



## Gigabit Ethernet and RS485 to Fiber Media Converter

Hot  
Pluggable



Chassis

Installation

6KV

Lightning Protection



### FMC-100-GE-RS485

### Key Features:

- 1x 10/100/1000M RJ45 + 1x RS485 to 1x 1.25G SC Fiber.
- Simultaneous Ethernet data and RS485 control transmission.
- Transmission distance up to 20/40/60/80km.
- Immune to EMI/RFI interference and ground loops.
- LED indicators for easy network diagnostics
- Compact in size, Plug-and-play, easy installation

### Introduction

The BENCHU GROUP FMC100-GE-RS485 is a hybrid Fiber Media Converter designed to simultaneously transmit Gigabit Ethernet and RS485 serial signals over a single fiber optic link. Featuring 1x 10/100/1000M RJ45, 1x RS485, and 1x 1.25G SC Fiber ports, it simplifies infrastructure by consolidating data and control signals into one device. Ideal for surveillance systems (PTZ control), industrial automation, and access control, this converter extends transmission distances up to 80km while providing complete immunity to electromagnetic interference. It offers a reliable, cost-effective solution for scenarios requiring both network connectivity and serial device management over long ranges.

### Hybrid Data & Control Transmission

Combines Gigabit Ethernet and RS485 serial signals into one fiber strand, eliminating the need for separate converters and reducing cabling complexity for PTZ cameras and industrial PLCs.

### Long-Distance & EMI Immunity

Extends network and control signals up to 80km over fiber, providing complete isolation from electromagnetic interference (EMI), lightning surges, and ground loops in harsh industrial environments.

### Transparent Low-Latency Transmission

Supports transparent data transmission with minimal latency, ensuring real-time responsiveness for critical control commands and high-speed data flows without protocol conversion overhead.

### Robust Port Protection

Equipped with built-in surge and ESD protection on both Ethernet and RS485 ports, safeguarding connected equipment from voltage spikes and electrical faults in outdoor or factory settings.

### Plug-and-Play Deployment

Requires no configuration or drivers; simply connect the fiber and copper cables to establish a stable link, significantly reducing installation time and maintenance effort.

# FMC-100-GE-RS485

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### Technical Datasheet

<b>Model</b>	<b>FMC-100-GE-RS485</b>	
<b>Hardware Specifications</b>		
Connector	1*10/100/1000BASE-T RJ45 auto MDI/MDIX ports 1*485 serial signals port 1*1000 Base-X SC	
Processing types	Store and forward	
LED Display	Power Indicator: PWR(green). Network Indicator: Link(green) Fiber: Green	
Thermal Fan	Fanless Design	
Network Standard	IEEE802.3i 10 BASE-T IEEE802.3u 100 BASE-TX IEEE802.3ab/z 1000 BASE-TX IEEE802.3x Flow Control IEEE802.3az EEE	
Jumbo Frame	9K	
Transmission model	IEEE802.3X full-duplex and Backpressure half-duplex	
Switch Performance	Backplane bandwidth	10Gbps
	Packet forwarding rate	2.98Mpps
	MAC address	4k
Power requirement	DC 5V	
ESD Protection	6KV ESD	
Dimension (W x D x H)	70 x 90 x 26mm (2.76in*3.54in*1.02in)	
Weight	<0.3kg	
Environment	Operating temperature: -20℃~55℃, operating humidity: 5%~95% Storage temperature: -40℃~75℃, storage humidity: 5%~95%	
Safety	FCC Part15 Class A,CE,RoHs	



### Ordering Information

FMC-100-GE-RS485	1ch 10/100/1000BASE-T to 1000BASE-X SC Fiber Converter,20Km, Dual fiber,Single mode
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