EK26/EF26 Industrial Ethernet Switch

Sixnet Networking Series

red lion®

▶▶▶ 26 Port Industrial Ethernet Switch

The Sixnet EK26 is an industrial Ethernet switch offering 26 total Ethernet ports including up to 8 super fast Gigabit ports and up to 4 noise-immune fiber optic ports. Its rugged and compact 1U case fits into standard EIA, WECO and ETSI racks from 19" to 24".

PRODUCT HIGHLIGHTS

- 26 total Ethernet ports including
  - Up to 8 Gigabit ports including 4 combination ports
  - Up to 4 fiber optic ports for noise-immune links
- Designed to meet industrial standards

REAL-TIME SECURE PERFORMANCE

- Real-Time-Ring™ or Rapid Spanning Tree (RSTP) for fast redundant ring or mesh networks
- SNMPv1 and v2 network management
- SNMPv3 authentication & encryption for security
- SNMP notifications (traps) for report on event
- Priority Queuing (QoS/CoS) for real-time operation
- IGMP for Multicast filtering (snooping & querying)
- VLAN for convenient traffic segregation
- Broadcast & multicast storm protection
- RMON & port mirroring for advanced diagnostics
- Security with HTTPS, SSL, SSH, SNMPv3 & more
- Easy configuration via Web, Telnet or CLI
- Free field-installable firmware upgrades forever

RUGGED & RELIABLE HARDWARE

- Space efficient 1U rack-mount design
- Redundant AC and DC power options
- Relay output contact to signal alarms
- RS232 and USB console ports for local management
- Rugged corrosion-resistant aluminum enclosure
- Wide temperature -40 to +85 °C operation
- Sealed IP50 option protects against ingress
- Front or reverse mounting options

ORDERING GUIDE

- **EK/EF26 PART NUMBER = Ea26bcddd-1**

  - a = Model Options
    - K = 18 fast Ethernet (FE) and 8 Gigibit (GE) ports
    - F = 26 fast Ethernet (FE) ports (no Gigabit)

  - b = Style Options
    - F = front style; Ethernet in front; power & console in back
    - R = reverse style; Ethernet & power in back; LEDs both sides

  - c = Case / Cooling Options
    - S = sealed IP50 (no fans) (see derating)
    - T = fan cooled IP30 (no derating)

  - ddd = Power Options
    - D6N = dual inputs for +/-24/48/60 VDC (+/-18-75 VDC)
    - A0N = single input for VAC/VDC (90-264 VAC or 130-370 VDC)
    - AAN = dual VAC/VDC with redundant internal supplies

PART NUMBER EXAMPLES:

EK26FSD6N-1 with dual 24 VDC inputs and sealed IP50 (no fans!)

For accessories see next page.

industrial
networking

ETHERNET PERFORMANCE
- 26 Ethernet ports with up to 8 Gigabit
- Managed, store & forward, wire-speed
- All IEEE 802.3 Ethernet protocols supported
- RJ45 port speed auto-negotiation
- RJ45 MDI/MDIX auto-crossover
- RJ45 TD and RD auto-polarity
- Typical latency (varies on load & settings)
  - @ 100 Mbps: 5 us + frame time
- Full or half duplex operation configurable per port
- MAC addresses supported 8192
- Memory bandwidth 32 Gbps
- Ethernet isolation 1500 VRMS 1 minute
- Console ports – USB and RS232 (RJ45)

ETHERNET PORTS
- Port Group 1
  - 8 ports of 10/100 RJ45
- Port Group 2
  - 2 bonus 10/100 RJ45 ports
- Port Group 3
  - EK model: 4 combination GE ports for copper or fiber links
  - EF model: 4 combination FE ports for copper or fiber links
- Port Group 4:
  - EK model: 4 Gigabit 10/100/1000 RJ45 ports
  - EF model: 4 fast Ethernet 10/100 RJ45 ports
- Port Group 5
  - 8 fast Ethernet 10/100 RJ45

ETHERNET COMPLIANCE
- IEEE 802.3z (Gigabit 1000 Mbps Ethernet connections)
- IEEE 802.3u (Fast Ethernet 100Mbps for newer devices)
- IEEE 802.3 (10Mbps Ethernet supports legacy devices)
- IEEE 802.3x (Full-Duplex with Flow Control)
- IEEE 802.1D/w (Rapid Spanning Tree for redundant rings and Spanning Tree for interoperability)
- IEEE 802.1p (Priority Queuing – QoS, CoS, ToS/DS)
- IEEE 802.1Q (VLAN for traffic segregation)
- And more

REAL-TIME-RING™
- Link loss recovery: 30 mS plus 5 mS per hop
- Switches in a ring: <50 for best performance
- Multiple rings supported

"OK" ALARM OUTPUT
- Indicates power & operational status
- Max. ratings
  - 250 VAC or 220 VDC
  - 2 A @ 30 VDC or 0.25 A @ 250 VAC
- Minimum load 10 mVDC, 10 µA

All specifications are subject to change. Consult factory for latest info.

POWER INPUT
- Input voltage standard options
  - 18-36 VDC (24 VDC nominal)
  - 36-75 VDC (+/-48 VDC nominal)
  - 90-264 VAC (110/220 VAC nominal)
  - 130-370 VDC (250 VDC nominal)
- Power options
  - Dual inputs or redundant supplies
- Input power consumption 27 W maximum

ENVIRONMENTAL
- Operating temperature range:
- T option (fan cooled): -40 to +85 °C (no derating) (cold startup at -40 °C)
- S option (sealed IP50): -40 to +85 °C w/all ports linked at 10/100 or derate
  - to +75 °C with 2 Gigabit links
  - to +70 °C with 4 Gigabit links
  - to +65 °C with 6 Gigabit links
  - to +60 °C with 8 Gigabit links
- Storage temperature range -40 to +85 °C
- Humidity (non-condensing) 5 to 95% RH (optional conformal coating is available)

STANDARDS COMPLIANCE (PENDING)
- Electrical safety – EN61010-1, CE
- EMC – FCC part 15, ICES-003; EN61000-6-4, -2, CE
- RoHS and WEEE compliant

PHYSICAL
- Mounting – 19" to 24" racks, EIA/WECO/ETSI supported
- Case – corrosion-resistant heavy-gauge aluminum
- Egress protection IP50 with S option or IP30 with T option
- Weight (typical) 5.5 lbs (2.5 kg) – varies slightly by model
- Dimensions – 1.75 x 17.3 x 12" (44.5 x 439.4 x 305.0 mm)

ACCESSORIES

EK1-BRCKT-19	Set (2) of 1U 19" brackets (one set included)
EK1-BRCKT-23	Set (2) of 1U 23" EIA/WECO
EK1-BRCKT-2324	Set (2) of 1U 23/24" EIA/WECO
EK1-BRCKT-ETSI	Set (2) of 1U 536 mm ETSI brackets
EK1-BRCKT-WALL	Set (2) of wall brackets
RJ45-PLUG-16	Dust plugs for unused RJ45 port (16 pieces)
EK-CCOAT-1	Conformal coating – contact SIXNET for details
GMFIBER-SFP-500	Gigabit SFP fiber transceiver, mm, 550 m
GMFIBER-SFP-2K	Gigabit SFP fiber transceiver, mm, 2 km
GSFIBER-SFP-10K	Gigabit SFP fiber transceiver, sm, 10 km
GSFIBER-SFP-30K	Gigabit SFP fiber transceiver, sm, 30 km
GSFIBER-SFP-50K	Gigabit SFP fiber transceiver, sm, 50 km
GSFIBER-SFP-80K	Gigabit SFP fiber transceiver, sm, 80 km
FMFIBER-SFP-4K	100Mb SFP fiber transceiver, mm, 4 km
FSFIBER-SFP-30K	100Mb SFP fiber transceiver, sm, 30 km
FSFIBER-SFP-60K	100Mb SFP fiber transceiver, sm, 60 km
FSFIBER-SFP-100	100Mb SFP fiber transceiver, sm, 100 km

(Contact Sixnet for other fiber distances or special application fiber optic transceivers.)

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