

A solid red circle graphic.

Unmanaged Industrial Ethernet Media Converter Data Sheet

The IMC-1D1R8S Ethernet Media Converter seamlessly connects to fiber optic cables, enabling fiber extension up to 20km (singlemode). It is designed for environments subject to electrical (EMI) and radio frequency (RFI) interference or transient surges, such as industrial plants, warehouses, factory floors, as well as enterprise and government networks. With its rugged IP40-rated metal enclosure and wide operating temperature range from -40°C to 75°C, the IMC-1D1R8S is well suited for harsh industrial environments. It also integrates diagnostic and unit status LED indicators, allowing for easy monitoring and maintenance, helping to minimize network downtime. With built-in surge and ESD protection, the IMC-1ST1RS485-SM ensures optimal data transmission via fiber optic interconnection of serial devices, enhancing system availability and reliability.

Main Features

- 1x 100Base-FX fiber ports, provide ST interface fiber port, support dual fiber transmission
- 1x RS485 Serial port
- Extends Bi-directional RS-485 up to 20km on SMF
- EIA/TIA standard RS485, 0~1Mbps rate
- Serial data is fully transparent, baud rate is self-adaptive, no setting is required
- The high speed serial data can used for DMX512 communication in Stage Lighting Control
- Plug-and-play, hot pluggable
- Built-in surge and static protection
- Diagnostic and unit indicator LEDs

Industrial Case and Installation

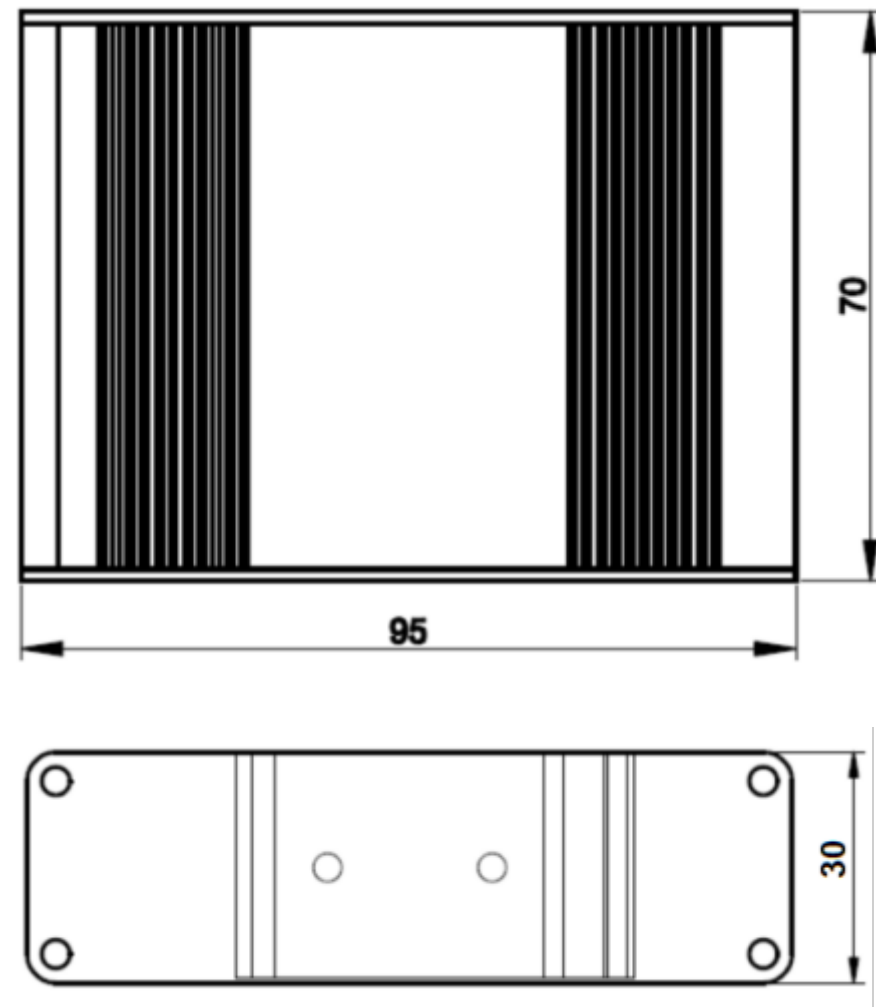
- IP40 aluminium case, fanless design
- 12-48V DC redundant power with reverse polarity protection
- DIN-rail and wall mount installation
- -40 to +75°C operating temperature

Technical Indexes

Interface	
Optical Port	1x 100Base-FX
Serial Port	1x RS485 Industrial Terminal
RS485	
Serial Interface	Industrial Terminal
Signal Ports	1Ch R485 - 1Mbps
Baud Rate	RS485: 4800-460800
Standard	EIA/TIA RS485
Rate	Max 1Mbps
RS-485	TR+, TR-
Static Protection	8KV Electric Static Discharge (ESD) Protection
Surge Protection	1500W/Sec Surge Protection
Electrical and Mechanical	
Input Power	12~48VDC, 2-pin Terminal Block
Power Consumption	3W Max.

Dimensions (HxWxD)	1.18"x3.74"x2.76" (30x95x70mm)
Weight	200g
Casing	Aluminum Case
Mounting Options	DIN-Rail/Wall-mount
LED Indicators	
PWR	Power Status
FX	Data LINK Status
R485	A Valid RS485 Connection Established
Environmental	
Operating Temperature	-40°C to 75°C (-40°F to 167°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	5% to 90% (Non-condensing)
MTBF	> 100,000 hrs

Dimensions (Unit: mm)



Package List

- Media Converter x 1
- L-shaped Wall Mount Bracket x 1
- Quick Start Guide x 1

Order Information

Model Number	Description
IMC-1D1R8M	Industrial Serial RS485, ST, MM, 850nm, 500m
IMC-1D1R8S	Industrial Serial RS485, ST, SM, 1310nm, 20km
IMC-1C1R8M	Industrial Serial RS485, SC, MM, 850nm, 500m

IMC-1C1R8S	Industrial Serial RS485, SC, SM, 1310nm, 20km
------------	---



Delaware, United States

Address: Delaware: 380 Centerpoint Blvd, New Castle, DE 19720, United States
Email: US@fs.com
Tel: +1 (888) 468-9910

Germany

Address: Röntgenstraße 18, 85757 Karlsfeld, Germany
Email: DE@fs.com
Tel: +49 (0) 8131 377 3008

Australia

Address: 57-59 Edison Rd, Dandenong South, VIC 3175, Australia
Email: AU@fs.com
Tel: +61 3 5909 9990

Japan

Address: JS Progress Building 5F, 4-1-23, Heiwajima, Ota Ku, Tokyo, 143-0006, Japan
Email: JP@fs.com
Tel: +81-3-6897-9438

California, United States

Address: California: 15241 Don Julian Rd, City of Industry, CA 91745, United States
Email: US@fs.com
Tel: +1 (888) 468-9910

United Kingdom

Address: Unit 8, Urban Express Park, Union Way, Aston, Birmingham B6 7FH, United Kingdom
Email: UK@fs.com
Tel: +44 (0) 121 726 4775

Singapore

Address: 7002 ANG MO KIO AVENUE 5 #05-02 Singapore 569914
Email: SG@fs.com
Tel: +65 31381992



FS has several offices around the world. Addresses, phone numbers are listed on the FS Website at https://www.fs.com/contact_us.html. FS and FS logo are trademarks or registered trademarks of FS in the U.S. and other countries.