

SmartE Series

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



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."

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

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

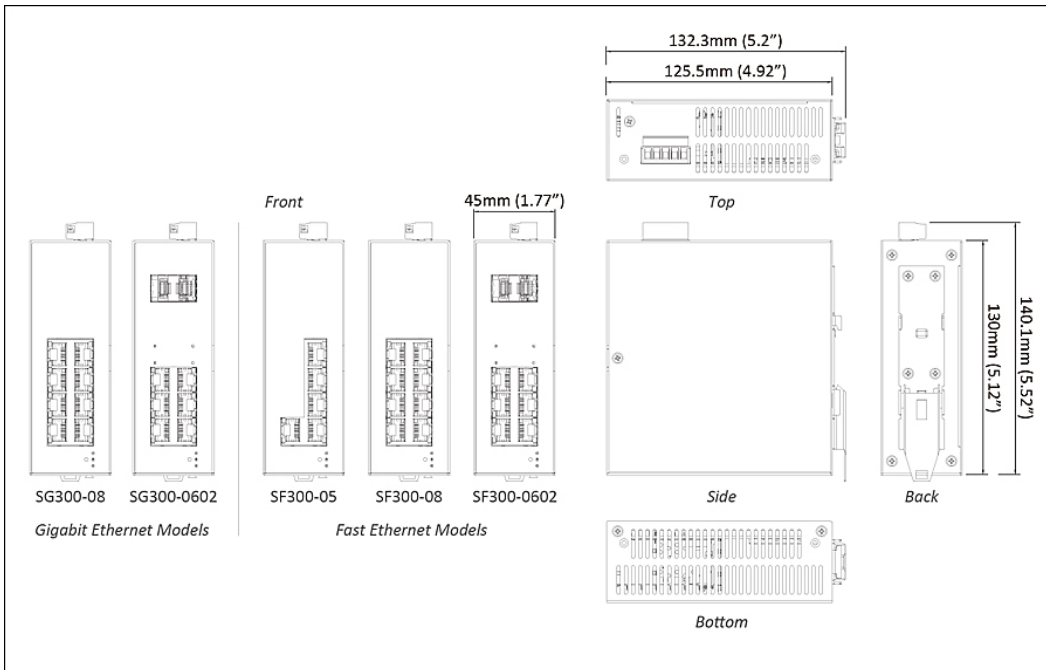
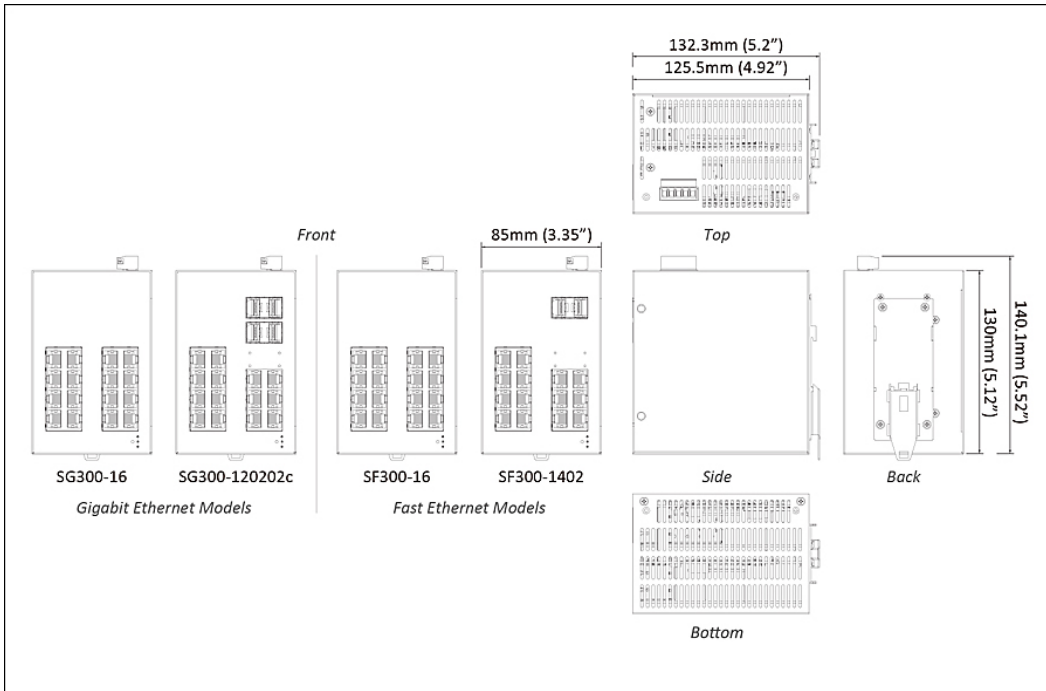
+ What's Included

Device
Ethernet switch

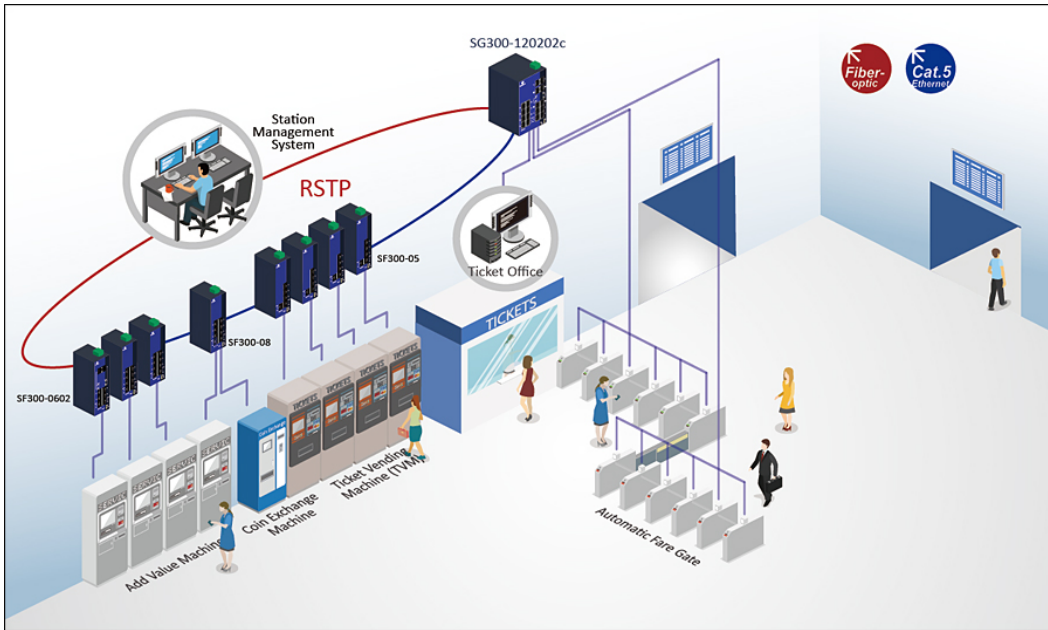
Installation
DIN-Rail bracket, screws

Documentation
Quick install guide

Dimensions



Application



Ordering Info

+ Model

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

Fast Ethernet Models - **SF300 Series EOL Notice** ([Click here](#))

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

+ Accessories

Hardened 100BASE SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
Hardened Gigabit SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
Panel Mounting Kit	www.etherwan.com/products/mounting-kits
» KP-AA96-480	
» KP-S300	

