EKI-5729F/FI

8-Port+2 SFP Gigabit 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
- Wide operating temperature range of -40 ~ 75°C (EKI-5729FI only)
- Wide range power input of 12 ~ 48 V_{DC} (8.4 ~ 52.8 V_{DC})
- EMS Level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy-Efficient Ethernet
- Jumbo frame support (up to 9,216 Bytes)
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection

Introduction

The EKI-5729F and EKI-5729FI are the world's first convergence switches for process control and IT networking management. This line of switches use Modbus/TCP to communicate with SCADA software and SNMP to communicate with NMS simultaneously, thereby enabling full read control over devices for control engineers and IT personnel. They come with the port-based QoS for deterministic data transmission, allowing specific ports to prioritize traffic while delaying less important data via the remaining ports. The series use the highest quality components and has a wide operating temperature range of -40 ~ 75°C (EKI-5729FI only) along with EMS Level 3 protection to protect against electromagnetic interference.

Specifications

Communications

- **Standard** — IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 802.3ab
- **LAN** — 10/100/1000BASE-TX, optional 100BASE-FX, 1000BASE-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance** — Ethernet: UP to 100 m (4-wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port) SFP: UP to 110 km (depends on SFP)
- **Transmission Speed** — Ethernet: 10/100/1000 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: UP to 1000 Mbps

Interface

- **Connectors** — 8 x RJ45
  2 x SFP ports
  6-pin removable screw terminal (power & relay)
- **LED Indicators** — P1, P2, P-Fail, Loop detection
  10/100/1000T(X): Link/Activity, Speed
  SFP: Link/Activity

Switch Properties

- **MAC Table Size** — 8K
- **Packet Buffer Size** — 4.1M bit
- **Switching Capacity** — 20 Gbps
- **Jumbo Frame** — 9216 bytes

Power

- **Power Consumption** — Max. 6.8 W
- **Power Input** — 12 ~ 48 V_{DC} (8.4 ~ 52.8 V_{DC}), 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
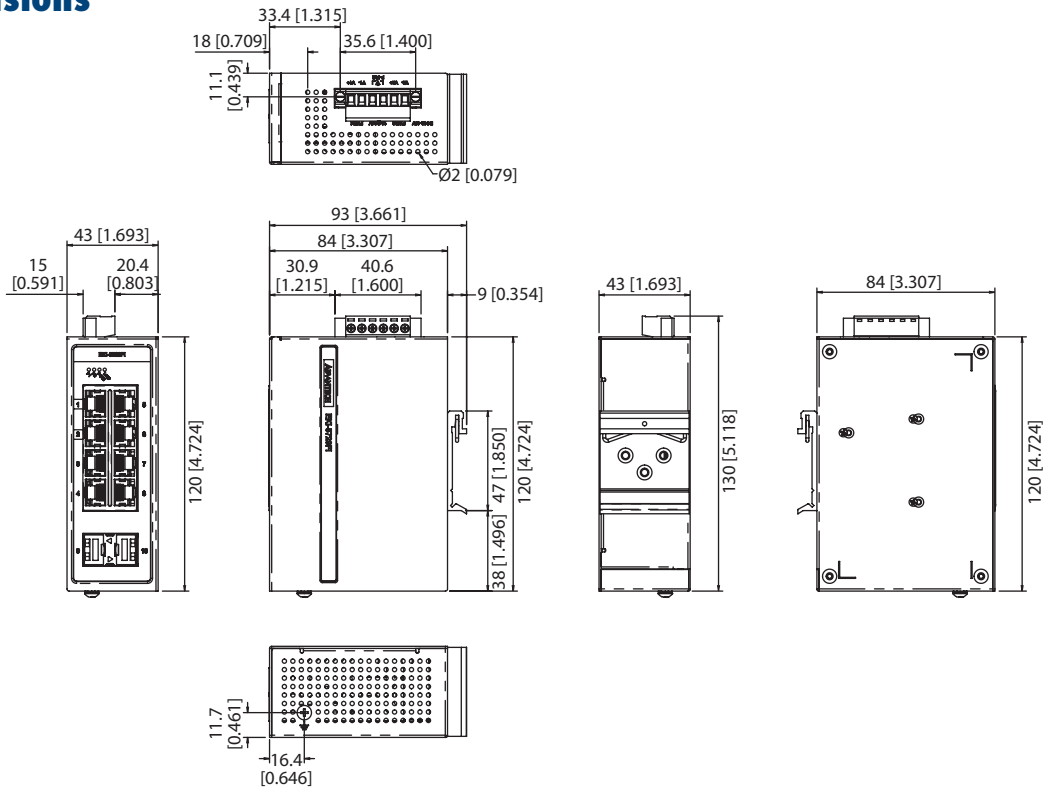- **Overload Current** — Present

Environment

- **Operating Temperature** — EKI-5729F: -10 ~ 60°C (14 ~ 140°F)
  EKI-5729FI: -40 ~ 75°C (-40 ~ 167°F)
- **Storage Temperature** — -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity** — 10 ~ 95% (non-condensing)
- **Storage Humidity** — 10 ~ 95% (non-condensing)
- **MTBF** — 3,858,286 hours

Certification

- **Safety** — IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX, e-Mark
- **EMC** — CE, FCC, e-Mark
- **EMI** — EN 55011/55022 Class A, EN 61000-6-4, FCC Part 15 Subpart B Class A
- **EMS** — EN 61000-4-2 (Level 3)
  EN 61000-4-3 (Level 3)
  EN 61000-4-4 (Level 3)
  EN 61000-4-5 (Level 3)
  EN 61000-4-6 (Level 3)
  EN 61000-4-8 (Level 3)
- **Shock** — IEC 60068-2-27
- **Freefall** — IEC 60068-2-32
- **Vibration** — IEC 60068-2-6

Dimensions

Unit: mm [inch]

Ordering Information

- **EKI-5729F**   8-port+2 SFP Gigabit Ethernet ProView Switch
- **EKI-5729FI**   8-port+2 SFP Gigabit Ethernet ProView Switch with Wide Operating Temperature Range