











# Stride™ Industrial Ethernet Switches & Media Converter

At a glance...

Part Number	Description	Price	Part Number	Description	Price
<b>SE-SW5U</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Switch, plastic case, -10 to +60 °C operating temperature range, five 10/100BaseT RJ45 Ethernet ports. Redundant power inputs with surge and spike protection, auto-crossover, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->	<b>SE-SW5U-WT</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Switch, metal case, wide operating temperature range -40 to +85 °C, five 10/100BaseT RJ45 Ethernet ports. Redundant power inputs with surge and spike protection, auto-crossover, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->
<b>SE-SW8U</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Switch, plastic case, -10 to +60 °C operating temperature range, eight 10/100BaseT RJ45 Ethernet ports. Redundant power inputs with surge and spike protection, auto-crossover, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->	<b>SE-SW8U-WT</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Switch, metal case, wide operating temperature range -40 to +85 °C, eight 10/100BaseT RJ45 Ethernet ports. Redundant power inputs with surge and spike protection, auto-crossover, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->
<b>SE-SW5U-ST</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Switch, plastic case, -10 to +60 °C operating temperature range, four 10/100BaseT RJ45 Ethernet ports and one multimode 100BaseFX ST fiber port. Redundant power inputs with surge and spike protection, auto-crossover, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->	<b>SE-SW5U-ST-WT</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Switch, metal case, wide operating temperature range -40 to +85 °C, four 10/100BaseT RJ45 Ethernet ports and one multimode 100BaseFX ST fiber port. Redundant power inputs with surge and spike protection, auto-crossover, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->
<b>SE-SW9U-ST</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Switch, plastic case, -10 to +60 °C operating temperature range, eight 10/100BaseT RJ45 Ethernet ports and one multimode 100BaseFX ST fiber port. Redundant power inputs with surge and spike protection, auto-crossover, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->	<b>SE-SW9U-ST-WT</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Switch, metal case, wide operating temperature range -40 to +85 °C, eight 10/100BaseT RJ45 Ethernet ports and one multimode 100BaseFX ST fiber port. Redundant power inputs with surge and spike protection, auto-crossover, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->
<b>SE-MC2U-ST</b>	 <b>STRIDE™</b> SlimLine Industrial Unmanaged Ethernet Media Converter, plastic case, -10 to +60 °C operating temperature range, one 10/100BaseT auto-detecting, auto-crossover and auto-polarity RJ45 Ethernet port and one multimode 100BaseFX ST fiber port. Redundant power inputs with surge and spike protection, DIN rail mounting. Supports Store and Forward wire speed switching and full-duplex with flow control. UL, CSA (CUL), and CE marked.	<--->	 <div style="border: 1px solid black; padding: 5px;"> <b>NOTE: -WT models have a metal case and are rated for a wider temperature range from -40 ° to 85 °C.</b> </div>		

All part numbers are rated Class I, Div 2.



Electrical Safety



European Directives



US Emissions



WEEE Compliant

RoHS



RoHS Compliant

# Stride Industrial Ethernet Switches & Media Converter

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 us + frame time (typical)	
<b>Latency for 100 Mbps ports</b>	5 us + frame time (typical)	
<b>Power input</b>	Redundant Input Terminals	
<b>Input power (typical with all ports active at 100 Mbps)</b>	SE-MC2U-ST SE-SW5U SE-SW5U-WT	2.0 W
	SE-SW5U-ST SE-SW5U-ST-WT	3.0 W
	SE-SW8U SE-SW8U-WT	4.0 W
	SE-SW9U-ST SE-SW9U-ST-WT	5.0 W
<b>Input voltage</b>	10-30 VDC (continuous)	
<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-SW5U SE-SW8U SE-SW5U-ST SE-SW9U-ST SE-MC2U-ST	-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-SW9U-ST-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>Vibration, shock &amp; freefall</b>	IEC68-2-6, -27, -32	
<b>Electrical safety</b>	UL508/CSA C22, EN61010-1 (file #E200031)	
<b>EMI emissions</b>	FCC part 15, ICES-003, EN55022	
<b>EMC immunity</b>	IEC61326-1	
<b>Hazardous locations</b>	UL1604, CSA C22.2/213 (Class 1, Div.2) (file #E200031); EN50021/EN60079-15 (Zone2)	
<b>MTBF</b>	Mean Time Between Failure: >1,000,000 hours	
<b>RoHS and WEEE</b>	RoHS (Pb free) and WEEE compliant	
<b>Packaging and protection</b>	SE-SW5U SE-SW8U SE-SW5U-ST SE-SW9U-ST SE-MC2U-ST	UL94V0 Lexan, IP30
	SE-SW5U-WT SE-SW8U-WT SE-SW5U-ST-WT SE-SW9U-ST-WT	Aluminum IP30
<b>Dimensions (L x W x H)</b>	See mechanical diagrams for details	
<b>Weights (typical)</b>	SE-SW5U SE-SW5U-ST SE-MC2U-ST	4 oz (0.11 kg)
	SE-SW8U SE-SW9U-ST SE-SW5U-WT SE-SW5U-ST-WT	6 oz (0.17 kg)
	SE-SW8U-WT SE-SW9U-ST-WT	8 oz (0.23 kg)

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

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

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

# Unmanaged Ethernet Switches and Media Converters

## Performance and Quality

# Stride™

### Plastic Models

Starting at \$99

### Metal Models (-WT)

Starting at \$199



## Introducing Stride

Stride is our NEW line of industrial grade unmanaged Ethernet switches and media converters. Designed with our PLC, HMI and drive customers in mind, Stride Ethernet switches are specifically built for industrial environments. With a Stride industrial Ethernet switch on an isolated control LAN, you can reduce data collisions that slow down your network. Stride Ethernet switches automatically determine and remember the devices connected to each port and route messages only through the appropriate ports. Install Stride switches and your Ethernet control network will maintain more consistent cycle times even under heavy I/O and data exchange.

## Extreme Temperatures

For industrial applications where temperatures can change from freezing to sweltering heat, the Stride line offers metal housing models (-WT) that are designed for the most extreme environments ranging from -40 to +85 °C. The metal housing versions also allows you to choose various mounting methods for your application. This is standard and no kits are required!

## Fiber Optic Support

Stride offers models that support ST type Multimode Fiber Optic connections. Fiber optic cables are immune to electrical and magnetic interference. Fiber optics cannot be damaged by induced voltage transients. Fiber optic cabling not only enhances reliability, it saves time you might have spent tracking down those nasty communications problems caused by electrical interference. Also, your network distance is greatly increased when using Fiber optic cabling.

## Features

### Advanced Hardware

- All 10/100 RJ45 ports are auto-detecting, auto-crossover and auto-polarity
- Redundant power inputs with industrial surge and spike protection
- Optional 100Mbps multimode fiber optic port for distances up to 4km

### Real-time Performance

- Store and forward wire speed switching - no delays
- Full-duplex operation with flow control (no collisions!)
- Auto crossover (MDI/MDIX) and auto polarity

### True Industrial Design

- Ethernet Isolation -1500 VRMS 1 minute
- Spike protection - 5,000 watts (10x for 10 uS)
- UL, CSA (CUL), & CE certified
- Hazardous locations rated for Class 1, Div. 2

## Simple Installation

With no user setup required, the Stride switches and media converters will immediately start operating as soon as you power them up and connect them to the network.

## Deterministic Control

The Stride switches automatically determine and remember where each Ethernet device is located and route messages only through the appropriate port. This gives devices on the network an open communications channels and helps minimize network loading. Another benefit is the 10/100 auto-speed selection that enhances the performance of 10 Megabit Ethernet devices by speeding up their message transmissions to 100 Megabit when they are passed to a faster Ethernet backbone.

## Increased Reliability

The Stride Ethernet switches have been designed for the industrial environment. They will survive extreme temperatures, as well as dirty, unreliable industrial power. Meeting UL 1604 (Class I Div. 2), and the IEC68-2 standard for vibration resilience, the Stride switches will provide years of reliable performance in applications too tough for commercial grade switches.

## CHECK OUT PRICES ON ETHERNET SWITCHES

Product Description	AutomationDirect	
	STRIDE PLASTIC MODELS Price/Part Number	STRIDE METAL MODELS Price/Part Number
5-port Ethernet switch with five 10/100BaseT RJ45 Ethernet ports	\$99.00 SE-SW5U	\$199.00 SE-SW5U-WT
8-port Ethernet switch with eight 10/100BaseT RJ45 Ethernet ports	\$172.00 SE-SW8U	\$259.00 SE-SW8U-WT
5-port Ethernet switch with four 10/100BaseT RJ45 Ethernet ports and one 100BaseFX fiber optic port	\$172.00 SE-SW5U-ST	\$259.00 SE-SW5U-ST-WT
9-port Ethernet switch with eight 10/100BaseT RJ45 Ethernet ports and one 100BaseFX fiber optic port	\$242.00 SE-SW9U-ST	\$339.00 SE-SW9U-ST-WT
Ethernet-Fiber converter with one 10/100BaseT RJ45 Ethernet port and one 100BaseFX fiber optic port	\$162.00 SE-MC2U-ST	

AutomationDirect prices are U.S. published prices as of April 2009. Prices subject to change without notice.

**Mounting Options:** The (-WT) metal housing version allows for various mounting options.

**Power LED** to indicate power on P1 or P2 power inputs

**Fiber Optic Port** on selected models. Multimode fiber optic port with ST type connector that supports half and full duplex with a maximum distance of 4km.

**Activity, Link and Speed LED's** are integrated into the RJ45 ports

**RJ45 Ports** that are fully IEEE 802.3 compliant with 10/100 auto-detecting for speed and duplex (full or half). Auto crossover (MDI/MDIX) automatically supports either straight or crossed cables which greatly reduces cable installation errors.

### True Rugged Design:

>1,000,000 hour MTBF (mean time between failure) with both Plastic and Metal housing models

### Redundant Power Inputs

Dual power inputs with industrial surge and spike protection to help reduce down time when there is primary power loss. Reverse power protection is also supported.

**Fiber LED** to indicate a proper connection for the ST connectors and network activity

### DIN Rail Mount:

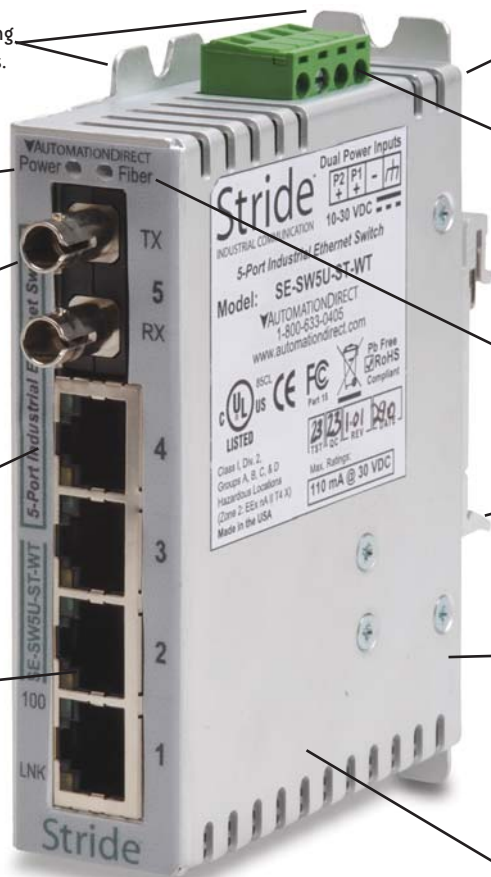
Snaps to standard 35 mm x 7.5 mm height DIN rail (EN50022)

### Industrial Temperature Ranges

Plastic Models:  
-10 to +60 °C (+14 to +140 °F) operating range temperatures  
Metal Models (-WT):  
-40 to +85 °C (-40 to +185 °F) operating range temperatures. 5 to 95% RH humidity range (non-condensing)

### Agency Approvals:

UL1604, CSA C22.2/213 (Class I, Div.2)  
EN50021/EN60079-15



Model SE-SW5U-ST-WT shown above. For detailed specifications on all models, refer to the Specification Charts in the STRIDE technical section of the Catalog