CSF201

1-Port RS232/485/422 to Fiber Converter

- 1×RS232/485/422 serial port to 1×fiber port
- Support conversion between RS232/485/422 serial ports with a maximum transmission distance of 100km
- Support transparent transmission with auto-sensing baud rates from 300bps to 115200bps
- Built-in intelligent module automatically detects RS485 signal direction
- Support master-slave communication mode with RS485 supporting up to 128 nodes
- Support DC 5~36V power input
- High-strength metal housing with IP40 protection rating
- -40°C~+85°C operating temperature range

Product Description

The CSF201 fiber converter is specifically designed for industrial applications, enabling long-distance transmission of 1×RS232/485/422 serial ports via fiber optics. This product features RS485/422 support for multi-device communication and convenient networking. Additionally, utilizing fiber optic cables as the transmission medium provides advantages such as high isolation voltage, electromagnetic interference immunity, and lightning strike resistance. To facilitate remote data communication between computers, external devices, or intelligent instruments equipped with different serial interface standards, conversion between these interfaces is essential. The CSF201 fiber converter incorporates zero-delay automatic transmission conversion internally. with a unique I/O circuit that automatically controls data flow direction without requiring any handshake signals (such as RTS, DTR, etc.). This ensures compatibility with existing operating software and interface hardware, resolving the conflict between long communication distances, high communication speeds, and numerous dispersed nodes. It also addresses challenges like electromagnetic interference, ground loop interference, and lightning damage, significantly enhancing the reliability, security, and confidentiality of data communication.

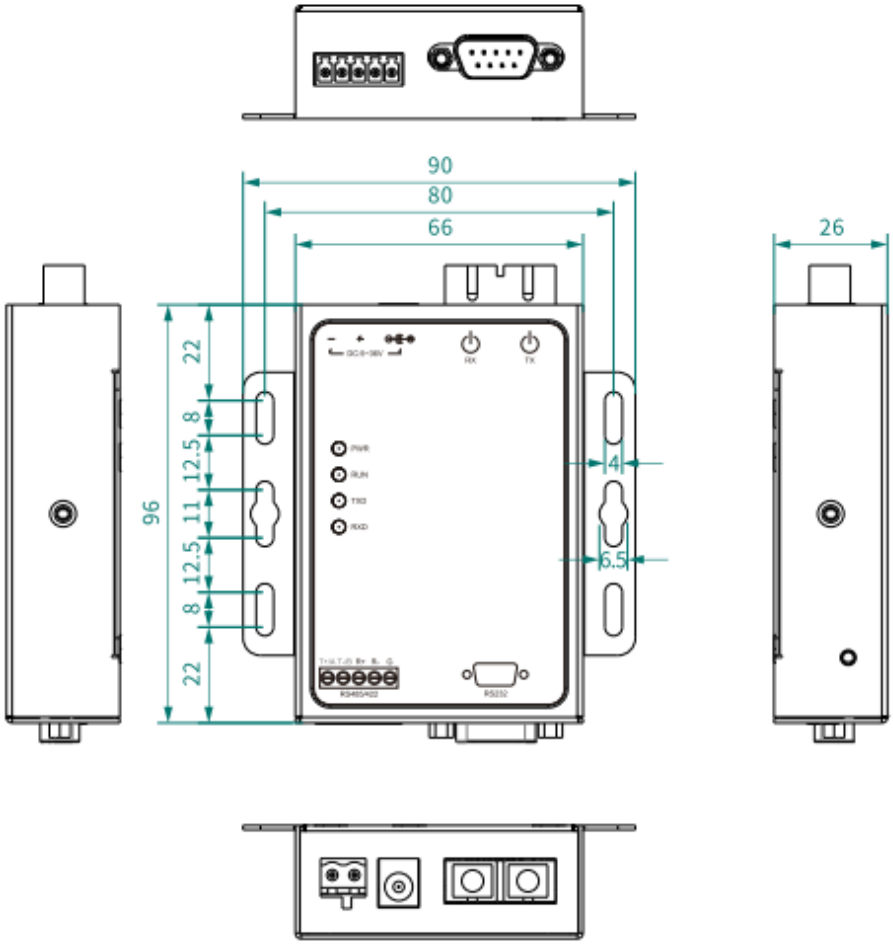
The CSF201 fiber converter utilizes a wide-range DC power input. For structural installation, the CSF201 employs a wall-mounting design. Core components utilize industrial-grade quality design solutions, supporting transmission rates from 300bps to 115200bps. This enables the formation of point-to-point or point-to-multipoint remote multi-machine communication networks between master controllers, or between master controllers and microcontrollers/peripherals, facilitating multi-machine response communication. Widely applied in industrial automation control systems, integrated access cards, access control systems, parking systems, self-service banking systems, bus fare collection systems, cafeteria meal sales systems, corporate employee attendance management systems, highway toll station systems, and more, this product is indispensable for industrial communication.

Technical Specifications

Interface	
Serial Port	Standards: EIA RS232, RS485, RS422 Interface Type: 1× RS232 or RS485/422 serial port Connection Method: RS232 uses DB9 Female connector; RS485/422 uses 5-pin terminal block with 3.81mm pitch RS232 Signals: TX, RX, GND RS485/422 Signals: T+/A, T-/B, R+, R-, GND Baud Rate: 300bps to 115200bps Number of Nodes: RS485 supports up to 128 nodes Direction Control: Automatically detects RS485 flow direction
Fiber Port	Interface Type: 1 × fiber port, ST/SC/FC connectors optional Transmission Distance: Multimode 2km, Single-mode 20km (40/60/80/100km optional) Transmission wavelength: Multimode 850nm/1310nm or single-mode 1310nm/1550nm selectable Fiber type: Multimode fiber 62.5/125μm or 50/125μm, single-mode fiber 9/125μm Optical power and sensitivity: ≥-8dBm, ≤-20dBm (Refer to specific optical module models for details) Bit error rate: ≤10-9
Status LED	Power indicator, Operation indicator, Fiber port transmit indicator (serial port receive), Fiber port receive indicator (serial port transmit)
Power Supply	
Input Voltage	DC 5~36V, reverse polarity protection
Power Consumption	＜0.3W @ DC 24V (Full load)
Connection	2-position 5.08mm pitch terminal block or Φ2.5mm DC barrel connector
Physical Characteristics	
Dimensions	96×90×26 mm

Installations	Wall-mounted
IP Code	IP40
Weight	About 0.25kg
Working Environment	
Operating Temp	-40°C~+85°C
Storage Temp	-40°C~+85°C
Relative Humidity	5%~95% (non-condensing)
Industry Standard	
EMC	IEC 61000-4-2 (ESD): Level 4 (contact discharge ±8kV, air discharge ±15kV) IEC 61000-4-5 (Surge): Level 3 (Power supply: Common-mode ±2kV, Differential-mode ±2kV; RS485: Common-mode ±2kV, Differential-mode ±2kV) IEC 61000-4-4 (EFT): Level 4 (Power supply: ±4kV, RS485: ±2kV)

Dimensions



Ordering Information

Standard Model	RS232/485/422	Fiber Port	Input Voltage
CSF201-F(M/S)	1	1	DC5~36V

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Contact Us

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