

Industrial PoE+ Media Converter

User Manual

V1.00

FCC MARKING

This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE MARKING

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

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(P/N: 41RP-IMC62100-AQG)

Introduction

This mini, rugged Industrial POE media converter is designed for Security, Transportation and Telco application to expand your network distances. It is equipped with 1 or 2 port PSE port to power up your PD. The built-in SmartLink feature will not only to report Link fail to remote site, also report to local relay to trigger alarm. With its multi-purpose design, it can also be used for Din-Rail or wall-mounted. It is an ideal unit for IP surveillance, traffic monitoring and Security application in critical environment. It can tolerate -40°C to 75°C in harsh environment to perform a reliable network.

Key Features

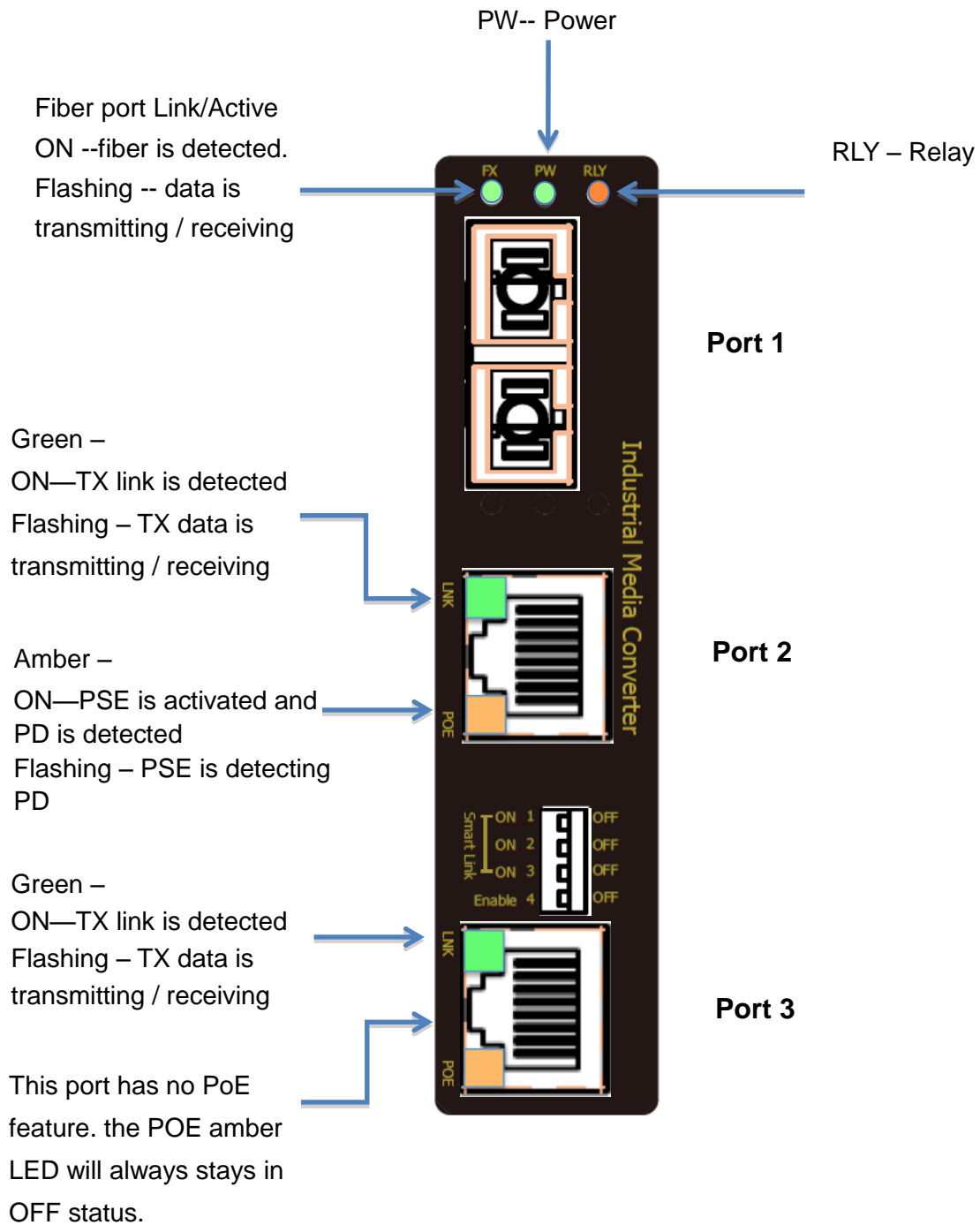
- Rugged design aluminum enclosure 103.5x32x81.5mm (LxWxD)
- Supports 30W PSE per port
- Supports Link Fault Pass through (LFP) function
- Supports Link fail report to remote site.
- Support Link fail report to local relay to trigger alarm
- Surge protection diodes on power input.
- ESD protection diodes on RJ-45 port
- Provides Far End Fault function on FX port.
- Provides increased Noise Immunity
- Extended environmental specification -40°C to 75°C

Package Contents

- 1 x Industrial PoE Media converter
- 1 x User Manual
- 1 x 4 pin Terminal Block
- 2 x Wall Mounting Bracket and 4 x Screws
- 1 x Din Rail Bracket

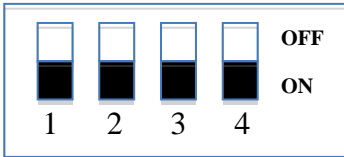
Compare the contents of the industrial switch with the standard checklist above. If any item is damaged or missing, please contact the local dealer for service.

LED Indicators

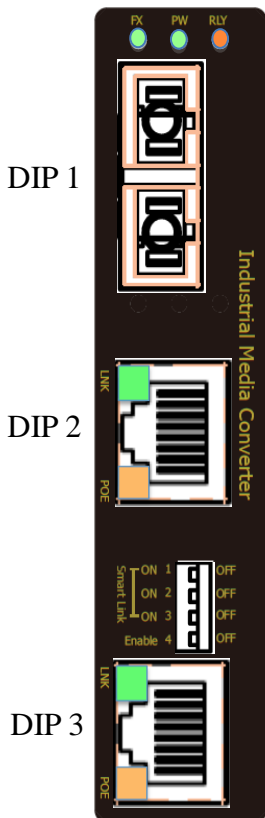


Dip Switch for SmartLink function

SmartLink is a built-in programmed feature detects port link status to report port link fail to local alarm relay and to remote port. If designated port is selected, when link fails, local alarm relay will be triggered, meanwhile remote port (no matter fiber or TX port) will link down. This feature is executed by turning on/off selecting 4 pin dip switch. If port is selected, SmartLink will monitor this port to local alarm relay and to remote site. It is a secure feature to keep your network safe from link down.



DIP 1	ON	Port 1 Link fault pass through (LFP) enabled
	OFF	LFP function disabled (default)
DIP 2	ON	Port 2 Link fault pass through (LFP) enabled
	OFF	LFP function disabled (default)
DIP 3	ON	Port 3 Link fault pass through (LFP) enabled
	OFF	LFP function disabled (default)
DIP 4	ON	Primary switch to enable/disable LFP (Link fault pass through) and Alarm Relay
	OFF	Disable LFP and alarm relay feature for all ports



DIP 4 is the primary dip switch to enable/disable alarm relay and LFP function for entire unit.

Once LFP function is enabled, Link status of one port is forwarded to the other ports.

Note1: When port Smart link is selected and link down (or loss of signal), the Smart link signal takes 10 seconds to propagate to other ports. The 10 sec setting is the default setting cannot be changed. The purpose of this 10 sec setting is to avoid the confliction of port speed detection.

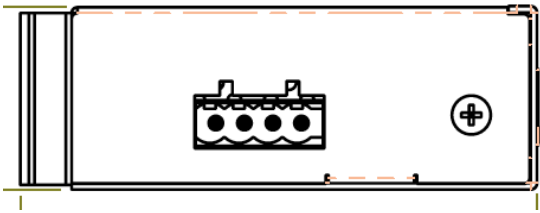
Wiring the Power Inputs

This unit provides 4 pin terminal block. It can be operated using 48-56VDC power source. Always Make sure your input voltage is within this supported voltage range. For 30Watts you need to use 56VDC input to generate IEEE802.3at 30Watts power.

To make power connection – Follow the printed polarity for V+, V-, Ground. Connect positive wire to V+ , connect negative wire to V-, also connect neutral wire to ground.

+V1- is for power input connection, this unit has only one power input.

+V2-(SW) is for relay connection. (SW) is the relay connection.



Connecting procedure

STEP 1 –Take out 4 pin terminal block located in the included mounting kit package.

STEP 2 –Connect power wire to +V1- with correct polarity. Connect +V2- (SW) for relay

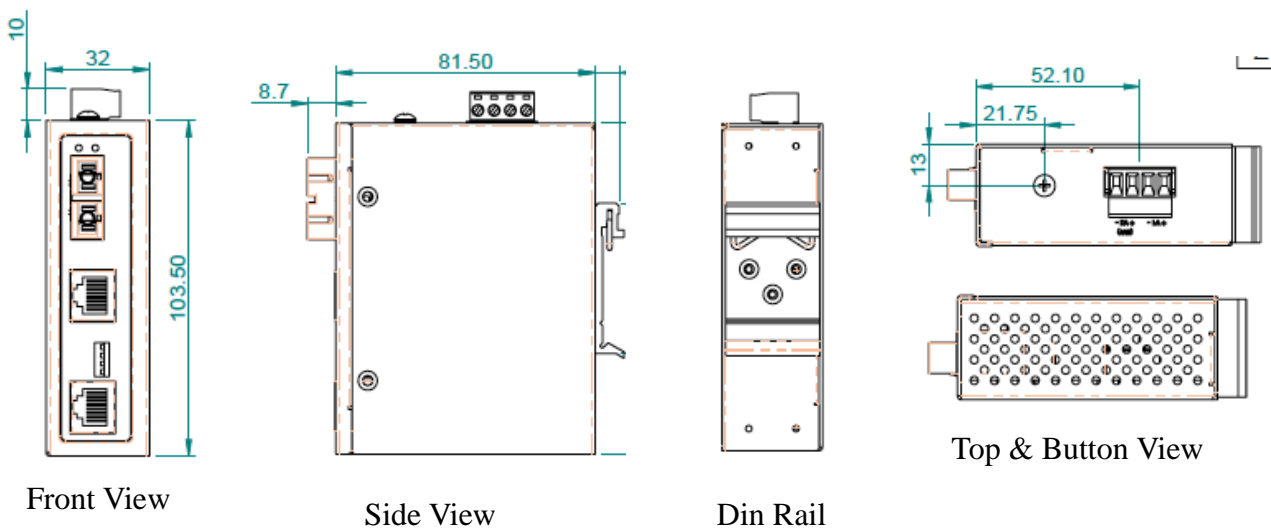
STEP 3 –Plug into terminal block socket shown above. Polarity needs to match the V+ and V-

WARNING -- Always SHUTS OFF power source to connect power wire.

WARNING – any exceeded input voltage will not make this unit function and may damage this unit.

Physical Dimension

10/100Base-TX to 100Base-FX Industrial PoE Media Converter dimension (W x D x H) is 32mm x 81.5mm x 103.5mm



Front View

Side View

Din Rail

Top & Button View

Specification

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3u 100Base-FX Fast Ethernet IEEE802.3x Flow Control and Back Pressure IEEE802.3af for POE IEEE802.3at for POE+
Switch Architecture	Back-plane (Switching Fabric): 600Mbps
Data Processing	Store and Forward
Flow Control	IEEE 802.3x Flow Control and Back Pressure
MAC Address Table Size	1K
Network Connector	2 x RJ-45 Prot: 10/100M Base-T(X) Auto negotiation, Auto MDI/MDI-X function, Full/Half duplex, with one POE+ 802.3af/at 30W PSE port 1 x Fiber port: 100 Base-FX SC MM Distance 2km 100 Base-FX SC SM Distance 30km 100 Base-FX ST Distance 2km 100 Base-FX SC MM WDM 1310nm Distance 15km 100 Base-FX SC MM WDM 1550nm Distance 15km
LED Indicators	PW (Power) Green=power connected Yellow = alarm being triggered, OFF=normal state TX LEDs– Green=Link, Flash = TX/RX, Yellow=POE detected, Flash=power overload Optical Fiber – Green=Link, Flash =TX/RX
DIP Switch Function	Dip 1 – activate port 1 with smart link to alarm relay. Dip 2 – activate port 2 with smart link to alarm relay. Dip 3 – activate port 3 with smart link to alarm relay. Dip 4 – Link Fault Pass-Through (LFP) Enable
Power Protection	Surge protection diodes on power input Reverse polarity protection Overload current protection
Power Consumption	Max power consumption 3 Watts without POE Max PoE 36Watts at 56VDC input for single port 30W PoE
Power Input	VDC 48-56V

Removable Terminal Block	Provide 4 pin terminal block, V+, V-, and Relay Wire range: 0.34mm ² to 2.5mm ² Solid wire (AWG):12-24/14-22 Stranded wire(AWG): 12-24/14-22 Torque:5lb-In/0.5Nm/0.56Nm Wire Strip length: 7-8mm
Alarm Relay	24VDC @ 1A. Normal state – open, Relay LED OFF Triggered states – short, Relay LED ON
Operating Temperature	-40°C ~75°C fully tested.
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C ~85°C
Housing	Rugged Metal ,IP30 Protection
Case Dimension	103.5mmx32mmx81.5mm (LxWxD)
Installation mounting	DIN Rail mounting and Wall Mounting
Certifications:	
EN55022/24	ITE equipment
EN55011	Industrial, Scientific and Medical (ISM) equipment
Safety	IEC EN60950-1
EMC/EMS	CE, FCC, VCCI
EMI	FCC Part 15 Subpart B Class A, CE EN 55022 Class A
EN 50155 / EN 60068-2-6	Vibration
EN 50155 / EN 60068-2-27	Shock
EN 50155 / EN 60068-2-32	Free Fall