

I(P)GC-0101DSFP

GE (w/ PoE af/at) to 100/1000M SFP Industrial Switch Converter;

12V/48V/AC input



OVERVIEW

The Lantech I(P)GC-0101DSFP is an Industrial Converter converging from 10/100/1000BaseT to 100/1000M-FX dual speed (with 802.3af/at PoE support). It supports 10K jumbo frame.

Supports Auto-sensing LLF

Featured with LLF (Link Loss Forwarding) function, Lantech I(P)GC-0101DSFP is able to auto cut off connection if one end of connection is down. When copper port disconnects, it will auto turn off fiber port. When fiber port disconnects, it will auto turn off copper port. Smart LLF function alert central side switch immediate remedy action when connection is lost.

Remote enable/disable PoE feeding power through fiber (PoE model)

The PoE power transmission of IPGC-0101DSFP can react to the fiber connection status. The control center can simply cut off and then re-connect the fiber connection to re-boot the PoE device, such as a camera that is connected to IPGC-0101DSFP remotely.

PoE model: Dual DC input power

IPGC-0101DSFP supports dual input from 9.5V~56VDC (12V model) or 44V~56VDC, dual ± 48 VDC input (48V model) for various application including vehicle, railway, solar panel etc.

Non-PoE model: Dual power input from 9V~54VDC/18~36VAC with galvanic isolation

IGC-0101DSFP supports dual wide range input from 9V~54VDC and 18~36VAC (AC model) with Ethernet galvanic isolation that is good for various application including vehicle, railway, solar panel etc.

PD model (Non-PoE): Copper Ethernet Port can work as powered device

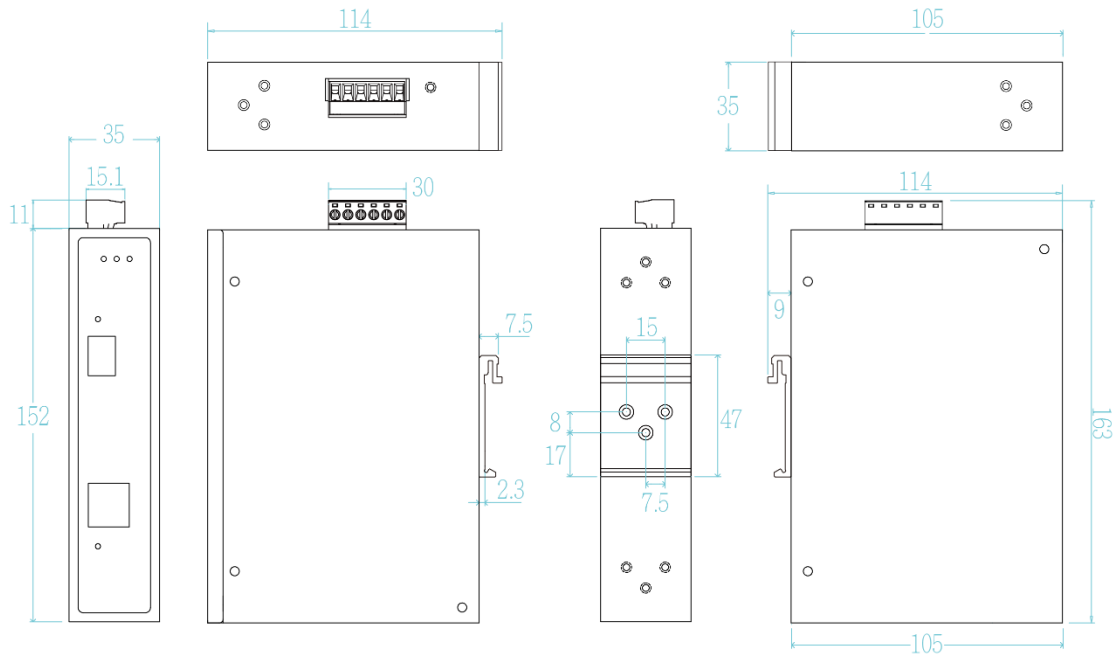
The copper port can provide the correct classification to power source equipment (PSE) so that the PSE can source the right amount of power to the IGC-0101DSFP-PD.

Hardened industrial design with extended temperature range ; CE, FCC, LVD, AREMA part 11.5.1 compliance**

It provides ± 2000 V EFT and ± 6000 V ESD protection, which can reduce unstable situation caused by power line and Ethernet. It has high reliability and robustness coping with extensive EMI/RFI phenomenon, environmental vibration and shocks usually found in Automation, transportation, surveillance, Wireless backhaul, Semi-conductor factory and assembly lines.

With CE, FCC, LVD and AREMA** part 11.5.1 verification, Lantech I(P)GC-0101DSFP is best for outdoor community, vehicle, railway, process control automation etc. For more usage flexibilities, I(P)GC-0101DSFP-E supports wide operating temperature from -40°C to 75°C.

DIMENSIONS (unit=mm)



SPECIFICATION

Standards	IEEE802.3 10Base-T IEEE802.3u 100Base-TX/100Base-FX IEEE802.3ab 1000Base-T IEEE802.3x Flow Control and Back pressure IEEE802.3z 1000BaseSX/LX standards IEEE802.3at PoE/PSE (PoE model)	RJ-45 Socket: CAT-5 (10/100/1000Mbps) Twisted Pair cable Auto MDI/MDI-X and Auto-Negotiation Function Support
Switch Architecture	Store and Forward	LED
Jumbo Frame	10 Kbytes	Per unit: Power1 (Green), Power2 (Green), Fault (Red) Fiber: Link/Active (Green) TX: Link/Active (Green), speed (Yellow) PoE : Green (PoE model)
Mac Address	1K MAC address table	Power Supply
Fiber parameters	Fiber Core: Multi-mode (62.5/125um, 50/125um) Single-mode (9/125um) Wavelength: 850nm(Multi-mode) 1310nm(Single-mode) Fiber Distance: Based on transceiver type for different distance	PoE model: Dual 9.5V~56VDC (12V model) Dual 44V~56VDC, dual ±48VDC input (48V model) Non-PoE model: Dual input Voltage Range: 9VDC to 54VDC (12V/DC model) Input Voltage Range: 18VAC to 36VAC (AC model)
Optical Cable	1.25Gbps: Multi mode: 0 to 550 m, 850 nm (50/125 μm); 0 to 2 km, 1310 nm (50/125 μm) Single mode: 0 to 10 km/ 30 km/ 40 km, 1310 nm (9/125 μm); 0 to 50 km/ 60 km/ 80km/ 120 km, 1550 nm (9/125 μm) 125Mbps: Multi mode: 0 to 2 km/ 5 km, 1310 nm (62.5/125 μm) Single mode: 0 to 30 km, 1310 nm (62.5/125 μm) WDM 1.25Gbps: Single mode: 0 to 10 km/ 20 km/ 40 km/ 60 km, 1310 nm (9/125 μm); 0 to 80 km, 1490 nm (9/125 μm); 0 to 10 km/ 20 km/ 40 km/ 60 km/ 80 km, 1550 nm (9/125 μm) WDM 125Mbps: Single mode: 0 to 20 km/ 40 km/ 60 km/ 80 km, 1310 nm (9/125 μm); 0 to 20 km/ 40 km/ 60 km/ 80 km, 1550 nm (9/125 μm)	Power Consumption: 5 Watts max. PoE budget: 30W Operating Humidity: 5% ~ 95% (Non-condensing) Operating Temperature: -20°C~60°C / -4°F~140°F (Standard model) -40°C~75°C / -40°F~167°F(-E model) Storage Temperature: -20°C~70°C / -4°F~158°F
Polarity protection	Power polarity auto-reverse protection	Case Dimension
Relay Alarm	Provides one relay output for power fail alarm. Alarm Relay current carry ability: 1A @ DC24V	Metal case. IP-30, 35mm (W) x 152mm (H) x 105mm (D) mm
Connectors	Fiber: Mini-GBIC 3.3V 100/1000M FX	Installation
		DIN Rail, Wall Mount**, and 19 inch Rack-mount** Design **Optional mounting Kit / bracket is required
		EMI & EMS
		FCC Part 15 Class A, CE EN55032 Class A, CE EN55024, CE EN61000-6-2, CE EN61000-4-2 (ESD) Level 3, CE EN61000-4-3 (RS) Level 3, CE EN61000-4-4 (EFT) Level 3, CE EN61000-4-5 ED3 (Surge) Level 3, CE EN61000-4-6 (CS) Level 3, CE EN61000-4-8, EN 50121-4:2015, EN 50121-5:2015

	AREMA** part 11.5.1 compliance	Safety	EN 60950-1
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)	MTBF	1,884,611 hrs (standards: IEC 62380)

**Optional

ORDERING INFORMATION

Optional AREMA certified models are available with -AMA model names.
Optional mounting Kit / bracket are required for Rackmount installation

- **IPGC-0101DSFP-48V.....P/N: 8350-070**
10/100/1000T to 100/1000M-FX dual speed Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation with 802.3at PoE, Operating Temperature -20°C to 60°C; Dual 44V~56V DC input w/Ethernet galvanic isolation
- **IPGC-0101DSFP-48V-E.....P/N: 8350-0701**
10/100/1000T to 100/1000M-FX dual speed Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation with 802.3at PoE, Operating Temperature -40°C to 75°C; Dual 44V~56V DC input w/Ethernet galvanic isolation
- **IPGC-0101DSFP-12V.....P/N: 8350-0702**
10/100/1000T to 100/1000M-FX dual speed Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation with 802.3at PoE, Operating Temperature -20°C to 60°C; Dual 9.5V~56VDC input w/Ethernet galvanic isolation
- **IPGC-0101DSFP-12V-E.....P/N: 8350-0703**
10/100/1000T to 100/1000M-FX dual speed Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation with 802.3at PoE, Operating Temperature -40°C to 75°C; Dual 9.5V~56VDC input w/Ethernet galvanic isolation
- **IGC-0101DSFP-12V.....P/N: 8350-0704**
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation, dual 9V~54VDC input w/Ethernet galvanic isolation, Operating Temperature -20°C to 60°C
- **IGC-0101DSFP-12V-E.....P/N: 8350-0705**
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation, dual 9V~54VDC input w/Ethernet galvanic isolation, Operating Temperature -40°C to 75°C
- **IGC-0101DSFP-AC.....P/N: 8350-0706**
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation, 18V~36VAC input w/Ethernet galvanic isolation, Operating Temperature -20°C to 60°C
- **IGC-0101DSFP-AC-E.....P/N: 8350-0707**
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation, 18V~36VAC input w/Ethernet galvanic isolation, Operating Temperature -40°C to 75°C
- **IGC-0101DSFP-AC-PD.....P/N: 8350-0708**
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation, incl. 1 PD port, 18V~36VAC input w/Ethernet galvanic isolation, Operating Temperature -40°C to 75°C
- **IGC-0101DSFP-DC-PD.....P/N: 8350-0709**
10/100/1000T to 100/1000M FX Mini-GBIC Industrial Switch Converter for Rackmount and standard Din Rail installation, incl. 1 PD port, dual 9V~54VDC input w/Ethernet galvanic isolation, Operating Temperature -40°C to 75°C

OPTIONAL ACCESSORIES

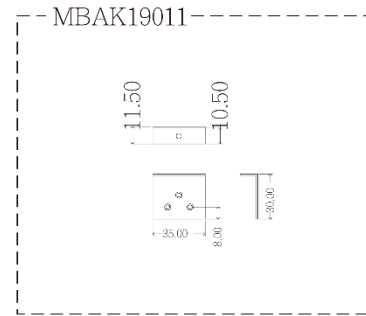
DIN Rail Power

- **NDR-75 Series** 75W Single Output Industrial Din Rail Power; 90-264VAC / 127-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C; For 115VAC, please refer to derating curve on NDR-120 Series datasheet)
- **MDR-40 Series** 40W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 4% per degree from 60°C ~ 70°C)
- **MDR-20 Series** 20W Single Output Industrial Din Rail Power; 85-264VAC / 120-370VDC Input Range; Cooling by free air convection; RoHS2 ; Operating Temp. -20°C~70°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)

Mounting Kit / Bracket

- **MBAK19010** 19" 10-slot Rackmount Kit for industrial converter
- **MBAK19011** L-Bracket for Mounting MBAK19010 with the Industrial Converter

MBAK19010



Mini GBIC (SFP)

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|------------------------|--|-----------------------|---|
| ■ 8330-162D-V1 | MINI GBIC 1000SX (LC/MM/0.5KM) Transceiver | ■ 8330-187D-V1 | 1.25Gbps BiDi SFP 20KM Transceiver (WDM 1550) |
| ■ 8330-163D-V1 | MINI GBIC 1000SX2 (LC/MM/2KM) Transceiver | ■ 8330-180D-V1 | 1.25Gbps BiDi SFP 40KM Transceiver (WDM 1310) |
| ■ 8330-165D-V1 | MINI GBIC 1000LX (LC/SM/10KM) Transceiver | ■ 8330-182D-V1 | 1.25Gbps BiDi SFP 40KM Transceiver (WDM 1550) |
| ■ 8340-0591D-V1 | MINI GBIC 1000LHX (LC/SM/40KM) Transceiver | ■ 8330-181D-V1 | 1.25Gbps BiDi SFP 60KM Transceiver (WDM 1310) |
| ■ 8330-166D-V1 | MINI GBIC 1000XD (LC/SM/50KM) Transceiver | ■ 8330-183D-V1 | 1.25Gbps BiDi SFP 60KM Transceiver (WDM 1550) |
| ■ 8330-169D-V1 | MINI GBIC 1000XD (LC/SM/60KM) Transceiver | ■ 8330-184D-V1 | 1.25Gbps BiDi SFP 80KM Transceiver (WDM 1490) |
| ■ 8330-167D-V1 | MINI GBIC 1000ZX (LC/SM/80KM) Transceiver | ■ 8330-185D-V1 | 1.25Gbps BiDi SFP 80KM Transceiver (WDM 1550) |
| ■ 8330-170D-V1 | MINI GBIC 1000EZX (LC/SM/120KM) Transceiver | ■ 8330-071D-V1 | 125Mbps BiDi SFP 2KM (WDM 1310) Transceiver |
| ■ 8330-168-V1 | MINI GBIC 10/100/1000T (100m) Transceiver | ■ 8330-072D-V1 | 125Mbps BiDi SFP 2KM (WDM 1550) Transceiver |
| ■ 8330-060D-V1 | MINI GBIC 100Base (LC/MM/2KM) Transceiver | ■ 8330-069D-V1 | 125Mbps BiDi SFP 20KM (WDM 1310) Transceiver |
| ■ 8330-065D-V1 | MINI GBIC 100Base (LC/MM/5KM) Transceiver | ■ 8330-068D-V1 | 125Mbps BiDi SFP 20KM (WDM 1550) Transceiver |
| ■ 8330-061D-V1 | MINI GBIC 100Base (LC/SM/30KM) Transceiver | ■ 8330-080D-V1 | 125Mbps BiDi SFP 40KM (WDM 1310) Transceiver |
| ■ 8330-197D-V1 | 1.25Gbps BiDi SFP 0.5KM Transceiver (WDM 1310) | ■ 8330-082D-V1 | 125Mbps BiDi SFP 40KM (WDM 1550) Transceiver |
| ■ 8330-198D-V1 | 1.25Gbps BiDi SFP 0.5KM Transceiver (WDM 1550) | ■ 8330-081D-V1 | 125Mbps BiDi SFP 60KM (WDM 1310) Transceiver |
| ■ 8330-195D-V1 | 1.25Gbps BiDi SFP 2KM Transceiver (WDM 1310) | ■ 8330-083D-V1 | 125Mbps BiDi SFP 60KM (WDM 1550) Transceiver |
| ■ 8330-196D-V1 | 1.25Gbps BiDi SFP 2KM Transceiver (WDM 1550) | ■ 8330-084D-V1 | 125Mbps BiDi SFP 80KM (WDM 1310) Transceiver |
| ■ 8330-188D-V1 | 1.25Gbps BiDi SFP 10KM Transceiver (WDM 1310) | ■ 8330-085D-V1 | 125Mbps BiDi SFP 80KM (WDM 1550) Transceiver |
| ■ 8330-189D-V1 | 1.25Gbps BiDi SFP 10KM Transceiver (WDM 1550) | ■ 8330-191D-V1 | Dual Speed SFP 100M/1000M-LX 10KM Transceiver |
| ■ 8330-186D-V1 | 1.25Gbps BiDi SFP 20KM Transceiver (WDM 1310) | | |

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