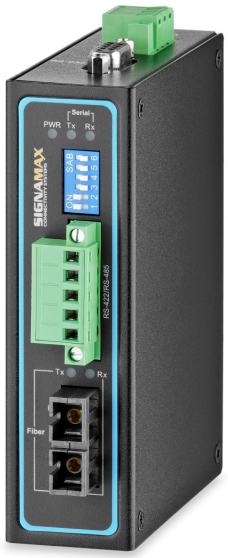
SIGNAMAX™
CONNECTIVITY SYSTEMS
An AESP Company

Network Connectivity Systems

Serial Data to Fiber Media Converters



Signamax Connectivity Systems' 065-1062AFSx series of RS-232/RS-422/RS485 serial data to fiber media converters are the simple, low-cost answer to the problem of extending a serial data stream over a fiber optic span for distance extension. These converters accept serial data on one port in either RS-232, RS-422, or RS-485 format and convert the serial data stream into a fiber optic signal to a matching unit at the other end of the fiber span. This fiber optic signal is then converted and reconstructed to the original serial data bit stream.

065-1062AFSx series converters are usable in Industrial Ethernet applications, to extend serial interface Programmable Logic Controllers (PLCs) and Computer Numerical Control (CNC) devices such as milling machines and lathes/routers for furniture manufacture over longer distances than the copper cable would ordinarily support. RS-232 connections, for example, are by definition maxed at 50 feet; low-capacitance cable increases this in the field to about 200 feet. The singlemode fiber version, model 065-1062AFSM, increases this distance to 15 kilometers (over 9.3 miles) in a typical application.

Security is another application that is well-suited for the 065-1062AFSx series converters. They allow a network designer to incorporate serial data-controlled devices such as door locks, Pan-Tilt-Zoom (PTZ) analog camera control, and fingerprint/retinal scanners over either multimode or singlemode fiber optic cable for distance extension as stated above.

KEY FEATURES

- Supports RS-232, RS-422, or RS-485 extension over fiber with a pair of units.
- Functions as a media converter for point-to-point applications.
- Low port-to-port latency; 960 nanoseconds maximum.
- Avoids retrofit of costly PLC and CNC devices.
- Hardened for operation from -40° F to 158° F (-40° C to 70° C).
- Simple setup and operation.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
065-1062AFSC	RS-232/RS-422/RS-485 serial data to fiber optic converter - SC Multimode (2 km span)
065-1062AFSM	RS-232/RS-422/RS-485 serial data to fiber optic converter - SC Singlemode (15 km span)

SPECIFICATIONS

www.signamax.com

999 N.W. 159th Drive • Miami, FL 33169 • 800.446.2377 • 305.944.7710 • Fax: 305.949.4483

SIGNAMAX™
CONNECTIVITY SYSTEMS
An AESP Company

SPECIFICATIONS

- **APPLICABLE STANDARDS**
  EIA/TIA RS-232, RS-422, RS-485 (2-wire & 4-wire)
  EIA/TIA- 574
  CCITT V.28

- **PORTS**
  1x duplex fiber; SC Multimode (065-1064FSC)
  1x duplex fiber; SC Singlemode (065-1064FSM)
  1x 9-pin serial connector; RS-232 - D-sub, female (DCD, DTR, DSR internally shorted; CTS, RTS internally shorted)
  1x 5-pin terminal block serial RS-422/RS-485 connector (RS-422 Signals & RS-485-4w Signals: TxD+, TxD-, RxD+, RxD-, GND; RS-485-2w Signals: Data+, Data-, GND)

- **DATA RATE (all models)**
  0.3 ~ 921 kbps (asynchronous)

- **DISTANCES SPANNED**
  Copper: 15 meters (RS-232 - all models)
  Fiber: 2,000 meters (multimode model 065-1064FSC)
  15 km (singlemode model 065-1064FSM)

- **ELECTRICAL REQUIREMENTS**
  Operating Voltage: 9 - 48V DC
  Maximum Current: 0.28 A @ 9V DC
  Power Connection: Removable 3-pin Screw Terminal Block with Reverse Polarity Protection.

- **ENVIRONMENTAL REQUIREMENTS**
  Operating Temperature: -40°F to 158°F (-40°C to 70°C)
  Storage Temperature: -40°F to 176°F (-20°C to 80°C)
  Relative Humidity: 5% to 95%, non-condensing

- **PHYSICAL CHARACTERISTICS**
  Dimensions: 1.35 x 3.59 x 4.72inches [W x D x H]
  (34.4 x 91.2 x 120 mm)
  Weight: 1.54 lbs. (700 grams)

- **FIBER INTERFACE, MULTIMODE MODEL 065-1062AFSC:**
  Type: InGaAsP LED
  Wavelength: 1310 nm nominal
  (1270 nm maximum, 1380 nm minimum)
  Maximum Output Power: -14.0 dBm
  Minimum Output Power: -20.0 dBm
  Sensitivity: -32.0 dBm
  Maximum Input Power: 0 dBm
  Link Power Budget: 12.0 dB

- **FIBER INTERFACE, SINGLEMODE MODEL 065-1062AFSM:**
  Type: InGaAsP Laser
  Wavelength: 1310 nm nominal
  (1261 nm maximum, 1360 nm minimum)
  Maximum Output Power: 0.0 dBm
  Minimum Output Power: -20.0 dBm
  Sensitivity: -32.0 dBm
  Maximum Input Power: 0 dBm
  Link Power Budget: 12.0 dB

- **PORT-TO-PORT LATENCY, RS-232 OR RS-422/485:**
  Maximum, Serial Port to Fiber Port: 960 nanoseconds
  Minimum, Serial Port to Fiber Port: 520 nanoseconds

- **EMISSIONS**
  FCC Part 15 of Class A & CE approved

- **WARRANTY**
  Lifetime

SPECIFICATIONS

www.signamax.com
999 N.W. 159th Drive • Miami, FL 33169 • 800.446.2377 • 305.944.7710 • Fax: 305.949.4483