ESIS Industrial Electronics
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EKI-5525S/M Series

4-port +1x100FX port (Single/Multi-mode, SC/ST type), Fast Ethernet ProView Switch

Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40~75°C operating temperature range (EKI-5525SI/SI-ST,EKI-5525MI/MI-ST only)
- 12 ~48 V_{DC} (8.4 ~52.8 VDC)wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12~48V_{DC} power input and P-Fail relay
- Loop detection

Introduction

The EKI-5525S/SI/S-ST/SI-ST and EKI-5525M/MI/M-ST/MI-ST are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5525S/SI/S-ST/SI-ST and EKI-5525M/MI/M-ST/MI-ST switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az
- **LAN** 10/100Base-T(X), 100Base-FX
- **Transmission Distance** Ethernet: Up to 100 m
  Multi-mode Fiber: Up to 2 km (EKI-5525M Series)
  Single-mode Fiber: Up to 30 km (EKI-5525S Series)
- **Optical Fiber**
  Multi-Mode (EKI-5525M/MI/M-ST/MI-ST)
  Wavelength:1310nm
  Tx Power: -14/-20 dBm
  Rx Sensitivity: -32 dBm
  Parameters: 50/125 um, 62.5/125 um
  Single-Mode (EKI-5525S/SI/S-ST/SI-ST)
  Wavelength: 1310 nm
  Tx Power: -8/-15 dBm
  Rx Sensitivity: -34 dBm
  Parameters: 9/125 um
- **Transmission Speed** Up to 100 Mbps

Interface

- **Connectors** 4 x RJ45 ports
  1 x SC/ST type fiber optic connectors
  6-pin screw Terminal Block (including relay)
- **LED Indicators** P1,P2, P-Fail, Loop detection
  10/100T(X): Link/Activity, Speed

Switch Properties

- **MAC Table Size** 2K
- **Packet Buffer Size** 1M bit
- **Switching Capacity** 1 Gbps
- **Jumbo Frame** 9216 bytes

Power

- **Power Consumption** Max. 2.8 W
- **Power Input** 12~48 VDC (8.4~52.8 VDC), redundant dual inputs
- **Fault Output** 1 Relay Output

Mechanism

- **Dimensions (W x H x D)** 27 x 120 x 84 mm
- **Enclosure** IP30, metal shell with solid mounting kits
- **Mounting** DIN-Rail, Wall

Protection

- **Reverse Polarity** Present
- **Overload Current** Present

Environment

- **Operating Temperature** EKI-5525S/S-ST/M/M-ST: -10~60°C (14~140°F)
  EKI-5525SI/SI-ST/MI/MI-ST: -40~75°C (-40~167°F)
- **Storage Temperature** -40 ~ 75°C (-40 ~ 167°F)
- **Operating Humidity** 10 ~ 95% (non-condensing)
- **Storage Humidity** 10 ~ 95% (non-condensing)
- **MTBF** 282,703 hours

Certification

- **Safety** IEC/EN 60950-1, UL508, Class 1 Division 2, ATEX, IECEx
- **EMC** CE, FCC
- **EMI** EN 55011/55022 Class A, EN 61000-6-4, FCC Part 15 Subpart B Class A
- **EMS** EN61000-4-2 (ESD) Level 3
  EN61000-4-3 (RS) Level 3
  EN61000-4-4 (EFT) Level 3
  EN61000-4-5 (Surge) Level 3
  EN61000-4-6 (CS) Level 3
  EN61000-4-8 (Magnetic Field) Level 3
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

Ordering Information

- **EKI-5525S** 4-port +1 x100FX port (Single -mode, SC type), Fast Ethernet ProView Switch
- **EKI-5525SI** 4-port + 1 x100FX port (Single-mode, SC type), Fast Ethernet ProView Switch with Wide Temperature
- **EKI-5525M** 4-port + 1 x100FX port (Multi-mode, SC type), Fast Ethernet ProView Switch
- **EKI-5525MI** 4-port + 1 x100FX port (Multi-mode, SC type), Fast Ethernet ProView Switch with Wide Temperature
- **EKI-5525S-ST** 4-port + 1 x100FX port (Single-mode, ST type), Fast Ethernet ProView Switch
- **EKI-5525SI-ST** 4-port + 1 x100FX port (Single-mode, ST type), Fast Ethernet ProView Switch with Wide Temperature
- **EKI-5525M-ST** 4-port + 1 x100FX port (Multi-mode, ST type), Fast Ethernet ProView Switch
- **EKI-5525MI-ST** 4-port + 1 x100FX port (Multi-mode, ST type), Fast Ethernet ProView Switch with Wide Temperature

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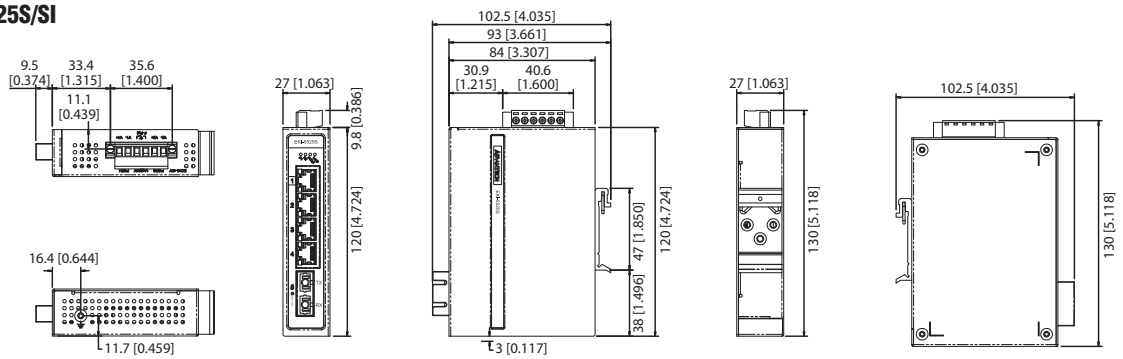
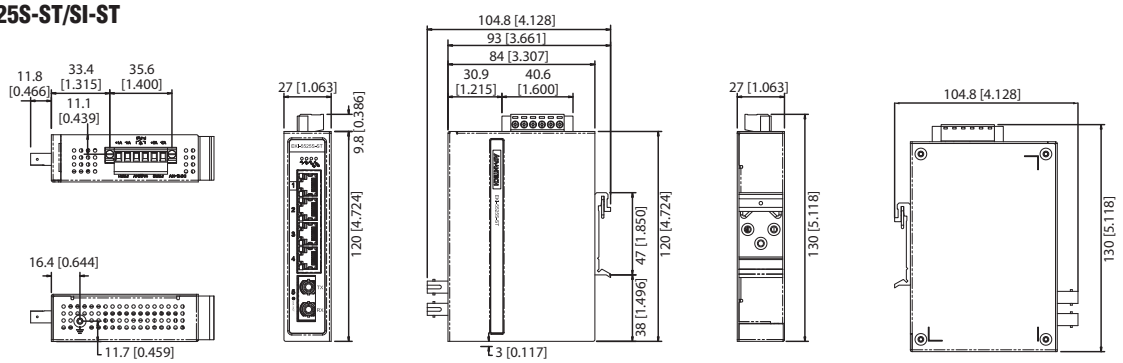
Dimensions

Unit: mm [inch]

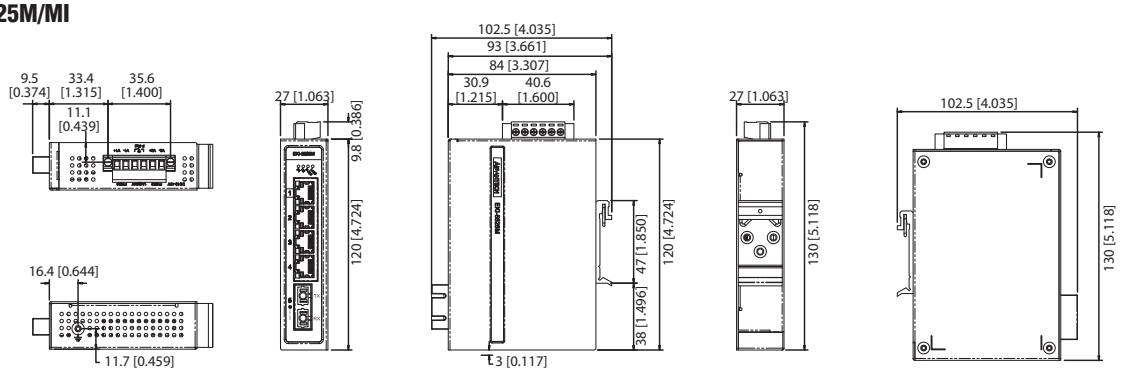
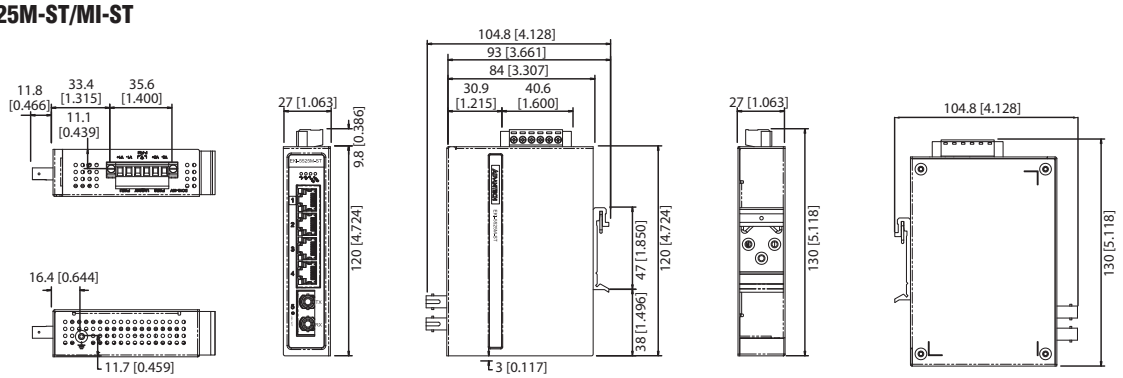
EKI-5525S/SI



EKI-5525S-ST/SI-ST



EKI-5525M/MI



EKI-5525M-ST/MI-ST