

IP67 Rated Industrial Ethernet Switches

Introducing Etherbus™
Fieldbus-style, real-time Ethernet technology that mounts directly onto a machine.

- IP67 waterproof rating
- Direct fieldbus-style installation - No enclosure required.
- Real-time 10/100BaseT auto-detecting operation
- Auto-MDI/MDIX crossover on all 8 ports
- Compatible with Fieldbus H2, Ethernet IP, Modbus Open and all other Ethernet fieldbus networks.
- UL 508, CSA, CE and Zone 2 rated
- Certified for marine and offshore use
- Supports ALL standard IEEE 802.3 Ethernet protocols
- Extended power model (-1EP) meets military standard MIL-STD-1275



Introducing Etherbus™

direct machine-mountable Ethernet technology

Mount an Etherbus™ Industrial Switch directly onto a machine or convenient wall in any harsh industrial environment. SIXNET Industrial Switches insure real-time deterministic performance. The Etherbus packaging is IP67 rated against water, oil and dust.

Now you can have the convenience of durable Fieldbus packaging coupled with the open systems flexibility that only Ethernet provides.

- *Reduce installation cost*
- *Mount anywhere - save space*
- *Insure real-time operation*
- *Allow for Deterministic Control*



SIXNET switches eliminate collisions

Unlike a hub, SIXNET Switches buffer and intelligently transmit network packets in an orderly sequence. Since each network segment is now a controlled one-on-one link, Ethernet message collisions are completely eliminated.

Real-time deterministic performance

SIXNET Industrial Ethernet Switches automatically determine and remember where an Ethernet device is located and routes messages only through the appropriate port. This minimizes network loading, giving your deterministic software the open communications channels it needs.

The Fieldbus Direct-mount Advantage

Etherbus IP67 rated packaging transforms Ethernet into a Fieldbus by enabling you to mount our industrial switch directly onto a machine or an exposed wall in a harsh environment. This saves space and money by eliminating the need for environmentally rated electrical enclosures and expensive fittings for signal cables that enter the protected enclosure. Maintenance time is also reduced because you have direct access to the cable connections on this Industrial Ethernet Switch.

Compatible with standard RJ45 cables

Etherbus™ switches use the ingenious Woodhead RJLxxx environmental connectors (patent pending). These waterproof and vibration-protected connectors have a standard RJ45 core enabling you to plug a standard RJ45 cable in for bench testing and temporary field connection with a laptop computer.

Industrial switches survive heat & cold

SIXNET industrial switches work reliably through the dead of winter and those hot summer days. Unlike office-grade switches that are intended only for use in air conditioned offices, SIXNET industrial switches are designed for those places that you don't want to be.

Minimize your wiring headaches

Eliminate unwieldy bundles of ethernet cables by placing these efficient wiring concentrators right on the plant floor. Simpler and shorter cabling means higher reliability, too!

SIXNET

331 Ushers Road, P.O. Box 767, Clifton Park, NY 12065 USA

+1 (518) 877-5173 Fax +1 (518) 877-8346

email: sales@SIXNETio.com www.SIXNETio.com

Performance Specifications

| | | |
|-------------------------------|---|----|
| Ethernet switch type | Unmanaged, store & forward | |
| RJ45 ports (shielded) | 10/100BaseT(x) / Auto-MDI/MDIX | |
| RJ45 speed (auto-negotiating) | 10 Mbps or 100 Mbps | |
| Ethernet protocols supported | All standard IEEE 802.3 | |
| Broadcast storm protection | 5% of bandwidth | |
| Memory bandwidth | 2 Gbps | |
| Completely compliant | IEEE 802.3 & IEEE 802.3u | |
| Full or half duplex operation | Auto-sensing on RJ45 ports | |
| MAC addresses supported | 1K (automatic learning, aging, and migration) | |
| Ethernet isolation | 1500 VRMS 1 minute | |
| Required supply voltage | 10-30 VDC (-1 standard model); +/-16-40 VDC (-1EP model) | |
| Power consumption (typical) | 4 W (165 mA @ 24 VDC) | |
| Maximum voltage surge | 100 volts for 1 sec. (-1EP model) | |
| Maximum voltage spike | 250 volts for 100 usec. (-1EP model) | |
| Operating temperature | -40 to +70 °C (for -1 model) -40 to +60 °C (for -1EP model) | |
| Storage temperature | -40 to +85 °C | |
| Humidity | 100% RH | |
| Flammability | UL 94V-0 materials | |
| Electrical safety | UL 508, CSA C22/14 EN61010-1 (IEC1010) | CE |
| EMI emissions | FCC part 15, ICES 003, EN55022, Class B | CE |
| EMC immunity | EN61326-1 (EN61000-4- 2, 3, 4, and 6) | CE |
| Surge withstand | IEEE-472 (ANSI C37.90) | |
| Vibration | IEC68-2-6 | |
| Hazardous locations | UL 1604, CSA C22.2/213 (Class 1, Div. 2), Cenelec EN50021 (Zone 2) | |
| Environmental rating | IEC IP67 | |

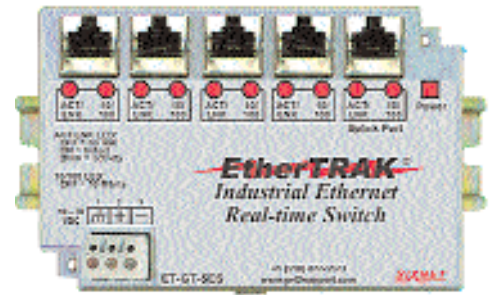


Ordering Information

| Part | Description |
|---------------|---|
| EB-GT-8ES-1 | 8 port IP67 rated Ethernet switch |
| EB-GT-8ES-1EP | 8 port IP67 switch with extended power |
| EB-CC-PS-F1 | Field-installable IP67 rated DC power input connector (1 included with each switch) |
| EB-CC-CAT5-M4 | Field-installable IP67 rated RJ45 connector (4 piece pack) |
| EB-CC-CAP-L4 | Watertight Ethernet receptacle closure cap with tether (4 piece pack) |
| EB-CP-RJ45-F1 | IP67 rated bulkhead connector with tethered cap (for making waterproof connections to the outside of electrical enclosures) |

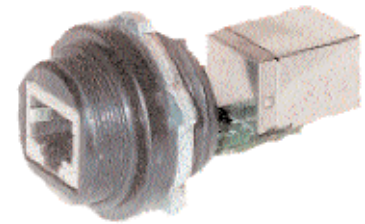
Specifications are subject to change. Consult factory for latest information.

Other SIXNET Industrial Switches



5 port, 9 port, dual fiber ports, and copper to fiber converter models available

IP67 Waterproof Accessories



EB-CP-RJ45-F1
IP67 rated bulkhead connector



EB-CC-CAT5-M1
Field-installable IP67 rated RJ45 connector

Complete Documentation

is provided on the SIXNET CD or may be downloaded from www.get2support.com. Includes applications help for many common situations.

SIXNET

331 Ushers Road, P.O. Box 767, Clifton Park, NY 12065 USA

+1 (518) 877-5173 Fax +1 (518) 877-8346

email: sales@SIXNETio.com www.SIXNETio.com

A Complete Family of I/O Solutions

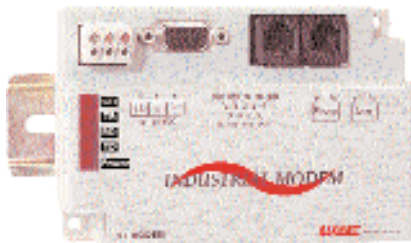
Ethernet I/O



Remote Terminal Unit



Industrial Phone Modems



Ethernet and RS485 I/O

SIXNET can provide you the building blocks for the open systems you are looking for. Three complementary families of modular DIN rail mounted I/O provide local, remote, enterprise level, or Internet I/O solutions.

Ethernet-Ready RTU

VersaTRAK is a versatile RTU with powerful 32-bit programming, discrete and analog I/O, datalogging and communications, including support for Ethernet, radios and telephones integrated into a single compact package.

Industrial Modems

SIXNET rugged industrial modems eliminate the hassles of mounting a telephone modem in an industrial enclosure. These robust modems are rated for -30 to +70 °C industrial operation.

TrakPAK Packaged Systems

SIXNET delivers complete I/O cabinets that come to you designed; built; tested; and ready for installation.



**Contact your SIXNET
Applications Engineer today!**

For the instant availability
or the latest information
please check out
www.sixnetio.com

Switch Datasheet REV 0804

SIXNET

331 Ushers Road, P.O. Box 767, Clifton Park, NY 12065 USA
+1 (518) 877-5173 Fax +1 (518) 877-8346
email: sales@SIXNETio.com www.SIXNETio.com