MWF201 Series

RS232/485/422 Fiber Converter

- Support 1*RS232/485/422 serial port and 1*fiber port

- Support mutual conversion of RS232/485/422 serial ports and provide long-distance communication with a maximum transmission distance of up to 100km.

- Support transparent transmission, auto-sensing baud rates ranging from 300bps to 115200bps

- Built-in intelligent module automatically recognizes the direction of RS485 signal flow

- Support one master to multiple slave communication mode, with RS485 supporting up to 128 nodes

- Provide electrostatic protection and surge protection

- Industrial-grade design, using high-quality imported components and surface-mounting technology

CE FC RoHS IP40

◈ Product Description

The MWF201 series fiber converters are designed for long-distance transmission of 1*RS232/485/422 serial port through fiber in industrial settings. This product features support for RS485/422 multi-device communication and easy networking. Additionally, using optical fiber as the transmission medium offers advantages such as high isolation voltage, immunity to electromagnetic interference, and lightning protection.

In order to facilitate remote data communication between computers, external devices, or smart instruments with different standard serial interfaces, it is necessary to perform mutual conversion of standard serial interfaces. The MWF201 series fiber converters have zero-delay automatic send and receive conversion internally, and their unique I/O circuitry automatically controls the data flow direction without the need for any handshake signals (such as RTS, DTR, etc.). This ensures compatibility with existing operating software and interface hardware, addressing the challenges posed by long communication distances, high communication rates, a large number of distributed nodes, as well as electromagnetic interference, ground loop interference, and lightning damage. This significantly improves the reliability, security, and confidentiality of data communication.

The fiber converters support a wide range of DC or AC power inputs. In terms of installation, the MWF201 series products can be wall-mount or DIN-rail. These products are designed with industrial-grade quality, offering transmission rates ranging from 300bps to 115200bps. They can be used to establish remote multi-device communication networks, including point-to-point and point-to-multipoint communication between host controllers, host controllers, microcontrollers, or peripherals. The products find wide applications in industrial automation control systems, access control systems, parking systems, self-service banking systems, public transportation fare collection systems, cafeteria meal sales systems, employee attendance management systems, highway toll booth systems, and more.

MAIWE

Specification

Model

Model	MWF201-F	MWF201-F-G	MWF201-F-KG	MWE201-F-KG-AD220

Interface

Serial Port	Interface Type: 1*RS232/485/422 Baud Rate: 300bps~115200bps Connection Method: Terminal Block (MWF201-F RS232 features a DB9F connector) Nodes: RS485 supports 128 nodes Direction Control: Automatic detection of RS485 flow direction Interface Protection: ESD (Electrostatic Discharge) Level 4, Surge Level 3			
Fiber Port	Interface Type: 1*fiber port, with ST/SC/FC options Transmission Distance: Multi-mode 2km, Single-mode 20km (40/60/100km options) Transmission Wavelength: Multi-mode 850nm/1310nm or Single-mode 1310nm/1550nm options available Fiber Type: Multi-mode fiber 62.5/125μm or 50/125μm, Single-mode fiber 9/125μm Optical Power and Sensitivity: ≥-8dBm, ≤-20dBm (Specific values depend on different module models) Bit Error Rate: ≤10^{-9}			
Status LED	Power Indicator, Running Indicator(only for MWF201-F) Serial Port Transmit and Receive Indicator			

Power Supply

Input Voltage	DC9~36V	DC5~30V	DC5~36V	AC85~264V or DC110~370V
Working Current	＜20mA	＜20mA	＜20mA	＜5mA
Connection	Terminal Block			

Physical Characteristics

Dimensions	96×90×26mm	103×72×34mm	118×86×35(mm)	
Installations	Wall mount	Easy installation on 35mm DIN rails		
Weight	0.25kg	84g	0.38kg	0.27kg

Working Environment

Operating Temp	-40℃~+85℃	-20℃~+75℃	-40℃~+85℃	-20℃~+70℃
Storage Temp	-40℃~+85℃			

☑ Specification

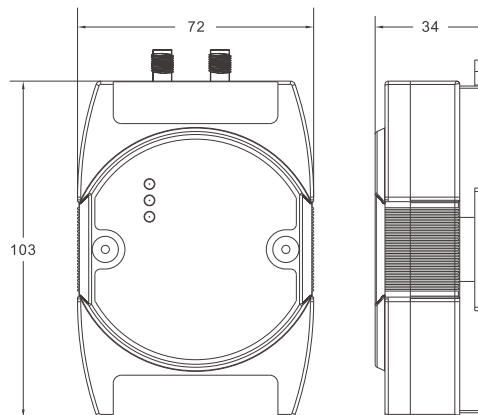| Relative Humidity	5%~95% (non-condensing)
Industry Standard	
Certification	CE, FCC, RoHS

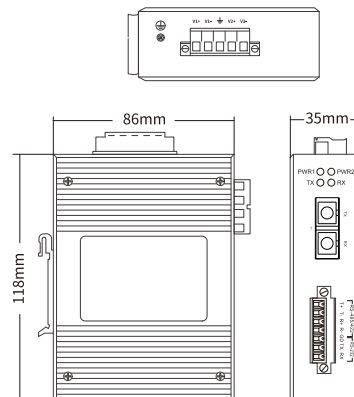# Dimensions

Unit: mm

- MWF201-F
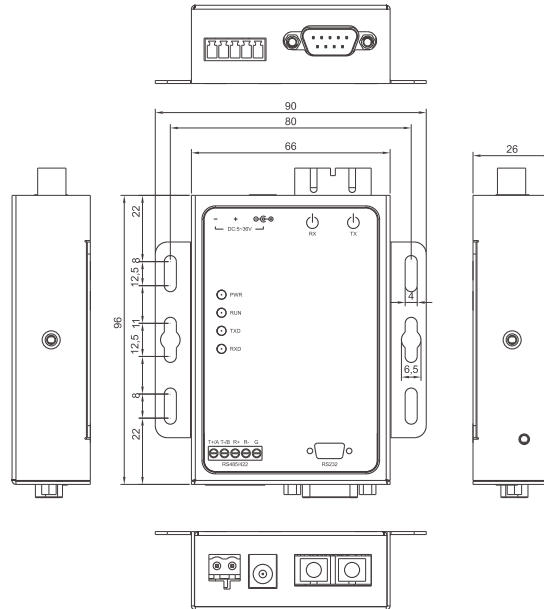
- MWF201-F-G

- MWF201-F-KG、MWF201-F-KG-AD220

Ordering Information

Standard Model	RS232/485/422	Fiber Port	Installations	Input Voltage
MWF201-F(M/S)	1	1	Wall mount (Metal shell)	DC9~36V
MWF201-F(M/S)-G	1	1	DIN-rail (Adamantine shell)	DC5~30V
MWF201-F(M/S)-K	1	1	Slide-in	DC5V
MWF201-F(M/S)-KG	1	1	DIN-rail (Metal shell)	DC5~36V
MWF201-F(M/S)-KG-AD220	1	1	DIN-rail (Metal shell)	AC85~265V or DC110~370V

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