz Loc-Class 1 Div 2</b>	✓	✓
	<b>ATEX Zone 2</b>	✓	—
	<b>CE</b>	✓	✓
<b>Warranty</b>			
		5 years	5 years