

# SmartE Series

Hardened Managed 5 to 16-Port Fast/Gigabit Ethernet Switch



## Highlight

### + Hardened Grade for Non-Ventilated & Harsh Environments

Wide operating temperature -40 to 75°C (-40 to 167°F)  
Fanless design  
High impact, shock, and electrical noise resistance

### + Compliance

UL 61010 certified for safety

### + Multiple Management Options

Web-based management (HTTP/HTTPS)  
Role-based user management  
SNMP v1/v2/v3  
Command-line interface (Telnet, SSH)

### + Support

Complimentary Technical Support  
Free Firmware Upgrades

## Overview

The SmartE series is a portfolio of hardened Layer 2 managed Ethernet switches. SmartE provides two mounting methods, DIN-rail and wall mounting, and comes in a fanless design that incorporates industrial grade components. This allows the SmartE to provide industrial-grade reliability and reliable operation in wide temperature ranges (-40 to 75 degrees C ). By offering Layer 2 management features that are perfect for supporting network connectivity for industrial edge applications even in industrial and harsh environments. The SmartE Layer 2 Ethernet switches are available in both Fast Ethernet and Gigabit Ethernet configurations, offering 5 port, 8 port, or 16 port 10/100 or gigabit Ethernet copper ports, and 2 optional SFP fiber ports for network expansion, the SmartE series provides a reliable Layer 2 management network solution for critical applications.

EtherWAN — "When Connectivity is Crucial."

## Features

### + Interface

CLI, Telnet, Web GUI, SSH

### + Management

Firmware upgrade  
Configuration backup  
RMON (Remote Monitoring, SNMP only)  
Port mirroring  
SNTP (Simple Network Time Protocol) synchronization  
LLDP (Link Layer Discovery Protocol)  
IPv4  
SNMP v1/v2c/v3  
DHCP Option 82, DHCP Server/Client

### + Security

MAC Address filtering  
Enable/Disable port  
Storm Control  
System Logging  
IEEE 802.1x LAN Access Control  
IEEE 802.1x RADIUS Authentication  
Complex password support  
SSH for CLI and Telnet security  
SSL and HTTPS for Web security

### + Quality of Service (QoS)

Priority Queues: 8 queues per port  
Traffic classification based on IEEE 802.1p CoS (Cost of Service), DSCP (Differentiated Services Code Point), WRR (Weighted Round Robin) and strict mode

### + Layer 2 Features

**Auto-negotiation for port speed and duplex mode**  
Flow Control  
IEEE 802.3x full duplex mode  
Back-pressure half duplex mode

**Redundant Protocols**  
IEEE 802.1w RSTP  
Large Tree Support  
Fast Ring Detection  
MRP (Manager/Client)\*  
\*MRP will be available in Q1, 2023

**VLANs**  
IEEE 802.1Q Tag VLANs

**Link Aggregation**  
Static Trunk (4 groups)  
IEEE 802.3ad LACP

**IGMP Snooping v1/v2**

### + Software Properties and Performance

**Total VLAN Entries**  
32

**Jumbo Frame Size**  
9K bytes (Gigabit Ethernet Models only)

## Specifications

### + Interface

#### Ethernet

10/100BASE-T(X): 5, 6, 8, 14, or 16 ports

100BASE SFP: 0, or 2 ports

10/100/1000BASE-T(X): 6, 8, 12, or 16 ports

100/1000BASE SFP: 0, 2, or 4 ports

#### Alarm Contact

1 x Digital output, current capacity

Typ. 100mA, Max. 0.7A (1minute)

#### LED Indicators

Per Unit: Power 1 (Green), Power 2 (Green), Alarm (Red)

Per Port: Link/Activity (Green; Orange: when SFP link at Combo port), Speed (Off: 10Mbps; Green: 100Mbps; Orange: 1000Mbps)

#### Mode Button

Exiting reset mode without changes

Resetting to the factory settings

Operating with a fixed IP address

Resetting the IP configuration

Operating in unmanaged mode

### + Technology

#### Standards

IEEE 802.3 10BASE-T

IEEE 802.3u 100BASE-TX/100BASE-FX

IEEE 802.3ab 1000BASE-T

IEEE 802.3z 1000BASE-SX/1000BASE-LX

IEEE 802.3x Full duplex and flow control

IEEE 802.3ad LACP

IEEE 802.1p QoS

IEEE 802.1Q Tag VLANs

IEEE 802.1w RSTP

IEEE 802.1ab LLDP

IEEE 802.1x Port-based Network Access Control

IEC 62439-2 MRP (Media Redundancy Protocol)\*

\*MRP will be available in Q1, 2023

#### Forward/Filtering Rate

14,880pps for 10Mbps

148,880pps for 100Mbps

1,488,000pps for 1000Mbps

#### Processing Type

Store-and-Forward

Auto-Negotiation

Half-duplex back-pressure full-duplex flow control

Auto MDI/MDIX

System Memory  
4M bits

Flash Storage  
8K MAC

## + Power

Input  
12-57VDC Redundant

Power Consumption  
8 ports: 8.55W Max  
16 ports: 11.4W Max

Protection  
Reverse Polarity Protection

## + Physical

Casing Material  
Metal

IP Rating  
IP30

Dimensions  
5, 8 ports: 45 x 125.5 x 130mm (W x D x H)  
16 ports: 85 x 125.5 x 130mm (W x D x H)

Weight  
8 ports, 388g  
16 ports, 676g

Installation Type  
DIN-Rail  
Panel mounting (Optional)

## + Environmental

Operating Temp.  
-40 to 75°C (-40 to 167°F)

Storage Temp.  
-40 to 85°C (-40 to 185°F)

Relative Humidity  
10% to 95% (non-condensing)

MTBF  
8 ports: 2,937,277.25 hours  
16 ports: 2,255,206 hours

## + Regulatory

ISO  
Manufactured in ISO-9001 facility

EMI  
FCC Part 15B Class A  
VCCI Class A  
ICES-003  
EN 61000-6-4

EMS  
EN 61000-3-2  
EN 61000-3-3  
EN 61000-6-2  
EN 61000-4-2 (ESD)  
EN 61000-4-3 (Radiated RFI)  
EN 61000-4-4 (Burst)  
EN 61000-4-5 (Surge)  
EN 61000-4-6 (Induced RFI)  
EN 61000-4-8 (Magnetic Field)

Safety  
UL 61010

Vibration  
IEC 60068-2-6

**Shock**  
IEC 60068-2-27

**Free Fall**  
FED STD 101C Method 5007.1

## + Warranty

**Length**  
3 Years

**Details**  
[www.etherwan.com/support/warranty-policy](http://www.etherwan.com/support/warranty-policy)

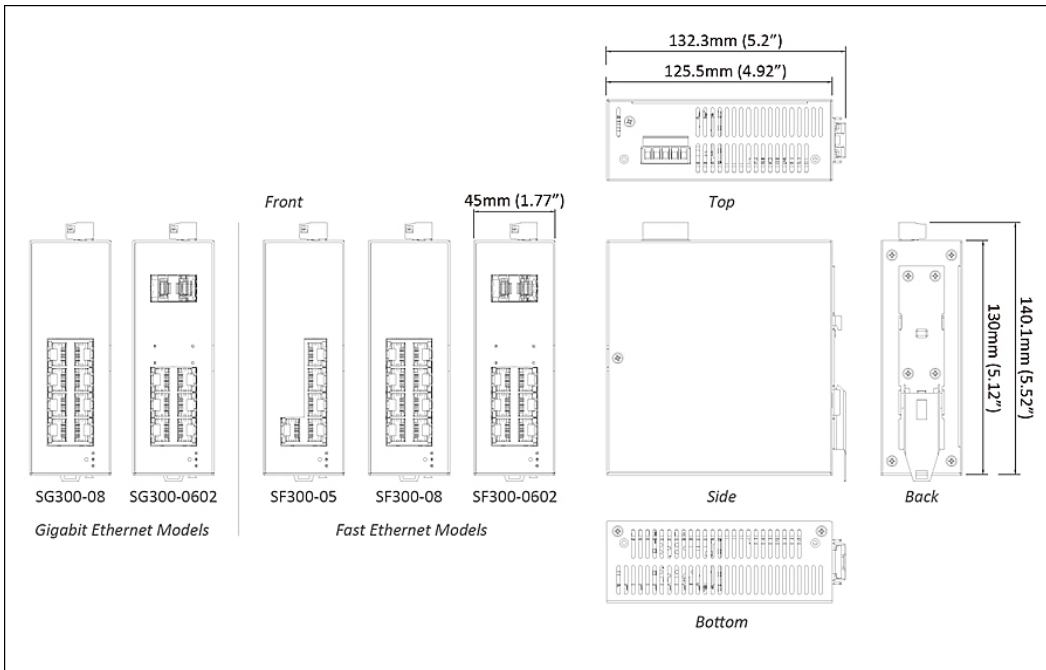
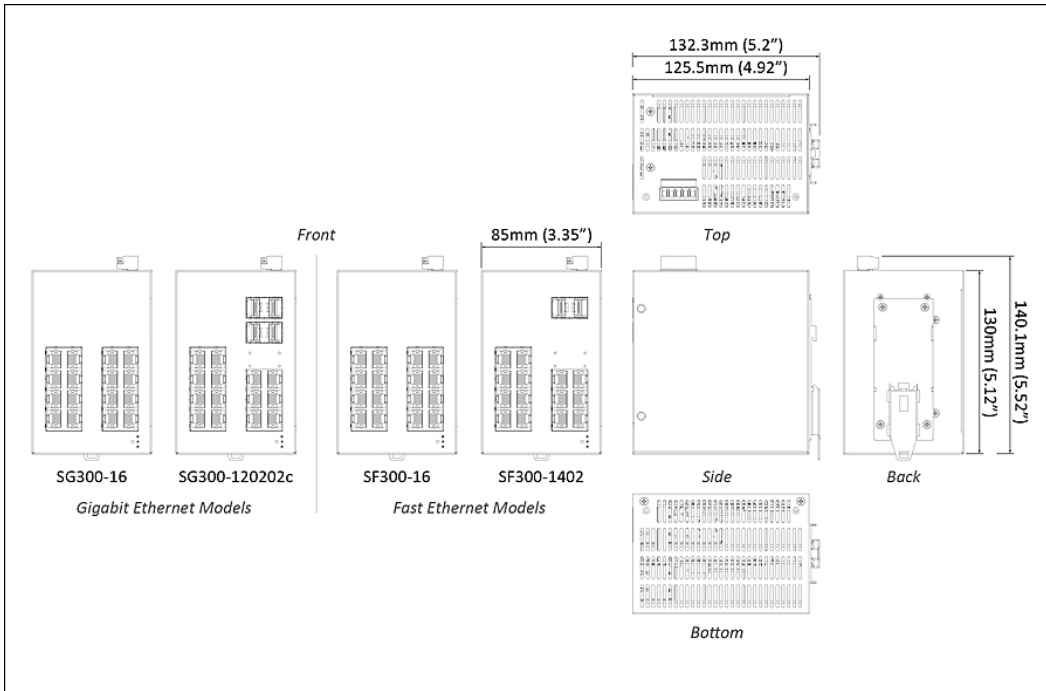
## + What's Included

**Device**  
Ethernet switch

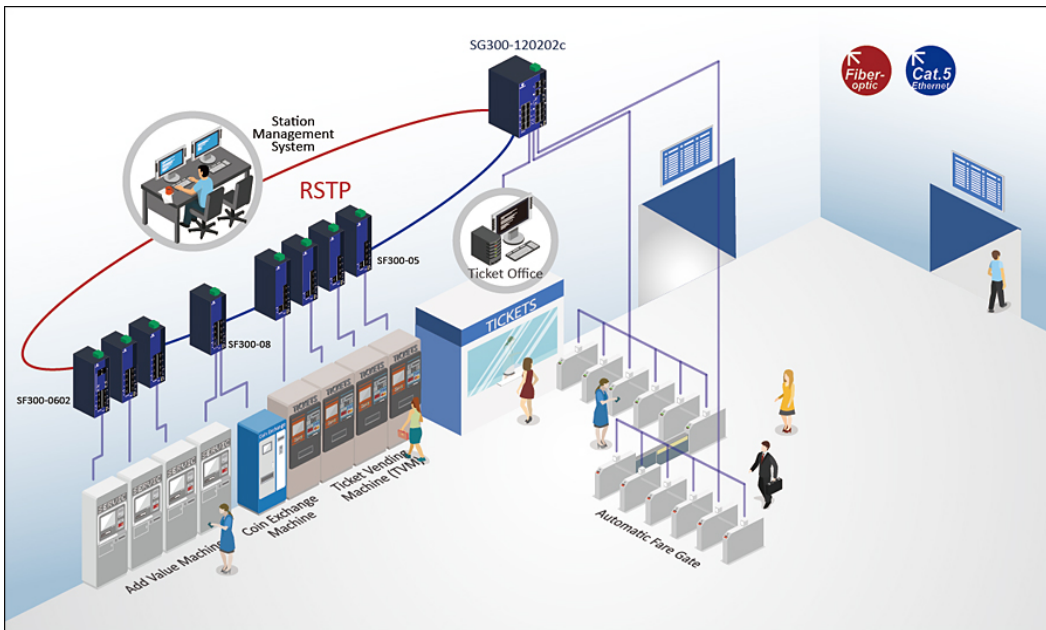
**Installation**  
DIN-Rail bracket, screws

**Documentation**  
Quick install guide

# Dimensions



## Application



## Ordering Info

### + Model

#### Fast Ethernet Models

SF300-05	5-port 10/100BASE-T(X)
SF300-08	8-port 10/100BASE-T(X)
SF300-0602	6-port 10/100BASE-T(X) + 2-port 100BASE SFP
SF300-16	16-port 10/100BASE-T(X)
SF300-1402	14-port 10/100BASE-T(X) + 2-port 100BASE SFP

#### Gigabit Ethernet Models

SG300-08	8-port 10/100/1000BASE-T(X)
SG300-0602	6-port 10/100/1000BASE-T(X) + 2-port 100/1000BASE SFP
SG300-16	16-port 10/100/1000BASE-T(X)
SG300-120202c	12-port 10/100/1000BASE-T(X) + 2-port 100/1000BASE SFP Combo + 2-port 100/1000BASE SFP

### + Accessories

Hardened 100BASE SFP Modules	<a href="http://www.etherwan.com/products/sfp-fiber-transceiver">www.etherwan.com/products/sfp-fiber-transceiver</a>
Hardened Gigabit SFP Modules	<a href="http://www.etherwan.com/products/sfp-fiber-transceiver">www.etherwan.com/products/sfp-fiber-transceiver</a>
Panel Mounting Kit	<a href="http://www.etherwan.com/products/mounting-kits">www.etherwan.com/products/mounting-kits</a>
» KP-AA96-480	
» KP-S300	

