

SIXNET[®]

Etherbus[®] Industrial Fieldbus Solutions

The truly open, highly robust and ultra-high performance Ethernet fieldbus

Etherbus[®] is “Everybus”



Industrial Strength PoE

Main Entry: Etherbus

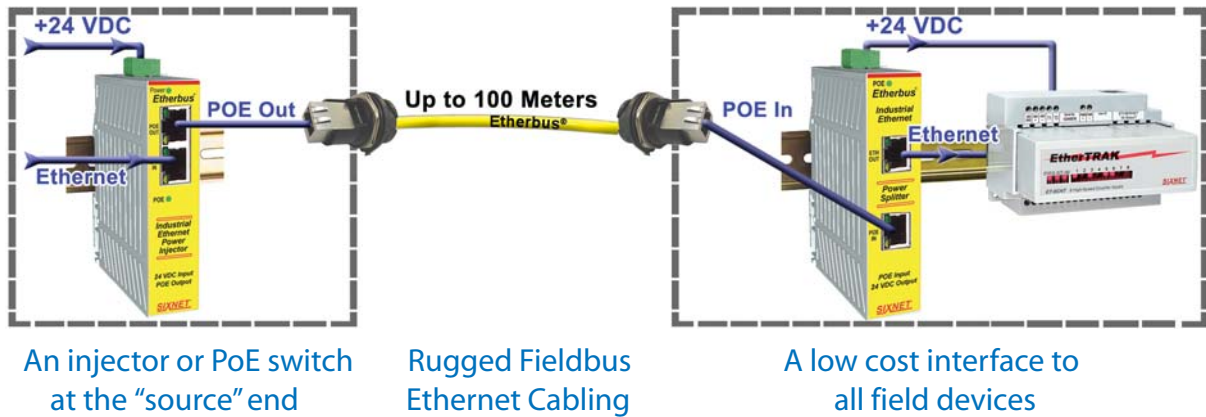
Pronunciation: \ 'ē-thər-,bəs \

Function: *noun*

1 : A unit that works with ALL Ethernet devices, does not need special PoE devices and is 100% compatible with ALL protocols (A truly open Ethernet solution!)

2 : Allows freedom from proprietary products

Simple & Robust Ethernet Fieldbus Solutions



The Advantage of Fieldbus Installations

A fieldbus combines power and communications into a single cable. It simplifies system wiring, reduces maintenance time, and reduces costs in many ways. Fieldbus products have been around for a long time. They are accepted and certainly field proven. They offer unique advantages and are a good solution, if your requirements fit their profile.

Many Proprietary Fieldbus Solutions

Profibus was created to entice you to buy Siemens products. Foundation Fieldbus exists to compete with Profibus. Devicenet is a great way to connect limit switches to a Rockwell system. And all of these Fieldbus schemes use their own protocol. Interoperability is a nightmare and gateways and protocol converters cost a fortune. Each and every one of these legacy fieldbus alternatives are now offering and advocating a "next level" Ethernet solution – still using their own protocol.

Etherbus is "Every bus"

Etherbus operates at the physical layer of Ethernet. It passes any and all Ethernet message packets, regardless of their origin and regardless of the protocols within the packets. (It doesn't need to even read the contents of the packets, just deliver them reliably.) Etherbus works with Modbus TCP, Profinet, Ethernet IP, ... (the list is endless). That's why we say that Etherbus is "Everybus". It's the only truly open fieldbus with limitless choices and complete interoperability.

Etherbus Connects to Existing Field Devices

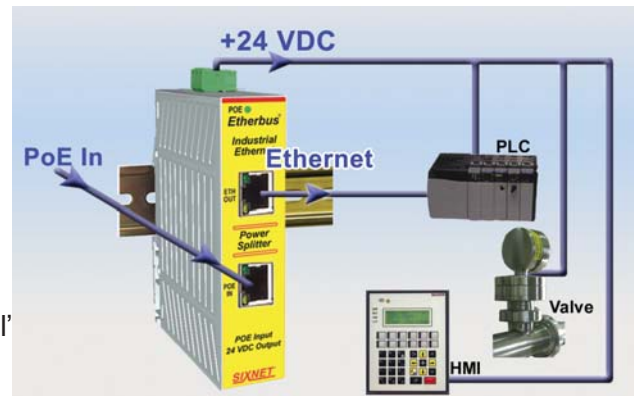
The beauty of Etherbus is that it delivers industry standard +24 VDC to the field mounted devices. Any device can be powered by Etherbus – even if it isn't Ethernet enabled! You don't need to install PoE powered devices to benefit from Etherbus. Etherbus cabling is a robust way to reduce wiring costs today and be future-ready for the next generation of Ethernet devices that are surely a part of your next upgrade.

Real-time Deterministic Performance

Etherbus utilizes 100 Megabit Ethernet and is the fastest and highest throughput Fieldbus by far. Etherbus signals are passed along by standard Ethernet switches, and as we all know, switches avoid collisions. (If you want even better performance in deterministic systems we recommend SIXNET real-time switches that are optimized to pass the short repetitive messages characteristic of industrial automation systems.) Do you need even higher performance? Etherbus seamlessly connects to any standard Gigabit Ethernet backbone.

Etherbus Delivers Ultra-Reliability

Etherbus devices, like all SIXNET Ethernet products are conservatively designed and thorough power saving design techniques eliminate heat (which is one of our many secrets to achieving ultra-reliability). Etherbus, with its robust industrial packaging is the most reliable fieldbus solution. Full details at: www.etherbus.com



Etherbus® PoE Products & Accessories

Etherbus® products will save wiring costs by powering distributed industrial equipment with ruggedized PoE (Power over Ethernet). Use these industrially-hardened building blocks to your best advantage for sourcing and delivering power to field installed industrial Ethernet equipment. Transform any Ethernet system into a truly open, high performance fieldbus with Etherbus industrial PoE. More information at www.etherbus.com

Real-time PoE Switches

These ultra-compact unmanaged switches source reliable power for industrial applications.



- EB-5ES-PSE-1** 4 POE & 1 RJ45
- EB-5ES-PSE-2SC** 4 RJ45 POE &
- EB-5ES-PSE-2ST** 1 multimode fiber port
- EB-5ES-PSE-3SC** 4 RJ45 POE &
- EB-5ES-PSE-3ST** 1 singlemode fiber port

Convenient Industrial PoE Injector



This injector steps up and isolates 24VDC for sourcing an Etherbus cable. This is a highly reliable way to install a single industrial POE (Etherbus) channel in a system powered by traditional 24VDC power.

- EB-PSE-24V-1A**
- EB-PSE-24V-1B**

Etherbus Cabling and Connectors

*Ultra-rugged Kevlar reinforced CAT5E cable
IP67 Field-Installable Ethernet Connectors*



- EB-CAT5E-xx** Yellow cable "x" meters long
- EB-RJ45-PLUG-1** Ethernet plug
- EB-RJ45-BLKHD-1** Bulkhead connector
- EB-RJ45-CAP-1** Protective cap with tether

Two-port Power Injectors

Stack these space-saving injectors on a DIN rail to add PoE power to any Ethernet cable.

Efficiently powered by a single 48VDC supply.



- EB-PSE-48V-2A**
- EB-PSE-48V-2B**

Universal Power Splitter -- At the Field End



This splitter will eliminate expensive power wiring by generating clean, isolated 24 VDC power for any (non-PoE) industrial devices. The ingenious UPS model charges a 12 volt battery to keep systems running.

- EB-PD-24V-1** PoE splitter for 24 VDC systems
- EB-PD-UPS-1** Charges an external 12V battery

Power Supplies



Various power supplies are offered to complete your Etherbus PoE solution. Options available:

- * AC to 48 VDC @ 120 Watts
- * AC to 48 VDC @ 75 Watts
- * Isolated 48 VDC - 24 VDC accessory supply.

- EB-PS-AC-48-120** 120Watt AC to 48V
- EB-PS-AC-48-75** 75Watt AC to 48V
- EB-PS-4824-13** 48V to 24V, 13W

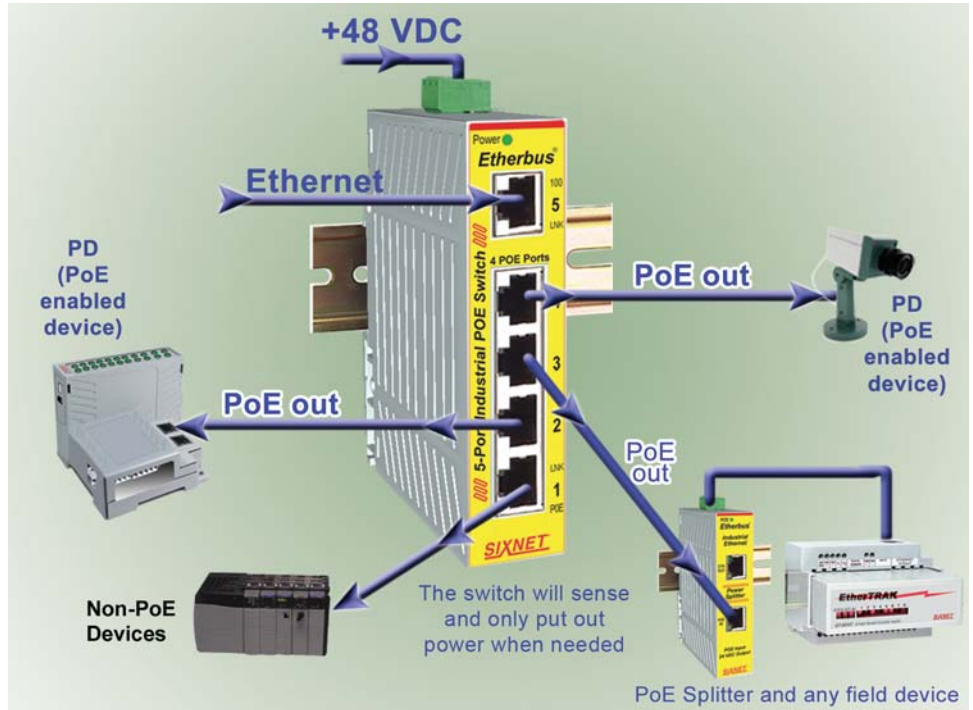
Etherbus® PoE Switches Complement the SIXNET Real-time Industrial Switch Family



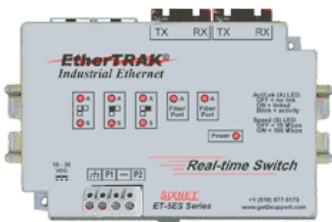
SIXNET is the innovation leader that first created real-time industrial Ethernet switches. Now, Etherbus switches add the power of PoE to this complete line of industrial solutions. Etherbus PoE switches connect universally to both PoE and traditional (non-PoE) devices. These real-time industrially-hardened switches avoid collisions and preserve the deterministic performance of your system. Do you need even higher performance? Etherbus switches connect seamlessly to Gigabit Ethernet backbones. Full details at: www.sixnetswitch.com.

Etherbus® Switches will:

- Simplify Installation
- Eliminate Power Wiring
- Increase Reliability
- Improve Network Bandwidth
- Ensure Real-time Operation
- Allow Deterministic Control



Other Industrial Solutions



Industrial Ethernet Switches

SIXNET also offers real-time Industrial Ethernet Switches that are truly plug and play. These advanced switches are rugged, reliable and provide real-time performance.



Controllers and RTUs with Open-Source Linux

SIXNET IPm is a combination of installation-ready industrial process controllers and RTUs. IPm offers reliability, the familiarity of powerful Windows programming and configuration utilities, all combined with powerful open-source Linux flexibility.

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.



Industrial Telephone Modems

SIXNET rugged industrial modems eliminate the hassles of mounting a telephone modem in an industrial enclosure. These robust modems are rated for wide temperature industrial operation.

