## IMC-21A Series

Entry-level industrial 10/100BaseT(X) to 100BaseFX media converters

$>$ Multi-mode or single-mode, with SC or ST fiber connector
$>$ Link Fault Pass-Through (LFP)
$>-40$ to $75^{\circ} \mathrm{C}$ operating temperature range (T models)
> DIP switches to select FDX/HDX/10/100/Auto/Force

## : Introduction

The IMC-21A industrial media converters are entry-level 10/100BaseT(X) to 100BaseFX media converters designed to provide reliable and stable operation in harsh industrial environments. The converters can operate reliably in temperatures ranging from -40
to $75^{\circ} \mathrm{C}$. The rugged hardware design ensures that your Ethernet equipment can withstand demanding industrial conditions. The IMC21A converters are easy to mount on a DIN-Rail or in distribution boxes.

## : Specifications

## Technology

## Standards:

IEEE 802.3 for 10BaseT
IEEE 802.3u for 100BaseT(X) and 100BaseFX
IEEE 802.3x for Flow Control
Interface
RJ45 Ports: 10/100BaseT(X)
Fiber Ports: 100BaseFX (SC/ST connectors)
LED Indicators: Power, 10/100M (TP port), 100M (fiber port), FDX/
COL (fiber port)
DIP Switches: TP port's 10/100M, Half/Full modes, Force/Auto modes; fiber port's Half/Full modes, Link Fault Pass-Through (LFP)
Optical Fiber

|  | 100BaseFX |  |
| :--- | :---: | :---: |
|  | Multi-modie | Single-mode |
| Distance | $5 \mathrm{~km}, 1300 \mathrm{~nm}$ | $40 \mathrm{~km}, 1310 \mathrm{~nm}$ |
| Max. TX Output | -14 dBm | 0 dBm |
| Min. TX Output | -20 dBm | -5 dBm |
| RX Sensitivity | $-34 \mathrm{to}-30 \mathrm{dBm}$ | -36 to -32 dBm |

Physical Characteristics
Housing: Metal, IP30 protection
Dimensions: $30 \times 125 \times 79 \mathrm{~mm}$ ( $1.19 \times 4.92 \times 3.11 \mathrm{in}$ )
Weight: 170 g
Installation: DIN-Rail mounting
Environmental Limits
Operating Temperature:
Standard Models: - 10 to $60^{\circ} \mathrm{C}\left(14\right.$ to $140^{\circ} \mathrm{F}$ )
Wide Temp. Models: -40 to $75^{\circ} \mathrm{C}\left(-40\right.$ to $\left.167^{\circ} \mathrm{F}\right)$
Storage Temperature: -40 to $75^{\circ} \mathrm{C}\left(-40\right.$ to $\left.167^{\circ} \mathrm{F}\right)$
Ambient Relative Humidity: 5 to 95\% (non-condensing)

## Power Requirements

Input Voltage: 12 to 48 VDC
Input Current:
265 mA @ 12 VDC,
135 mA @ 24 VDC,
75 mA @ 48 VDC
Connection: Removable 3-contact terminal block
Overload Current Protection: 1.1 A
Reverse Polarity Protection: Present
Standards and Certifications
Safety: UL 60950-1
EMC: CE, FCC
EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A
EMS:
EN 61000-4-2 (ESD) Level 3,
EN 61000-4-3 (RS) Level 2,
EN 61000-4-4 (EFT) Level 2,
EN 61000-4-5 (Surge) Level 2,
EN 61000-4-6 (CS) Level 2
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6
Green Product: RoHS, CRoHS, WEEE
MTBF (mean time between failures)
Time: 353,000 hrs
Database: MIL-HDBK-217F, GB $25^{\circ} \mathrm{C}$
Warranty
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions
Unit: mm (inch)


Side View


Front View



Bottom View

## Ordering Information

## Available Models

IMC-21A-M-SC: Industrial 10/100BaseT(X) to 100BaseFX media converter, multi mode, SC connector, -10 to $60^{\circ} \mathrm{C}$ operating temperature
IMC-21A-M-ST: Industrial 10/100BaseT(X) to 100BaseFX media converter, multi mode, ST connector, -10 to $60^{\circ} \mathrm{C}$ operating temperature
IMC-21A-S-SC: Industrial 10/100BaseT(X) to 100BaseFX media converter, single mode, SC connector, -10 to $60^{\circ} \mathrm{C}$ operating temperature
IMC-21A-M-SC-T: Industrial 10/100BaseT (X) to 100BaseFX media converter, multi mode, SC connector, -40 to $75^{\circ} \mathrm{C}$ operating temperature IMC-21A-M-ST-T: Industrial 10/100BaseT(X) to 100BaseFX media converter, multi mode, ST connector, -40 to $75^{\circ} \mathrm{C}$ operating temperature IMC-21A-S-SC-T: Industrial 10/100BaseT(X) to 100BaseFX media converter, single mode, SC connector, -40 to $75^{\circ} \mathrm{C}$ operating temperature Optional Accessories (can be purchased separately)
SC to ST Connectors: See Appendix A

