

# Stride<sup>®</sup> Managed Industrial Ethernet Switches

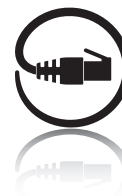
## Industrial Hardened Full Feature Layer 2 Switch



• For detailed specifications on all models, see following pages

		SE Series	SE2 Series
<b>Price</b>			
		starting at \$519.00 (5 port)	starting at \$498.00 (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 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

# Stride SE2 Series Managed Industrial Ethernet Switches



## Stride SE2 Series Managed Models

Part Number	Price	Ethernet Ports	Fiber Ports	Input Power (max)
<a href="#"><u>SE2-SW8M</u></a>	\$498.00	8	–	8.1 W
<a href="#"><u>SE2-SW8M-2C1</u></a>	\$648.00	6	2 SC	8.1 W
<a href="#"><u>SE2-SW16M</u></a>	\$994.00	16	–	18W
<a href="#"><u>SE2-SW18MG-2P</u></a>	\$1,475.00	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
<a href="#"><u>SE2-PM1</u></a>	\$18.00	SE2-SW5Ux, SE2-SW8U-x, and SE2-MCx
<a href="#"><u>SE2-PM3</u></a>	\$24.00	SE2-SWPx, SE2-SW8UG-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
<b>Ethernet Protocols Supported</b>	SNMPv1 / v2 / v3, RMON, DHCP, SNTP, 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 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

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)

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

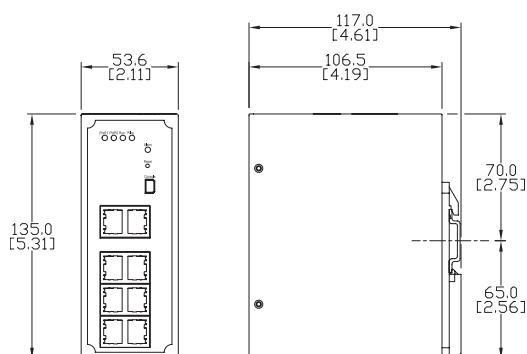
# Stride SE2 Series Managed Industrial Ethernet Switches

## SE2 Series DIN Rail mounted switches

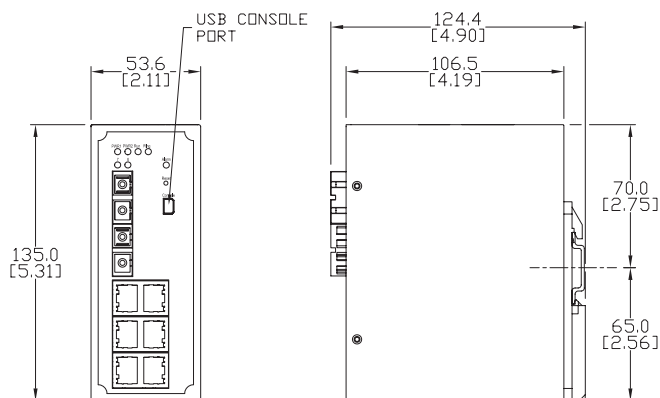
Allow 20mm [0.79"] clearance around the switch for cooling

## Dimensions

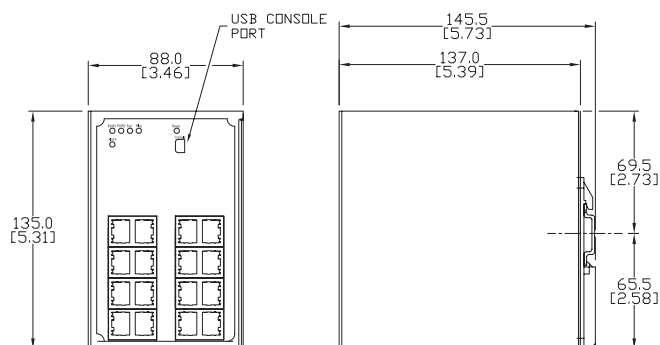
mm [inches]



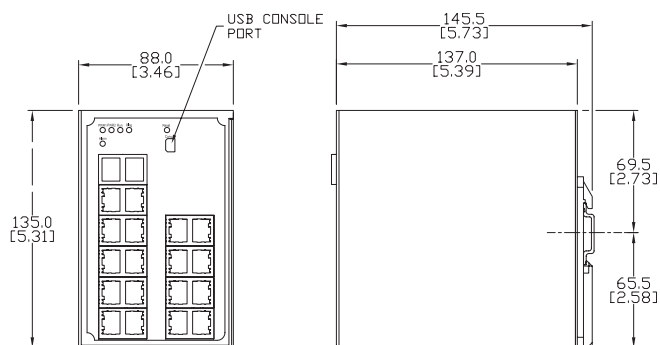
**SE2-SW8M**



**SE2-SW8M-2C1**



**SE2-SW16M**



**SE2-SW18MG-2P**

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



# Stride<sup>SE</sup> Series Managed Switches



## Features

- Modbus TCP read capability
- Wide temp range
- DIN-rail mount with integrated panel mount option
- Metal housing
- 12, 24 VDC redundant input
- Gigabit Ethernet (GbE) models
- Haz Loc
- 5 -year warranty



RoHS Compliant

Stride SE Series Managed Models				
Part Number	Price	Ethernet Ports	Fiber Ports	Input Power (max)
<a href="#"><u>SE-SW5M</u></a>	\$519.00	5	–	3.6 W
<a href="#"><u>SE-SW5M-2SC</u></a>	\$953.00	3	2 SC	5.6 W
<a href="#"><u>SE-SW5M-2ST</u></a>	\$953.00		2 ST	
<a href="#"><u>SE-SW8M</u></a>	\$772.00	8	–	4.3 W
<a href="#"><u>SE-SW8M-2SC</u></a>	Retired	6	2 SC	6.3 W
<a href="#"><u>SE-SW8M-2ST</u></a>	\$999.00		2 ST	
<a href="#"><u>SE-SW8MG-4P</u></a>	\$1,359.00	4 GbE, 4 GbE combo	4 GbE SFP combo*	15W
<a href="#"><u>SE-SW10MG-2P</u></a>	\$1,529.00	7, 1 GbE, 2 GbE combo	2 GbE SFP combo*	7W
<a href="#"><u>SE-SW16M</u></a>	\$1,299.00	16	–	

\*Optional SFP modules sold separately.

# Stride SE Series Managed Industrial Ethernet Switches

## Specifications

General Specifications	
<b>Ethernet Switch Type</b>	Industrial Ethernet managed switch with 5 or 8 ports
<b>Operating Mode</b>	Store and forward wire speed switching, non-blocking. Broadcast and multicast storm protection
<b>Devices Supported</b>	All IEEE 802.3 compliant devices are supported
<b>Ethernet Compliance</b>	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) IEEE 802.3ab
<b>Ethernet Protocols Supported</b>	SNMPv1 / v2 / v3, RMON, DHCP, SNTP, TFTP, STP, RSTP, QoS / CoS / ToS / 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>MAC Addresses</b>	2048 addresses
<b>Memory Bandwidth</b>	3.2 Gbps
<b>Latency (typical)</b>	10M ports 16 $\mu$ s + frame time 100M & 1000M ports 5 $\mu$ s + frame time
<b>Transient Protection</b>	15,000 watts peak
<b>Spike Protection</b>	5,000 watts (10x for 10 $\mu$ s)
<b>Ethernet Isolation</b>	1500 VRMS 1 minute
<b>Operating Temperature Range</b>	-40 to +75°C (cold startup at -40°C), -40 to +167°F (cold startup at -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>	For use in Pollution Degree 2 environment. No corrosive gases permitted
<b>Vibration and shock</b>	IEC60068-2-6 and -27
<b>EMI Emissions</b>	FCC part 15, ICES-003, EN61000-6-4
<b>EMC Immunity</b>	IEC61000-6-2, CE
<b>Eye Safety (fiber models)</b>	IEC60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11
<b>RoHS and WEEE</b>	RoHS and WEEE compliant
<b>Packaging and Protection</b>	Metal case; IP40
<b>Agency Approvals</b>	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

Power Details	
<b>Power Input</b>	Redundant input terminals
<b>Input Voltage</b>	10-30 VDC (continuous)–Class 2 Power Supply
<b>Reverse Power Protection</b>	Yes
<b>“OK” Output Indicates Power and Operational Status</b>	Voltage same as switch input voltage Maximum current output 0.5 Amp
<b>Power Consumption</b>	Refer to Stride SE Series Managed Models table

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

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

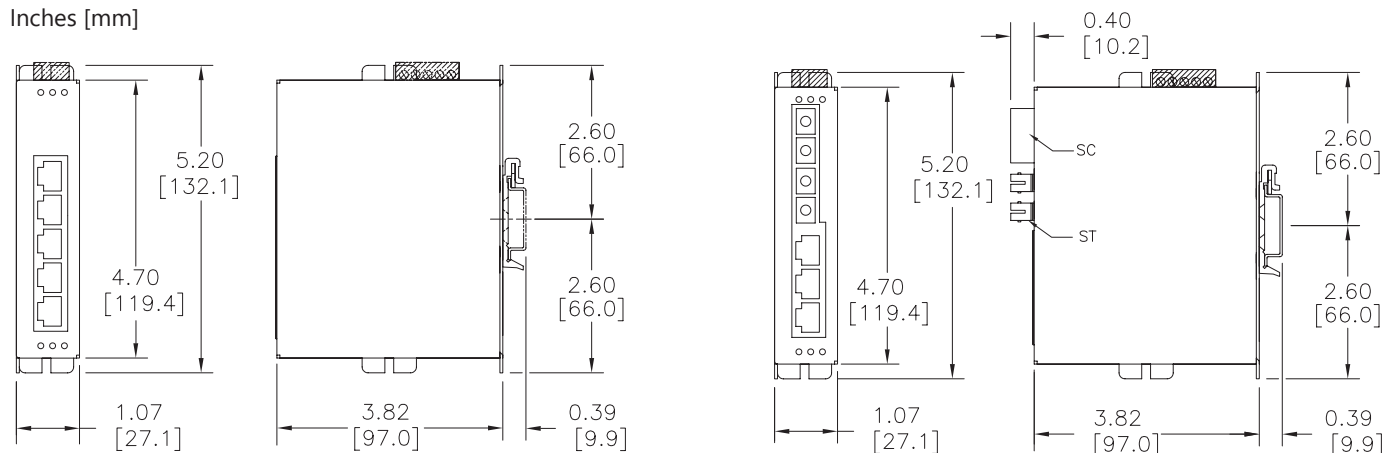
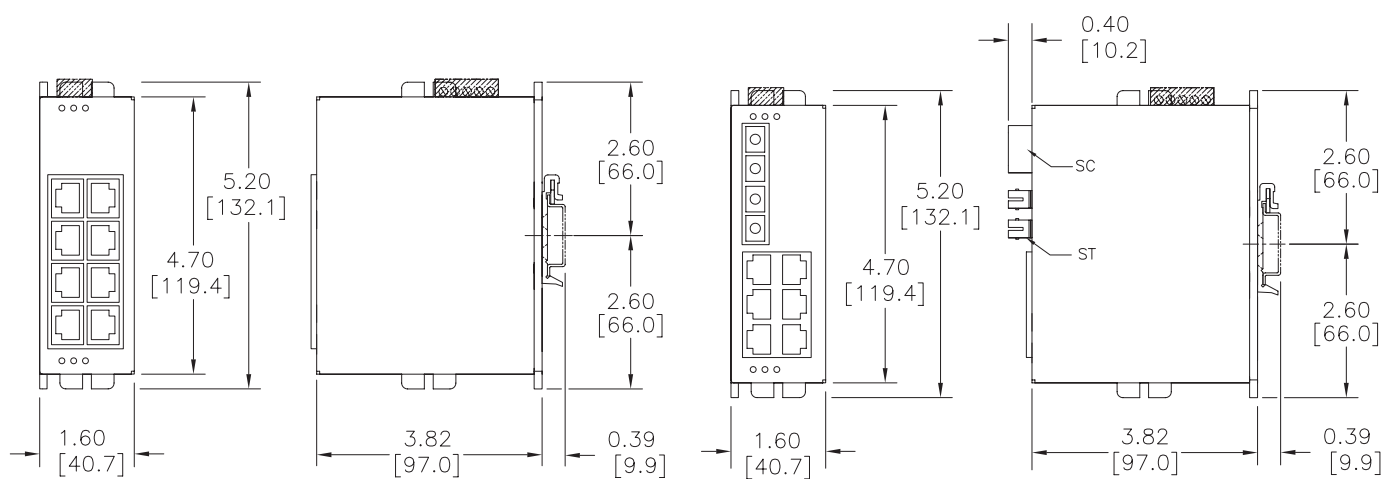
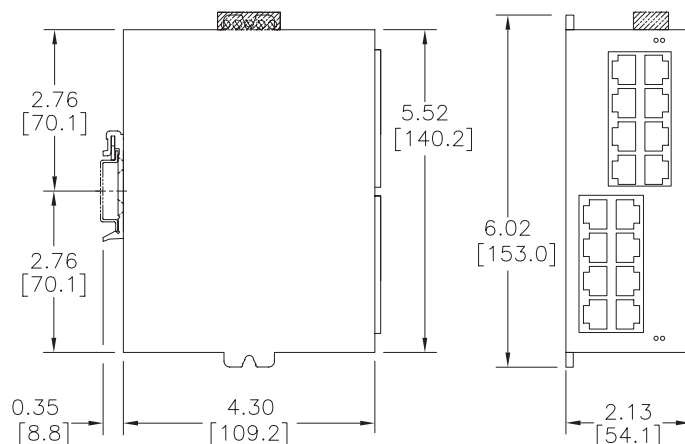
SFP Ports	
SFP (pluggable) ports accept Mini-GBIC (SFP) transceivers with a speed of 1000Mbps or 100Mbps	
See SFP datasheet for optional fiber transceiver specification	

Console ports: USB and RS232 (RJ45)	
<b>Management Interfaces</b>	Browser, Text (Telnet and SSH), CLI (command line interface) and SNMP (see the user manual for supported MIBs)

# Stride<sup>SE</sup> Series Managed Industrial Ethernet Switches

## Dimensions

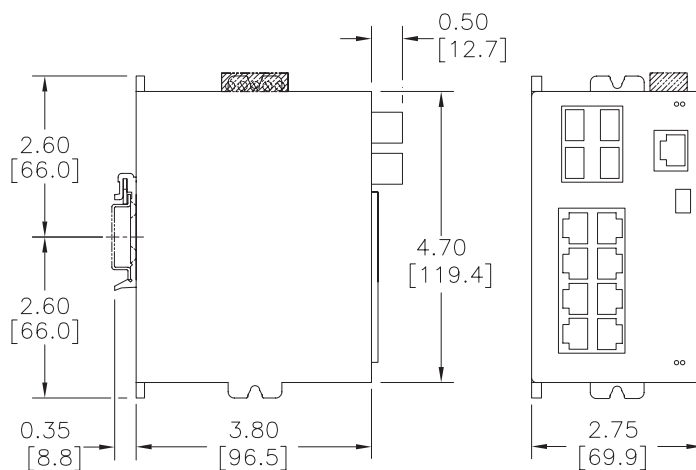
Inches [mm]

**SE-SW5M****SE-SW5M-2SC**  
**SE-SW5M-2ST****SE-SW8M****SE-SW8M-2SC**  
**SE-SW8M-2ST****SE-SW16M**See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.

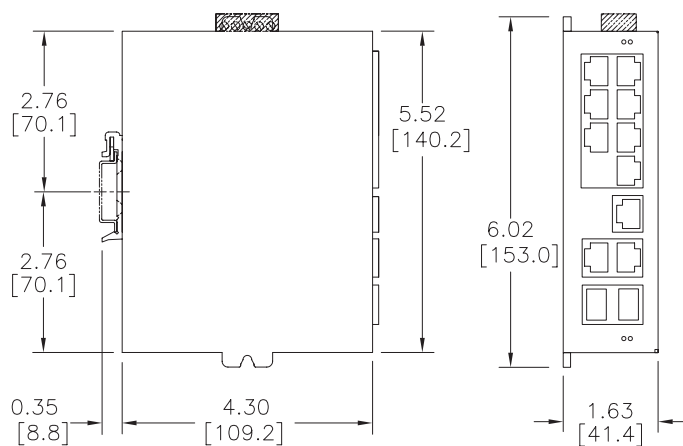
# Stride SE Series Managed Industrial Ethernet Switches

## Dimensions

Inches [mm]



**SE-SW8MG-4P**



**SE-SW10MG-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
<b>SFP-4K-FMF</b>	Multi-mode	1310 nm, FP	4km	\$49.00
<b>SFP-30K-FSF</b>	Single-mode		30 km	\$44.00

**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			

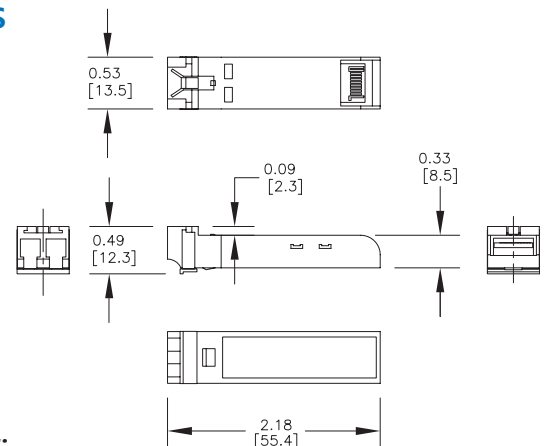
Receiver Optical characteristics			
Parameter (unit)		Minimum	Maximum
Sensitivity (dBm)	SFP-4K-FMF		-30
	SFP-30K-FSF		-34
Operating Wavelength (nm)	SFP-4K-FMF	1260	1620
	SFP-30K-FSF		
Loss of Signal - Deasserted (dBm)	SFP-4K-FMF		-30
	SFP-30K-FSF		-35
Loss of Signal - Asserted (dBm)	SFP-4K-FMF	-45	
	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
<b>SFP-500-GMF</b>	Multi-mode	850 nm, VCSEL	550m	\$39.00
<b>SFP-2K-GMF</b>			2km	\$69.00
<b>SFP-10K-GSF</b>	Single-mode	1310 nm, FP	10 km	\$39.00
<b>SFP-30K-GSF</b>			30 km	\$99.00

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

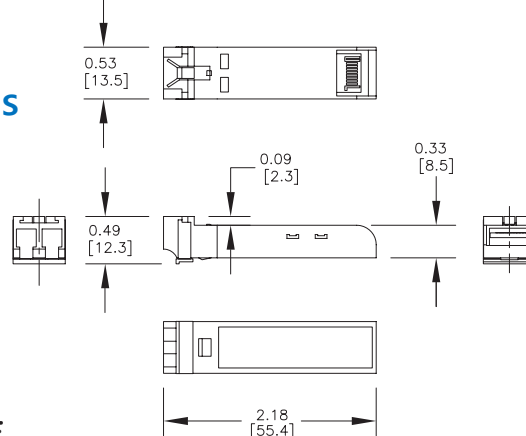
Transmitter Optical characteristics				
Parameter (unit)		Minimum	Typical	Maximum
Output optical power (dBm)	SFP-500-GMF	-9.5		-4
	SFP-2K-GMF	-9		-1
	SFP-10K-GSF	-9.5		-3
	SFP-30K-GSF	-2	1	3
Extinction Ratio (dB)	SFP-500-GMF	9		
	SFP-2K-GMF			
	SFP-10K-GSF			
	SFP-30K-GSF			
Center Wavelength (nm)	SFP-500-GMF	830	850	860
	SFP-2K-GMF	1270		1355
	SFP-10K-GSF	1285		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	
<b>Connector Type</b>	Type LC connector with bail latch
<b>Operating Temperature range</b>	-40 to +85 °C [-40 to +185 °F]
<b>Storage temperature range</b>	-40 to +85 °C [-40 to +185 °F]
<b>Humidity (non-condensing)</b>	5 to 95% RH
<b>Link Speed</b>	Gigabit Ethernet
<b>Laser Type</b>	SFP-500-GMF VCSEL laser diode (Class 1 laser safety standard IEC 60825 compliant)
	SFP-2K-GMF FP laser diode (Class 1 laser safety standard IEC 60825 compliant)
	SFP-10K-GSF DFB laser diode (Class 1 laser safety standard IEC 60825 compliant)
	SFP-30K-GSF DFB laser diode (Class 1 laser safety standard IEC 60825 compliant)
<b>Media</b>	SFP-500-GMF Multi-mode Fiber
	SFP-2K-GMF Single-mode Fiber
	SFP-10K-GSF Single-mode Fiber
	SFP-30K-GSF Single-mode Fiber
<b>Fiber</b>	SFP-500-GMF 50 / 125 μm and 62.5 / 125 μm
	SFP-2K-GMF 50 / 125 μm and 62.5 / 125 μm
	SFP-10K-GSF 9 / 125 μm
	SFP-30K-GSF 9 / 125 μm
<b>Code</b>	SFP-500-GMF SX
	SFP-2K-GMF SX2
	SFP-10K-GSF LX
	SFP-30K-GSF lhx
<b>Distance</b>	SFP-500-GMF 550m
	SFP-2K-GMF 2km
	SFP-10K-GSF 10 km
	SFP-30K-GSF 40 km
<b>Compliances</b>	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 1.25Gbps IEEE 802.3ah 1000BASE-SX compliant
	SFP-2K-GMF IEEE 802.3 1000BASE-SX+ compliant
	SFP-10K-GSF 1.0625Gbps Fiber Channel FC-PI 100-SM-LC-L compliant 1.25Gbps IEEE 802.3 1000BASE-LX compliant
	SFP-30K-GSF 1.25Gbps Gigabit Ethernet compliant
<b>Inputs / Outputs</b>	AC-coupled differential inputs and outputs

### Dimensions

Inches [mm]



### Safety Standards:





# Stride<sup>®</sup> Unmanaged Industrial Ethernet Switches

## Unmanaged Switches offer:

- Reliable connectivity
- Industrially hardened
- Simple installation



• For detailed specifications on all models, see following pages

		SE Series	SE2 Series DIN Rail	SE2 Series IP65
<b>Price</b>				
		starting at \$129.00	starting at \$95.00	starting at \$354.00
<b>Broadcast Storm Protection</b>				
		—	✓	—
<b>Industrial Temperature Ranges</b>				
	<b>Standard Temp</b>	-10 to +60°C	-10 to +60°C	—
	<b>Wide Temp</b>	-40 to +85°C	-40 to +75°C	-40 to +75°C
<b>Port Connectivity</b>				
	<b>Port Count</b>	2 to 9	2 to 18	5, 8
	<b>RJ45 Port Speed</b>	up to 100 Mbps	up to 1000 Mbps	—
	<b>M12 Port Speed</b>	—	—	up to 100 Mbps
	<b>Fiber Optic Ports</b>	✓	✓	—
	<b>PoE+ Ports</b>	—	✓	—
	<b>SFP Ports</b>	—	✓	—
<b>Mounting</b>				
	<b>DIN Rail Mount</b>	✓	✓	—
	<b>Panel Mount</b>	✓	✓	✓
<b>Input Power</b>				
	<b>Redundant Power Inputs</b>	✓	✓	✓
	<b>Reverse Polarity Protection</b>	✓	✓	✓
	<b>Power LED</b>	✓	✓	✓
<b>Agency Approvals</b>				
	<b>UL508 or UL61010</b>	✓	✓	✓
	<b>Haz Loc—Class 1 Div 2</b>	✓	✓	—
	<b>IECEX</b>	✓	—	—
	<b>ATEX Zone 2</b>	✓	—	—
	<b>CE</b>	✓	✓	✓
	<b>EN50155 &amp; EN50121</b>	—	—	✓
<b>Warranty</b>				
		5 years	5 years	5 years
<b>Activity, Link &amp; Speed LEDs</b>				
		✓	✓	✓



# Stride Power Over Ethernet Switches

## SE2 Series Unmanaged Industrial

### SE2 Series PoE+ DIN Rail mounted switch



### Features

- Full PoE+ on four ports (30W on each port)
- Broadcast storm protection
- Wide temp range
- Optional panel mounting accessory ([SE2-PM3](#))
- Power over Ethernet
- Redundant power input
- Haz Loc
- IP30 metal cases
- 5-year warranty



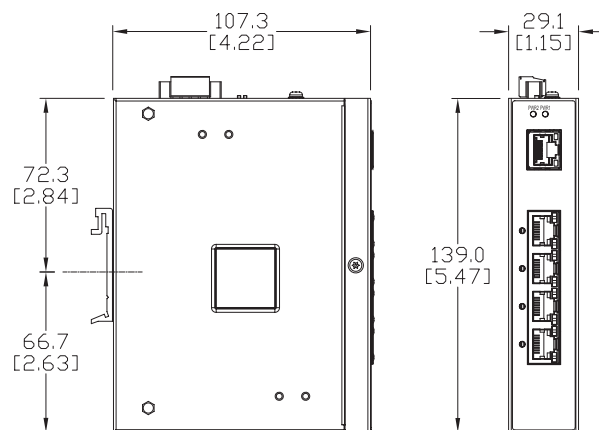
RoHS Compliant

### Stride SE2 Unmanaged PoE+ Models

Part Number	Price	RJ45 10/100	RJ45 GbE	RJ45 10/100 PoE+	RJ45 GbE PoE+	Operating Temp	Agency Approvals
<a href="#">SE2-SWP5U-T</a>	\$279.00	1	–	4	–	-40 to +75°C [-40 to +167°F]	UL/cUL UL/cUL 61010-1, Class 1, Div. 2, Groups A, B, C, D, (UL file #E200031) CE

### PoE+ Details

<b>Max Power per Port</b>	30W at 48-58 VDC 720mA V+ pins 1, 2 V- pins 3, 6
<b>Power Input</b>	54-58 VDC for PoE+ 48-58 VDC for PoE
<b>PD (Powered Device) Detection</b>	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.
<b>PoE Overload Protection</b>	Yes
<b>Reverse Protection</b>	Yes
<b>Redundancy Protection</b>	Yes



**SE2-SWP5U-T**

# Stride SE2 Series Unmanaged Industrial Power Over Ethernet Switches

## SE2 Series PoE+ DIN Rail mounted switch

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>	2K
<b>Packet Buffer</b>	1Mbit
<b>Packet Forwarding Rate</b>	1.5 Mpps
<b>Broadcast Storm Protection*</b>	DIP switch enabled (DIP switch I)
<b>Latency</b>	< 15 $\mu$ s
<b>Jumbo Frame</b>	9K
<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): +/- 6kV (contact), +/- 8kV (air) IEC61000-4-3 (RS): 10V/m (80MHz ~ 2GHz) IEC61000-4-4 (EFT): Power Port +/- 2kV; Data Port: +/- 1kV IEC61000-4-5 (Surge): Power Port: +/- 1kV/DM, +/- 2kV/CM; Data Port +/- 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, IP30
<b>Hazardous Locations</b>	ANSI/ISA 12.12.01-2015 & CSA 22.2 No. 213-15 (Class I, Div.2) (file #E200031);
<b>Agency Approvals</b>	UL/cUL UL/cUL 61010-1, Class 1, Div. 2, Groups A, B, C, D, (UL file #E200031) CE

\* Broadcast storm threshold value is 2 packets/100ms for 10 Mbps port or 2 packets/10ms for 100 Mbps ports. DIP switch II is unused.

RJ45 Ports	
<b>Port Type</b>	Shielded RJ45
<b>Ethernet Compliance</b>	IEEE 802.3i, 802.3u, 802.3x for 10/100 Ethernet IEEE 802.3af or 802.3at for PoE
<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

Power Details	
<b>Power Input</b>	Redundant Input Terminals Class 2 Power Supply
<b>Input Voltage</b>	12 or 24VDC for Ethernet communications only 48-58 VDC for PoE (15.4 W per port) 54-58 VDC for PoE+ (30W per port)
<b>Reverse Power Protection</b>	Yes
<b>Wire Size and Torque</b>	24-16 AWG, max wire length 3m [9.84 ft] Wire strip length 7mm Torque: 1.77 lb-in [0.2 N·m]
<b>Power Consumption</b>	switch only = 3W
<b>Power Budget</b>	Ensure power supply to the switch is sized adequately to account for powered devices (PD). switch plus PDs = 123 W max
<b>Ground Connection</b>	< 5 $\Omega$ 18 - 14 AWG

Front Panel LEDs		
LED	State	Description
<b>PWR1 LED</b>	On	Power 1 connected and operational
	Off	Power 1 no voltage
<b>PWR2 LED</b>	On	Power 2 connected and operational
	Off	Power 2 no voltage
<b>ACT/LNK LED</b>	On	Indicates that there is a proper Ethernet connection (Link) between the port and another Ethernet device, but no communications activity is detected.
	Blinking	Indicates that there is a proper Ethernet connection (Link) between the port and another Ethernet device, and that there is communications activity.
	Off	Indicates that there is not a proper Ethernet connection (Link) between the port and another Ethernet device. Make sure the cable has been plugged securely into the ports at both ends.
<b>Speed LED 10/100 Models</b>	On	A 100 Mbps (100BaseT) connection is detected.
	Off	A 10 Mbps (10BaseT) connection is detected.
<b>PoE</b>	On	Port is providing power
	Off	Port is not providing power

# Stride SE2 Series Unmanaged Industrial Ethernet Switches and Media Converters

## SE2 Series DIN Rail mounted switches



### Features

- Broadcast storm protection
- Wide temp range option
- Optional panel mounting accessory
- 12, 24, 48 VDC & 18-30 VAC redundant input
- GbE models
- Haz Loc
- IP30 metal cases
- 5-year warranty



RoHS Compliant

### Stride SE2 Unmanaged Models

Part Number	Price	RJ45 10/100	RJ45 GbE	Fiber	Input power (max.)	Operating Temp	Agency Approvals
<a href="#">SE2-MC2U-C1-T</a>	\$151.00	1	–	1 SC	3.4 W	-40 to +75°C [-40 to +167°F]	UL/cUL 61010-1 and 61010-2-201, Haz Loc, CE
<a href="#">SE2-MC2U-T1-T</a>	\$151.00	1	–	1 ST			
<a href="#">SE2-SW5U</a>	\$95.00	5	–	–		-10 to +60°C [+14 to +140°F]	
<a href="#">SE2-SW5UG-T</a>	\$180.00	–	5	–	4.5 W		
<a href="#">SE2-SW5U-1C1-T</a>	\$177.00	4	–	1 SC	3.4 W		
<a href="#">SE2-SW5U-1T1-T</a>	\$177.00	4	–	1 ST			
<a href="#">SE2-SW8U</a>	\$138.00	8	–	–	4.6 W	-10 to +60°C [+14 to +140°F]	
<a href="#">SE2-SW8U-T</a>	\$150.00		–	–		-40 to +75°C [-40 to +167°F]	
<a href="#">SE2-SW8U-2C1-T</a>	\$239.00	6	–	2 SC			
<a href="#">SE2-SW8UG-T</a>	\$284.00	–	8	–	10W		
<a href="#">SE2-SW16U-T</a>	\$405.00	16	–	–	8W		
<a href="#">SE2-SW18U-2G-T</a>	\$462.00	16	2	–			

\* Optional SFP modules sold separately. Use only Gigabit speed SFPs with SE2-SW10UG-2P-T.

### 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
<a href="#">SE2-PM1</a>	\$18.00	SE2-SW5Ux, SE2-SW8U-x, and SE2-MCx
<a href="#">SE2-PM3</a>	\$24.00	SE2-SWPx, <a href="#">SE2-SW8UG-T</a> , <a href="#">SE2-SW16U-T</a> , <a href="#">SE2-SW18U-2G-T</a> and all SE2 managed switches

[SE2-PM1](#)[SE2-PM3](#)

# Stride SE2 Series Unmanaged Industrial Ethernet Switches and Media Converters

## SE2 Series DIN Rail mounted switches

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 for SE2-SWxG-T, SE2-SW16U-T, SE2-SW18U-2G-T 2K
<b>Packet Forwarding Rate</b>	0.75 Mpps - SE2-MC2U-x, SE2-SW5U & SE2-SW5U-x 1.2 Mpps - SE2-SW8U-x 7.4 Mpps - SE2-SW5UG-T 14.9 Mpps - SE2-SW8UG-T & 5.7 Mpps - SE2-SW16U-T & SE2-SW18U-2G-T
<b>Broadcast Storm Protection*</b>	DIP switch enabled (DIP switch I ON)
<b>Jumbo Frame Support</b>	DIP switch enabled for SE2-SW5UG-T, SE2-SW8UG-T and SE2-SW18U-2G-T only (DIP switch II ON)**
<b>Latency</b>	< 10 µs
<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): +/- 6kV (contact), +/- 8kV (air) IEC61000-4-3 (RS): 10V/m (80MHz ~ 2GHz) IEC61000-4-4 (EFT): Power Port +/- 2kV; Data Port: +/- 1kV IEC61000-4-5 (Surge): Power Port: +/- 1kV/DM, +/- 2kV/CM; Data Port +/- 1kV (+/- 2kV for 16 and 18 port models) 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, IP30
<b>Hazardous Locations</b>	ANSI/ISA 12.12.01-2015 & CSA 22.2 No. 213-15 (Class I, Div.2) (file #E200031); UL/cUL 61010-1 and 61010-2-201, Class 1, Div. 2, Groups A, B, C, D, (UL file #E200031) CE
<b>Agency Approvals</b>	

\* Broadcast storm threshold value is 2 packets/100ms for 10 Mbps port or 2 packets/10ms for 100 Mbps and 1000 Mbps ports.

\*\* DIP switch II is unused on the 10/100 models.

Front Panel LEDs		
LED	State	Description
<b>PWR1 LED</b>	On	Power 1 connected and operational
	Off	Power 1 no voltage
<b>PWR2 LED</b>	On	Power 2 connected and operational
	Off	Power 2 no voltage
<b>ACT/LNK LED</b>	On	Indicates that there is a proper Ethernet connection (Link) between the port and another Ethernet device, but no communications activity is detected.
	Blinking	Indicates that there is a proper Ethernet connection (Link) between the port and another Ethernet device, and that there is communications activity.
	Off	Indicates that there is not a proper Ethernet connection (Link) between the port and another Ethernet device. Make sure the cable has been plugged securely into the ports at both ends.
<b>Speed LED 10/100 Models</b>	On	A 100 Mbps (100BaseT) connection is detected.
	Off	A 10 Mbps (10BaseT) connection is detected.
<b>Speed LED 10/100/1000 Models</b>	On	A 1000 Mbps (1000BaseT) connection is detected
	Off	A 100 or 10 Mbps (100BaseT or 10BaseT) connection is detected

SC/ST Fiber Port: (100BaseFX multimode)	
<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. > Transmitter power (dBm): -21 min, -17 typ, -14 max > Receiver sensitivity (dBm): -34 typ, -31 max
<b>Nominal Max. Distance</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

Power Details	
<b>Power Input</b>	Redundant Input Terminals
<b>Input Voltage</b>	Class 2 Power Supply: 12-48 VDC, 18-30VAC 50/60 Hz
<b>Reverse Power Protection</b>	Yes
<b>Power Consumption</b>	Refer to Stride SE2 Series Unmanaged Models table

SFP Ports	
SFP (pluggable) ports accept 1000Mbps Mini-GBIC (SFP) transceivers	
See SFP datasheet for optional fiber transceiver specification	

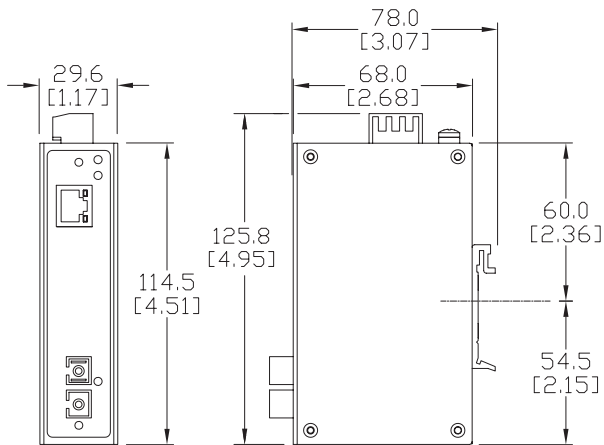
# Stride SE2 Series Unmanaged Industrial Ethernet Switches and Media Converters

## SE2 Series DIN Rail mounted switches

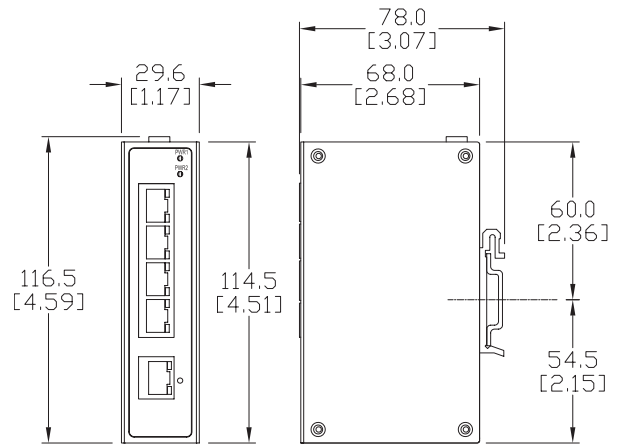
## Dimensions

Allow 20mm [0.79"] clearance around the switch for cooling

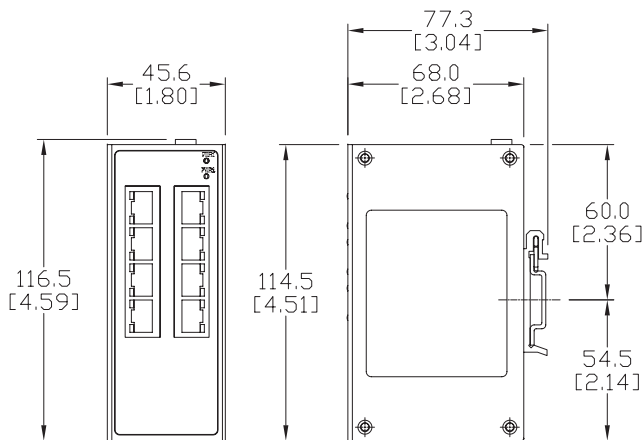
mm [Inches]



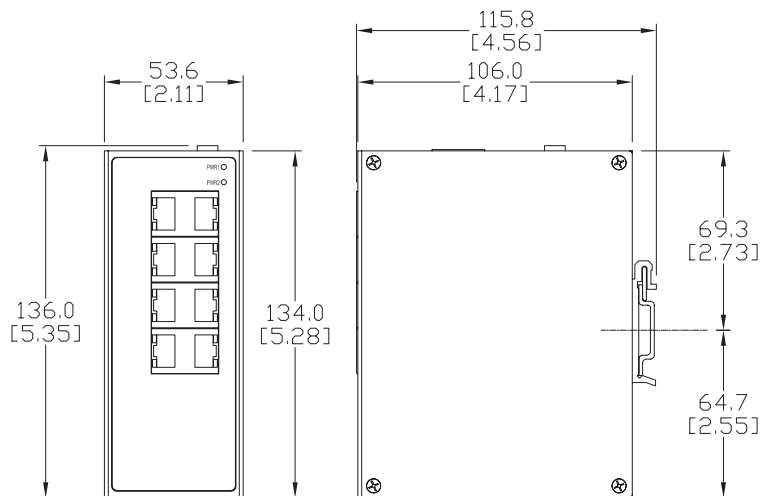
**SE2-MC2U-C1-T**  
**SE2-MC2U-T1-T**



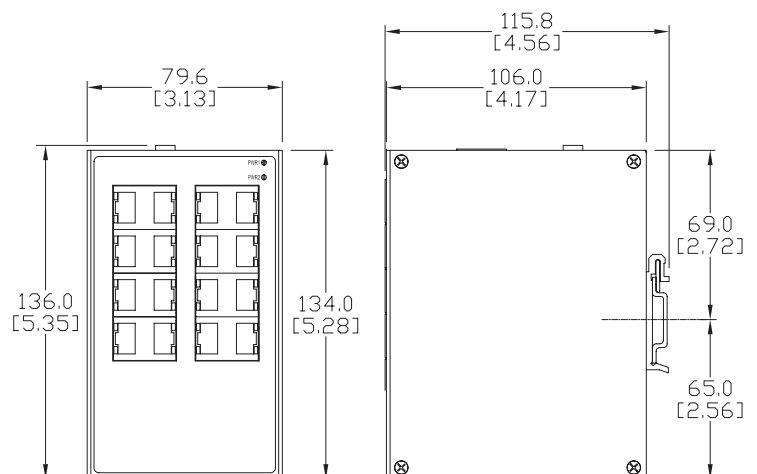
**SE2-SW5U-1C1-T**  
**SE2-SW5U-1T1-T**  
**SE2-SW5UG-T**



**SE2-SW8U**  
**SE2-SW8U-T**



**SE2-SW8UG-T**



**SE2-SW16U-T**

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

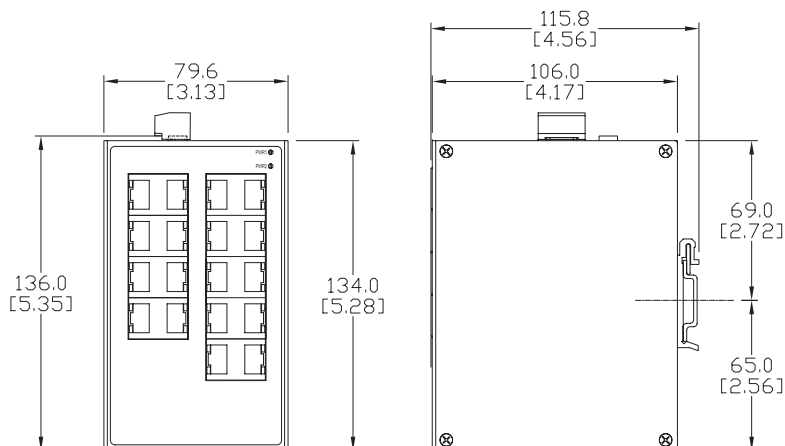
# Stride SE2 Series Unmanaged Industrial Ethernet Switches

## SE2 Series DIN Rail mounted switches

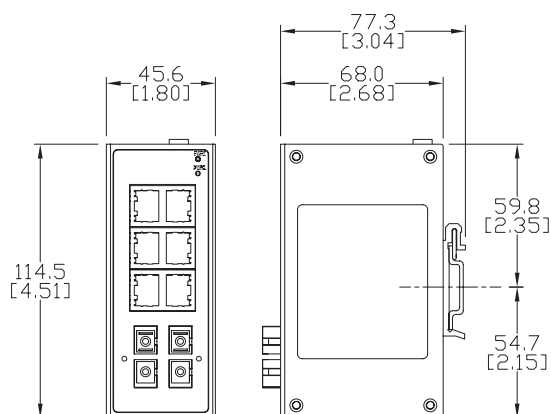
Allow 20mm [0.79"] clearance around the switch for cooling

## Dimensions

mm [Inches]



**SE2-SW18U-2G-T**



**SE2-SW8U-2C1-T**

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



Stride

SE2 Series Unmanaged Industrial Ethernet Switches

SE2 Series IP65 Rated



Features

- Rugged IP65 rating
- Tight M12 connections
- Wide temp range
- Panel mount
- 12, 24, 48 VDC and 18-30 VAC redundant input
- Complies with EN50155 and EN50121 industrial standards
- 5-year warranty



Stride SE2 Series IP65 Rated Models					
Part Number	Price	M12, IP65 10/100 ports	Input power (max.)	Operating Temp	Agency Approvals
<a href="#">SE2-SW5U-N65-T</a>	\$354.00	5	4.6 W	-40 to +75°C [-40 to +167°F]	UL/cUL 61010-1, UL/cUL 6010-2-201 CE, EN50155, EN50121
<a href="#">SE2-SW8U-N65-T</a>	\$472.00	8			



# Stride SE2 Series Unmanaged Industrial Ethernet Switches

## SE2 Series IP65 Rated

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>	2K
<b>Packet Buffer</b>	1Mbit
<b>Packet Forwarding Rate</b>	1.2 Mpps
<b>Latency</b>	< 10 $\mu$ s
<b>Storage Temperature Range</b>	-40 to +85 °C [-40 to +185 °F]
<b>Humidity (non-condensing)</b>	5 to 95% RH
<b>Pollution Degree</b>	2
<b>Vibration and Shock</b>	IEC60068-2-6, -27, -32
<b>Freefall</b>	IEC60068-2-32
<b>Safety</b>	EN60950-1
<b>EMI Emissions</b>	FCC CFR47 Part 15, EN55032/CISPR32, Class A
<b>EMS</b>	IEC61000-4-2 (ESD): $\pm$ 6kV (contact), $\pm$ 8kV (air) IEC61000-4-3 (RS): 20V/m (80MHz ~ 2 GHz) IEC61000-4-4 (EFT): Power Port $\pm$ 2kV; Data Port: $\pm$ 2kV IEC61000-4-5 (Surge): Power Port: $\pm$ 1kV/DM, $\pm$ 2kV/CM IEC61000-4-6 (CS): 10V (150 kHz ~ 80 MHz) IEC61000-4-8 (Power frequency magnetic field) :50 Hz 100A/m IEC61000-4-9 (Pulsed magnetic field) :300A/m IEC61000-4-29 (Voltage short interruptions) :10ms 100%
<b>RoHS and WEEE</b>	RoHS (Pb free) and WEEE compliant
<b>Packaging and Protection</b>	Metal case, IP65
<b>Agency Approvals</b>	UL/cUL 61010-1 UL/cUL 61010-2-201, (UL file #E157382), CE, EN50155, EN50121

Power Details	
<b>Power Input</b>	Redundant Input M12 connector
<b>Input Voltage</b>	Class 2 Power Supply: 12-48 VDC, 18-30VAC 50/60 Hz
<b>Power Input Ports</b>	M12, male, A-coding, 4-pin
<b>Reverse Power Protection</b>	Yes

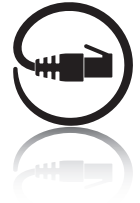
M12 Ports	
<b>10/100BaseT ports</b>	M12, female, D-coding, 4-pin
<b>Ethernet Compliance</b>	IEEE 802.3i, 802.3u, 802.3x
<b>Auto-Crossover</b>	Yes, allows you to use straight-through or crossover wired cables
<b>Auto-Sensing Operation</b>	Yes, full and half duplex
<b>Auto-Negotiating Speed</b>	Yes
<b>Flow Control</b>	Automatic
<b>Cable Requirements</b>	Twisted pair (Cat5 or better) (shielded recommended)
<b>Max. Cable Distance</b>	100 meters

\*Note-M12 caps (ZP-JBH-CAP) need to be used on open (disconnect) ports.

Front Panel LEDs		
LED	State	Description
<b>Power 1 LED</b>	On	Power 1 connected and operational
	Off	Power 1 no voltage
<b>Power 2 LED</b>	On	Power 2 connected and operational
	Off	Power 2 no voltage
<b>Ethernet Port Connection Status LED</b>	On	Ethernet port connected
	Blinking	Ethernet port active
	Off	Ethernet port no connection



# Stride SE Series Unmanaged Industrial Ethernet Switches and Media Converters



## Features

- Wide temp range option
- Integrated panel mounting option
- 12, 24 VDC redundant input
- IP40 metal case models
  - IP30 plastic case models
- Haz Loc
- 5-year warranty



IECEX



RoHS Compliant

## Plastic Case Switches

Stride SE Series Unmanaged Models						
Part Number	Price	10/100	Fiber Connector	Input Power	Operating Temp	Agency Approvals
<a href="#"><u>SE-SW5U</u></a>	\$129.00	5	–	2.0 W	-10 to +60°C [+14 to +140°F]	UL/cUL 508, Haz Loc, CE
<a href="#"><u>SE-SW8U</u></a>	\$219.00	8	–	4.0 W		
<a href="#"><u>SE-SW5U-ST</u></a>	\$249.00	4	1 ST	3.0 W		
<a href="#"><u>SE-SW5U-SC</u></a>	\$239.00		1 SC			
<a href="#"><u>SE-SW9U-ST</u></a>	\$329.00	8	1 ST	5.0 W		
<a href="#"><u>SE-SW9U-SC</u></a>	\$319.00		1 SC			
<a href="#"><u>SE-MC2U-ST</u></a>	\$238.00	1	1 ST	2.0 W		
<a href="#"><u>SE-MC2U-SC</u></a>	\$235.00		1 SC			

## Metal Case Switches

Stride SE Series Unmanaged Models						
Part Number	Price	10/100	Fiber Connector	Input Power	Operating Temp	Agency Approvals
<a href="#"><u>SE-SW5U-WT</u></a>	\$231.00	5	–	2.0 W	-40 to +85°C [-40 to +185°F]	UL/cUL 508, Haz Loc, CE
<a href="#"><u>SE-SW8U-WT</u></a>	\$299.00	8	–	4.0 W		
<a href="#"><u>SE-SW5U-ST-WT</u></a>	\$329.00	4	1 ST	3.0 W		
<a href="#"><u>SE-SW5U-SC-WT</u></a>	\$329.00	4	1 SC			
<a href="#"><u>SE-SW9U-ST-WT</u></a>	\$419.00	8	1 ST	5.0 W		
<a href="#"><u>SE-SW9U-SC-WT</u></a>	\$409.00	8	1 SC			

# Stride SE Series Unmanaged Industrial Ethernet Switches and Media Converters

General Specifications		
<b>Ethernet Switch Type</b>	Up to 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 $\mu$ s + frame time (typical)	
<b>Latency for 100 Mbps ports</b>	5 $\mu$ s + frame time (typical)	
<b>Power Input</b>	Redundant Input Terminals	
<b>Input Power (typical with all ports active at 100 Mbps)</b>	SE-MC2U-ST SE-MC2U-SC SE-SW5U SE-SW5U-WT	2.0 W
	SE-SW5U-ST SE-SW5U-SC SE-SW5U-ST-WT SE-SW5U-SC-WT	3.0 W
	SE-SW8U SE-SW8U-WT	4.0 W
	SE-SW9U-ST SE-SW9U-SC SE-SW9U-ST-WT SE-SW9U-SC-WT	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-MC2U-ST SE-MC2U-SC SE-SW5U SE-SW8U SE-SW5U-ST SE-SW5U-SC SE-SW9U-ST SE-SW9U-SC	-10 to +60°C [+14 to +140°F], cold startup at -10°C [+14°F]
	SE-SW5U-WT SE-SW8U-WT SE-SW5U-ST-WT SE-SW5U-SC-WT 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. For use in Pollution Degree 2 environment	
<b>Vibration and Shock</b>	IEC60068-2 and -27	
<b>EMI Emissions</b>	FCC part 15, ICES-003, EN55022	
<b>EMC Immunity</b>	IEC61326-1	
<b>RoHS and WEEE</b>	RoHS (Pb free) and WEEE compliant	
<b>Agency Approvals</b>	UL/cUL 508, CSA C22 per EN61010-1, UL HazLoc (Class 1, Div. 2, Groups A, B, C, D) (UL file #E200031), CSA C 22.2/213/EN60079-15 (Zone 2, Category 3), CE (ATEX)	

General Specifications Cont'd		
<b>Packaging and Protection</b>	SE-MC2U-ST SE-MC2U-SC SE-SW5U SE-SW8U SE-SW5U-ST SE-SW5U-SC SE-SW9U-ST SE-SW9U-SC	UL94VO Lexan, IP30
	SE-SW5U-WT SE-SW8U-WT SE-SW5U-ST-WT SE-SW5U-SC-WT SE-SW9U-ST-WT SE-SW9U-SC-WT	Metal case, IP40

Copper RJ45 Ports: (10/100BaseT)	
<b>10/100BaseT ports</b>	Shielded RJ45
<b>Protocols Supported</b>	All standard IEEE 802.3
<b>Ethernet Compliance</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 (Cat5e 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-XXXX-ST and SE-XXXX-ST-WT SC – models SE-XXXX-SC and SE-XXXX-SC-WT
<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>Ethernet Compliance</b>	100BaseFX
<b>Eye Safety (laser)</b>	IEC 60825-1, Class 1; FDA 21 CFR 1040.10 and 1040.11

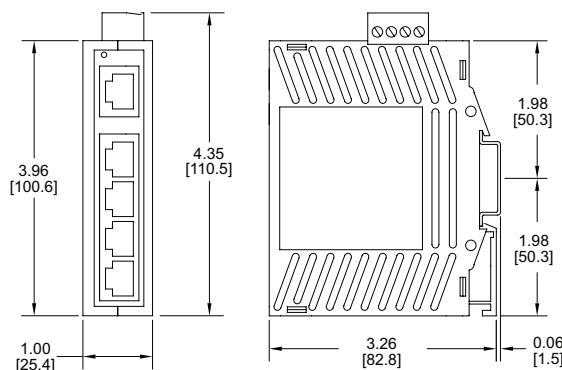
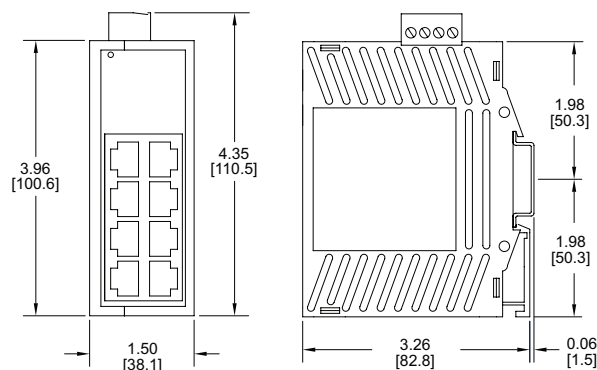
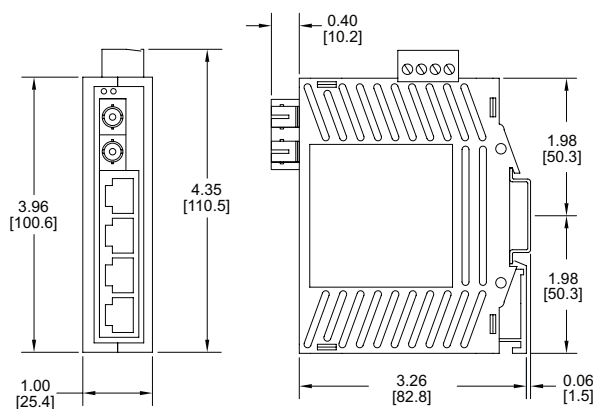
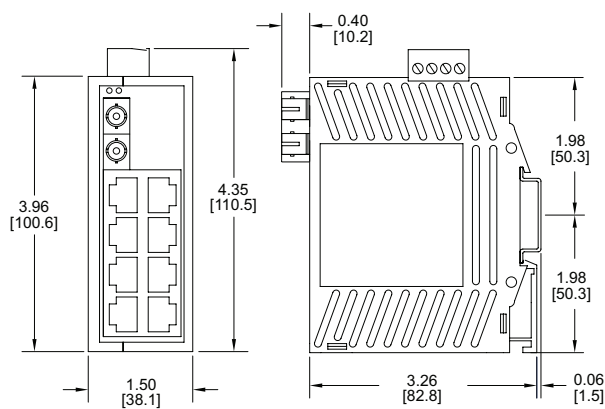
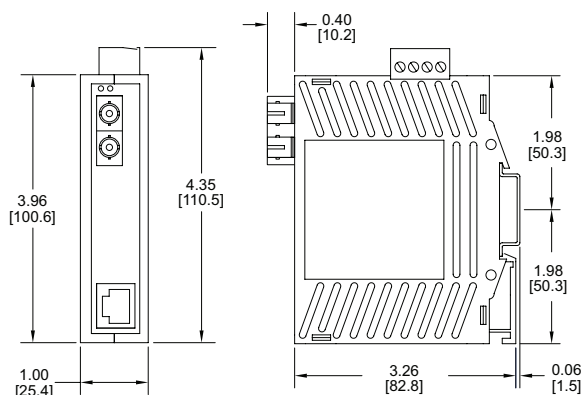
## Complete documentation

Documentation can be downloaded from [www.automationdirect.com](http://www.automationdirect.com).

# Stride SE Series Unmanaged Industrial Ethernet Switches and Media Converters

## Dimensions

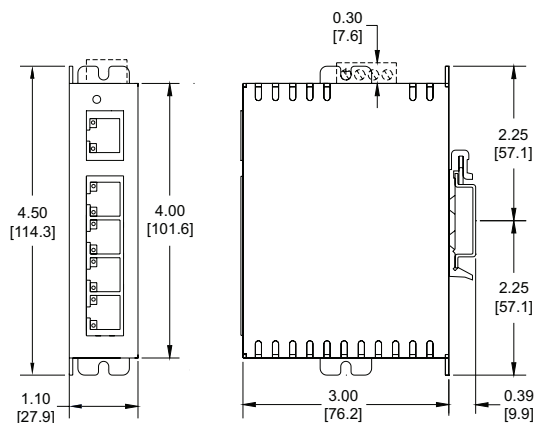
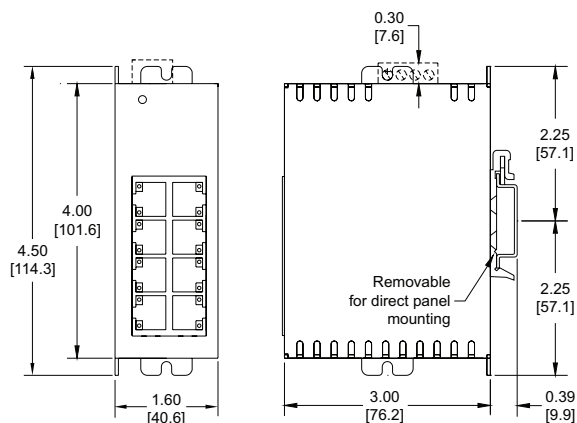
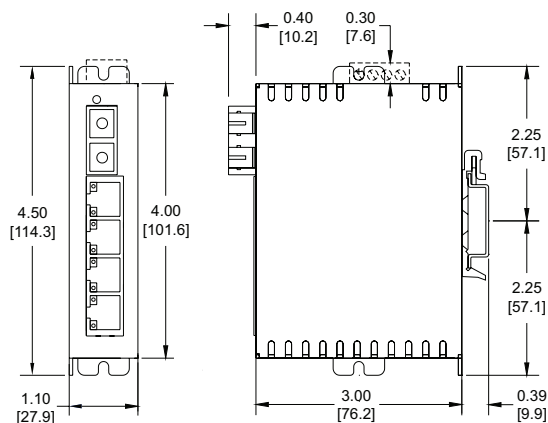
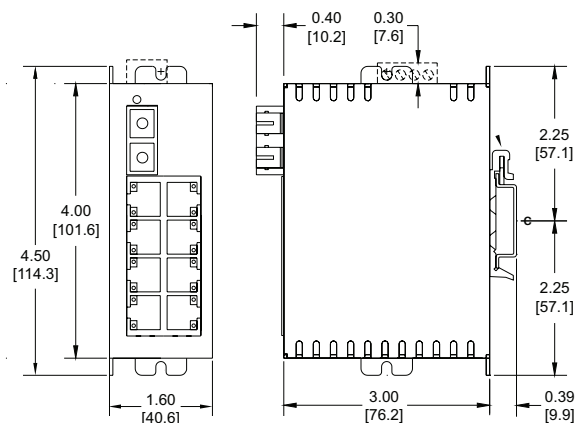
Inches [mm]

**SE-SW5U****SE-SW8U****SE-SW5U-SC**  
**SE-SW5U-ST****SE-SW9U-SC**  
**SE-SW9U-ST****SE-MC2U-SC**  
**SE-MC2U-ST**See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.

# Stride SE Series Unmanaged Industrial Ethernet Switches and Media Converters

## Dimensions

Inches [mm]

**SE-SW5U-WT****SE-SW8U-WT****SE-SW5U-SC-WT**  
**SE-SW5U-ST-WT****SE-SW9U-SC-WT**  
**SE-SW9U-ST-WT**See our website: [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings.



# MB-GATEWAY Modbus TCP/IP to RTU Gateway

## MB-GATEWAY

**\$262.00**

AutomationDirect's MB-GATEWAY is a single port Modbus Gateway module that converts Modbus TCP to Modbus RTU. It supports up to 12 simultaneous Modbus TCP Client (master) Ethernet connections, and up to 128 RTU Server (slaves) serial connections. MB-GATEWAY requires 10VDC to 36VDC from an external power supply. Each module has one RJ45 10/100 Mbps Ethernet port and one RS-422/485 2 or 4-wire serial port. It supports NetEdit\* or Web Browser based configuration tools.

### Key features

- Automatic read function
- RJ45 10/100 Mbps Ethernet port
- RS-422/485 2 or 4 wire serial port
- Supports NetEdit\* and Web browser configuration tools
- Auto detects Ethernet cable types (MDI/MDX)
- 35 mm DIN rail mount



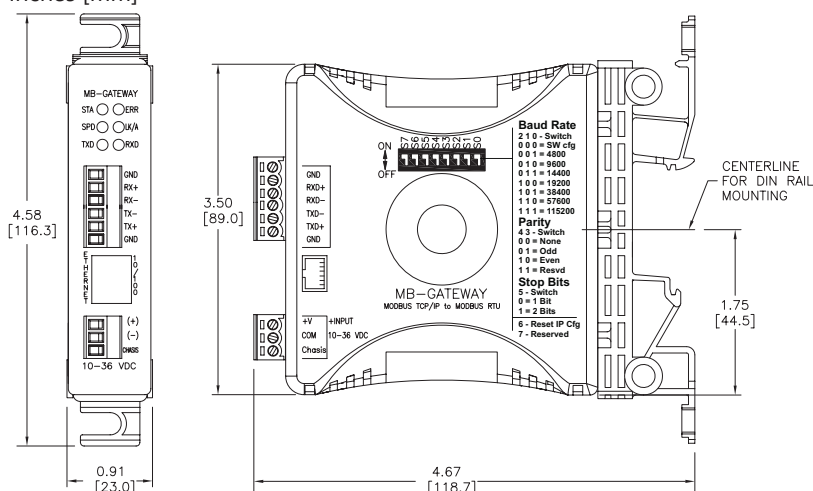
\*NetEdit version 3.8 or later is required to support MB-GATEWAY.

Specifications		
Ethernet Interface	Port	RJ-45
	Speed	10/100 Mbps
	Protection	Built-in 1.5 KV magnetic isolation
	Protocol Supported	Modbus TCP/IP Server (Slave)
	Clients (Masters) Supported	12 simultaneous Modbus TCP connections
Serial Interface	Cable Type	Auto detects Ethernet cable types (MDI/MDX)
	Port	6-position terminal strip (Phoenix #1863194) provided
	Supported Signal Lines	RS-422 (5-wire) Signals: TX+, TX-, RX-, RX+, GND RS-485 (3-wire) Signals: Data+, Data-, GND
	Supported Baud Rates	300*, 600*, 1200*, 4800, 9600, 14.4k, 19.2k, 38.4k, 57.6k, 115.2k *Cannot be set with DIP switches. Must be set via Web browser configuration.
	Parity	Odd, Even, None
	Data Bits	8
	Stop Bits	1, 2
	Protocol Supported	Modbus RTU Client (Master)
	Servers (Slaves) Supported	128
	Termination	Permanently installed 120Ω resistor between Data+ and Data-

Specifications	
Power Consumption	2W Use Class 2 power supply Use conductors rated 60/75°C 3-position terminal strip (Phoenix #1863165) provided
Wire Range	16–28AWG Solid or Stranded Conductor (1.5 mm <sup>2</sup> )
Wire Strip Length	0.24–0.27 in [6–7 mm]
Screw Torque	1.7 lb-in [0.2 N·m]
Operating Temperature Range	0 to 60°C [32 to 140°F]
Storage Temperature Range	-20 to 70°C [-4 to 158°F]
Humidity	5 to 95% RH (non-condensing)
Environmental Air	For use in Pollution Degree 2 Environment
Vibration	MIL STD 810C 514.2
Shock	MIL STD 810C 516.2
Weight	0.2 lbs [0.09 kg]
Agency Approval	UL (file #E185989), CE

### Dimensions

Inches [mm]



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

[www.automationdirect.com](http://www.automationdirect.com)



### Replacement Part

Part Number	Description	Price
<b>MB-GW-CON</b>	MB-Gateway-Connector Kit 1ea: Phoenix 3 pin power connector AND 1 ea: Phoenix 6 pin serial connector	\$20.00





# FA-ISOCON Universal Isolated Network Adapter



## FA-ISOCON \$166.00

The FA-ISOCON Universal Isolated Network Adapter is used to place RS-232 devices such as PLCs, operator interfaces, industrial computers, etc., on an RS-422 or RS-485 multidrop network. The Network Adapter converts RS-232 signal levels to isolated RS-422 or RS-485 signal levels. This network adapter is similar to our other RS-232/422 converters, but it offers the added benefit of network isolation. This adapter is especially useful in noisy environments where data corruption due to induced noise is possible.

The FA-ISOCON features Automatic Network Transmitter Enable (ANTE) so that an RTS output is not required on the connected RS-232 device. The FA-ISOCON is a direct functional replacement for the FA-ISONET when CTS Controlled Transmit Enable (CCTE) mode is active. Having both ANTE and CCTE modes, the FA-ISOCON is compatible with most RS-232 devices.

The diagram below shows a simple example of an FA-ISOCON used for PC to multiple PLC communications.

## Key features

Following are some of the key features and benefits of the FA-ISOCON:

- DIP switch selectable Automatic Network Transmitter Enable so that an RTS output is not required on the connected RS-232 device.
- DIP switch selectable CTS Controlled Transmit Enable mode for backwards compatibility with the FA-ISONET.
- DIP switch select termination and bias resistors; short/open TXD+/RXD+ and TXD-/RXD- terminals for 1/2 duplex comm.
- Isolation removes ground loop currents from data lines. Noise voltages resulting from transformer-like coupling are also eliminated.
- Many forms of radiated noise are reduced to negligible levels.
- FA-ISOCON can be powered from 24 VDC or 5 VDC. (Unit may be powered directly from CPU pins on CPUs with +5V pins or the auxiliary 24 VDC power supply on I/O bases.)
- Unit has RS-232 transmit and receive LEDs and an RS-422/485 Transmitter Enable LED to simplify troubleshooting.

RJ12 port allows you to use the modular cables (included) to quickly connect the D0-05xx, D2-240 or D3-340 to the FA-ISOCON. Connections can be made to the D3-350, DL405 CPUs and PCs with the connectors that are included.

## Specifications

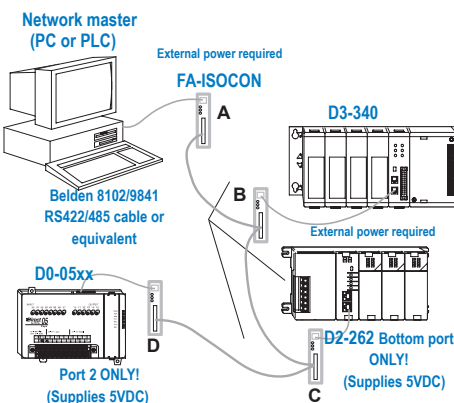
- Max. network distance: 4000 feet
- Max. number of devices: 32 per network
- Max. baud rate: 115.2 Kbaud
- Supply voltage: 5 VDC @ 100 mA max. (from CPU) or 24 VDC @ 70 mA (external source)
- Max. driver load: 62 ohms
- Driver voltage:  $\pm 1.5V$  minimum
- No load current: 80 mA
- Max. current: 100 mA (62 h)
- Isolation resistance:  $> 1014 \text{ h/7pF}$
- Voltage withstand: 1.2 KVrms/1s  
1.0 KVrms/1 minute
- Operating temp: 0 to 60°C [32 to 140°F]

## Installation is a 'snap'

The FA-ISOCON comes with an attached DIN rail connector. Simply hook the top of the DIN connector on the DIN rail, then pull the unit down and rotate the bottom of the DIN connector onto the DIN rail (or use the provided holes to flush-mount it on a panel). The adapter's RJ12 serial port can be connected to a PC or a DirectLogic CPU port using one of the supplied cables/connectors. Or, use the adapter's RS-232 terminal block to connect to a serial device. Connect the RS-422/485 communications wiring to the convenient RS-422/485 terminal blocks.

## Adapter components

- FA-ISOCON Isolated Network Adapter with attached DIN mounting bracket
- 25-pin male to RJ12 6P6C connector
- 9-pin female to RJ12 6P6C connector
- 1' cable with RJ12 6P6C plug to RJ11 4P4C plug for use with D3-340.
- 1' cable with RJ12 6P6C plug to RJ12 6P6C plug



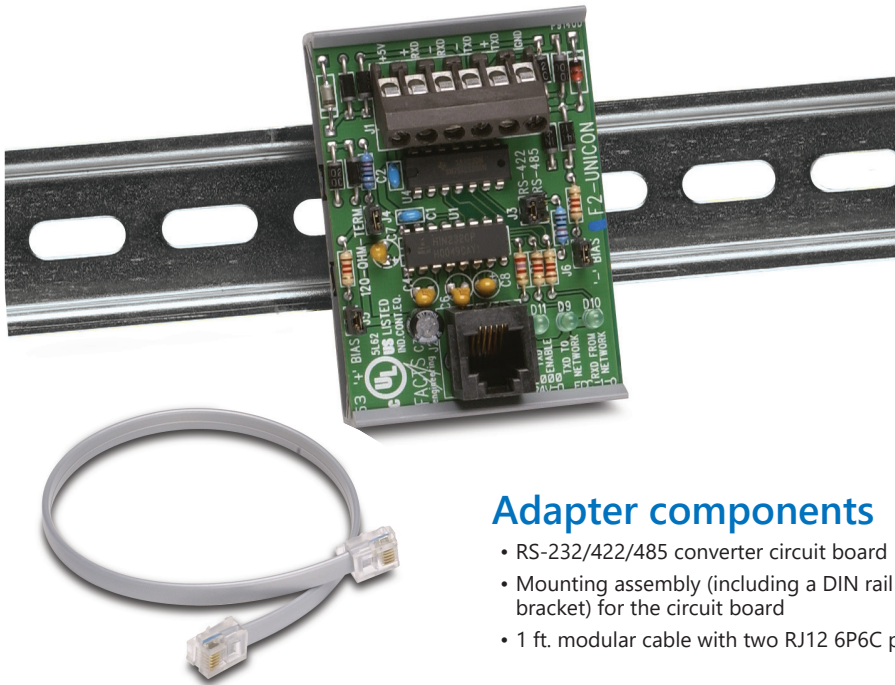
- FA-ISOCON converts the network master's (computer or PLC, etc.) RS-232 communication signal levels to RS-422/485.
- FA-ISOCON converts the RS-422/485 signal levels back to RS-232 for a connection to the D3-340 CPU bottom port.
- FA-ISOCON converts the RS-422/485 signal levels back to RS-232 for a connection to the D2-262 CPU bottom port.
- FA-ISOCON converts the RS-422/485 signal levels back to RS-232 for a connection to the D0-05xx CPU port 2.

Dimensions including DIN bracket and terminal block.  
HxWxD (4.55" x 0.90" x 4.69")



Removable terminal blocks make it easy to connect communication wiring.  
(Replacement terminal plug kit FA-ISOCON-P)

# F2-UNICON Universal Converter



## General specifications

- Max. network distance: 4000 feet
- Max. baud rate: 19.2 Kbaud
- Supply voltage: 5 VDC (from CPU)
- Max. driver load: 62 h
- Driver voltage:  $\pm 1.5V$  minimum
- No load current: 65 mA
- Max. current: 100 mA
- Operating temp: 60°C [140°F]
- 

### Example of system using F2-UNICON

- A) F2-UNICON converts the network master's (computer) RS-232 communications card signal levels to RS-422/485, which is suitable for a multi-drop network.
- B) F2-UNICON converts the RS-422/485 signal levels back to RS-232 for a connection to the [D2-262](#) CPU bottom port.
- C) F2-UNICON converts the RS-422/485 signal levels back to RS-232 for a connection to the [D2-262](#) CPU bottom port.
- D) F2-UNICON converts the RS-422/485 signal levels back to RS-232 for a connection to the DL05 port 2

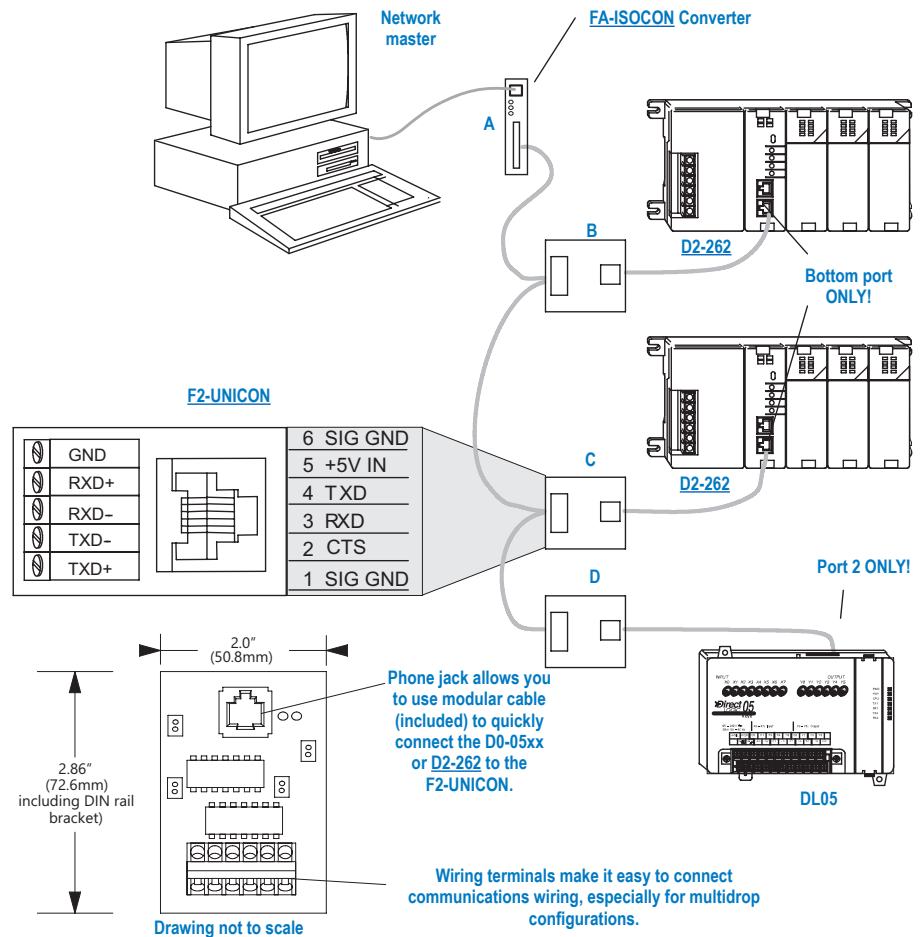
## F2-UNICON \$123.00

The F2-UNICON Universal Converter converts RS-232 signal levels to RS-422 signal levels or RS-422 signal levels into RS-232 signals. The F2-UNICON does not offer the benefit of network isolation that the FA-ISOCOCON offers. The F2-UNICON has been specifically designed to be used with the DL05 and [D2-262](#) CPUs. It offers features such as:

- Easily mounts to DIN rail
- Does not require an external power source. It obtains power from the +5V pin on the D2-262 CPU port (bottom port) and the DL05 (port 2).
- Has transmit and receive LEDs to simplify troubleshooting.

## Installation is a "snap"

The F2-UNICON comes with a DIN rail housing for the circuit board. Simply snap the board into the housing and mount it on a DIN rail (or flush-mount it on a panel). Connect the communications wiring to the convenient terminal blocks, then connect the adapter to the CPU port with the cable.



# FA-CABKIT Universal Cable Kit

## FA-CABKIT \$71.00

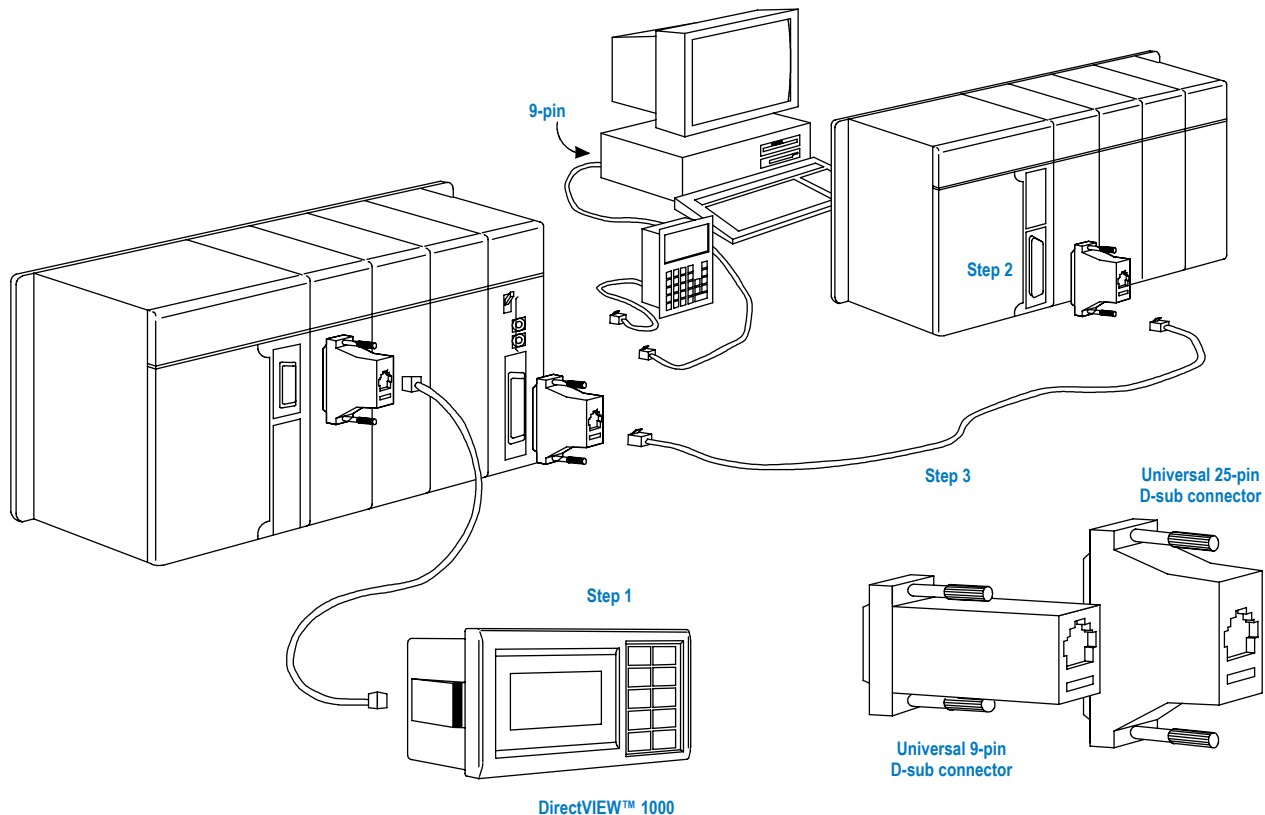
The Universal Cable Kit (FA-CABKIT) allows you to connect various types of **Direct**LOGIC™ products with an RS-232 cable in a matter of minutes. The kit consists of two phone cables (with male plugs already attached) and several specially wired connectors. The special connectors are a D-sub style with built-in female phone jacks. This kit, with its wide variety of special connectors, allows for easy connections to many different products from each of the **Direct**LOGIC product families. The individual pieces of the kit are not sold separately except for the FA-15HD high density 15-pin connector.

*Note: For D-sub to terminal block adapters, see the Wiring Solutions section*

### Follow these simple steps to use the cable kit:

1. Plug the proper universal connector (or cable) into the appropriate communication port of the host product (CPU, DCM, CoProcessor module, personal computer, operator interface, etc.).
2. Plug the proper universal connector onto the other device to be connected to the host system : (DL05, DL06, DL105, DL205, DL305, DL405, CoProcessor module, PC communication card, etc.).
3. Connect the universal cable between the two connectors.
4. Verify that the circuit you created is correct before applying power.

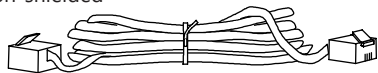
**WARNING:** This cable system is designed for temporary testing situations and should not be used in actual applications. This cable is not shielded and is susceptible to electrical noise. Electrical noise can cause unpredictable operation that may result in a risk of personal injury or damage to equipment.



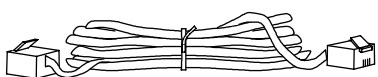
# FA-CABKIT Universal Cable Kit

The table lists various devices that can be connected quickly with the universal cable kit. To determine which parts you need to use, simply use the table to find the connection you wish to make. Then match each device required for that connection with its part number. Snap the pieces together and you're ready to communicate. The following seven parts are included in the Universal Cable Kit. These parts are not sold separately, except for the FA-15HD high density 15-pin connector.

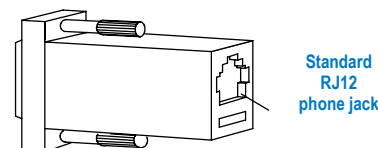
1. Standard phone-style connectors (RJ12), non-shielded



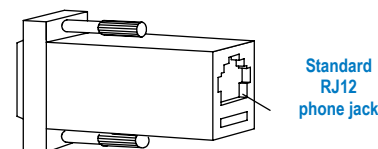
2. Standard phone and handset style connectors (RJ12, RJ11), non-shielded



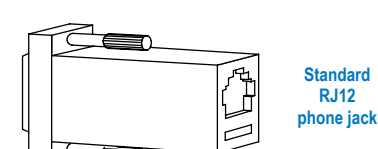
3. Universal 9-pin female D-sub connector



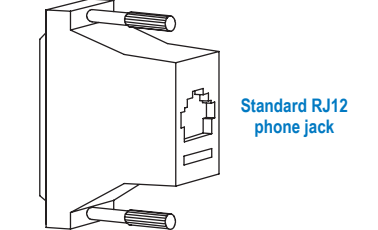
4. Universal 9-pin male D-sub connector



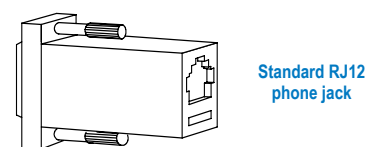
5. Universal 15-pin male D-sub connector



6. Universal 25-pin male D-sub connector



7. Universal 15-pin HD male D-sub connector (FA-15HD)



## Universal cable kit

### Items included in the universal cable kit

#### Device Description

1. 7 ft. standard cable, 6P6C to 6P6C phone type
2. 6 ft. adapter cable, 6P6C to 4P4C phone type
3. AT connector 9-pin female to 6P6C connector
4. (ASCII BASIC module) 9-pin male connector to 6P6C connector
5. DL405 15-pin male connector to 6P6C connector
6. DL405 CPU and DCM 25-pin male connector to 6P6C connector
7. DL06, D2-250(-1) and D2-260 CPUs 15-pin HD male connector to 6P6C connector

### Common connection examples

#### DL05, DL06, DL105, DL205, D3-350 and (D4-450 port 2)

##### CPU connections

###### Connection desired

1. DL05/06/105/205/DL350/D4-450 to AT type computer 9-pin
2. CPU to DV-1000
3. CPU to DL205 or DL405 DCM
4. CPU to DL340 CPU
5. CPU to ABM (DL205 only)

###### Devices required

- 1,3  
1  
1,6  
2  
1,4

#### DL06, D2-250(-1), D2-260 CPU port 2 connections

##### Connection desired

1. DL06/250(-1)/260 port 2 to AT type computer 9-pin
2. DL06/250(-1)/260 port 2 to DV-1000

###### Devices required

- 1,3,7  
1,3,7

#### DL305 D3-232-DCU connections

##### Connection desired

1. DCU to AT type computer 9-pin
2. DCU to DL405 series DCM (requires 2 kits)
3. DCU to DL340 CPU
4. DCU to ABM

###### Devices required

- 1,6,3  
1,6,6  
2,6  
1,6,4

#### DL305 CPU connections

##### Connection desired

1. DL340 CPU to AT type computer 9-pin
2. DL340 CPU to DL405 series CPU/DCM
3. DL340 CPU to DL240 CPU
4. DL340 to ABM
5. DL340 CPU to DCU CPU

###### Devices required

- 2,3  
2,6  
2  
2,4  
2,6

#### DL405 CPU (15-pin) top port connections

##### Connection desired

1. DL405 CPU to AT type computer 9-pin
2. DL405 CPU to DV-1000

###### Devices required

- 1,5,3  
1,5

#### DL405 CPU (25-pin) bottom port connections

##### Connection desired

1. DL405 CPU to AT type computer 9-pin
2. DL405 CPU to DL405 series DCM (requires 2 kits)
3. DL405 CPU to DL340 CPU
4. DL405 CPU to ABM

###### Devices required

- 1,6,3  
6  
2,6  
1,6,4



# USB Programming Cables

## USB Cables

AutomationDirect's high quality USB cables are used to connect USB devices to a USB port on a PC. Each cable has Standard-A plug to Standard-B plug end connectors, both gold plated, and meet the USB 2.0 requirements. These cables can be used for programming Productivity Series CPUs, **C-more** panels, certain **C-more** Micro panels and PC to touchscreen connections for Atlas Industrial Monitors that include touchscreen capability.



## Standard A to standard B



Part Number	Description	Price
<u><a href="#">USB-CBL-AB3</a></u>	3-ft [0.9 meter] Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	\$12.00
<u><a href="#">USB-CBL-AB6</a></u>	6-ft [1.8 meter] Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	\$16.00
<u><a href="#">USB-CBL-AB10</a></u>	10-ft [3 meter] Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	\$36.50
<u><a href="#">USB-CBL-AB15</a></u>	15-ft [4.6 meter] Standard USB 2.0 cable with Standard-A plug to Standard-B plug. Suitable for all USB devices.	\$42.50

## Standard A to micro B



Part Number	Description	Price
<u><a href="#">USB-CBL-AMICB6</a></u>	Programming cable, USB A to micro-B USB, 6ft cable length.	\$5.25
<u><a href="#">USB-CBL-AMICB15</a></u>	Programming cable, USB A to micro-B USB, 15ft cable length.	\$10.50

## Standard A to Standard C



Part Number	Description	Price
<u><a href="#">USB-CBL-AC6</a></u>	Programming cable, USB A to USB C, 6ft cable length.	\$7.00



- Productivity Series CPUs
- **C-more** panels
- **C-more** Micro panels
- Atlas Industrial Monitors with touchscreen capability.

# USB to RS-232 Converter

## USB-RS232 \$47.00

This quality USB to RS-232 converter transparently connects serial devices to PC applications via a USB port. It is perfect for the user needing to connect to a serial port-based peripheral from a laptop PC with an available USB port but no serial port. The adapter driver creates a virtual serial port (using the next available COM number). Applications connect to the virtual COM port as if it were a standard serial port. The USB-serial conversion is completely transparent to the peripheral device.



### Features:

- Flexible cable
- Premium quality
- Gold connectors
- Ergonomic molding for easy connection
- Foil and braid shielding to reduce EMI/RFI interference
- Designed for high-speed transmissions
- LED power and TX/RX indicators
- Mates with PC DB9 serial cables (such as our [D2-DSCBL PLC cable](#))
- 2 hex nuts included

### Specifications:

- RS-232 standard
- Powered by the USB bus
- DB 9 male connector
- USB A male connector
- 6ft [1.8m] cable
- USB 2.0 compliant
- Plug and Play

### Operating Systems:

- Windows 11
- Windows 10
- Windows 8.1-64-bit, 32-bit
- Windows 8-64-bit, 32-bit
- Windows 7-64-bit, 32-bit
- Windows XP

### Compatible with AutomationDirect's:

- **DirectLOGIC** PLCs (**DirectSOFT** 3.0C build 80 and later versions)
- Optimate panels (OP-WINEDIT software)

### Hardware Requirements:

- One available USB port
- If the RS232 port on your device is not a nine pin female, you will need an additional adapter. USB-RS232 converter is a nine-pin male connector.



# USB to RS-485 PC Adapter

## USB-485M \$60.00

Convenient 2-wire USB to RS-485 serial communication adapter for universal RS-485 use (GS drives, SureServo servos, Solo temperature controllers, CLICK PLCs, etc.). Does not require an external power supply or complicated configuration process.

### Features:

- Type A (plug) USB connector
- Universal female RJ45/RJ12 modular connector (accepts RJ12 & RJ45 plugs)
- Supports multiple baud rates
- USB v2.0 compliant
- RoHS compliant
- CE compliant

### Components Included:

- Adapter
- Cable – 6-wire RJ12 crossover; 2m [79 in] (for plug & play connectivity to GS drives)
- Cable – 2-wire RJ12–flying leads; 2m [79in] (for universal RS-485 connectivity to SureServo, Solo, etc.)

Specifications	
<b>Description</b>	USB TO RS-485 PC Adapter; includes (2) RJ12 cables, mini-CD with driver, instructions
<b>Component Compatibility *</b>	GS series AC drives – GSOF configuration software GS series AC drives – Modbus polling SureServo servo drives – SV-PRO configuration software** SureServo servo drives – Modbus polling** SOLO process controllers – SL-SOFT configuration software SOLO process controllers – Modbus polling CLICK PLCs – Modbus polling Productivity PLCs – Modbus polling
<b>Power Supply</b>	No external power supply needed
<b>Power Consumption</b>	0.4 W
<b>Voltage Isolation</b>	3000 VDC
<b>Baud Rates Supported</b>	75, 150, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 (bps)
<b>Transmission Type</b>	RS-485 half-duplex (2-wire)
<b>LED Display</b>	Steady Green LED ON: power is ON. Blinking orange LED: data is transmitting.
<b>USB Connector</b>	Type A (plug)
<b>RS-485 Connector</b>	RJ45
<b>Compatibility</b>	USB v2.0 specification
<b>PC Compatibility</b>	Windows Operating System required for bridge & driver installation: 32-bit driver: Windows 7, 8, 8.1, 10 64-bit driver: Windows 7, 8, 8.1, 10

\* NOT compatible with DirectSOFT PLC software.

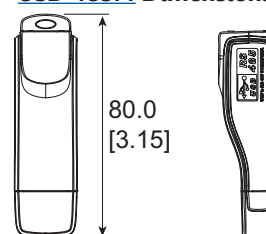
(DirectSOFT RS-485 programming requires 4-wire full-duplex data transmission.)

\*\* Requires SVC-485CFG-CBL-2 cable.

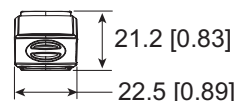
### USB-485M



### USB-485M Dimensions



UNITS:  
mm [in]



### USB-485M RJ-45 Pin-out



8 ← 1



RJ-45

Pinout	
Pin	Description
1	reserved
2	reserved
3	reserved
4	SG+
5	SG-
6	reserved
7	reserved
8	reserved



# Ethernet Patch Cables

## Cat5e STP Ethernet Patch Cables

### Connectivity

Ethernet is a networking technology that includes the protocol, port, cable, and computer chip needed to interconnect intelligent devices on to a local area network.

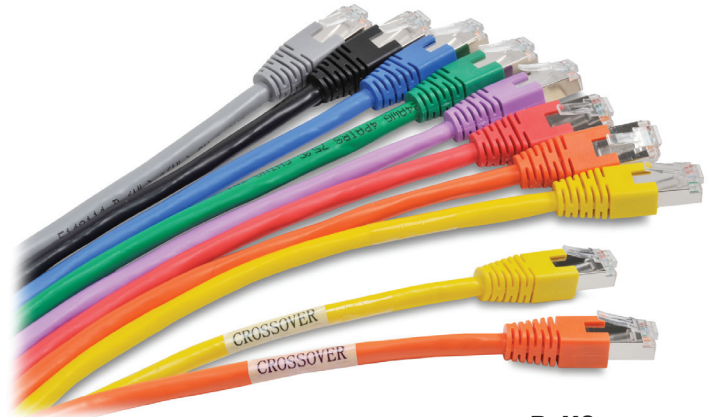
### Designed for Industrial Use

The noise interference radiated from electrical components that is often associated with factory floor environments can result in partial or complete data loss. This may result in delays or complete communication loss in extremely noisy environments.

Our Ethernet patch cables are designed to reduce the effects of (EMI) electromagnetic interference by incorporating a single metal foil shield that wraps around the entire set of 8 wires in the Cat5e cable. The RJ45 connectors are also shielded against electrical interference and designed to be robust. Our 350 MHz cables exceed all Cat5e TIA/EIA standards, and drastically reduce both impedance and structural return loss (SRL) when compared to standard 100 MHz cables.

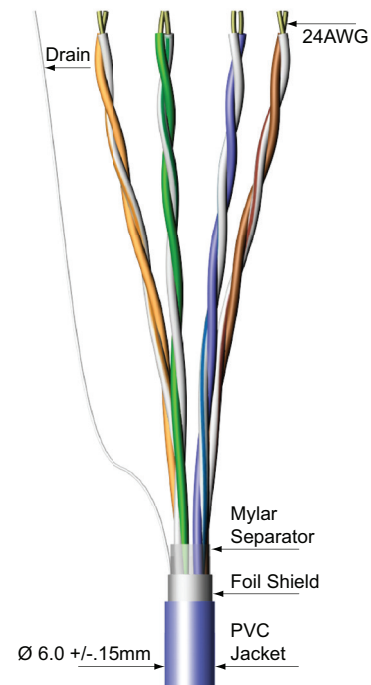
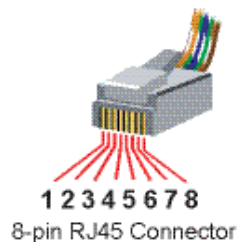
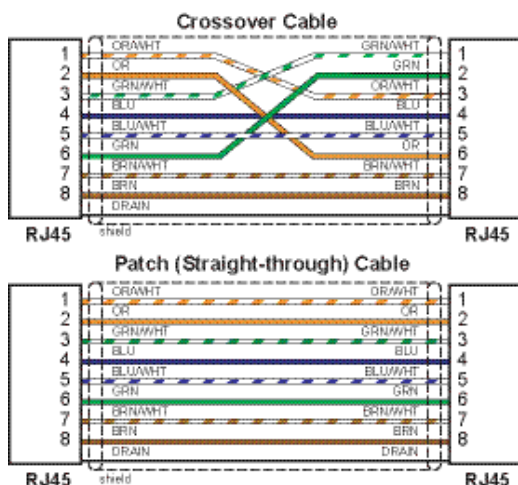
The cables comply with the PoE+ standard to deliver an enhanced 30W of power.

With several colors and lengths to choose from at great pricing, these cables should help you in creating solid, reliable Ethernet networks with any application.



### Features

- Connector; 50-micron gold plated RJ45 male plugs
- Conductor; 4-pair 24 AWG stranded copper
- Overall foil shielded cable for industrial applications
- Crossover cables have "crossover" label on each end.
- Exceeds Category 5e specifications, 350MHz
- 30W Power over Ethernet (PoE+)
- Multiple lengths and colors
- CM rated, suitable for general use other than plenum spaces
- RoHS compliant



# Ethernet Patch Cables

Cat 5e Straight Through Patch Cables				
Part Number	Color	Description	Length	Price
<a href="#"><u>C5E-STPBK-S3</u></a>	Black	AutomationDirect Cat5e Ethernet straight-through patch cable, STP (overall foil shield), RJ45 male to RJ45 male. For use with 10/100/1000 Mbps networks. Exceeds Category 5e cable specifications.	3' [0.91 m]	\$6.75
<a href="#"><u>C5E-STPBL-S3</u></a>	Blue			\$6.75
<a href="#"><u>C5E-STPGN-S3</u></a>	Green			\$6.75
<a href="#"><u>C5E-STPGY-S3</u></a>	Gray			\$6.75
<a href="#"><u>C5E-STPOR-S3</u></a>	Orange			\$6.75
<a href="#"><u>C5E-STPPL-S3</u></a>	Purple			\$6.75
<a href="#"><u>C5E-STPRD-S3</u></a>	Red			\$6.75
<a href="#"><u>C5E-STPYL-S3</u></a>	Yellow			\$6.75
<a href="#"><u>C5E-STPBK-S7</u></a>	Black	AutomationDirect Cat5e Ethernet straight-through patch cable, STP (overall foil shield), RJ45 male to RJ45 male. For use with 10/100/1000 Mbps networks. Exceeds Category 5e cable specifications.	7' [2.13 m]	\$11.00
<a href="#"><u>C5E-STPBL-S7</u></a>	Blue			\$11.00
<a href="#"><u>C5E-STPGN-S7</u></a>	Green			\$11.00
<a href="#"><u>C5E-STPGY-S7</u></a>	Gray			\$11.00
<a href="#"><u>C5E-STPOR-S7</u></a>	Orange			\$11.00
<a href="#"><u>C5E-STPPL-S7</u></a>	Purple			\$11.00
<a href="#"><u>C5E-STPRD-S7</u></a>	Red			\$11.00
<a href="#"><u>C5E-STPYL-S7</u></a>	Yellow			\$11.00
<a href="#"><u>C5E-STPBK-S10</u></a>	Black	AutomationDirect Cat5e Ethernet straight-through patch cable, STP (overall foil shield), RJ45 male to RJ45 male. For use with 10/100/1000 Mbps networks. Exceeds Category 5e cable specifications.	10' [3.05 m]	\$14.50
<a href="#"><u>C5E-STPBL-S10</u></a>	Blue			\$14.50
<a href="#"><u>C5E-STPGN-S10</u></a>	Green			\$14.50
<a href="#"><u>C5E-STPGY-S10</u></a>	Gray			\$14.50
<a href="#"><u>C5E-STPOR-S10</u></a>	Orange			\$14.50
<a href="#"><u>C5E-STPPL-S10</u></a>	Purple			\$14.50
<a href="#"><u>C5E-STPRD-S10</u></a>	Red			\$14.50
<a href="#"><u>C5E-STPYL-S10</u></a>	Yellow			\$14.50
<a href="#"><u>C5E-STPBK-S14</u></a>	Black	AutomationDirect Cat5e Ethernet straight-through patch cable, STP (overall foil shield), RJ45 male to RJ45 male. For use with 10/100/1000 Mbps networks. Exceeds Category 5e cable specifications.	14' [4.3 m]	\$17.00
<a href="#"><u>C5E-STPBL-S14</u></a>	Blue			\$16.50
<a href="#"><u>C5E-STPGN-S14</u></a>	Green			\$14.00
<a href="#"><u>C5E-STPGY-S14</u></a>	Gray			\$17.00
<a href="#"><u>C5E-STPPL-S14</u></a>	Purple			\$14.50
<a href="#"><u>C5E-STPRD-S14</u></a>	Red			\$14.50
<a href="#"><u>C5E-STPYL-S14</u></a>	Yellow			\$14.50
<a href="#"><u>C5E-STPBK-S25</u></a>	Black	AutomationDirect Cat5e Ethernet straight-through patch cable, STP (overall foil shield), RJ45 male to RJ45 male. For use with 10/100/1000 Mbps networks. Exceeds Category 5e cable specifications.	25' [7.6 m]	\$24.00
<a href="#"><u>C5E-STPBL-S25</u></a>	Blue			\$23.00
<a href="#"><u>C5E-STPGN-S25</u></a>	Green			\$20.00
<a href="#"><u>C5E-STPGY-S25</u></a>	Gray			\$23.00
<a href="#"><u>C5E-STPOR-S25</u></a>	Orange			\$20.00
<a href="#"><u>C5E-STPRD-S25</u></a>	Red			\$20.00
<a href="#"><u>C5E-STPYL-S25</u></a>	Yellow			\$20.00
<a href="#"><u>C5E-STPBK-S50</u></a>	Black	AutomationDirect Cat5e Ethernet straight-through patch cable, STP (overall foil shield), RJ45 male to RJ45 male. For use with 10/100/1000 Mbps networks. Exceeds Category 5e cable specifications.	50' [15.2 m]	\$41.00
<a href="#"><u>C5E-STPBL-S50</u></a>	Blue			\$37.50
<a href="#"><u>C5E-STPGY-S50</u></a>	Gray			\$39.50
<a href="#"><u>C5E-STPOR-S50</u></a>	Orange			\$33.00
<a href="#"><u>C5E-STPPL-S50</u></a>	Purple			\$34.00
<a href="#"><u>C5E-STPRD-S50</u></a>	Red			\$33.00
<a href="#"><u>C5E-STPYL-S50</u></a>	Yellow			\$31.50

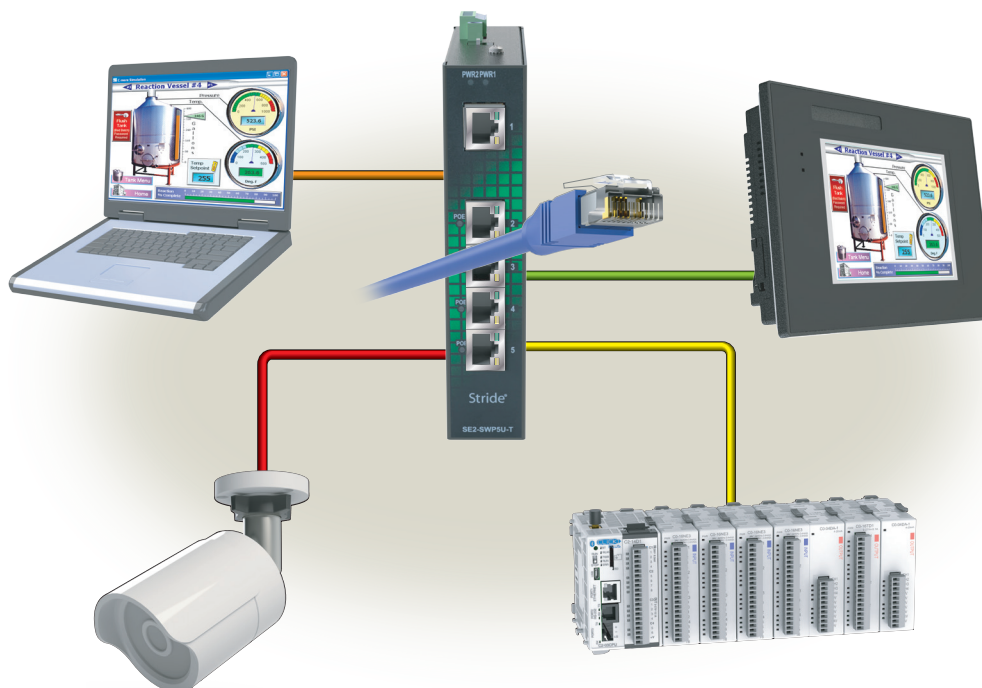
# Ethernet Patch Cables

## Cat5e Crossover Patch Cables

Part Number	Color	Description	Length	Price
<a href="#"><u>C5E-STPOR-C3</u></a>	Orange	AutomationDirect Cat5e Ethernet crossover patch cable, STP (overall foil shield), RJ45 male to RJ45 male. For use with 10/100/1000 Mbps networks. Labeled as Crossover on both ends. Exceeds Category 5e cable specifications.	3' [0.91 m]	\$10.00
<a href="#"><u>C5E-STPYL-C3</u></a>	Yellow			\$8.25
<a href="#"><u>C5E-STPOR-C7</u></a>	Orange		7' [2.13 m]	\$12.50
<a href="#"><u>C5E-STPYL-C7</u></a>	Yellow			\$11.00
<a href="#"><u>C5E-STPOR-C10</u></a>	Orange		10' [3.05 m]	\$16.00
<a href="#"><u>C5E-STPYL-C10</u></a>	Yellow			\$13.50
<a href="#"><u>C5E-STPOR-C14</u></a>	Orange		14' [4.3 m]	\$20.50
<a href="#"><u>C5E-STPOR-C25</u></a>	Orange		25' [7.6 m]	\$26.50
<a href="#"><u>C5E-STPYL-C25</u></a>	Yellow			\$22.50
<a href="#"><u>C5E-STPOR-C50</u></a>	Orange		50' [15.2 m]	\$41.00
<a href="#"><u>C5E-STPYL-C50</u></a>	Yellow			\$36.00

## Cat5e Cable Specifications

Transfer Parameters	Cat5e
Transfer Rate	Up to 1 Gbit/s full duplex
Temperature Range	Bare cable temperature rating is 75°C
Protection Degree	RJ45 connector: IP20
Outer Diameter	6.0 mm ±0.2 mm
Bend Radius	60mm (10 x outer diameter)
Connection	Shielded RJ45 plug
Wire Material	Stranded copper
Approvals	Bare cable is cULus Recognized (file number E132276)



# Ethernet Patch Cables

## Cat6a STP Ethernet Patch Cables

### Connectivity

Ethernet is a networking technology that includes the protocol, port, cable, and computer chip needed to interconnect intelligent devices on to a local area network.

### Designed for High-Speed Industrial Use

The noise interference radiated from electrical components that is often associated with factory floor environments can result in partial or complete data loss. This may result in delays or complete communication loss in extremely noisy environments.

Our Cat6a Ethernet patch cables have a tighter twist rate than Cat5e cables to reduce crosstalk. The Cat6a cables are further designed to reduce the effects of (EMI) electromagnetic interference by incorporating a foil shield around each twisted pair, plus a single metal foil shield that wraps around the entire set of 8 wires. The RJ45 connectors are also shielded against electrical interference and designed to be robust.

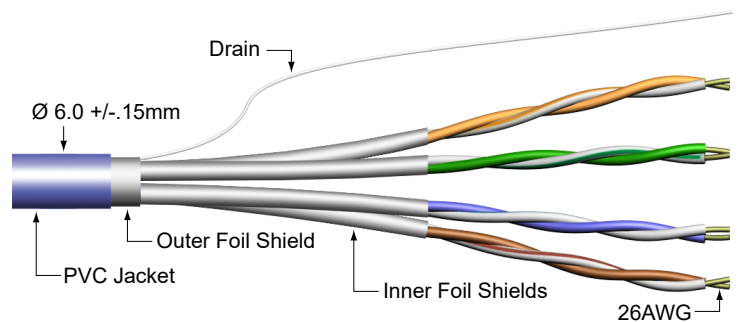
The cables comply with the PoE+ standard to deliver an enhanced 30W of power.

With several lengths to choose from at great pricing, these cables should help you in creating solid, reliable Ethernet networks with any application.



### Features

- Up to 10Gbps transfer rate
- 30W Power over Ethernet (PoE+)
- Connector: 50-micron gold plated RJ45 male plugs
- Conductor: 4-pair 26 AWG stranded copper
- Foil shielded twisted pairs with overall foil shielded cable for industrial applications
- CM rated, suitable for general use other than plenum spaces
- RoHS compliant



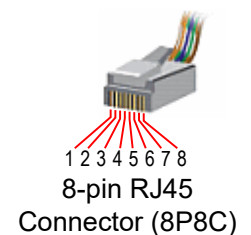
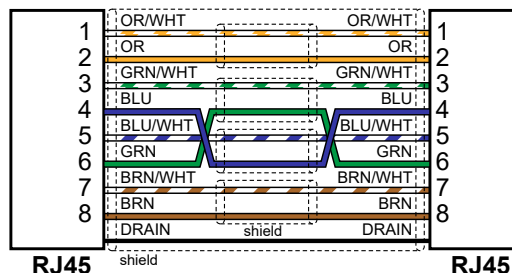
### Cat6a Straight Through Patch Cables

Part Number	Color	Description	Length	Price
<a href="#">C6A-STPBL-S3</a>	Blue	AutomationDirect Cat6a Ethernet straight-through patch cable, STP (overall foil shield), RJ45 male to RJ45 male. For use with 10/100/1000/10000 Mbps networks.	3' [0.91 m]	\$9.00
<a href="#">C6A-STPBL-S7</a>			7' [2.13 m]	\$13.50
<a href="#">C6A-STPBL-S10</a>			10' [3.05 m]	\$17.00
<a href="#">C6A-STPBL-S14</a>			14' [4.3 m]	\$21.50

### Cat6a Cable Specifications

<b>Transfer Parameters</b>	Cat6a
<b>Transfer Rate</b>	Up to 10 Gbit/s full duplex
<b>Temperature Range</b>	Bare cable temperature rating is 75°C
<b>Protection Degree</b>	RJ45 connector: IP20
<b>Outer Diameter</b>	6.0 mm $\pm$ 0.2 mm
<b>Bend Radius</b>	60mm (10 x outer diameter)
<b>Connection</b>	Shielded RJ45 plug
<b>Wire Material</b>	Stranded copper
<b>Approvals</b>	Bare cable is cULus Recognized (file number E515747)

### Patch (Straight-through) Cable



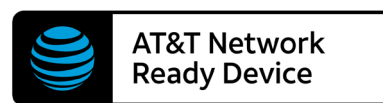


# StrideLinx Remote Access Solution

## SE-SL Series Industrial VPN Routers



RoHS Compliant



Model SE-SL3011-4G Only



Model SE-SL3011-4GG Only

T-Mobile compatible with both LTE routers

### StrideLinx Industrial VPN Router Models

Part Number	Price	Gigabit Ethernet	WiFi	4G LTE (2)
<a href="#"><u>SE-SL3001</u></a> (1)	\$400.00	✓		
<a href="#"><u>SE-SL3011</u></a>	\$494.00	✓		
<a href="#"><u>SE-SL3011-WF</u></a>	\$621.00	✓	✓	
<a href="#"><u>SE-SL3011-4G</u></a>	\$679.00	✓		✓ (AT&T)
<a href="#"><u>SE-SL3011-4GG</u></a>	\$727.00	✓		✓ (Global)

(1) SE-SL3001 does not support data logging or notifications.

(2) SIM card and data plan compatible with the frequencies and bands supported by the device and identified in the spec table are required for 4G LTE operation from the carrier. An M2M SIM card is configured with an amount of data and a duration of validity at the time of purchase.

Antennas required for WiFi and 4G models and must remain connected during operation.

WARNING: DO NOT insert or remove the SIM card when power is applied to the router.

### Key features

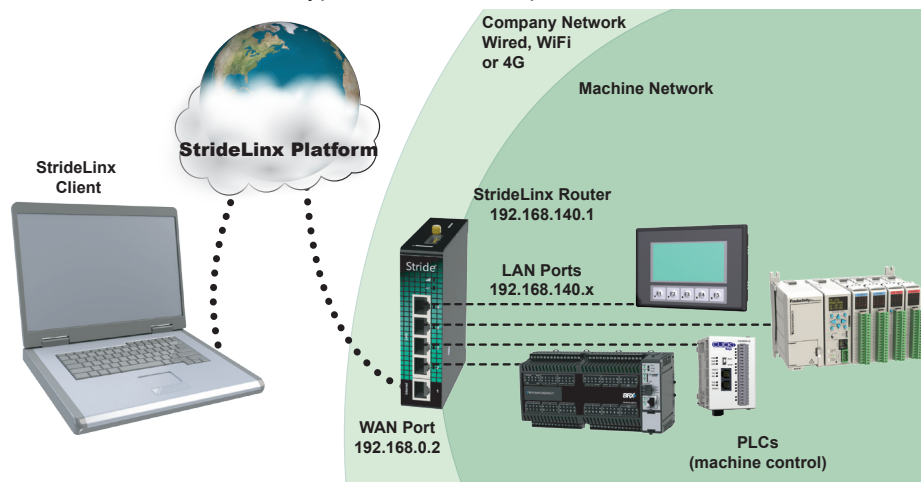
- Gigabit port speed
- Wired, WiFi, or 4G LTE WAN connectivity
- Easy, secure VPN networking
- Available Notification and Data Logging service
- Available Service Level Agreement (SLA)

### 4G LTE Router Options

Features	SE-SL3011-4G	SE-SL3011-4GG
<b>Verizon*</b>	No	Yes – Certified
<b>AT&amp;T</b>	Yes – Certified	Yes – Tested
<b>T-Mobile</b>	Yes – Tested	Yes – Tested
<b>International Frequency Bands</b>	No	Yes, but not tested with carriers

\* Requires router firmware version 3.20 or later.

The StrideLinx Platform is a secure and powerful VPN platform based on a worldwide network of servers. It is focused on delivering and enhancing innovative remote service. A typical StrideLinx setup is illustrated as follows.



Please visit the [StrideLinx](#) page at [AutomationDirect.com](#) for an overview of the StrideLinx Remote Access Solution.



# Remote Access Solution

## SE-SL Series Industrial VPN Routers

Power Details	
<b>Input Voltage</b>	Class 2 LPS Power Supply, 12-24 VDC
<b>Maximum Input Power</b>	10W
<b>Maximum Input Current</b>	2A
<b>Internal Voltage Protection</b>	29V max
<b>Reverse Polarity Protection</b>	Yes
<b>Isolation</b>	1.5 kV

General Specifications	
<b>USB</b>	USB 2.0 (for configuration only)
<b>Processor</b>	MIPS 800MHz
<b>Digital Input for Local Control</b>	Yes
<b>Operating Temperature Range</b>	-20°C to +65°C [-4°F to +149°F]
<b>Storage Temperature Range</b>	-20°C to +65°C [-4°F to +149°F]
<b>Relative Humidity</b>	10 to 95% non-condensing
<b>Operating Altitude</b>	Up to maximum 2000m
<b>Storage Altitude</b>	Up to maximum 3000m
<b>Environmental Air</b>	For use in Pollution Degree 2 Environment. No corrosive gases permitted.
<b>EMI</b>	FCC CFR47 Part 15, EN55022/CISPR22, Class B
<b>EMS</b>	IEC61000-4-2 (ESD): $\pm 8$ kV (contact), $\pm 15$ kV (air) IEC61000-4-3 (RS): 10V/m (80MHz ~ 2GHz) IEC61000-4-4 (EFT): Power Port $\pm 4$ kV; Data Port: $\pm 2$ kV IEC61000-4-5 (Surge): Power Port: $\pm 2$ kV/DM, $\pm 4$ kV/CM; Data Port $\pm 2$ kV 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, IP20
<b>Mounting</b>	DIN rail
<b>Weight</b>	270–310 gram
<b>Certification</b>	CE, cULus, RoHS, REACH, AT&T (SE-SL3011-4G), FCC
<b>Warranty</b>	2 years
<b>Agency Approvals</b>	UL/cUL 60950-1, CE

WiFi Specifications (P/N SE-SL3011-WF Only)	
<b>WiFi IEEE 802.11 Version</b>	b/g/n
<b>WiFi Modes</b>	Station (Client) Mode and Access Point
<b>Speed</b>	72 Mbps
<b>Antenna Connection</b>	RP-SMA plug (male)
<b>Antenna Connector Torque</b>	3–5 lb-in [0.3–0.6 N·m]
<b>FCC ID</b>	XPYLILYW1

Ethernet Interface	
<b>Ethernet ports</b>	Five GbE (4x LAN, 1x WAN)
<b>Port Type</b>	Shielded RJ45
<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>Operating Mode</b>	Store and forward wire speed switching, non-blocking
<b>Devices Supported</b>	All IEEE 802.3 compliant devices are supported
<b>Protection</b>	Built-in 1.5 kV magnetic isolation
<b>Cable Requirements</b>	Twisted pair (Cat5e or better) (shielded recommended)
<b>Max. Cable Distance</b>	100 meters

4G LTE Specifications (P/N SE-SL3011-4G Only)	
<b>Protocols and Frequencies (AT&amp;T)</b>	LTE-FDD - B2, B4, B12 WCDMA - B2, B4, B5
<b>Speed</b>	LTE-FDD - Max. 100 Mbps (DL)/Max. 50 Mbps (UL) WCDMA - Max. 384 kbps (DL)/Max. 384 kbps (UL)
<b>Antenna Connection</b>	Two (2) SMA plugs (male)
<b>Antenna Connector Torque</b>	3–5 lb-in [0.3–0.6 N·m]
<b>SIM size</b>	Standard SIM (2FF)
<b>FCC ID</b>	XMR201605EC25A

4G LTE Specifications (P/N SE-SL3011-4GG Only)	
<b>Protocols and Frequencies (Global)</b>	LTE FDD: B1,B2,B3,B4,B5,B7,B8,B12,B13,B18,B19, B20,B25,B26,B28 LTE TDD: B38,B39,B40,B41 WCDMA: B1,B2,B4,B5,B6,B8,B19 GSM: B2,B3,B5,B8 GPRS: B2,B3,B5,B8
<b>Speed</b>	LTE-FDD: Max. 150 Mbps (DL)/Max. 50 Mbps (UL) LTE-TDD: Max. 130 Mbps (DL)/Max. 30 Mbps (UL) WCDMA: Max. 384 kbps (DL)/Max. 384 kbps (UL) GSM (EDGE): Max. 296 kbps (DL)/Max. 236.8 kbps (UL) GPRS: Max 107 kbps (DL)/Max. 85.6 kbps (UL)
<b>Antenna Connection</b>	Two (2) SMA plugs (male)
<b>Antenna Connector Torque</b>	3–5 lb-in [0.3–0.6 N·m]
<b>SIM size</b>	Standard SIM (2FF)
<b>FCC ID</b>	XMR201903EG25G



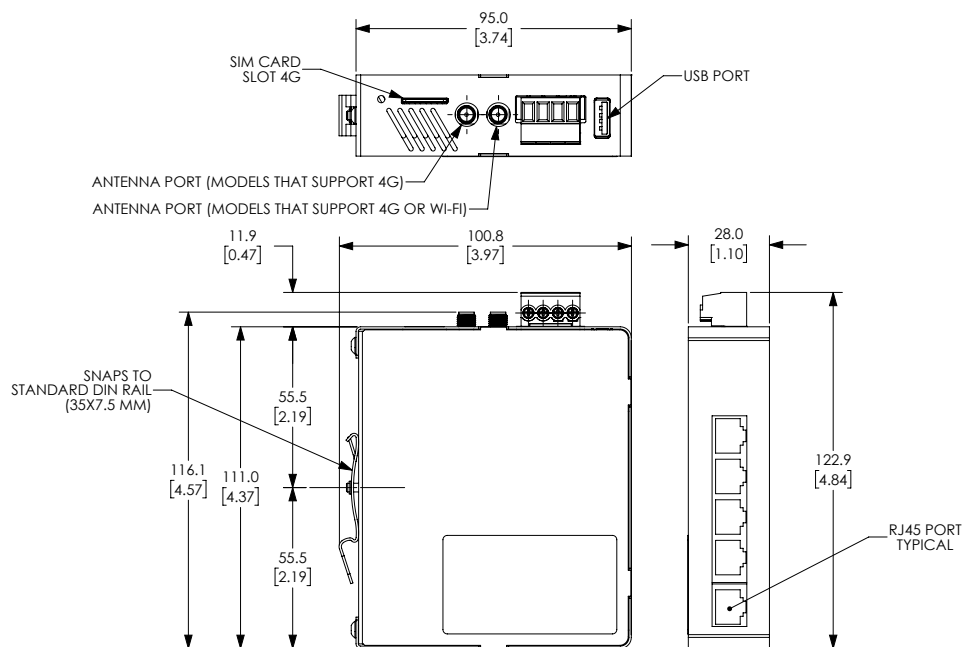


# Remote Access Solution

## SE-SL Series Industrial VPN Routers

### Dimensions

mm [inches]



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



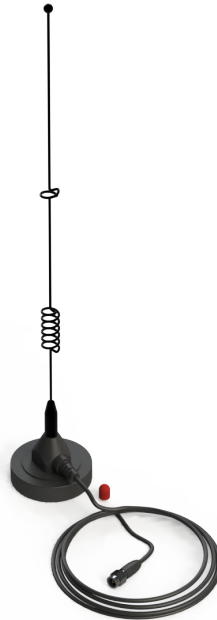
# Remote Access Solution

## Cellular Antennas for [SE-SL3011-4G](#) and [SE-SL3011-4GG](#) Routers



**[SE-ANT110](#) \$13.50**

STRIDE whip/tilt LTE antenna, connector mount.



**[SE-ANT130](#) \$32.00**

STRIDE whip/straight LTE antenna, magnetic base mount, 9.8ft/3m cable length.



**[SE-ANT150](#) \$41.00**

STRIDE dome LTE antenna, IP67, panel mount, 9.8ft/3m cable length.

4G LTE Antenna Specifications			
\$13.50	<a href="#">SE-ANT110</a>	<a href="#">SE-ANT130*</a>	<a href="#">SE-ANT150</a>
<b>Price</b>	\$13.50	\$32.00	\$41.00
<b>Fits</b>	<a href="#">SE-SL3011-4G</a> and <a href="#">SE-SL3011-4GG</a>		
<b>Antenna Connector</b>	SMA (M)		
<b>Application</b>	LTE, CDMA, GSM, HSPA, UMTS, GPRS		
<b>Impedance</b>	50Ω		
<b>Antenna Type</b>	whip, tilt	whip, straight	dome
<b>Cable Length</b>	N/A	3m [9.8 ft]	3m [9.8 ft]
<b>Frequency Range</b>	700–960MHz / 1.71–3.8 GHz	700–960MHz / 1.71–3.5 GHz	700–960MHz / 1.71–2.7 GHz
<b>Gain</b>	-3.0 dBi / 0.9 dBi	-2.5dBi / 0.1dBi	1.2 dBi / 3.2 dBi
<b>Height</b>	2.84 in	13 in	1.89 in
<b>IP Rating</b>	–	–	IP67
<b>Maximum Power</b>	10W	50W	5W
<b>Mounting Screw Torque</b>	NA	NA	2.94 N·m

\* Gains listed are based on the antenna being mounted on a suitable ground plane.



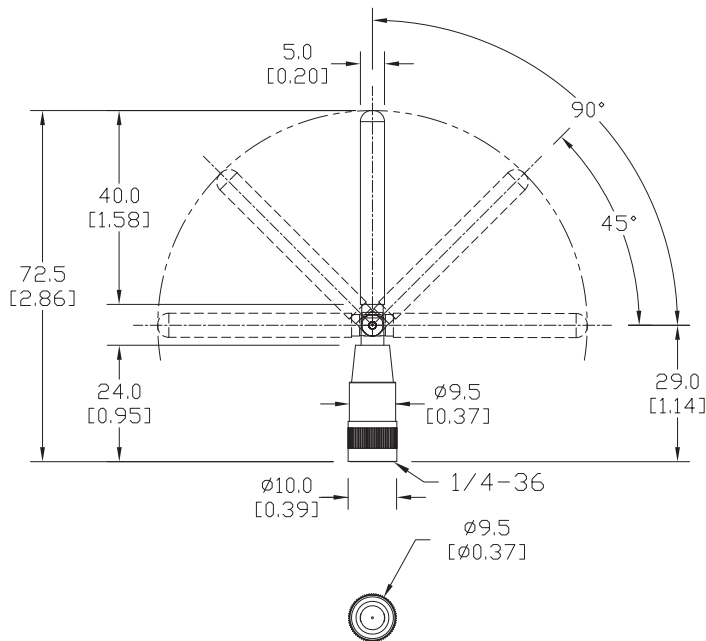
# Remote Access Solution

## Cellular Antennas for SE-SL3011-4G and SE-SL3011-4GG Routers

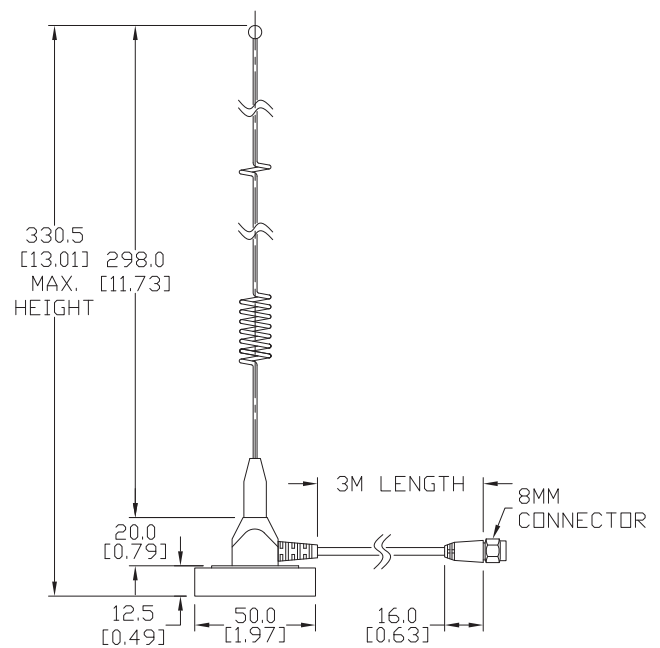
### Dimensions

mm [inches]

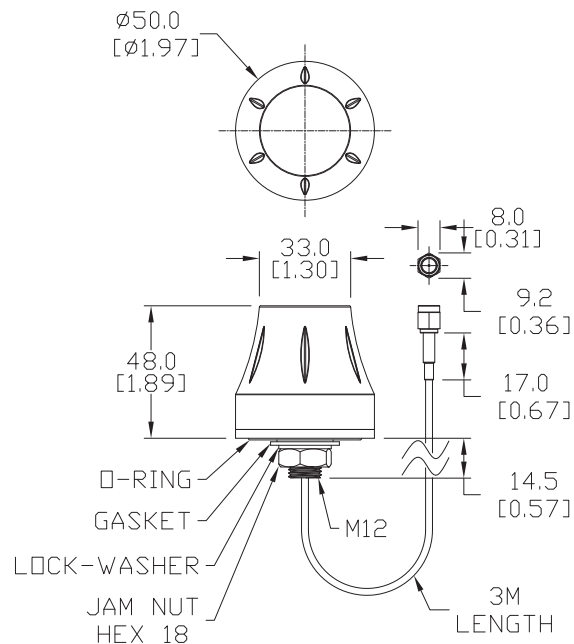
#### SE-ANT110:



#### SE-ANT130:



#### SE-ANT150:



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

# StrideLinx Remote Access Solution

## 2.4GHz WiFi Antennas for SE-SL3011-WF Routers (1 antenna required)



**SE-ANT210** \$10.50

STRIDE whip/straight 2.4 GHz WiFi antenna, IP65, connector mount.



**SE-ANT250** \$37.00

STRIDE dome 2.4 GHz WiFi antenna, IP67, panel mount, 9.8ft/3m cable length.

### 802.11 b/g/n 2.4 GHz WiFi Antenna Specifications

	<b><u>SE-ANT210</u></b>	<b><u>SE-ANT250</u></b>
<b>Price</b>	\$10.50	\$37.00
<b>Fits</b>	SE-SL3011-WF	
<b>Antenna Connector</b>	RP-SMA (M)	
<b>Application</b>	802.11 b/g/n	
<b>Impedance</b>	50Ω	
<b>Antenna Type</b>	whip, straight	dome
<b>Cable Length</b>	N/A	3m [9.8 ft]
<b>Frequency Range</b>	2.4–2.5 GHz	2.4–2.5 GHz
<b>Gain</b>	1.8 dBi	1.5 dBi
<b>Height</b>	1.2 in	1.89 in
<b>IP Rating</b>	IP65	IP67
<b>Maximum Power</b>	1W	5W
<b>Mounting Screw Torque</b>	NA	2.94 N·m



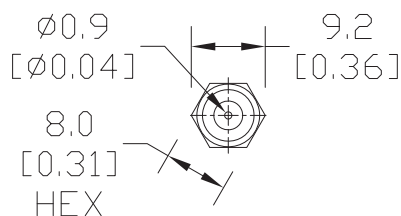
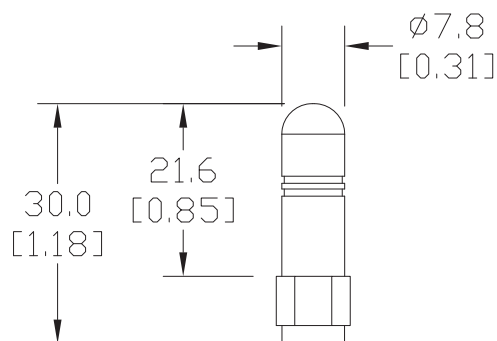
# Remote Access Solution

## 2.4GHz WiFi Antennas for SE-SL3011-WF Routers

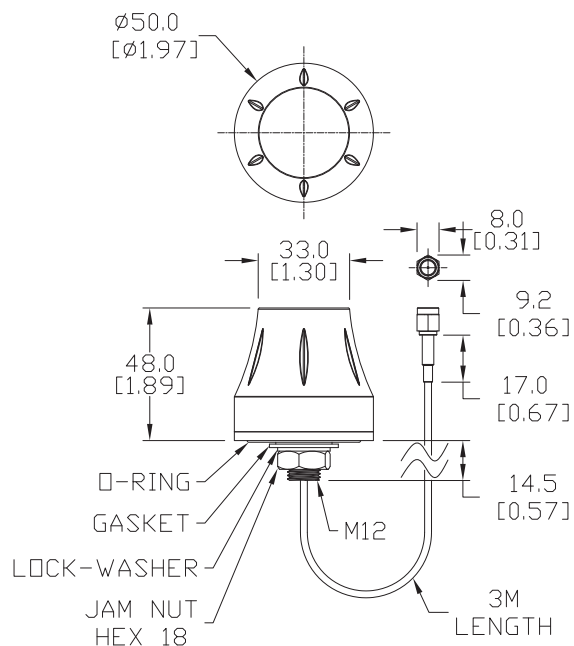
### Dimensions

mm [inches]

#### SE-ANT210:



#### SE-ANT250:



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



# Remote Access Solution

## Add-on Services – Add value to Remote Access

These licenses provide added services to your StrideLinX remote access. These are not needed for the basic function of the VPN remote access, but can be added to enhance the value of the platform to you and your customers.

Cloud Logging licenses also include:  
unlimited cloud storage for up to 7 years with active license, unlimited real time and user configurable dashboards, unlimited data reports, and unlimited data tags.

StrideLinX Cloud Logging Options		
	License Duration	
Data Logging Points/hour	1 month	1 year (1 month savings)
1,000	\$15.50 <a href="#">SE-SL010</a>	\$172.00 <a href="#">SE-SL010-1</a>
5,000	\$36.50 <a href="#">SE-SL011</a>	\$400.00 <a href="#">SE-SL011-1</a>
20,000	NA	\$686.00 <a href="#">SE-SL012-1</a>
50,000	NA	\$1,144.00 <a href="#">SE-SL013-1</a>
100,000	NA	\$1,602.00 <a href="#">SE-SL014-1</a>



\* Before purchasing a Cloud Logging activation code, a 30-day free trail may be activated in your StrideLinX account from Fleet Manager.



**WARNING:** DATA COLLECTED THROUGH DATA LOGGING IS ONLY STORED FOR AS LONG AS YOU MAINTAIN YOUR PAID LICENSE. ALL DATA WILL BE LOST IF YOUR LICENSE LAPSES. DATA FOR A SPECIFIC DEVICE WILL BE LOST IF A LICENSE IS REMOVED FROM THAT DEVICE. DATA IS ALSO ONLY STORED FOR A MAXIMUM OF 7 YEARS. IF DATA OLDER THAN 7 YEARS IS IMPORTANT, PLEASE ARCHIVE YOUR DATA LOCALLY BEFORE THE 7-YEAR LIMIT IS REACHED.

StrideLinX Extra Monthly Data Usage Options	
Extra Data Usage/Month	1 year (1 month savings)
15 GB	\$1,087.00 <a href="#">SE-SL031-1</a>
50 GB	\$2,174.00 <a href="#">SE-SL032-1</a>

StrideLinX Add-on Licenses			
Part #	Price	Term	Description
<a href="#">SE-SL020</a>	\$218.00	Valid for router lifetime	StrideLinX notify license, valid for router lifetime, license includes alarm, trigger, recipient, and priority management with push and email notifications. For use with (1) StrideLinX router.
<a href="#">SE-SL040</a>	\$1,924.00	Valid for company lifetime	StrideLinX premium branding license, valid for company lifetime, license includes white label StrideLinX platform with custom company domain and custom router faceplate graphics. For use with (1) StrideLinX company.
<a href="#">SE-SL050</a>	\$5,616.00	Valid for initial setup and first year	StrideLinX mobile app branding setup license, valid for initial setup and first year, license includes creation of white label StrideLinX iOS/Android mobile app with custom corporate identity and company name. For use with (1) StrideLinX company.
<a href="#">SE-SL051</a>	\$936.00	Valid for 1 year	StrideLinX mobile app sustained service license, valid for 1 year, license includes sustained service of white label StrideLinX iOS/Android mobile app with branding. For use with (1) existing white label StrideLinX iOS/Android mobile app.



\* Before purchasing a Cloud Notify activation code, a 30-day free trail may be activated in your StrideLinX account from Fleet Manager.



# Stride Modbus Gateway



- Industrial 1, 2, or 4 serial port, and 1 or 2 Ethernet port Modbus Gateways (Modbus RTU/ASCII <-> Modbus TCP)
- Automatic read function "Agent Mode"
- Ethernet ports each support up to 16 TCP devices, client or server
- Serial ports each support up to 128 slave devices or 1 master device
- DIP switch selectable termination resistor for RS-485 mode
- High Serial Isolation Voltage - 2kV
- UL61010 with Class 1 Div 2 HazLoc
- Metal housing with wide temperature rating (-40 to +75 deg C)

## Stride Modbus Gateway Models

Part Number	Price	RJ45 10/100	Serial D-sub 9-pin	Input Power (Max.)
<a href="#">SGW-MB1511-T</a>	\$215.00	1	1	1.8 W
<a href="#">SGW-MB1512-T</a>	\$292.00	1	2	
<a href="#">SGW-MB1524-T</a>	\$433.00	2	4	3.2 W

## Ethernet Interface

Port Type	Shielded RJ45
Speed	10/100 Mbps
Protection	Built-in 1.5 kV magnetic isolation
Protocol Supported	Modbus TCP/IP Client and Server
Modbus TCP Devices Supported	16 simultaneous Modbus TCP connections per Ethernet port
Cable Type	Autodetects Ethernet cable types (MDI/MDIX)
Default IP address	192.168.0.249; 192.168.1.249 (2 port model)

## Serial Interface

Port	D-sub 9-pin male port
Interface Mode	RS-232, RS-485 and RS-422
Supported Baud Rates	300bps – 460.8 kbps
Parity	Odd, Even or None
Data Bits	7 or 8 bits
Stop Bits	1 or 2
Flow Control	RTS or None
Termination	DIP-Switch to Enable/Disable 120Ω matching resistor for RS-485
ESD Protection	15kV for all signals
Isolation Protection	2kV
Serial Devices Supported	128 slaves or 1 master per port
Protocols Supported	Modbus RTU, Modbus ASCII

### Reset to Factory Defaults:

Press recessed Hardware Reset button on top of gateway housing and hold for 5 seconds to reset all settings to factory default.



**NOTE:** For additional product details, a user manual, [SGW-USER-M](#), is available as a downloadable PDF file from the Online Documentation area of the AutomationDirect website.

## Power Details

Power Consumption	See Input Power in <i>STRIDE</i> Modbus Gateway Models table
Power Input	Redundant input terminals
Input Voltage	12 / 24 / 48 VDC
Appliance Class	Class III, SELV power source
Reverse Power Protection	Yes
Overload Protection	Yes

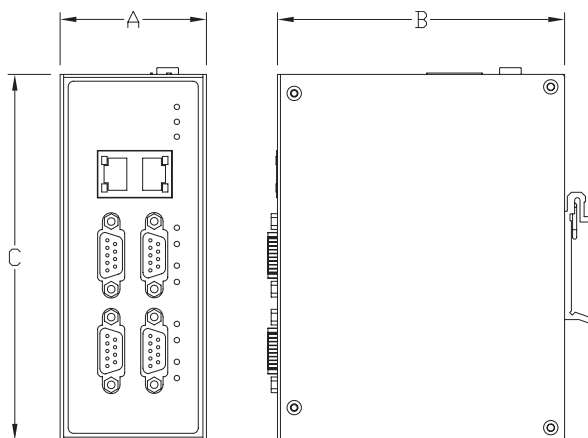
## Environmental

Operating Temperature Range	-40 to +75 °C [-40 to +167 °F]
Storage Temperature Range	-40 to +85 °C [-40 to +185 °F]
Humidity	5 to 95% RH (non-condensing)
Maximum Altitude	2000m
Environmental Air	For use in Pollution Degree 2 Environment
Protection Level	Metal case, IP40
Agency Approvals	UL61010-1, UL61010-2-201, Class I Div 2 12.12.01-2015; CSA C22.2 No. 213-16; CAN/CSA No. 61010-1-12; CAN/CSA C22.2 No. 61010-2-201:14, CE, FCC
EMI	EN 55032 Class A FCC Part 15 Subpart B Class A
EMS	IEC61000-4-2(ESD): ±6kV(contact), ±8kV(air) IEC 61000-4-3(RS): 10V/m (80MHz-2GHz) IEC61000-4-4(EFT): Power Port: ±2kV; Data Port: ±1kV IEC61000-4-5(Surge): PowerPort: ±1kV/DM, ±2kV/CM; Data Port: ±1kV IEC 61000-4-6 (CS): 10V(150KHz-80MHz)
Mechanical Standards	IEC60068-2-6(Vibration) IEC60068-2-27(Shock) IEC60068-2-32(Free Fall)

## LED Status Indicators

<b>PWR1 (green)</b>	LED ON indicates voltage applied to Power 1 terminals.
<b>PWR2 (green)</b>	LED ON indicates voltage applied to Power 2 terminals.
<b>RUN (green)</b>	LED ON indicates the gateway is booting. LED FLASHING indicates the gateway is functioning normally.
<b>RJ45 Ports</b>	Speed (yellow) Link/Activity (green) LED ON indicates Ethernet speed is 100 Mbps. LED OFF indicates Ethernet speed is 10 Mbps LED ON indicates valid link is established. LED FLASHING indicates data traffic.
<b>Serial Ports</b>	T, transmit (green) R, receive (green) LED FLASHING indicates gateway is sending data through serial port. LED FLASHING indicates gateway is receiving data through serial port.

## Dimensions:



## Safety Standards:



RoHS Compliant

## Installation – DIN Rail Mounting:

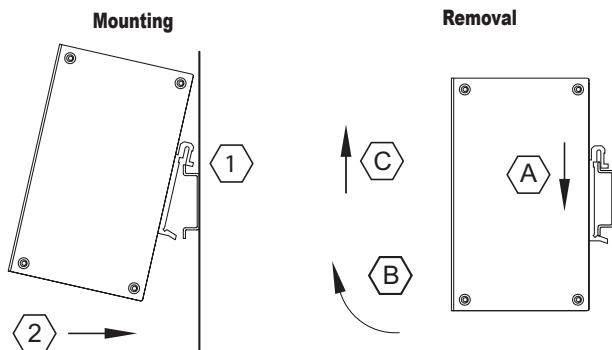
These devices are open-type and are meant to be installed in an enclosure which is only accessible with the use of a tool and suitable for the environment when installed in Class 1, Division 2 Hazardous Locations. The gateway may be used indoors only. The gateway can be snapped onto a standard 35 mm x 7.5 mm height DIN rail (Standard: CENELEC EN50022) and can be mounted either vertically or horizontally. Allow 20mm (0.79") clearance between a STRIDE gateway and other equipment on the DIN rail.

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:** THE FOLLOWING INFORMATION APPLIES WHEN OPERATING THIS DEVICE IN HAZARDOUS LOCATIONS:

SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D HAZARDOUS LOCATIONS, OR NONHAZARDOUS LOCATIONS ONLY.

**WARNING:** EXPLOSION HAZARD

- DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS.
- SUBSTITUTION OF ANY COMPONENT MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.

## Dimensions

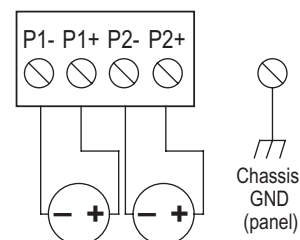
Part No.	Weight	Width (A)	Depth (B)	Height (C)
		mm [inches]		
<b>SGW-MB1511-T</b>	0.17 kg [0.36 lb]	30.0 [1.18]	68.0 [2.68]	115.0 [4.53]
<b>SGW-MB1512-T</b>	0.17 kg [0.37 lb]			
<b>SGW-MB1524-T</b>	0.32 kg [0.71 lb]	54.0 [2.13]	106 [4.17]	135.0 [5.32]

## 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 must be an SELV power supply. A DC voltage in the range of 12 to 48 VDC needs to be applied between the P1+ terminal and the P1- 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-24-010](#).

Terminal block connector is Degson 2EDGK-5.08-04P-14-1000AH or equivalent.

### Redundant DC Power



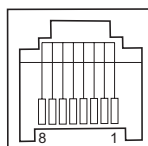
Optional Dual DC Supplies

Maximum terminal screw torque is 4.43 lb-in (0.5 N·m).

Ferrule required for stranded wire.  
Wire Size Range: 26 – 12 AWG  
Wire Strip Length: 7mm

## Communication Ports Wiring:

8 pin RJ45

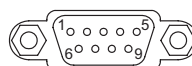


### Ethernet Port

Pin	MDI-X Signal	MDI Signal
<b>1</b>	Receive Data + (RD+)	Transmit Data + (TD+)
<b>2</b>	Receive Data – (RD–)	Transmit Data – (TD–)
<b>3</b>	Transmit Data + (TD+)	Receive Data + (RD+)
<b>6</b>	Transmit Data – (TD–)	Receive Data – (RD–)
<b>4, 5, 7, 8</b>	Unused	Unused

Note: + and – indicate level polarities.

D-sub 9-pin port



### Serial Port

Pin	RS-232	RS-422/485-4w	RS-485-2w
<b>1</b>	–	RXD – (B)	–
<b>2</b>	RXD	RXD + (A)	–
<b>3</b>	TXD	TXD – (Z)	Data – (B)
<b>4</b>	RTS	TXD + (Y)	Data + (A)
<b>5</b>	GND	GND	GND
<b>6, 7, 8, 9</b>	Unused	Unused	Unused



# Pocket Portal IIoT Bridge



**SE-PB100 \$89.00**

Stride Pocket Portal IIoT Bridge

## Features

- **Wireless Industrial IIoT end-to-end solution to log your data in the cloud**
- **Faster Monitoring:** Unmonitored assets can get connected and become monitored assets in minutes
- **Remote Control:** Write to Modbus coils, registers, or 3.3–24 VDC digital outputs using the mobile app
- **Reduce Costs:** Enterprises can implement IIoT capabilities without needing technical expertise and without modifying equipment
- **Retrofit Solution:** Industrial controls, commercial buildings, retail spaces, or factories can be entirely retrofitted with IIoT capabilities in days instead of months
- **Work Smarter:** Continuously monitor and optimize asset performance



\* Requires Wi-Fi Internet connection

\* iOS/Android device with Bluetooth needed for provisioning

## Modbus Interface

<b>Port Connector</b>	4-pin pigtail connector (shared with power)
<b>Interface Mode</b>	RS-485
<b>Serial Devices Supported</b>	1 Modbus Slave
<b>Protocols Supported</b>	Modbus RTU Master

## Local Digital and Analog I/O

<b>Digital Input/Output</b>	4 Connections configured as Input/Output (3.3–24 VDC)
<b>Analog Input</b>	2 Analog Inputs (0–10 VDC / 4–20 mA)

## Wi-Fi Interface for Cloud Connectivity

<b>IEEE Wi-Fi Standard</b>	802.11 b/g/n
<b>Speed</b>	Up to 72.2 Mbps
<b>Frequency Band</b>	2.4 GHz
<b>Antenna</b>	Internal PCB Antenna

## Power Details

<b>Input Voltage</b>	12–24 VDC
<b>Max. Input Voltage Range</b>	10–26VDC
<b>Power Consumption</b>	Max 10W
<b>Reverse Power Protection</b>	Yes
<b>Overload Protection</b>	No

## LED Indicators

<b>Wi-Fi LED</b>	LED OFF: Wi-Fi not provisioned SLOW BLINK: Connecting to Wireless Access Point FAST BLINK: Connecting to Pocket Portal Cloud Service LED ON: Connected to Pocket Portal Cloud Service
<b>Power LED</b>	LED OFF – Power OFF LED ON – Power ON
<b>BLE LED (Bluetooth Low Energy, used in initial setup only)</b>	LED OFF – BLE off or not advertising SLOW BLINK – BLE advertising LED ON – Connected to mobile app

## Environmental

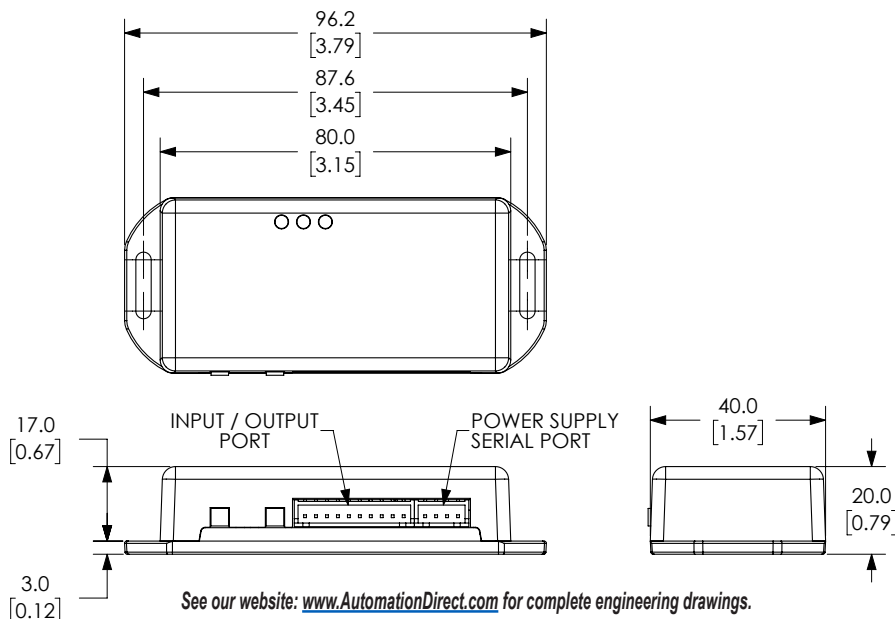
<b>Operating Temperature Range</b>	-20°C to +70°C [-4°F to 158°F]
<b>Storage Temperature Range</b>	-40°C to +85°C [-40°F to +185°F]
<b>Humidity</b>	5 to 85% RH (non-condensing)
<b>Protection Level</b>	plastic case, IP40
<b>EMI</b>	EN 55032 Class A FCC Part 15 Subpart C (15.247)
<b>EMS</b>	IEC61000-4-2 (ESD): ±4kV (contact), ±8kV (air discharge) IEC 61000-4-3 (RS): 10V/m (80MHz–6GHz) IEC 61000-4-6 (CS): 10V (150KHz–80MHz)
<b>Mechanical Standards</b>	IEC60068-2-64 (Random Vibration) IEC60068-2-32 (Drop Test / Free Fall)
<b>Agency Approvals</b>	CE, FCC



# Pocket Portal IIoT Bridge

## Dimensions

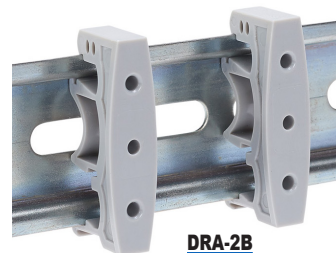
mm [inches]



## DIN Rail Mounting Brackets

The Pocket Portal IIoT Bridge can be directly mounted to a flat surface, with no restrictions on mounting orientation. An optional DIN-rail adapter will allow mounting on a standard 35mm x 7.5 mm DIN rail.

DIN Rail Mounting Brackets		
Part Number	Price	Description
<b>DRA-2B</b>	\$6.00	35mm DIN rail adapters, 1.70"x0.45"x0.83" [43.7x11.4x21.0 mm], 2pcs/pkg.



DRA-2B



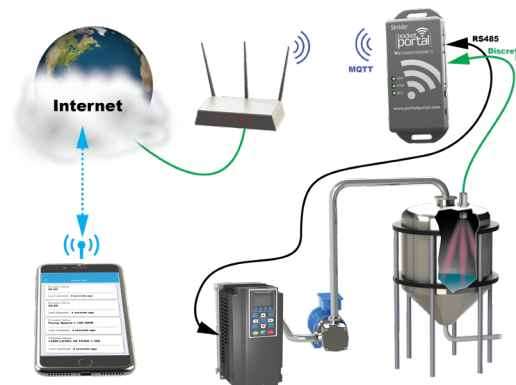
**NOTE:** Installation in a metal cabinet is not recommended, as the cabinet may block the Wi-Fi signal.

## Data Subscriptions

Each Pocket Portal IIoT Bridge requires a Pocket Portal monthly data subscription. Subscriptions are available at <https://www.pocketportal.com>.

Pocket Portal Platform Subscriptions		
	<b>SE-PP5M</b>	<b>SE-PP500K</b>
<b>Price</b>	\$15.50/mo.*	\$8.25/mo.*
<b>Description</b>	Data Logging and Notify Gold Subscription	Data Logging and Notify Silver Subscription
<b>Subscription Duration</b>	Monthly or Annual Up to 23% discounts available for annual subscriptions.	
<b>Supports</b>	(1) STRIDE Pocket Portal IIoT bridge	

\* Available for purchase only on the Stride Pocket Portal platform at <https://www.pocketportal.com>. Details and limits for each subscription are available on the Pocket Portal platform.



# Stride MQTT Gateway



## Features

- Convert Modbus RTU/TCP to MQTT
- IIoT MQTT protocol with SSL/TLS
- Configurable via web page
- Hardware watchdog function
- Full electrical isolation
- Add this to your MQTT cloud, compatible with AWS, Mosquitto and more
- Wired or Wi-Fi models available



## Stride MQTT Gateway Models

Part Number	Ethernet	RS-485	WiFi	Price
<a href="#"><u>SGW-MQ1611</u></a>	✓	✓		\$275.00
<a href="#"><u>SGW-MQ1611-WF</u></a>	✓	✓	✓	\$279.00

## Ethernet Specifications

<b>Connector</b>	RJ-45
<b>Ethernet Port Speed</b>	10/100Mbps auto-detected
<b>Protocol</b>	MQTT, Modbus TCP
<b>Simultaneous Ethernet Connections</b>	8

## WiFi Specifications (Model SGW-MQ1611-WF Only)

<b>WiFi Standards</b>	802.11 a/b/g/n/ac
<b>Frequency Bands</b>	2.4/5.5 GHz
<b>Antenna</b>	Internal

## RS-485 Specifications

<b>Connector</b>	Removable screw terminals, 5.08 mm pitch
<b>Baud rate</b>	Up to 115.2 kbps
<b>Parity</b>	Even, odd or none
<b>Stop bit</b>	1 or 2
<b>Number of Serial Devices</b>	32 max.
<b>Switching Time TX/RX (RS-485)</b>	150µs
<b>Termination Resistance</b>	120Ω

## Network Ports

<b>Web User Interface</b>	80
<b>Modbus</b>	502 (default, software configurable)
<b>MQTT</b>	Software configurable, determined by MQTT Broker



RoHS



RoHS Compliant



# Stride<sup>®</sup> MQTT Gateway

## Electrical Specifications

<b>Power Supply Connector</b>	Removable screw terminals, 5.08 mm pitch
<b>Input Voltage Range</b>	10–30 VDC
<b>Current Consumption</b>	max 300mA @ 24VDC
<b>Isolation</b>	
<b>Power Supply / RS-485</b>	1500VAC, 50Hz, 1 min.
<b>Ethernet / RS-485</b>	1000VAC, 50Hz, 1 min.
<b>Ethernet / Power Supply</b>	1500VAC, 50Hz, 1 min.
<b>Reverse Polarity Protection</b>	Yes

## Mechanical Specifications

<b>Material</b>	Self-extinguishing plastic
<b>Mounting</b>	35mm DIN rail (EN50022 and EN50035)
<b>Weight</b>	Approximately 200g

## Environmental Specifications

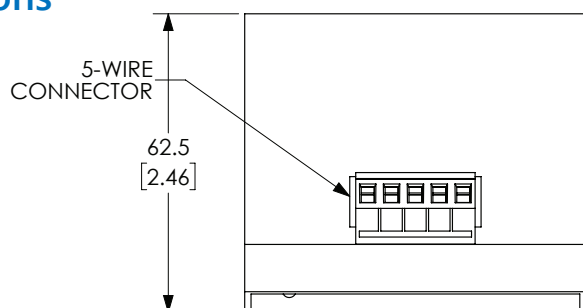
<b>Operating Temperature</b>	0°C to +60°C [32°F to 140°F]
<b>Storage Temperature</b>	-20°C to +70°C [-4°F to +158°F]
<b>Humidity</b>	0–90%, noncondensing
<b>Maximum Altitude</b>	2000m
<b>IP Rating</b>	IP20
<b>Installation</b>	Indoor
<b>Category of Installation</b>	II
<b>Pollution Degree</b>	2
<b>EMC</b>	
<b>Immunity</b>	EN61000-6-2
<b>Emission</b>	EN61000-6-4
<b>Agency Approvals</b>	CE, FCC, RoHS



**NOTE:** Installation of the Wi-Fi model in a metal cabinet is not recommended, as the cabinet may block the Wi-Fi signal.

## Dimensions

mm [inches]



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

