

# EKI-5524SS/MM Series

## 4-port + 2x100FX 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-5524SSI/SSI-ST, EKI-5524MMI/MMI-ST only)
- 12~48 V<sub>DC</sub> (8.4~52.8 V<sub>DC</sub>) 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<sub>DC</sub> power input and P-Fail relay
- Loop detection

### Introduction

The EKI-5524SS/SSI/SS-ST/SSI-ST and EKI-5524MM/MMI/MM-ST/MMI-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-5524SS/SSI/SS-ST/SSI-ST and EKI-5524MM/MMI/MM-ST/MMI-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, 802.3ab
- **LAN** 10/100Base-T(X), 100Base-FX
- **Transmission Distance** Ethernet: Up to 100 m  
Multi-mode Fiber: Up to 2 km (EKI-5524MM Series)  
Single-mode Fiber: Up to 30 km (EKI-5524SS Series)
- **Optical Fiber**
  - **Multi-Mode (EKI-5524MM/MMI/MM-ST/MMI-ST)**
    - Wavelength: 1310nm
    - Tx Power: -14/-20 dBm
    - Rx Sensitivity: -32 dBm
    - Parameters: 50/125  $\mu$ m, 62.5/125  $\mu$ m
  - **Single-Mode (EKI-5524SS/SSI/SS-ST/SSI-ST)**
    - Wavelength: 1310 nm
    - Tx Power: -8/-15 dBm
    - Rx Sensitivity: -34 dBm
    - Parameters: 9/125  $\mu$ m
- **Transmission Speed** Up to 100 Mbps

#### Interface

- **Connectors** 4 x RJ45 ports  
2 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** 1.2 Gbps
- **Jumbo Frame** 9216 bytes

#### Power

- **Power Consumption** Max. 4 W
- **Power Input** 12~48 V<sub>DC</sub> (8.4~52.8 V<sub>DC</sub>), redundant dual inputs
- **Fault Output** 1 Relay Output

#### Mechanism

- **Dimensions (W x H x D)** 43 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-5524SS/SS-ST/MM/MM-ST: -10~60°C (14~140°F)  
EKI-5524SSI/SSI-ST/MMI/MMI-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** 144,890 hours

#### Certification

- **Safety** IEC/EN60950, UL60950, UL508, Class 1 Division 2, ATEX
- **EMI** FCC Part 15 Subpart B Class A, EN 55011/55022 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

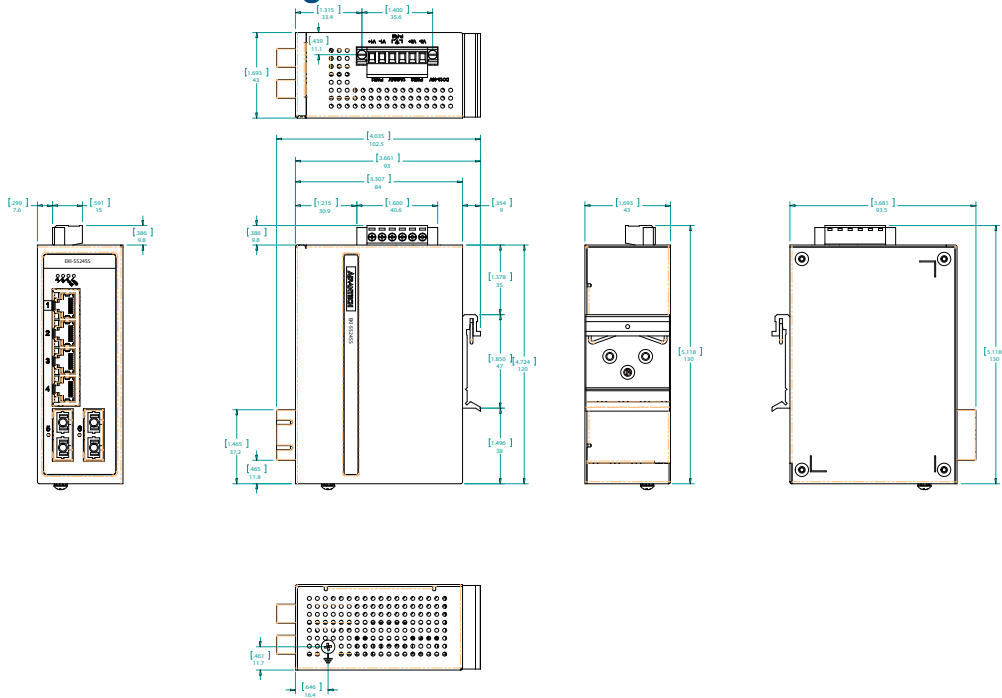
### Ordering Information

- **EKI-5524SS** 4-port +2x100FX port (Single -mode, SC type), Fast Ethernet ProView Switch
- **EKI-5524SSI** 4-port + 2x100FX port (Single-mode, SC type), Fast Ethernet ProView Switch with Wide Temperature
- **EKI-5524MM** 4-port + 2 x100FX port (Multi-mode, SC type), Fast Ethernet ProView Switch
- **EKI-5524MMI** 4-port + 2 x100FX port (Multi-mode, SC type), Fast Ethernet ProView Switch with Wide Temperature
- **EKI-5524SS-ST** 4-port + 2 x100FX port (Single-mode, ST type), Fast Ethernet ProView Switch
- **EKI-5524SSI-ST** 4-port + 2 x100FX port (Single-mode, ST type), Fast Ethernet ProView Switch with Wide Temperature
- **EKI-5524MM-ST** 4-port + 2 x100FX port (Multi-mode, ST type), Fast Ethernet ProView Switch
- **EKI-5524MMI-ST** 4-port + 2 x100FX port (Multi-mode, ST type), Fast Ethernet ProView Switch with Wide Temperature

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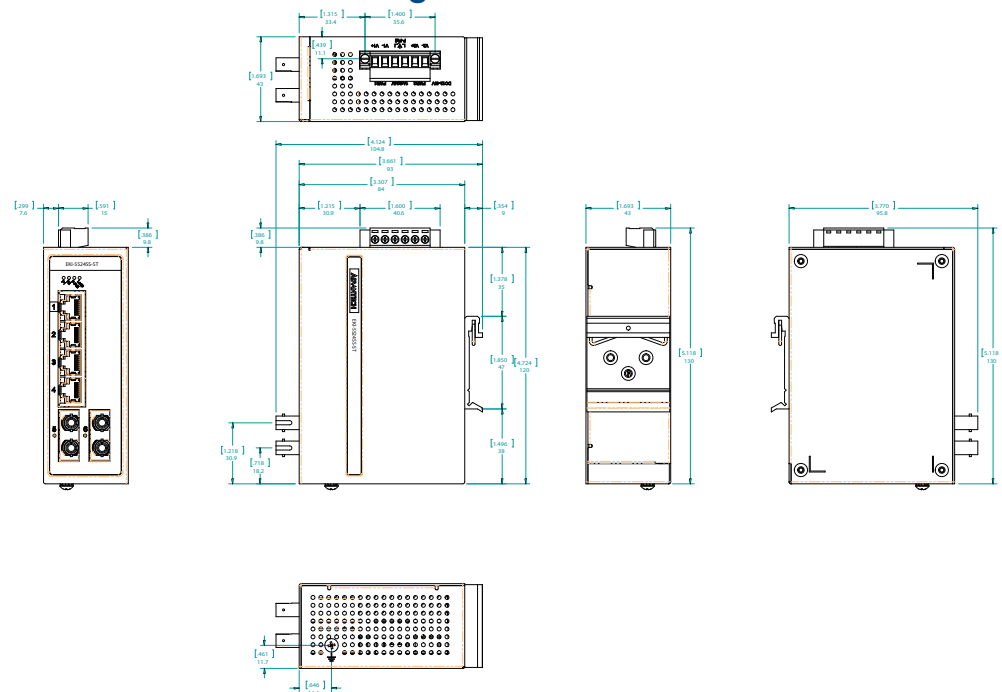
## EKI-5524SS/SSI Mounting Dimensions

Unit: mm [inch]



## EKI-5524SS-ST/SSI-ST Mounting Dimensions

Unit: mm [inch]







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