



IS-DG102-F

Quick Installation Guide

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.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

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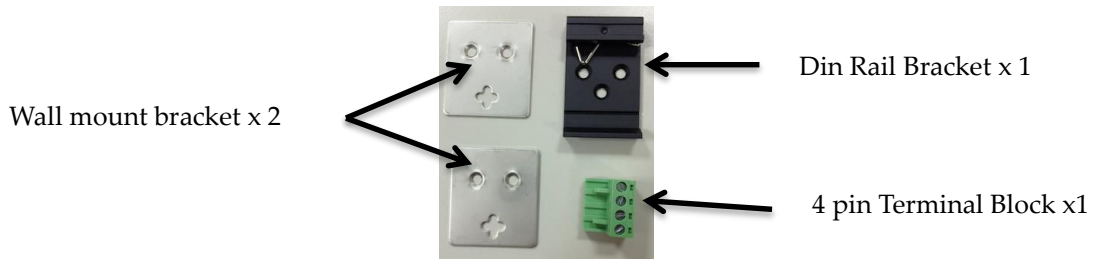
Key Features

- Rugged design aluminum enclosure 103.5x32x81.5mm (LxWxD)
- Supports 18V-36VAC/12V-60VDC
- Supports Link Fault Pass through (LFP) function
- Supports switch model and converter mode.
- Support SFP fiber speed 100M or 1000M dual mode
- 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
- Environmental specification -40°C to 75°C

This mini, rugged Industrial Gigabit media converter is designed for Security, Transportation and Telco application to expand your network distances. It can be powered by wide range of VAC , VDC or external DC power adapter . 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.

Installation package

This unit can be installed by din-rail mounted or wall-mounted. Din-rail brackets and wall-mounted bracket are included.

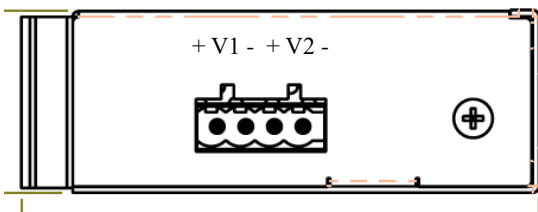


Power connection

This unit provides 4 pin terminal block. It can be operated using either VAC or VDC power source. The VDC power range is from 12VDC to 56VDC, and the VAC power range is from 18VAC to 36VAC. Always Make sure your input voltage is within this supported voltage range.

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

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.



Connecting procedure

STEP 1 –

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

STEP 2 –

connect power wire to 4 pin terminal block. V1+, V1- or redundant power wire to V2 + V2-. and Ground

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.

Dip switch function

This unit is equipped with 4 pin dip-switch located on the front panel. Adjusting the dip-switch setting will change the default function of this unit. All the dip-switch settings are set to manufacturer default as OFF

Table shown below is the features of these dip-switch function. You may change the dip-switch setting to your desired environment.

OFF




1 2 3 4

ON

Dip 1 to select SFP speed	OFF	1000M	Default OFF to enable 1000M SFP speed
	ON	100M	
Dip 2 to select Auto-nego in SFP	OFF	AUTO	Default OFF to enable SFP Auto-negotiation mode
	ON	OFF	
Dip 3 to select Switch/Converter mode	OFF	SW	Default OFF to enable Switch Mode.
	ON	Con.	
Dip 4 to select LFP (Link Fault Pass through)	OFF	OFF	Default OFF to disable LFP function
	ON	LFP	

LED indicator



Amber –
ON – 100M link is detected
Flashing – TX data is transmitting / receiving

Green –
ON – 1000M link is detected
Flashing – TX data is transmitting / receiving

Fiber port Link/Active
ON --fiber is detected.
Flashing -- data is transmitting / receiving

Power – PW 2 →

← Power – PW 1

Specification:

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gigabit Ethernet IEEE 802.3z 1000Base-X Gigabit Ethernet
Data Processing	Store and Forward
Flow Control	IEEE 802.3x Flow Control and Back Pressure
Architecture	Full wire speed conversion Auto negotiation Full/Half duplex Auto MDI/MDI-X function Supports LFP (Link Fault Pass Through) function Supports 9K bytes jumbo frame
Packet Buffer Size	1M
Jumbo Frame	9KB
Network Connector	Twisted Pair: 10/100/1000 Base-T(X) RJ-45 Distance 100 Meter Optical Fiber: SFP pluggable fiber, 100M or 1000M by adjustable dip switch
LED Indicators	Power: P1(Power 1) - Green P2(Power 2) - Green Twisted Pair: 1000M/Link/Act - Green 100M Link/Act - Yellow Optical Fiber: Link/Act - Green
DIP Switch Function	Set LFP (Link Fault Pass Through) : Enable / Disable Set Switch mode / Pass Through mode. Set SFP speed 100M or 1000M Set Enable or Disable SFP Auto-Negotiation
Power Protection	Surge protection diodes on power input Reverse polarity protection on power input Overload current protection
Power Input	Redundant Power 1 and Power 2 18V-36VAC or 12V-56VDC

Power Consumption	Max Power: 3 Watts
Removable Terminal Block	4 pin contact terminal block for power input Wire range : 0.34mm ² to 2.5mm ² Solid wire (AWG) : 12-24/14-22 Stranded wire(AWG) : 12-24/14-22 Wire Strip length : 7-8mm Torque : 5lb-In/0.5Nm/0.56Nm
Operating Temperature	-40°C~75°C
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C~85°C
Housing Design	IP40 Design, high graded Aluminum
Case Dimension (LxWxD)	103.5mmx32mmx81.5mm (LxWxD)
Installation	DIN Rail mounted Panel Mounted
Certifications:	
EN55022/24	ITE equipment
EN50155	Railways Applications Electronic Equipment used on Rolling Stock
EN55011	Industrial, Scientific and Medical (ISM) equipment
EN50121-3-2	Railway Applications – Electromagnetic Compatibility – Part 3-2 Rolling Stock - Apparatus
EN50121-4	Railway Applications – Electromagnetic Compatibility – Part4 Emissions and Immunity of the Signaling and Telecommunications Apparatus
Safety	IEC EN60950-1
EMC/EMS	CE, FCC
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
Traffic Control	NEMA TS2 compliant

Housing Dimension

