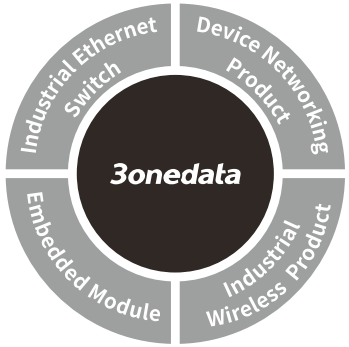
3onedata
Make network communication more reliable

IPMC100 Series
Industrial POE Media Converter
Quick Installation Manual



3onedata Co., Ltd.

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Xili, Nanshan District, Shenzhen

Website: www.3onedata.com

Tel: +86 0755-26702688

Fax: +86 0755-26703485

【Package Checklist】

Please check whether the package and accessories are intact while using the converter for the first time.

1. Media converter with wiring terminal block× 1
2. DIN-Rail mounting attachment
3. Certification
4. Warranty card

If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

【Product Overview】

The series products are unmanaged industrial POE media converters. Models as follow:

Model I. IPMC100-1GF-1GPOE (1 Gigabit fiber + 1 Gigabit POE)

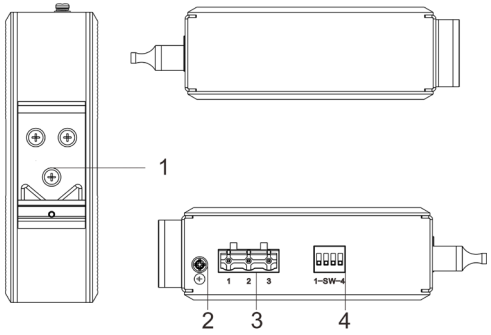
Model II. IPMC100-1GF-2GPOE (1 Gigabit fiber + 2 Gigabit POE)

Model III. IPMC100-1GS-1GPOE (1 Gigabit SFP + 1 Gigabit POE)

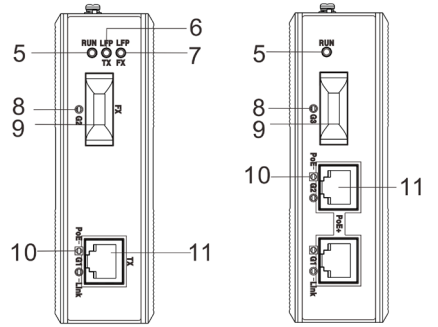
Model IV. IPMC100-1GS-2GPOE (1 Gigabit SFP + 2 Gigabit POE)

【Panel Design】

➢ **Rear view, Top view and Bottom view**



➢ **Front view and Side view**



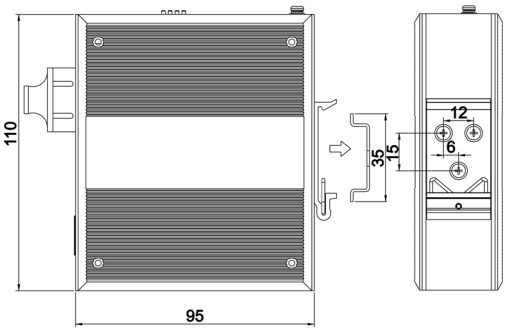
Model I Model II

Model III Model IV

1. DIN-Rail mounting kit
2. Grounding screw
3. 3-pin terminal block for power input
4. DIP switch
5. Device running indicator RUN
6. Copper port LFP indicator
7. Fiber port LFP indicator
8. Interface connection status indicator
9. 1000Base-FX fiber port
10. POE port power supply status indicator
11. 10/100/1000 Base-T(X) POE port
12. 100/1000 Base-SFP slot

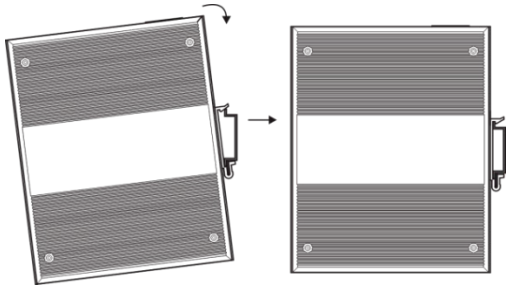
【Mounting Dimension】

Unit: mm



【DIN-Rail Mounting】

For convenient usage in industrial environments, the product adopts 35mm DIN-Rail mounting, mounting steps as below:



Step 1 Check if the DIN-Rail mounting kit is installed firmly.

Step 2 Insert the bottom of DIN-Rail mounting kit (one side with spring support) into DIN-Rail, and then insert the top into DIN-Rail.

Tips:

Insert a little to the bottom, lift upward and then insert to the top.

Step 3 Check and confirm the product is firmly installed on

DIN-Rail, then mounting ends.

【Disassembling DIN-Rail】

Step 1 Device power off.

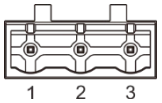
Step 2 After lift the device upward slightly, first shift out the top of DIN-Rail mounting kit, then shift out the bottom of DIN-Rail, disassembling ends.

Note:

- Don't place or install the device in area near water or moist, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before power on, first confirm the supported power supply specification to avoid over-voltage damaging the device.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

【Power Supply Connection】

➢ **DC power supply**



This series media converter provides 3-pin industrial terminals (1, 2, 3). 1 is positive pole, 2 is shell ground, 3 is negative pole.

Power Range: 12 ~ 48VDC (POE48VDC).

Note:

- Power ON operation: first connect power line to the connection terminal of device power supply, then power on.
- Power OFF operation: first unpin the power plug, then remove the power line, please note the operation order above.

【DIP Switch Setting】



Provide 4-pin DIP switch for function setting, where "ON" is enable valid terminal. Please power off and power on after changing the status of DIP switch. DIP switch 1~4 define as follow:

1. Standard PD / LEGACY PD switching (default is OFF, the standard PD resistance detection).
2. Jumbo frame enabled.
3. Supports two definitions. Model I and model III: LFP enabled; model II and model IV: Flow control.

4 Force copper port 100M speed.

【Checking LED Indicator】

The device provides LED indicators to monitor the device working status with a comprehensive simplified troubleshooting; the function of each LED is described in the table as below:

LED	Status	Description
LFP (TX)	ON	Copper port link fault alarm.
	OFF	Copper port link is normal.
LFP (FX)	ON	Optical fiber port link fault alarm.
	OFF	Optical fiber port link is normal.
RUN	ON	The device is powered on or the device is abnormal.
	OFF	The device is powered off or the device is abnormal.
	Blinking	System is running well.
POE	ON	POE port for PD device normal power supply.
	Blinking	POE port is in detection or fault status.
	OFF	POE port is not connected with the PD device.
G1~G2/G3	ON	Port has established a valid network connection.
	Blinking	Port is in network communication.
	OFF	Port has not established a valid network connection.

【Specification】

Panel	
Gigabit POE port	10/100/1000 Base-T(X) adaptive, full-duplex/half-duplex adaptive and MDI/MDI-X adaptive; PoE port, the maximum output power is 30W.
POE pins	V +, V +, V-, V- corresponds to pins 1, 2, 3, 6.
Gigabit fiber port	1000 Base-FX, the optical port is a full duplex SC/ST/FC single mode or multimode interface.
Gigabit SFP slot	100/1000 Base-SFP
Indicator	LFP indicator, run indicator, interface indicator, POE indicator
Exchange attributes	
Backplane bandwidth	14G
Packet buffer size	1Mbit
MAC table size	8K
Power supply	
Input power supply	12~48VDC (POE48VDC)
Access terminal	3-pin 7.62mm pitch terminal block
Consumption	
IPMC100-1GF-1GPOE	No-load: 1.44W@48VDC Full-load: 28.51W@48VDC
IPMC100-1GF-2GPOE	No-load: 5.14W@48VDC Full-load: 55.30W@48VDC
IPMC100-1GS-1GPOE	No-load: .1.49W@48VDC Full-load: 27.55W@48VDC
IPMC100-1GS-2GPOE	No-load: 2.11W@48VDC Full-load: 53.76W@48VDC
Working environment	
Working temperature	-40℃～80℃
Storage temperature	-40℃～85℃
Working humidity	5%～95% (no condensation)
Protection grade	IP40 (metal shell)