

# IMC-21A Series

## 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°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°C. The rugged hardware design ensures that your Ethernet equipment can withstand demanding industrial conditions. The IMC-21A 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-mode	Single-mode
Wavelength	1300 nm	1310 nm
Max. TX	-14 dBm	0 dBm
Min. TX	-20 dBm	-5 dBm
RX Sensitivity	-32 dBm	-34 dBm
Link Budget	12 dB	29 dB
Typical Distance	5 km <sup>a</sup> 4 km <sup>b</sup>	40 km <sup>c</sup>
Saturation	-6 dBm	-3 dBm

a. 50/125 μm, 800 MHz\*km fiber optic cable  
 b. 62.5/125 μm, 500 MHz\*km fiber optic cable  
 c. 9/125 μm, 3.5 PS/(nm\*km) fiber optic cable

#### Physical Characteristics

**Housing:** Metal, IP30 protection

**Dimensions:** 30 x 125 x 79 mm (1.19 x 4.92 x 3.11 in)

**Weight:** 170 g

**Installation:** DIN-Rail mounting

#### Environmental Limits

##### Operating Temperature:

Standard Models: -10 to 60°C (14 to 140°F)  
 Wide Temp. Models: -40 to 75°C (-40 to 167°F)

**Storage Temperature:** -40 to 75°C (-40 to 167°F)

**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°C

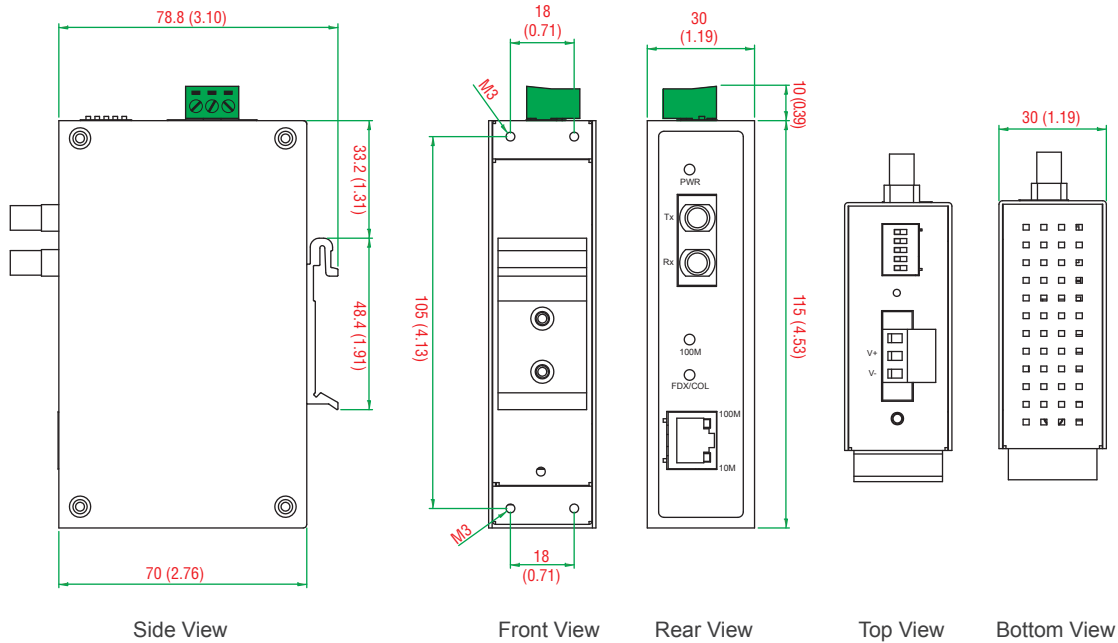
## Warranty

**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

## Dimensions

Unit: mm (inch)



## Ordering Information

### Available Models

**IMC-21A-M-SC:** Industrial 10/100BaseT(X) to 100BaseFX media converter, multi mode, SC connector, -10 to 60°C operating temperature

**IMC-21A-M-ST:** Industrial 10/100BaseT(X) to 100BaseFX media converter, multi mode, ST connector, -10 to 60°C operating temperature

**IMC-21A-S-SC:** Industrial 10/100BaseT(X) to 100BaseFX media converter, single mode, SC connector, -10 to 60°C operating temperature

**IMC-21A-M-SC-T:** Industrial 10/100BaseT(X) to 100BaseFX media converter, multi mode, SC connector, -40 to 75°C operating temperature

**IMC-21A-M-ST-T:** Industrial 10/100BaseT(X) to 100BaseFX media converter, multi mode, ST connector, -40 to 75°C operating temperature

**IMC-21A-S-SC-T:** Industrial 10/100BaseT(X) to 100BaseFX media converter, single mode, SC connector, -40 to 75°C operating temperature

**Optional Accessories** (can be purchased separately)

**SC to ST Connectors:** See Appendix A

### Package Checklist

- 1 IMC-21A media converter
- Quick installation guide (printed)
- Warranty card

# Fiber Accessories

## : Fiber Optic Adaptors

### *SC male to ST female duplex adaptors*



These SC male to ST female duplex adaptors are provided as an optional accessory to give users of Moxa industrial Ethernet switches more fiber optic connection options. Simply plug the adaptors directly into the SC connector of any Moxa industrial Ethernet switch to convert the original SC connector into an ST connector. This allows you to use an ST connector with any MOXA industrial Ethernet switch, but without the need for an extra patchcord.

#### **ADP-SCm-STf-S**

SC male to ST female duplex adaptor for single-mode fiber

**Single-mode:** 9/125  $\mu\text{m}$

**Ferrules and Sleeves:** Zirconia Ceramic

**Body Color:** Blue

**Insertion Loss:** 0.5/1.1 (TYP/MAX)

**SC-side Connector:** SC male

**ST-side Connector:** ST female

#### **ADP-SCm-STf-M**

SC male to ST female duplex adaptor for multi-mode fiber

**Multi-mode:** 62.5/125  $\mu\text{m}$

**Ferrules and Sleeves:** Zirconia Ceramic

**Body Color:** Gray

**Insertion Loss:** 0.1/0.3 (TYP/MAX)

**SC-side Connector:** SC male

**ST-side Connector:** ST female

# Tento produkt můžete zakoupit u společnosti AutoCont IPC a.s.



## AutoCont IPC a.s.

Váš dodavatel průmyslových počítačů, komponent a speciálních průmyslových IT systémů.

 Uhlířská 1064/3, 710 00 Ostrava, Česká republika

 [obchod@autocont-ipc.cz](mailto:obchod@autocont-ipc.cz)

 +420 552 301 002

 [www.autocont-ipc.cz](http://www.autocont-ipc.cz)



### PRŮMYSLOVÉ POČÍTAČE

*fanless embedded PC, do racku, ...*



### POČÍTAČE S DISPLEJEM

*panelové PC, terminály, do vozidel, ...*



### AUTOMATIZACE A SBĚR DAT

*převodníky, karty, moduly, switche, ...*



### PERIFERIE A KOMPONENTY

*monitory, klávesnice, desky, skříně, ...*



### NOTEBOOKY A TABLETY

*odolné, windows, android, IP65, ...*



### INFORMAČNÍ KIOSKY

*interiérové, venkovní, ...*



### MEDICÍNSKÁ TECHNIKA

*počítače, tablety, LCD, klávesnice, ...*



### SOFTWAREVÁ ŘEŠENÍ

*pro výrobu, zaměstnance, kiosky, ...*



### PŘEJÍT DO E-SHOPU

[eshop.autocont-ipc.cz](http://eshop.autocont-ipc.cz)



### DOPRAVA ZDARMA

Doprava zdarma v ČR a SR při objednávce nad 10 000 Kč bez DPH nebo nad 400 EUR.



### PRODLOUŽENÁ ZÁRUKA

Záruka 2 roky na vyráběné počítače s možností jejího prodloužení až na 5 let.



### ODMĚNA ZA VĚRNOST

Pravidelní zákazníci u nás nakupují za nižší ceny. Výše slevy se odvíjí od realizovaného obrátu.



### SERVIS ON-SITE A IN-TIME

K projektovým dodávkám nabízíme rozšířenou podporu a servis s garancí výměny zařízení do 48 hodin.