

# IMC-121FB Series



IMC-121FB

## Industrial mini type Ethernet to fiber media converter with 2x10/100Base-T(X) and 1x100Base-FX

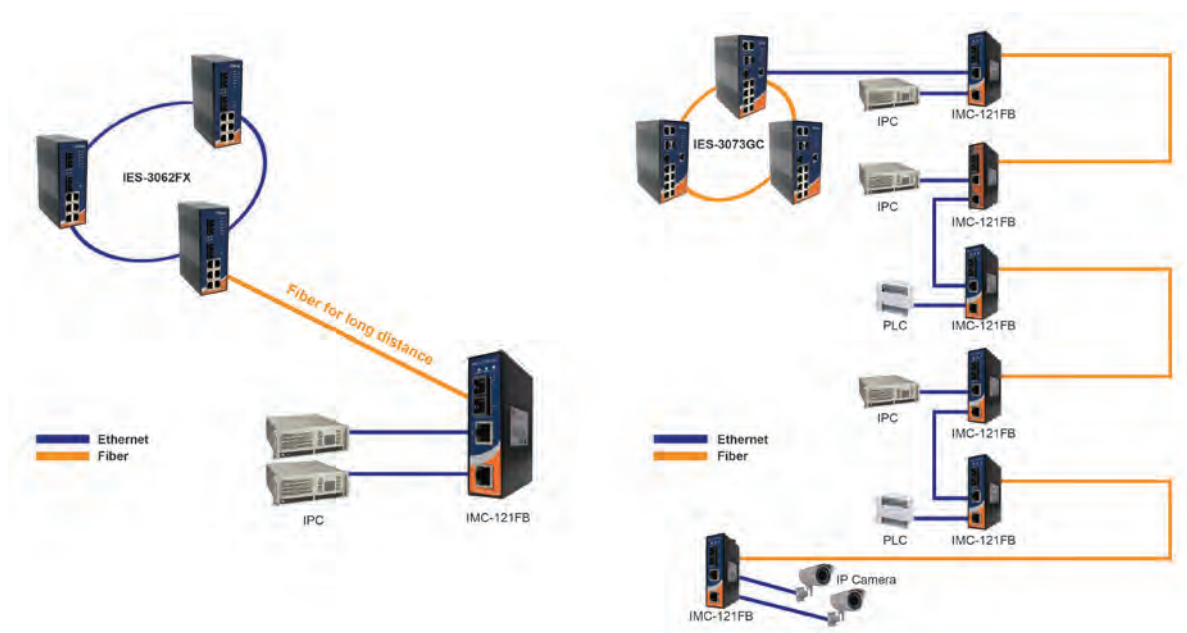
### Features

- Support 2 ports 10/100Base-T(X) auto-negotiation and auto-MDI/MDI-X
- 2x10/100 Base-T(X) ports to save the usage of copper ports
- High reliability and rigid IP-30 housing
- DIN-Rail and wall mounting enabled



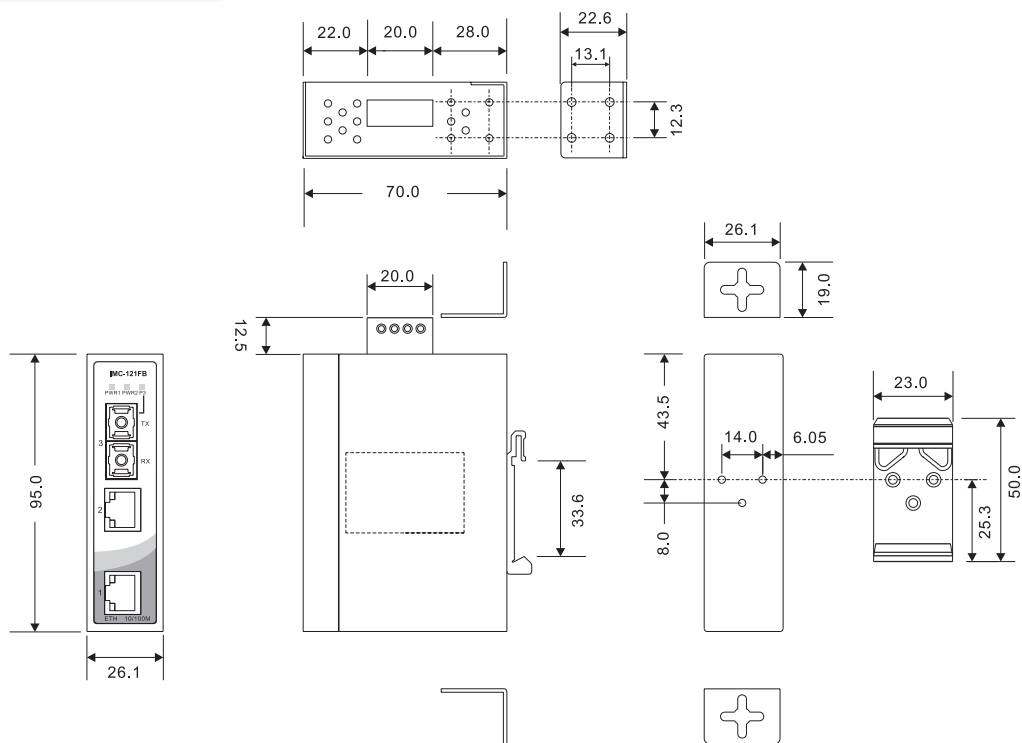
### Introduction

IMC-121FB series are industrial media converters providing media conversion between 10/100Base-T(X) and 100Base-FX. IMC-121FB series feature rigid IP-30 housing design and support wide operating temperature range from -40 to 70°C. Therefore, IMC-121FB series are reliable media converter and can satisfy most demands of operating environments.



Connections of Ethernet Media Converter

Dimensions



(Unit=mm)

Specifications

| ORing Media Converter Model                 |                                        | IMC-121FB-MM-SC                                                      | IMC-121FB-SS-SC |
|---------------------------------------------|----------------------------------------|----------------------------------------------------------------------|-----------------|
| Physical Ports                              |                                        |                                                                      |                 |
| 10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX |                                        | 2                                                                    | 2               |
| 100Base-FX fiber Port                       |                                        |                                                                      |                 |
| Fiber Ports Specifications                  | Fiber Ports Number                     | 1                                                                    | 1               |
|                                             | Fiber Ports Standard                   | 100Base - FX                                                         | 100Base - FX    |
|                                             | Fiber Mode                             | Multi-mode                                                           | Single-mode     |
|                                             | Fiber Diameter (μm)                    | 62.5/125 μm<br>50/125 μm                                             | 9/125 μm        |
|                                             | Fiber Optical Connector                | SC                                                                   | SC              |
|                                             | Typical Distance (km)                  | 2 km                                                                 | 30 km           |
|                                             | Wavelength (nm)                        | 1310 nm                                                              | 1310 nm         |
|                                             | Max. Output Optical Power (dBm)        | -14 dBm                                                              | -8 dBm          |
|                                             | Min. Output Optical Power (dBm)        | -23.5 dBm                                                            | -15 dBm         |
|                                             | Max. Input Optical Power (Saturation)  | 0 dBm                                                                | 0 dBm           |
|                                             | Min. Input Optical Power (Sensitivity) | -31 dBm                                                              | -34 dBm         |
|                                             | Link Budget (dB)                       | 7.5 dB                                                               | 19 dB           |
| Technology                                  |                                        |                                                                      |                 |
| Ethernet Standards                          |                                        | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-TX and 100Base-FX |                 |

| LED Indicators                               |                                                                                                                          |           |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------|
| Power Indicator                              | Green : Power LED x 2                                                                                                    |           |
| 10/100Base-T(X) RJ45 Port Indicator          | Green for port Link/Act.  Amber for Duplex/Collision                                                                     |           |
| 100Base-FX Fiber Port Indicator              | Green for fiber port Link/Act                                                                                            |           |
| Power                                        |                                                                                                                          |           |
| Input Power                                  | Dual 12~48 VDC  power input at 4-pin terminal block                                                                      |           |
| Power Consumption (Typ.)                     | 4.5 Watts                                                                                                                |           |
| Overload Current Protection                  | Present                                                                                                                  |           |
| Reverse Polarity Protection                  | Present                                                                                                                  |           |
| Physical Characteristics                     |                                                                                                                          |           |
| Enclosure                                    | IP-30                                                                                                                    |           |
| Dimensions (W x D x H)                       | 26.1 (W) x 70 (D) x 95 (H)mm (1.03 x 2.76 x 3.74 inch)                                                                   |           |
| Weight (g)                                   | 210 g                                                                                                                    |           |
| Environmental                                |                                                                                                                          |           |
| Storage Temperature                          | -40 to 85°C(-40 to 185°F)                                                                                                |           |
| Operating Temperature                        | -40 to 70°C (-40 to 158°F)                                                                                               |           |
| Operating Humidity                           | 5% to 95% Non-condensing                                                                                                 |           |
| Regulatory Approvals                         |                                                                                                                          |           |
| EMI                                          | FCC Part 15, CISPR (EN55022) class A                                                                                     |           |
| EMS                                          | EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11 |           |
| Shock                                        | IEC60068-2-27                                                                                                            |           |
| Free Fall                                    | IEC60068-2-32                                                                                                            |           |
| Vibration                                    | IEC60068-2-6                                                                                                             |           |
| Safety                                       | EN60950-1                                                                                                                |           |
| MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C ) | 1,023,458                                                                                                                | 1,028,086 |
| Warranty                                     | 5 years                                                                                                                  |           |

## Ordering Information

IMC-1 **A** **B** **C** **B** - **DD** - **EE**

| Code Definition | 10/100Base-T(X) Port Number | Fiber Port Number   | Fiber Port Type         | Fiber Optical Mode                                    | Fiber Optical Connector    |
|-----------------|-----------------------------|---------------------|-------------------------|-------------------------------------------------------|----------------------------|
| <b>Option</b>   | - <b>2</b> : 2 port         | - <b>1</b> : 1 port | - <b>F</b> : 100Base-FX | - <b>MM</b> : Multi-mode<br>- <b>SS</b> : Single-mode | - <b>SC</b> : SC Connector |

|                 | Model Name      | Description                                                                                                                           |
|-----------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Available Model | IMC-121FB-MM-SC | Industrial mini type Ethernet to fiber media converter with 2x10/100Base-T(X) and 1x100Base-FX, multi-mode, 2km/1310nm, SC connector  |
|                 | IMC-121FB-SS-SC | Industrial min type Ethernet to fiber media converter with 2x10/100Base-T(X) and 1x100Base-FX, single-mode, 30km/1310nm, SC connector |

### Packing List

- IMC-121FB
- DIN-Rail Kit
- Wall-Mount Kit
- Quick Installation Guide

### Optional Accessories (Can be purchased separately)

- DR-45 series, 45W DIN-Rail power supply
- DR-75 series, 75W DIN-Rail power supply
- DR-120 series, 120W DIN-Rail power supply
- SDR-240-48, 240W DIN-Rail power supply
- SDR-480-48, 480W DIN-Rail power supply
- FPC series : Fiber Patch cord

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ORing:

[IMC-121FB-SS-SC](#) [IMC-121FB-MM-SC](#)