

IP67 SEALED INDUSTRIAL ETHERNET RING SWITCH

The ET-5xS-IP67 are 5 port IP67 water-tight Ethernet switches designed for the toughest applications and are even tough enough for the military. They can be directly mounted to any machine or convenient flat surface. The rugged packaging and Amphenol RJField connectors are rated to protect against water, oil, dust, vibration and much more.

PRODUCT HIGHLIGHTS

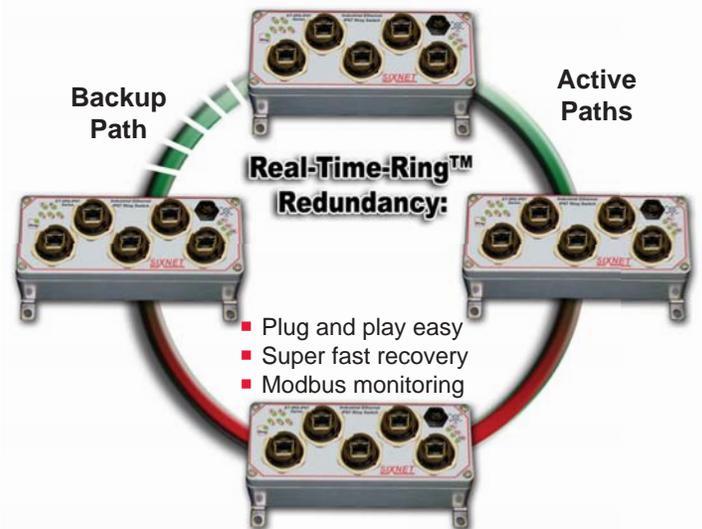
- Reduced installation cost
- Mount anywhere - save space
- Ensure real-time operation and allow for deterministic control
- Increased network reliability
- Direct machine mounting
- Outdoor or marine use
- Military applications & much more

ADVANCED NETWORK PERFORMANCE

- Real-time fault tolerant rings
 - Fast ring recovery of 30 mS + 5 mS / hop!
 - Modbus over Ethernet monitoring
- Real-time traffic prioritization with QoS
 - Assure delivery of real-time data
 - Improve network utilization
 - User settable priority assignments
- Advanced switch features
 - User configurable port settings
 - Message filtering to prevent broadcast storms
 - Port mirroring for traffic diagnostics
 - Pre-configurable for plug & play simplicity

RUGGED & RELIABLE HARDWARE

- Sixnet reliability and long-term support
 - Ultra-reliable 1,000,000 hours MTBF
 - Firmware upgrades are FREE forever
- Truly industrial design and packaging
 - Tough fiber-reinforced enclosure
 - Rugged Amphenol connectors
 - Dual power inputs and alarm output
- Industrial rated to perform
 - MIL-STD-1275 power protection (-E models)
 - Wide operating temperature -40 to +75°C



- Plug and play easy
- Super fast recovery
- Modbus monitoring

Featuring Amphenol RJField Connectors:

- Fits over any standard Ethernet cordset
- Easy to install – no tools required!
- Super rugged – IP67 and military tough!



ETHERNET PERFORMANCE

- 5 Ethernet ports
- Intelligent store & forward Ethernet switch
- RJ45 ports (shielded) 10/100BaseTX
- RJ45 speed (10 or 100 Mbps) auto-negotiation
- RJ45 MDI/MDIX auto-crossover
- RJ45 TD and RD auto-polarity
- Typical latency @ 10 Mbps=16 us + frame time; typical latency @ 100 Mbps=5 us + frame time; varies on load and settings
- Full or half duplex operation configurable
- MAC addresses supported 2048
- Memory bandwidth 3.2 Gbps
- Ethernet isolation 1500 VRMS 1 minute

STATUS REPORTING (RS MODEL)

- Modbus Ethernet over UDP
- "OK" contact output up to 0.5 Amp

ETHERNET COMPLIANCE

- IEEE 802.3 (10Mbps Ethernet supports legacy devices)
- IEEE 802.3u (Fast Ethernet 100Mbps for newer devices)
- IEEE 802.3x (Full-Duplex with Flow Control)
- IEEE 802.1p (QoS / CoS – Quality & Class of Service)

REAL-TIME™ RING FEATURES

- Maximum switches in ring 50+
- Dual ring support
- Link loss recovery time 30 mS plus 5 mS per hop

POWER INPUT

- Redundant input connections
- Input power (typical) ES: 2.4 W, RS: 2.7 W
- Input voltage (-D models) 10-30 VDC
 - Transient protection 15,000 watts peak
 - Spike protection 5,000 watts (10 times for 10 uS)
- Input voltage (-E models) 10-50 VDC
- Extended power protection (-E models)
 - Military surge protection Exceeds MIL-STD-1275; 100 volts for 1 second
 - Transient protection 15,000 watts peak
 - Spike Protection 5,000 watts (10x for 10 uS) or 250 volts (50x for 100 uS)

ENVIRONMENTAL

- Operating temperature range -40 to +75 °C
- Storage temperature range -40 to +85 °C
- Humidity (non-condensing) 5 to 95% RH
- Vibration, shock and freefall IEC60068-2-6, -27 and -32

STANDARDS COMPLIANCE

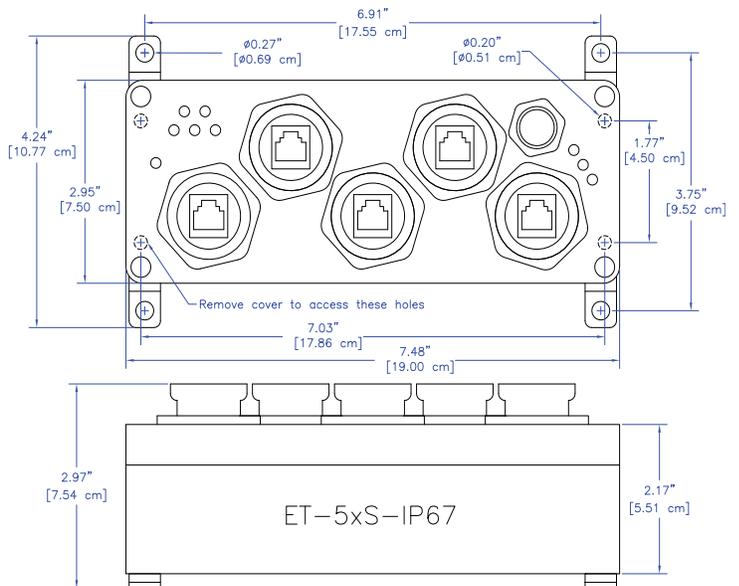
- Electrical safety UL508/CSA C22.22/14: EN61010-1, CE
- EMI emissions FCC part 15, ICES-003; EN61000-6-4, CE
- EMC immunity EN61000-6-2, CE
- Hazardous locations UL1604, CSA C22.2/213 (Class I, Div. 2), EN60079-15 (Zone 2; Category 3), CE (ATEX)

PHYSICAL

- Protection rating IP67 and NEMA 6
- Enclosure material fiber reinforced polyester
- Dimensions and mounting - see mechanical diagram
- Weight 1.2 lbs (0.54 kg)

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

MECHANICAL DRAWING



ORDERING GUIDE

Real-Time-Ring Models:

- ET-5RS-IP67-x1 Pre-set for 1 ring (standard)
- ET-5RS-IP67-x0 Pre-set for 0 rings (special)
- ET-5RS-IP67-x2 Pre-set for 2 rings (special)
- ET-5RS-IP67-xC Custom configured (special)

(x = D for Dual power or E for MIL-STD-1275 power)

Unmanaged Models:

- ET-5ES-IP67-D Dual power with industrial protection
- ET-5ES-IP67-E Dual power with MIL-STD-1275

IP67 Accessories:

- SETUP WIZARD Free Windows configuration tool
- ET-RJF-PWR-1 IP67 power plug
- EB-RJF-PLUG-1 IP67 Ethernet plug
- EB-RJF-CAP-1 IP67 cap for unused ports
- EB-RJF-BLKHD-1 IP67 bulk-head connector



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