

SPECIFICATIONS

Host, Desktop Unit... Model 4162 (Cat No. 304162)
 Host, DIN Rail Mounted Unit... Model 4162-DIN (Cat No. 304162-DIN)
 4-Port Hub, Desktop Unit... Model 4169 (Cat No. 304169)
 4-Port Hub, DIN Rail Mounted Unit... Model 4169-DIN (Cat No. 304169-DIN)
 Included USB A-B Cable, 6 ft.... (Cat No. 507366)

High Speed Fiber-to-USB Converter/Extender, Host & 4-Port Hub

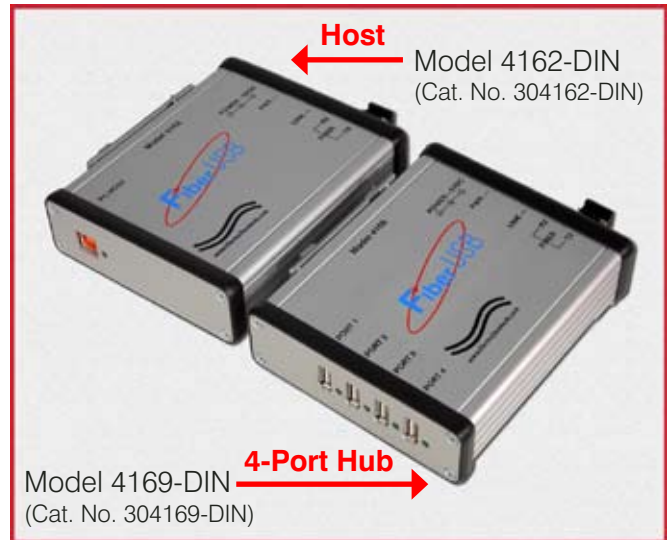
The Desktop Units, Models 4162 and 4169 or the DIN Rail Mounted units, Models 4162-DIN and 4169-DIN comprise a Host and a 4-Port Hub that extend USB connections up to 500 meters via a high speed Fiber interface. The units convert USB 2.0 compliant data from a standard PC Host interface over fiber to a remote 4-Port powered Hub. The Models 4162, 4162-DIN, 4169, and 4169-DIN are ideal for applications involving PC communications that require high speed, secure communications, and optical isolation. They are ideal for extending USB communications in environments that are subject to high EM or RF Interference that might corrupt communications over a copper interface. Typical applications include industrial control, KVM extension, remote desktop USB connections, and remote USB device sharing (printer, scanner, storage, etc.). The units offer true plug and play operability with support for Windows®, Mac OS®, Linux®, and support all USB device types: Control, Interrupt, Bulk and Isochronous at up to 480 Mbps.

The units have been tested to operate from 0°C to +50°C

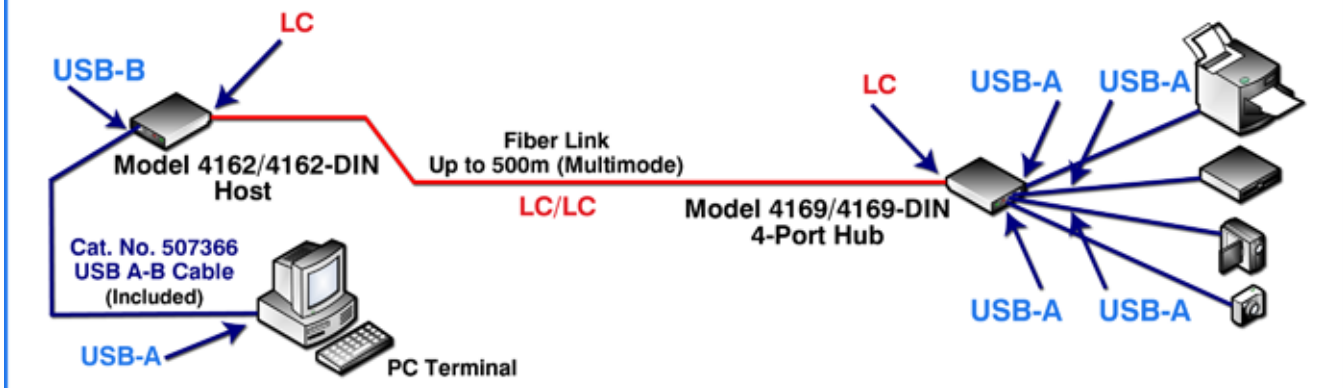
(component ratings meet or exceed 0°C to 70°C) and the set is a member of Electro Standards Laboratories' rugged media converter family. The units feature ESD protection circuitry on all copper USB I/O interfaces. Both units' power inputs are protected from transients and the 4-Port Hub (Model 4169, 4169-DIN) provides the USB standard of 500mA per port. The units feature; Power, Fiber Link Active, Host Active (Model 4162, 4162-DIN) and Port Active (Model 4169, 4169-DIN) indicator LEDs. The converters are available in a desk top package or DIN rail mounting hardware.

Two configurations are available for each model:

- (1) Model 4162 Host Desktop Unit, for applications requiring an enclosure.
- (2) Model 4162-DIN Host Unit for applications requiring mounting on a DIN rail.
- (3) Model 4169 4-Port Hub Desktop Unit, for applications requiring an enclosure.
- (4) Model 4169-DIN 4-Port Hub Unit for applications requiring mounting on a DIN rail.



Host and 4-Port Hub Typical Application



USB A-B Cable (6 FT): Included with Model 4162 / 4162-DIN is the cable ESL Cat. No. 507366. (USB Type A to USB Type B)

Host, Desktop Unit... Model 4162 (Cat No. 304162)
Host, DIN Rail Mounted Unit... Model 4162-DIN (Cat No. 304162-DIN)
4-Port Hub, Desktop Unit... Model 4169 (Cat No. 304169)
4-Port Hub, DIN Rail Mounted Unit... Model 4169-DIN (Cat No. 304169-DIN)
Included USB A-B Cable, 6 ft.... (Cat No. 507366)

High Speed Fiber-to-USB Converter/Extender, Host & 4-Port Hub

Specifications:

USB Interface:

Connectors: Model 4162 - 1x USB Type B, High Retention
Model 4169 - 4x USB Type A,
(5V @500mA/port)

Model 4162-DIN - 1x USB Type B, High Retention
Model 4169-DIN - 4x USB Type A,
(5V @500mA/port)

USB Data Format:

Type: USB 2.0 Compliant (Backwards compatible USB 1.1)
Rate: Supports Low Speed (1.5 Mbps),
Full Speed (12 Mbps), and High Speed
(480 Mbps) USB Data transfer rates.

Fiber Interface:

Connectors: Fiber Optic LC SFP Transceiver
TX Power: -6.5 dBm (Typical)
RX Sensitivity: -21.5 dB (Typical)
Optical Budget: 14.5 dB
Max. Link Distance with 50/125 μ m fiber: 500 Meters.
LC/LC Duplex fiber cable - Cat. No. 986147
Max. Link Distance with 62.5/125 μ m fiber: 275 Meters.
LC/LC Duplex fiber cable - Cat. No. 986017
Wavelength: 850 nm, multimode

Indicators:

LEDs: Model 4162 - Power, Fiber Link Active, Host Active
Model 4169 - Power, Fiber Link Active, Port Active

Model 4162-DIN - Power, Fiber Link Active, Host Active
Model 4169-DIN - Power, Fiber Link Active, Port Active

Power:

Input Power: 5Vdc @ 2.5W (Model 4162)
5Vdc @ 15W (Model 4169)

5Vdc @ 2.5W (Model 4162-DIN)
5Vdc @ 15W (Model 4169-DIN)

Connectors: DC Power Jack
USB Powered (Optional for Model 4162)
USB Powered (Optional for Model 4162-DIN)

Operating Environment:

Tested operation, 0°C to +50°C; component ratings
meet or exceed 0°C to 70°C.

Model 4162 Mechanical (Desktop Unit):

Model 4162, Cat No 304162
Size: 5.0" x 4.25" x 1.4"
Weight: Approx. 11.5 oz (327g)
Mounting: Desktop Standard, DIN rail (Optional)

Model 4169 Mechanical (Desktop Unit):

Model 4169, Cat No 304169
Size: 5.0" x 4.25" x 1.4"
Weight: Approx. 11.5 oz (317g)
Mounting: Desktop Standard, DIN rail (Optional)

Model 4162-DIN Mechanical (DIN Rail Mounted Unit):

Model 4162-DIN, Cat No 304162-DIN
Size: 5.0" x 4.25" x 1.4"
Weight: Approx. 11.5 oz (327g)
Mounting: 2 Threaded Holes Standard, DIN rail
DIN Rail Bracket Size: 2.84" x 1.24" x 0.16"
DIN Rail Bracket Weight: 0.9 oz (25.5g)

Model 4169-DIN Mechanical (DIN Rail Mounted Unit):

Model 4169-DIN, Cat No 304169-DIN
Size: 5.0" x 4.25" x 1.4"
Weight: Approx. 11.5 oz (317g)
Mounting: 2 Threaded Holes Standard, DIN rail
DIN Rail Bracket Size: 2.84" x 1.24" x 0.16"
DIN Rail Bracket Weight: 0.9 oz (25.5g)