STF-401C Series

Compact 1-Port RS-232/422/485 Serial to 100Fx Fiber Converter

Features

▶ Fan-less and Din-Rail design for Harsh Industrial Environment

▶ Built in 1Port RS232(DB9) or RS422/485(Terminal Block) Serial Port

▶ Supports SC or ST Multi-mode 2Km, Single-mode 30Km

▶ Dip Switch to Change RS-485 Data Signals Pull High/Low Resistor

▶ Supports Input Voltage 9 ~ 48VDC

▶ Supports Reverse Polarity Protection

▶ Wide Range Operating Temperature Supports: -40 to 70°C

▶ Applicable with Point-to-Point, Half Duplex Single Ring Topology Serial Fiber Daisy Chain Network application

▶ 5-Year Warranty

CE FC RoHS

Overview

The STF-401C series Compact Industrial Serial-to-Fiber Media Converter Series provides a solution to extend any RS-232 or RS-422/485 serial device data transmission distance with 100Fx Fiber (SC or ST connector) options via Multi-Mode in 2Km or Single-Mode in 30Km. It features a Din-Rail Type design to give users an easy installation and maintenance purpose in any harsh industrial environments.

A perfect solution for any single "Point-to-Point" applications with

▶ Industrial manufacturing in Factory Automation;

▶ Remote sensing and signaling/metering in ITS;

▶ EMI resistant for IEDs data transmission in Substation Automation;

▶ Industrial Control in Process Control Automation, such as WWTP and Oil/Gas/Mining

Specifications

STF-500C Series Specifications

Optical Fiber Interface

Fiber Connector:	SC or ST
Cable Requirement:	Multi-Mode: 50/125um, 62.5/125um Single-Mode: 9/125um
Fiber Port:	1 Fiber Port
Transmission Distance:	Multi-Mode: 2km Single-Mode: SC 30km
Wavelength:	1310nm
Tx Power:	Multi-Mode: -14 ~ -23.5 dBm @ 50/125µm / -14~-20 dBm @ 62.5/125µm Single-Mode: -8 ~ -15 dBm
Rx Sensitivity:	Multi-Mode: -31 dBm Single-Mode: - 32 dBm

Serial Interface

Serial Port Connector:	RS-232 - TxD, RxD, GND (DCD, DTR, DSR internal short ; CTS, RTS internal short) RS-422-4w - TxD+, TxD-, RxD+, RxD-, GND RS-485-2w - Data+, Data-,GND
Baud Rate:	300bps ~ 921kbps
Serial Isolation:	N/A
ESD Protection:	15KV
Pull High/Low:	Dip Switch adjustment

Power Requirements

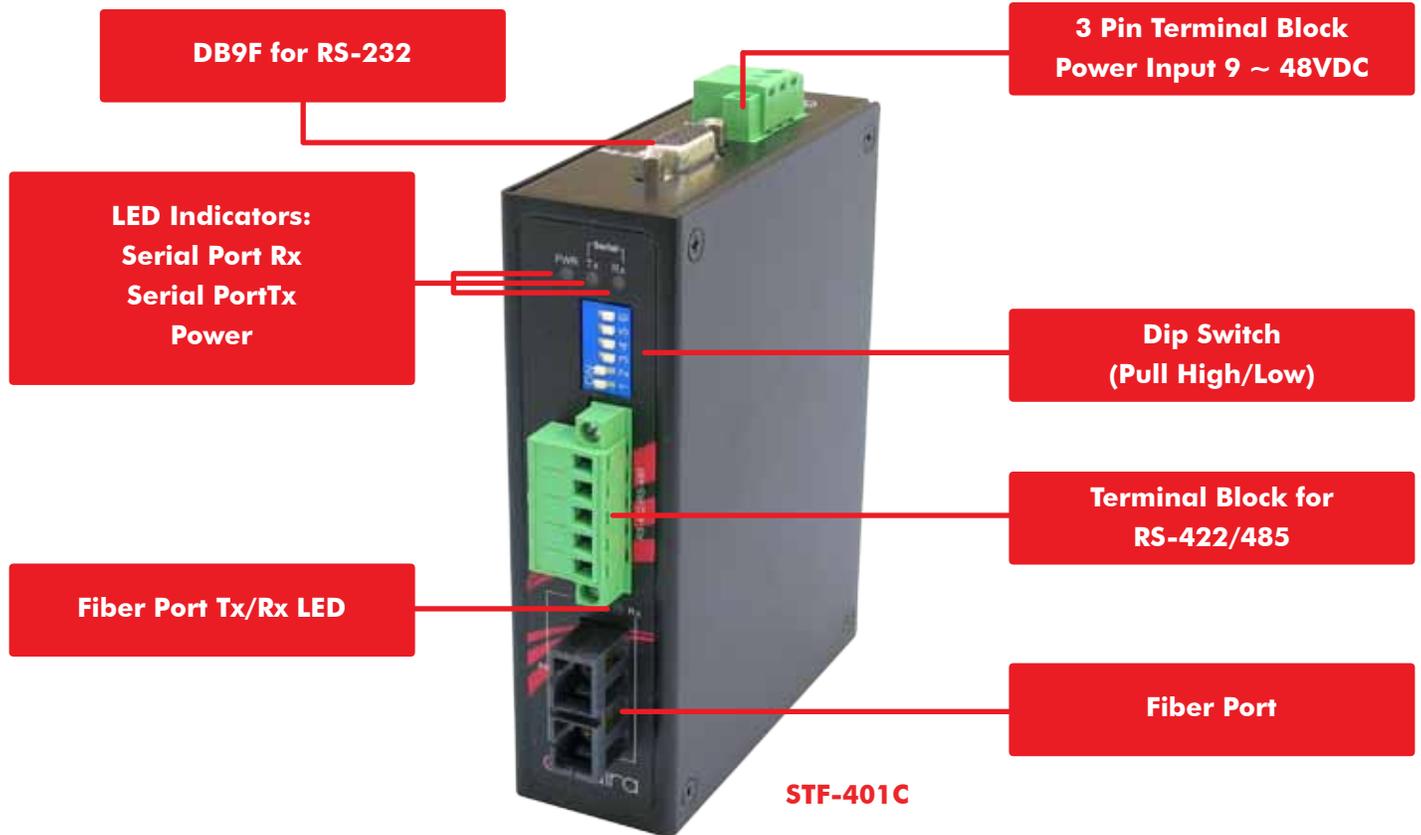|	
Power Input:	9 ~ 48VDC
Power Consumption:	2.52W - @0.28A max, 9 VDC
Power Connector:	Removable 3-pin Screw Terminal Block
Power Protection:	Reverse Polarity Protection

Mechanical Characteristics

Housing:	Metal, IP50 Protection
Dimensions:	34.4 x 91.2 x 120mm (1.35 x 3.59 x 4.72 in)
Weight:	700g
Mounting:	DIN-Rail Mounting, Wall Mounting Kits (Optional)

Environmental

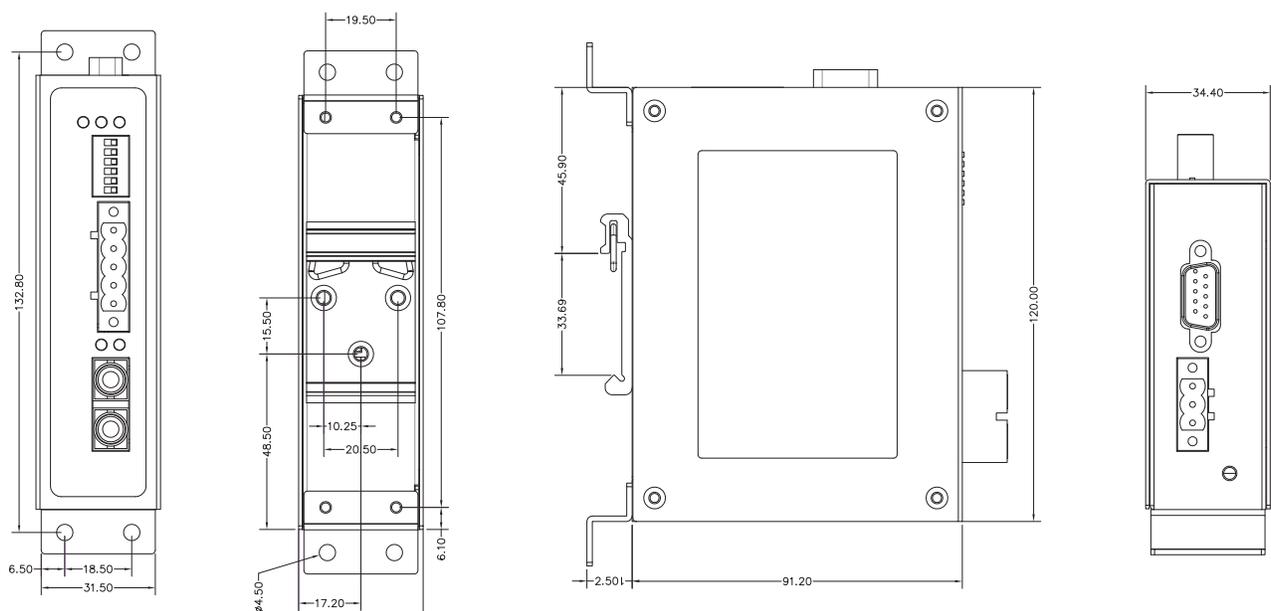|	
Operating Temp:	-40°C ~ 70°C (-40°F ~ 158°F)
Storage Temperature:	-40°C ~ 85°C (-40°F ~ 185°F)
Humidity:	5 to 95%, 55°C (Non-Condensing)

Regulatory Approvals

EMI:	FCC Part15, CISPR (EN55022) Class A
EMS:	EN61000-4-2 (ESD) Level 4, Criteria B EN61000-4-3 (RS) Level 3, Criteria A EN61000-4-4 (EFT) Level 3, Criteria A EN61000-4-5 (Surge) Level 3, Criteria B EN61000-4-6 (CS) Level 3, Criteria A
Shock / Freefall / Vibration:	Shock: MIL-STD-810F Method 516.5 Free Fall: MIL-STD-810F Method 516.5 Vibration: MIL-STD-810F Method 514.5 C-1 & C-2
Green:	RoHS Compliant
MTBF:	216,388 Hours
Certifications:	FCC, CE
Warranty:	5-Year Warranty

▶ Layout

Product Highlights

DB9F for RS-232

3 Pin Terminal Block Power Input 9 ~ 48VDC

**LED Indicators:
Serial Port Rx
Serial PortTx
Power**

**Dip Switch
(Pull High/Low)**

**Terminal Block for
RS-422/485**

Fiber Port Tx/Rx LED

Fiber Port

STF-401C

Dimension Drawing (unit = mm)

Ordering Information

Single Fiber Version

STF-401C-CM02-T	Compact Industrial RS-232/422/485 Serial to 100Fx Fiber Converter, Multi-Mode 2KM, SC, -40°C ~ 70°C
STF-401C-CS30-T	Compact Industrial RS-232/422/485 Serial to 100Fx Fiber Converter, Single-Mode 30KM, SC, -40°C ~ 70°C
STF-401C-TM02-T	Compact Industrial RS-232/422/485 Serial to 100Fx Fiber Converter, Multi-Mode 2KM, ST, -40°C ~ 70°C
STF-501C-TS02-T	Compact Industrial RS-232/422/485 Serial to 100Fx Fiber Converter, Single-Mode 30KM, ST, -40°C ~ 70°C

Optional Accessories

DR-45-24	45W Industrial Din Rail Power Supply
DR-75-24	75W Industrial Din Rail Power Supply

Comparison

Industrial Serial-to-Fiber Product Family Comparison

Compare Features	STF-401C Series Compact 1 Fiber Port	STF-501C series High Performance 1 Fiber Port	STF-502C series High Performance Dual Fiber Ports
Supports 1*RS232 (DB9), or 1*RS422/485 (Terminal Block)	●	●	●
Supports Multi-mode in 2Km, Single-mode in 30Km	●	●	●
Baud Rate up to 1024Kbps		●	●
Serial Isolation		●	●
ESD Protection	●	●	●
RS422/485 Pull High / Low	●	●	●
Support Point-to-Point Application	●	●	●
Support Half-Duplex Daisy Chain / Ring Topology Serial-Fiber Network	●	●	●
Support Full-Duplex Redundant Ring Serial-Fiber Network			●
5 Years Product Warranty	●	●	●