

Heavy Industrial Serial to Fiber Optic Converters

FOSTCDRI-PH-MC, FOSTCDRI-PH-MT, FOSTCDRI-PH-SC

B+B SMARTWORX

Powered by

ADVANTECH



PRODUCT FEATURES

- IEEE-61850-3
- IEEE 1613
- Multi or Single Mode, ST or SC Versions
- -40 to 85°C Operating Temperature
- Rugged, IP30 Metal Panel Mount Case
- 50G Shock, 4G Vibration
- 2kV Triple Isolation

The FOSTCDRI-PH-xx series are premium heavy industrial serial to fiber optic converters. Designed for rugged industrial environments, they have been put through most exacting compliance testing in the industry. Meeting IEC 61850-3 and IEEE 1613 requirements, they are suitable for installation in electrical substations. These specifications are more stringent than the NEMA TS1/TS2 requirements for transportation applications. Powerful isolation protects equipment and data from damaging ground loops and surges. Additional isolation on the power supply circuits adds a third degree of protection.

Packaged in a rugged IP30 metal case, these converters convert serial signals to multi-mode or single-mode fiber optic. Bit-wise enabled circuitry automatically detects the data rate without setting a DIP switch.

In addition to direct point-to-point connectivity, operation in multi-drop mode is possible. This enables serial devices to communicate with up to 31 others in a fiber ring. Supporting mixed standards, you can replace other converters and add the EMI / RFI protection inherent to fiber optic communications.

ORDERING INFORMATION

| MODEL NUMBER | DESCRIPTION |
|----------------|------------------------------------|
| FOSTCDRI-PH-MC | Serial to Multi-mode SC Converter |
| FOSTCDRI-PH-MT | Serial to Multi-mode ST Converter |
| FOSTCDRI-PH-SC | Serial to Single-mode SC Converter |

ACCESSORIES

MDR-20-24 - DIN Rail Mount Power Supply 24VDC, 1.0 A output power

Heavy Industrial Serial to Fiber Optic Converters

FOSTCDRI-PH-MC, FOSTCDRI-PH-MT, FOSTCDRI-PH-SC

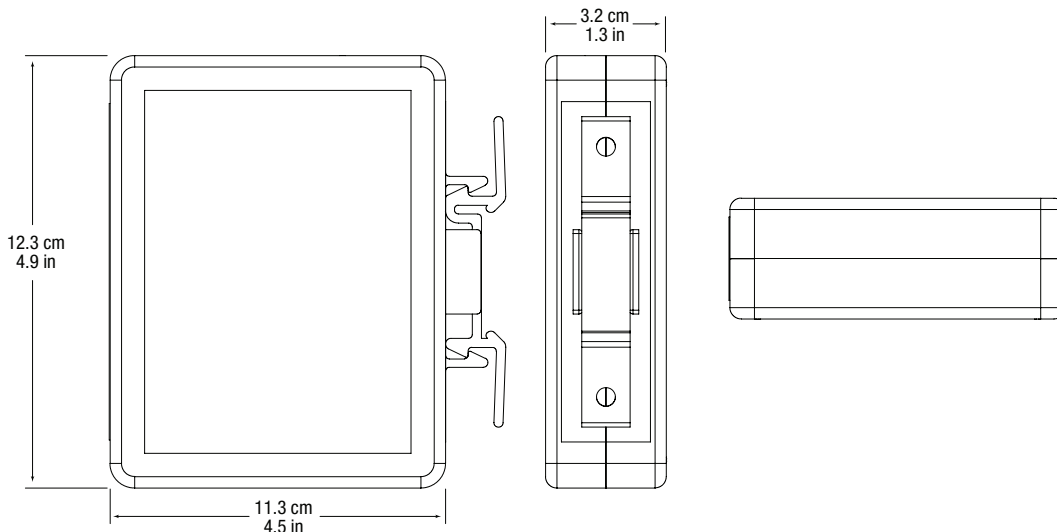


SPECIFICATIONS

| SERIAL TECHNOLOGY | |
|--------------------------|--|
| Data Rate | 9.6 to 115.2 kbps |
| RS-232 | |
| Connector | Removable terminal block |
| Signals | TD, RD, GND |
| RS-422/485 | |
| Connector | 5-position, removable terminal block |
| RS-485, 2-wire | Data A(-), Data B(+), GND |
| RS-422/485, 4-wire | TDA(-), TDB(+), RDA(-), RDB(+), GND |
| Bias | Built-in, switchable, 1.2K Ω |
| Termination | Built-in, switchable, 120 Ω |
| ISOLATION | |
| Rating | 2KV RMS, 1 minute |
| Surge Protection | 600 W peak power dissipation |
| Clamping Time | < 1 pico-second |
| Lines Protected | 2-way (input, output lines) |
| Method | Optical |
| FIBER OPTIC TECHNOLOGY | |
| Type / Wavelength | Multi-mode / 820 nm |
| Output Power | -16dBm min, -12dBm typical, -9dBm maximum |
| Receive Sensitivity | -24dBm min, -25.4dBm maximum |
| Cable | 62.5/125 micro-meter |
| Connector | ST |
| Data Rate | 9.6 to 115.2 kbps |
| Maximum Distance | 4 km (2.5 mi) |
| Idle State, FOSTCDRI | Transmitter light ON |
| Idle State, FOSTCDRI-INV | Transmitter light OFF |
| INDUSTRIAL BUS | |
| Modbus | ASCII/RTU |
| POWER | |
| Source | External |
| Input Voltage | 10 to 48 VDC (56 VDC maximum) |
| Consumption | 0.5 W (typical), 1.3W (with termination) |
| Connector | 2-position, removable terminal block, 24 to 14 AWG |

| TERMINAL BLOCKS | |
|---|--|
| Wire Size Accepted | 28 to 12 AWG |
| Pitch | 5.08 mm |
| Insulation Resistance | \geq 500 M Ω @ 500 VDC |
| Maximum Torque | 5 Kg / cm |
| LED INDICATORS | |
| Power | Red LED |
| FO Receive | Red LED |
| FO Transmit | Red LED |
| MECHANICAL | |
| Dimensions | 12.3 x 11.3 x 3.2 cm (4.9 x 4.5 x 1.3 in) |
| Enclosure | IP 20 plastic, 35 mm DIN mount |
| Weight | 199.6 g (0.44 lbs) |
| ENVIRONMENTAL | |
| Operating Temperature | -40 to +80 $^{\circ}$ C (-40 to +176 $^{\circ}$ F) |
| Storage Temperature | -40 to +85 $^{\circ}$ C (-40 to +185 $^{\circ}$ F) |
| Operating Humidity | 0 to 95% non-condensing |
| MTBF | 138904 hours |
| MTBF Calculation Method | Parts Count Reliability Prediction |
| APPROVALS / CERTIFICATIONS - FOSTCDRI | |
| UL Class 1 Division 2, Groups A, B, C, D | |
| File Number: E222870 (HAZLOC E245458) | |
| FCC Part 15, CISPR, EN 55022: 2010 + AC:2011 Class B Emissions | |
| CE | |
| EN 61000-6-1: 2007 Generic Standards for Residential, Commercial and Light-Industrial Environments | |
| EN 61000-4-2: 2009 Electro-Static Discharge (ESD) | |
| EN 61000-4-3: 2006 +A1 +A2 +IS1 Radiated Field Immunity (RFI) | |
| EN 61000-4-4: 2012 Electrical Fast Transients-Burst Immunity (EFT) | |
| EN 61000-4-6: 2009 Conducted Immunity | |
| Download complete Declaration of Conformity at www.bb-elec.com | |
| APPROVALS / CERTIFICATIONS - FOSTCDRI-INV | |
| UL 508, File Number: E222870 | |
| FCC Part 15, CISPR, EN 55022: 2010 + AC:2011 Class A Emissions | |
| CE | |

MECHANICAL DIAGRAM





www.L-TronDirect.com

800-830-9523

info@L-Tron.com

596 Fishers Station Dr | Victor, NY | 14564 | Suite 1 A

www.L-Tron.com

