



10/100TX to 100FX Unmanaged Industrial Media Converter

OVERVIEW:

The MUI-A0101 is a compact sized Fast Ethernet Media Converter series equipped with 1-port 10/100Base-TX and 1-port 100Base-FX. By using standard auto-negotiation and the inclusion of Auto-MDIX, WiLCONN, Inc. provides a cost-effective way of integrating legacy 10Mbps networks with 100Mbps Fast Ethernet networks. The TX port automatically negotiates for 10/100Mbps speed and auto-detect full or half-duplex mode. The fiber port on MUI-A0101 accommodates SC and ST with a fiber connection between two nodes that can reach up to 90Km. MUI-A0101 series can be DIN-Rail mounted and is equipped with

Terminal Block power input to match the applications that require a Media converter.

FEATURES:

- Complies with **IEC61000-6-2** EMC Generic standard immunity for Industrial environment
- 2048 MAC addresses
- 384K bits buffer memory
- 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- -10°C to 60°C (14°F to 140°F) operating temperature range
- 12~24VDC Power inputs
- Industrial plastic case
- Supports DIN-Rail Mounting installation
- Full wire-speed forwarding rate

SPECIFICATIONS:

Technology

Standards:

- IEEE802.3 10Base-T, IEEE802.3u
100Base-TX/100Base-FX, IEEE802.3x

Forward and Filtering Rate:

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps

Packet Buffer Memory:

- 384K bits

Processing Type:

- Store-and-Forward
- Half-duplex back-pressure and IEEE802.3x
full-duplex flow control

Address Table Size:

- 2048 MAC addresses

Latency:

- Less than 5.1μs

Power

Input:

- Input Voltage: 12 to 48VDC (Terminal Block)

Power Consumption:

- 2.4W Max. 0.2A@12VDC, 0.1A@24VDC, 0.05A@48VDC

Power Supply References:

- Terminal Block: 12 to 24VDC, 1.5A
Overload

Current Protection:

- Present

Reverse Polarity Protection

- Present

Mechanical

Casing:

- Plastic case
- IP30

Dimensions:

- 25mm (W) x 70mm (D) x 110mm (H)
- (0.99" (W) x 2.76" (D) x 4.33" (H))

Weight:

- 0.2Kg (0.44lb.)

Installation:

- DIN-Rail Mounting

Interface

Ethernet Port:

- 10/100Base-TX: 1 ports
- 100Base-FX: 1 ports

LED Indicators:

- Per Unit: Power Status (Power 1, Power 2)
- Per Port: 10/100TX, 100FX: Link/Activity (Green), Speed (Yellow)

Environment

Operating Temperature:

- -10°C to 60°C (14°F to 140°F)

Storage Temperature:

- -25°C to 85°C (-13°F to 185°F)

Ambient Relative Humidity:

- 5% to 90% (non-condensing)

Regulatory Approvals

ISO:

- Manufactured in an ISO9001 facility

Safety:

- UL60950-1, EN60950-1, IEC60950-1

EMI:

- FCC Part 15, Class A
- EN61000-6-3
 - EN55022
 - EN61000-3-2
 - EN61000-3-3

EMS:

- EN61000-6-2
 - EN61000-4-2 (ESD Standards)
Contact: + / - 4KV; Criteria B
Air: + / - 8KV; Criteria B
 - EN61000-4-3 (Radiated RFI Standards)
10V/m, 80 to 1000MHz; 80% AM Criteria A
 - EN61000-4-4 (Burst Standards)
Signal Ports: + / - 4KV; Criteria B
D.C. Power Ports: + / - 4KV; Criteria B
A.C. Power Ports: + / - 4KV; Criteria B
 - EN61000-4-5 (Surge Standards)
Signal Ports: + / - 1KV; Line-to-Line; Criteria B
D.C. Power Ports: + / - 0.5KV;
Line-to-earth; Criteria B
A.C. Power Ports: + / - 2KV; Line-to-earth; Criteria B
 - EN61000-4-6 (Induced RFI Standards)
Signal Ports: 10Vrms @ 0.15~80MHz;
80% AM Criteria A
D.C. Power Ports: 10Vrms @ 0.15~80MHz;
80% AM Criteria A
A.C. Power Ports: 10Vrms @ 0.15~80MHz;
80% AM Criteria A
 - EN61000-4-8 (Magnetic Field Standards)
30A/m @ 50, 60Hz; Criteria A
 - EN61000-4-11 (Voltage Dip Standards)
A.C. Power Ports: 30% Reduction for 0.5 period; Criteria B

Environmental Test Compliance:

- IEC60068-2-6 Fc (Vibration Resistance)
5g @ 10~150KHz, Amplitude 0.35mm (Operation/Storage/Transport)
- IEC60068-2-27 Ea (Shock)
25 g @ 11ms (Half-Sine Shock Pulse; Operation)
50 g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)
- IEC60068-2-32 Ed (Free Fall)
1M (3.281ft.)

ORDERING INFORMATION:

MUI-A0101-M-SC	10/100TX to 100FX(Multi mode; SC type connector; 2Km) industrial media converter
MUI-A0101-S-SC20	10/100TX to 100FX(Single mode; SC type connector; 20Km) industrial media converter
MUI-A0101-S-SC40	10/100TX to 100FX(Single mode; SC type connector; 40Km) industrial media converter

TYPE OF 100BASE-FX:

Designation	Typical Distance*	Nominal Wavelength	Cable Type	Connector	Optical Budget
100FX	2 Km	1310 nm	62.5/125 MM	SC/ST	15 dB
100FX	20 Km	1310 nm	10/125 SM	SC/ST	19 dB
100FX	40 Km	1310 nm	10/125 SM	SC/ST	30 dB
100FX	60 Km	1310 nm	10/125 SM	ST	33 dB
100FX	70 Km	1310 nm	10/125 SM	SC	34 dB
100FX	80 Km	1550 nm	10/125 SM	ST	29 dB
100FX	90 Km	1550 nm	10/125 SM	SC	32 dB

MM: Multi mode

SM: Single mode

INSTALLATION TYPE:

DIN Rail (mounting kit is included)

POWER CONNECTOR:

Terminal Block