Industrial Device Server RS232 to 100BASE-FX

SDSFE311x-100

NEW

Network Enable Serial Devices in Industrial Applications

Transition Networks's Industrial Device Servers provide a serial-to-Ethernet conversion to enable customers to integrate any legacy serial-based device into their Ethernet networks located in either the office environment or on the factory floor.

These hardened devices are designed to reliably operate in harsh environments and/or extreme temperatures such as those found on factory floors, outdoor enclosures or other hazardous environments.
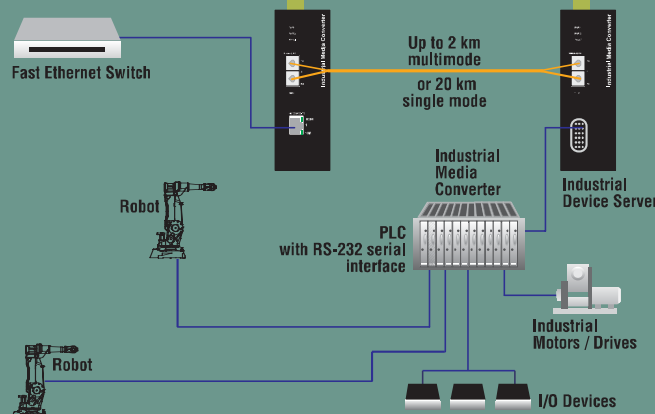
Network-enable serial based devices quickly and cost-effectively with these hardened industrial serial-to-Ethernet device servers. The device server can connect to RS232 serial ports and provides a 100BASE-FX Fast Ethernet fiber optic connection for links up to 80 km.

Device servers can also help eliminate EMI and RFI issues or overcome distance limitations with copper based serial cabling by converting your copper-based serial equipment over to fiber optics.

Features

▶ Remote Management

▶ Supports asynchronous serial data rates up to 115kb/s

▶ Control up to 4,096 virtual COM ports from one PC

▶ Extended (0°C to 70°C) operating temperature

▶ Redundant DC Power Inputs

▶ Dry Contact Relay output for power failure and link down

▶ DIN rail mounting brackets included

Diagram labels

Fast Ethernet Switch
Robot
Robot
Up to 2 km multimode
or 20 km single mode
Industrial Media Converter
Industrial Device Server
PLC with RS-232 serial interface
Industrial Motors / Drives
I/O Devices

Ordering Info

SDSFE3111-100
DB-9 **[15 m/49 ft.]**
to 1300nm multimode (ST)
[2 km/1.2 mi.] Link Budget: 12.0 dB

SDSFE3113-100
DB-9 **[15 m/49 ft.]**
to 1300nm multimode (SC)
[2 km/1.2 mi.] Link Budget: 12.0 dB

SDSFE3114-100
DB-9 **[15 m/49 ft.]**
to 1310nm single mode (SC)
[20 km/12.4 mi.] Link Budget: 15.0 dB

SDSFE3115-100
DB-9 **[15 m/49 ft.]**
to 1310nm single mode (SC)
[40 km/24.9 mi.] Link Budget: 19.0 dB

SDSFE3117-100
DB-9 **[15 m/49 ft.]**
to 1550nm single mode (SC)
[80 km/49.7 mi.] Link Budget: 34.0 dB

Specifications

Standards	EIA/TIA-574, EIA/TIA RS232E, IEEE Std. 802.3™
Data Rate	**Serial:** 115 kb/s **Fiber:** 100Mb/s

Fiber Optic Connector Specs

SKU	Min TX PWR (dBm)	Max TX PWR (dBm)	RX Sens (dBm)	Max In PWR (dBm)	Link Budget (dB)
SDSFE3111-100	-19.0	-14.0	-31.0	-14.0	12.0
SDSFE3113-100	-19.0	-14.0	-31.0	-14.0	12.0
SDSFE3114-100	-15.0	-3.0	-30.0	-3.0	15.0
SDSFE3115-100	-15.0	-8.0	-34.0	-7.0	19.0
SDSFE3117-100	-3.0	+3.0	-37.0	0.0	34.0

Drivers	Windows 95, 98, ME, 2000, 2003, XP, NT 4.0 Microsoft NT/2000/2003 Terminal Server
Signal Support	TxD, RxD, CTS, RTS, DTR, DSR, RI, DCD, GND
Switches	**Switch 1:** Primary power alarm on/off **Switch 2:** Redundant power alarm on/off **Switch 3:** Fiber port alarm on/off **Switch 4:** n/a

Status LEDs	**PWR (Power)**: ON = primary power connected **RPS (Power)**: ON = backup power connected **ALM**: ON = fault on port link or loss of PWR or RPS **100 (fiber)**: ON = link on fiber 100Mb/s **LNK/ACT (fiber)**: ON = fiber link / activity **POST**: ON = Power On Self Test successful; FLASHING = performing POST **ACT (copper)**: ON = Serial link / activity
Dimensions	**Width**: 2.0" [50 mm] **Depth**: 3.9" [100 mm] **Height**: 4.7" [120 mm]
Ingress Protection	IP 30
Input Power	9 to 48 VDC; 1.0A; redundant inputs
Environment	0 to +70°C standard operating temperature; 5% – 90% humidity non-condensing; 0 – 10,000 ft. altitude
Shipping Weight	2 lbs. [0.90 kg]
Compliance	CISPR22/EN55022 Class A + EN55024; EN60950 Class A; FCC Class A; CE Mark
Warranty	Lifetime

TRANSITION NETWORKS ®

EMS Type Tests

Test	Description		Test Levels	Severity Level
IEC61000-4-2	ESD	Air Discharge	+/- 8KV	3
		Contact Discharge	+/- 6KV	3
		ESD Contact Indirect	+/- 6KV	3
IEC61000-4-3	Radiated RFI	Housing	10V/m, 80 MHz – 1 GHz AM 1 KHz, 80% modulation 10V/m, 0.9 – 1.8 GHz FM 200 Hz, 50% modulation	3
IEC61000-4-4	Burst (Fast Transient)	PWR Supply Lines	+/- 2KV	3
		Communication Lines	+/- 1KV	3
		Relay	+/- 1KV	3
IEC61000-4-5	Surge	PWR Supply Lines	+/- 2KV, 12 ohm, CM +/- 1KV, 2 ohm, DM	3
		Relay	+/- 2KV, 12 ohm, CM +/- 1KV, 2 ohm, DM	3
IEC61000-4-6	Induced (Conducted RFI)	PWR Supply Lines	10 Vrms, 150 KHz – 80 MHz AM 1 KHz, 80% modulation	3
		Communication Lines	10 Vrms, 150 KHz – 80 MHz AM 1 KHz, 80% modulation	3
		Relay	10 Vrms, 150 KHz – 80 MHz AM 1 KHz, 80% modulation	3

Environmental Type Tests

Test	Description	Test Levels
IEC60068-2-6	Vibration	10 – 500 – 10 HZ, 0.5 oct./min, 4g, X, Y, Z (3 axes)
IEC60068-2-27	Shock	50 g, 11ms, 4g, +/- X, +/- Y, +/- Z (6 direction)
IEC60068-2-32	Free Fall	75 cm, 1 corner, 3 edges, 6 faces (total 10 drops)