IEC-2001

10/100/1000 Industrial Media Converter, SC MM 2KM, -40 to 75C

Quick Installation Guide

v1.00 - 1209

Overview

LevelOne IEC-2002 is an industrial Gigabit Ethernet media converter with a rugged aluminium case which providing superb heat dissipation. This converter is designed to be mounted on an industrial standard DIN-rail, plus the clearly visible status LEDs provide simple monitoring of port link activity. It also features Link Fault Pass Through in order to alert remote location when link status changes

Fault Detection

Relay contact sends alert signal when the power failed or a port link disconnected, therefore the system operator can respond quickly. This relay contact can be easily configured with a simple DIP switch

High Reliability

All components are built to withstand harsh environment applications without compromise where humidity, temperature variation and even shock vibration are concerns, including Electric & Utility, Critical Infrastructure, Transportation and Surveillance Security. This device operates under -40 to 75 Celsius (-40 to 167 Fahrenheit) temperature.

Safety

Complies with NEMA (National Manufacturers Association) TS1 & TS2 Environmental certified for the Traffic Control Equipment that withstand extreme temperatures, operating voltage and humidity fluctuation, vibration and shock commonly experienced in severe outdoor environments.

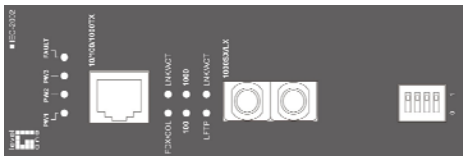
Features

- Complies with NEMA TS1 & TS2 Environmental requirements for Traffic control equipment
- Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- Supports 1000SX Multimode SC fibre up to 2 kilometres
- DIP switch configuration for "Link-Fault-Pass-Through," link down alarm, speed, duplex mode
- 1000Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX
- Full wire-speed forwarding rate
- Alarms for power and port link failure by relay output
- -40°C to 75°C (-40°F to 167°F) operating temperature range
- IP30 aluminium case
- Supports DIN-rail mounting installation

Package Contents

- IEC-2002
- Quick Installation Guide

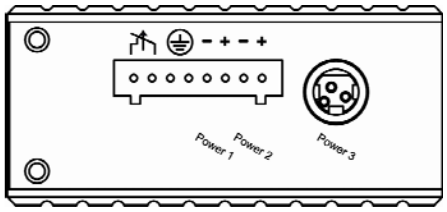
LED Status



LED	Status	Description
PW 1,2,3	Steady	Power On
	Off	Power Off
FAULT	Steady	Redundant Power or Ports are failed
	Off	Redundant Power or Ports are normal
LNK/ACT	Steady	Network connection is established
	Flashing	Transmitting or Receiving data
	Off	No connection occurred
FDX/COL	Steady	Full duplex mode
	Flashing	Collision occurred
	Off	Half duplex mode
1000	Steady	Connection at 1000Mbps speed
	Off	No connection
100	Steady	Connection at 100Mbps speed
	Off	Connection at 10Mbps speed
LFPT	Steady	LFPT is enabled
	Off	LFPT is disabled

LFPT: Link Forward Pass Through

Power Input



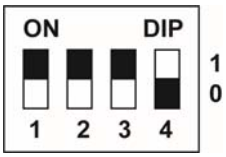
Terminal Block		
	Power1	12 – 48VDC (+), Power Ground (-)
	Power2	12 – 48VDC (+), Power Ground (-)
	⏚	**Earth Ground**
		Relay Output (Fault)
	*Relay warning signal disable for following: 1. The relay contact closes if Power1 and Power2 are both failed but Power3 on. 2. The relay contact closes if Power3 is failed but Power1 and Power2 are both on.	

DC Terminal Block Power

DC Terminal Block Power Inputs: There are two pairs of power inputs can be used to power up this media converter.

Power3: DC JACK Power input 12VDC

DIP Switch

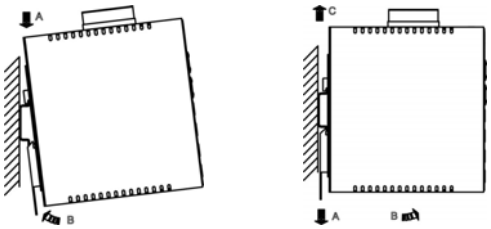


DIP	0 (Off)	1 (On)
1	Disable LFPT	Enable LFPT
2	Disable link down alarm for copper port	Enable link down alarm for copper port
3	Disable link down alarm for fibre port	Enable link down alarm for fibre port
4	Enable Force mode for fibre port	Enable Auto mode for fibre port

Note:

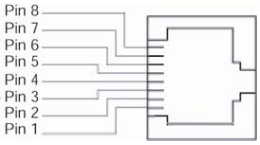
- **LFPT**: Link Forward Pass Through
- Disconnect the power before change the DIP switch settings

DIN Rail Mount



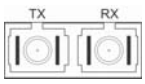
- Assembly: Place the switch on the DIN rail from above using the slot. Push the front of the switch toward the mounting surface until it audibly snaps into place
- Start-up: Connect the supply voltage to start up the switch via the terminal block (or DC JACK)
- Dismantling: Pull out the lower edge and then remove the switch from the DIN rail.

1000Base-T Connector



Pin	Label
1	TP0+
2	TP0-
3	TP1+
4	TP2+
5	TP2-
6	TP1-
7	TP3+
8	TP3-

1000Base-SX/LX



The Tx (transmit) port of device I is connected to the Rx (receive) port of device II, and the Rx (receive) port of device I to the Tx (transmit) port of device II.