CANbus to Fiber Converter

Model: CSF-CAN-F(M/S)

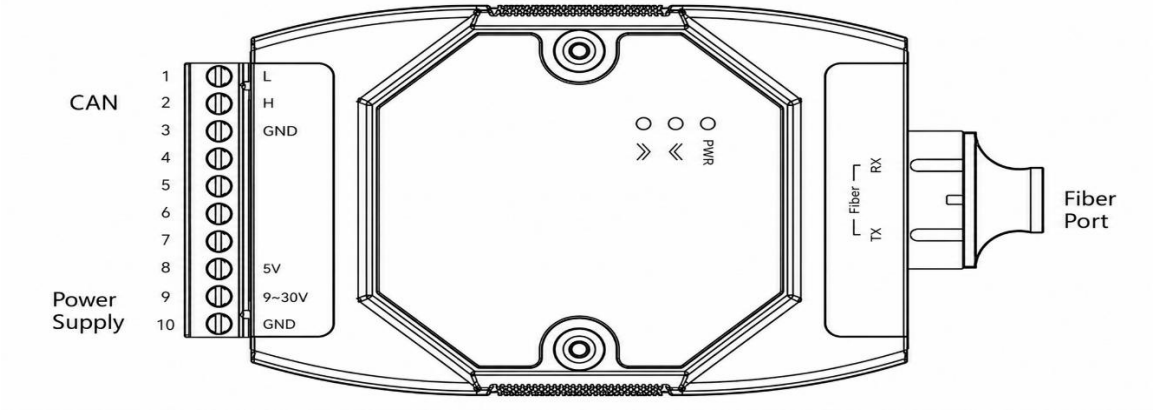
◆ Function Overview

CSF-CAN CANbus to fiber converter enables the transmission of CAN bus signals via optical fiber, thereby extending the communication range of the CAN bus. At the same time, the use of fiber-optic communication eliminates issues such as electromagnetic interference, ground loop interference, and lightning damage, thereby significantly enhancing the reliability, security, and confidentiality of data communication. It can be widely used in various industrial control, process control, and traffic control applications, and is particularly suitable for banks, the power industry, and other sectors and systems with special requirements regarding electromagnetic interference.

◆ Specification Products

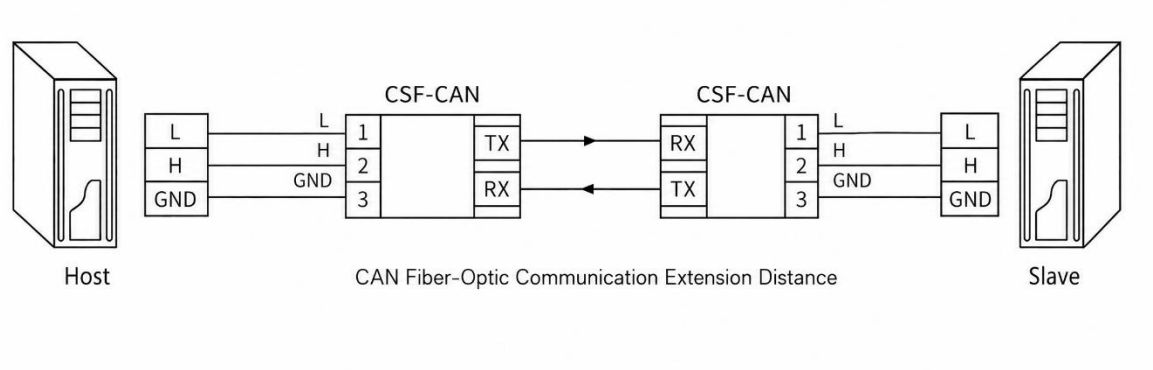
CAN	Interface Type: 1×CAN Port Connection Method: 10-pin 5.08mm pitch terminal block Baud Rate: 300bps~300000bps
Optical fiber interface	Interface Type: 1×fiber port, ST/SC/FC interface, single-fiber/ dual-fiber optional Transmission Distance: Multi-mode 2km, Single-mode 20km Transmission Wavelength: Multi-mode 850nm/1310nm or Single-mode 1310nm/1550nm optional Fiber Type: Multi-mode fiber 62.5/125μm or 50/125μm, Single-mode fiber 9/125μm Optical Power and Sensitivity: ≥-8dBm, ≤-20dBm (Refer to different model optical modules for specifics) Bit Error Rate: ≤ 10^{-9}
Power parameters	Power Input: DC5V or DC9~30V Operating Current: <200mA Connection Method: 10-pin 5.08mm pitch terminal block
Mechanical parameters	Dimensions: 102.4×72×34mm (excluding DIN rail clips and connectors) Installation method: 35mm standard DIN rail mounting Enclosure protection: Adam enclosure, IP40 protection level Weight: about 0.15kg
Working environment	Operating temperature: -20℃ ~ +70℃ Storage temperature: -40℃ ~ +85℃ Relative humidity: 5%~95% (no condensation)

◆ Pin Definition



- Power interface: support DC5V or DC9-30V power input.
- CAN port: L, H, GND.

◆ Application Diagram



◆ Installation and Connection

- Fiber optic connection

Fiber optic converters are used for point-to-point communication and are connected in pairs via optical ports. For dual-fiber configurations, the TX port connects to the RX port, and the RX port connects to the TX port; for single-fiber configurations, the A and B ports are used in pairs. Ensure that the specifications of the optical modules match.

- CAN connection

Optical fiber converter CAN port is 10 pin terminal, 1, 2, 3 pins are L, H and GND. CAN signal connection: L connects CAN_L, H connects CAN_H, GND connects GND!

- Indicator light

The fiber converter is equipped with a power indicator PWR (steadily lit). The optical port indicator marked "≫" blinks when data is transmitted from the fiber port. The CAN port indicator marked "≪" blinks when data is transmitted from the CAN port to the fiber port.

- Installation

The installation method adopts a 35mm DIN rail. First, fix the upper groove of the device

DIN-Rail bracket onto the upper part of the 35mm DIN rail; then, engage the movable lower groove into the lower part of the rail. You can push down the movable red buckle at the bottom of the bracket to secure the lower part of the DIN rail into the groove, and then push the red buckle back up to lock the DIN rail in place.

- Power Supply

The optical fiber converter adopts low-voltage drop wide power supply technology, and can be powered by a DC voltage of DC5V or DC9-30V. When powered by DC5V, the power supply is introduced from terminal pins 8 and 10; when powered by DC9-30V, the power supply is introduced from terminal pins 9 and 10. The power consumption of this product is less than 1W.

Please be sure to pay attention to the power polarity; reversing it will damage the equipment! Additionally, DC5V and DC9-30V should not be combined simultaneously.

A power adapter randomly equipped with AC 220V and DC 12V.

◆ Quality Assurance

For damage resulting from normal use, we offer a one-month replacement guarantee, one year of free repairs, and a five-year warranty.