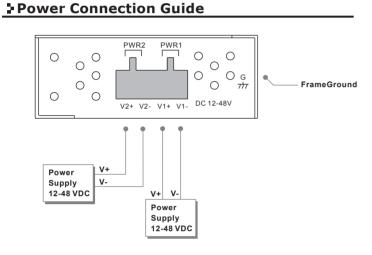# D-Link

Quick Installation Guide

DIS-M100G-SW

Industrial Gigabit Ethernet to Fiber Media Converter

Introduction

DIS-M100G-SW is a cost-effective solution for the conversion between 100/1000Base-T(X) and 100/1000Base-X interface, it allows you to extend communication distance by optical fiber. **DIS-M100G-SW** supports MDI/MDIX auto detection, so you don't need to use crossover wires. **DIS-M100G-SW** with wide operating temperature range from -40 ~ 70℃ and accepts a wide voltage range from dual 12 ~ 48 VDC power inputs, so it is suitable for harsh operating environments. Therefore, the **DIS-M100G-SW** is reliable media converter and can satisfy most demand of operating environment.

Features

- Supports 1 port 100/1000Base-T(X) auto-negotiation and auto-MDI/MDI-X
- Support Ethernet to SFP port signal conversion
- Provided DIP-Switch to set operation speed of SFP port
- High reliability and rigid IP-30 housing
- DIN-Rail and wall-mount enabled

Power Connection Guide

Specifications

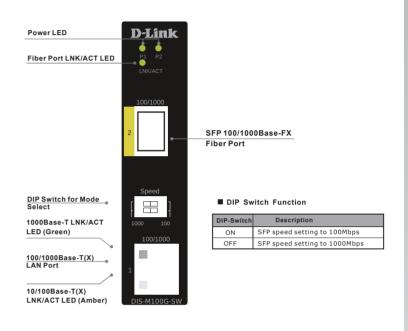| Model	DIS-M100G-SW
Physical Ports	
100/1000 Base-T(X) Port in RJ45 Auto MDI/MDIX	1
100/1000Base-X SFP port	1
Technology	
Ethernet standards	IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3x for Flow control IEEE 802.3 ab for 1000Base-T IEEE 802.3 z for 1000Base-X
DIP-Switch 1/2	DIP-Switch 1 (ON) and DIP-Switch 2 (ON) : SFP speed setting to 100Mbps DIP-Switch 1 (OFF) and DIP-Switch 2 (OFF) : SFP speed setting to 1000Mbps
LED Indicators	
Power indicator	Green: Power LED x 2. (ON) power input on-line / (OFF) power input off-line
100/1000Base-T(X) RJ45 port indicator	LED for Link/Act and Speed indicator : Green on only : 1000Mbps Link/Act-(ON) Link up / (Flash) Acting / (OFF) Link down Green and Amber on : 100Mbps Link/Act-(ON) Link up / (Flash) Acting / (OFF) Link down ***Note: If amber on only : Link up at 10Mbps is not a valid mode**
100/1000Base-F(X) fiber port indicator	Green for fiber port Link/Act - (ON) Link up / (Flash) Acting / (OFF) Link down
Power	
Input power	Dual 12~48 VDC power input at 4 pin terminal block
Power consumption(Typ.)	3.6 Watts
Overload current protection	Present
Reverse polarity protection	Present
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	26.1 (W) x 70 (D) x 95 (H)mm (1.03 x 2.76 x 3.74 inch)
Weight (g)	190 g (0.42 lb)
Environmental	
Storage Temperature	-40 to 85℃ (-40 to 185℉)
Operating Temperature	-40 to 70℃ (-40 to 158℉)
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1

Connections of Media converter

For long distance transmission

Working Status

Ethernet Port Status	SFP Fiber Port Status	Working status
100Mbps	100Mbps	Valid
100Mbps	1000Mbps	Invalid
1000Mbps	1000Mbps	Valid
1000Mbps	100Mbps	Invalid

Front Panel

Power LED

Fiber Port LNK/ACT LED

SFP 100/1000Base-FX Fiber Port

DIP Switch for Mode Select

1000Base-T LNK/ACT LED (Green)

100/1000Base-T(X) LAN Port

10/100Base-T(X) LNK/ACT LED (Amber)

■ DIP Switch Function

DIP-Switch	Description
ON	SFP speed setting to 100Mbps
OFF	SFP speed setting to 1000Mbps

Installation

Din-Rail Install Step

Wall-mounted Install Step

Accessory

① 4-Pin Terminal block

② Dust Cover (RJ-45)

③ Dust Cover (SFP)

④ Screw (M3 X3)

⑤ Wall-mounted kit

⑥ 25mm DIN-Rail kit

⑦ Power Cable with power jack

⑧ QIG

Packing list
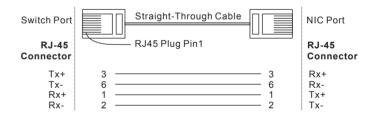
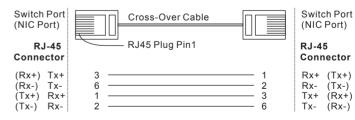| Model name	Model Description	Accessory
DIS-M100G-SW	Gigabit Industrial Unmanaged Media Converter with 1x100/1000Base-T(X) and 1x100/1000Base-X, SFP socket	①x 1, ②x 1, ③x 1, ④x 8, ⑤x 2, ⑥x 1, ⑦x 1, ⑧x 1

Communication Connections

100Base-TX Ethernet Port Connection

■ RJ45 (8-pin, MDI) Port Pinouts

Pin	Single
1	Tx+
2	Tx-
3	Rx+
6	Rx-

■ RJ45 (8-pin, MDI-X) Port Pinouts

Pin	Single
1	Rx+
2	Rx-
3	Tx+
6	Tx-

■ RJ45 (8-pin) to RJ45 (8-Pin) Straight-Through Cable Wiring

Switch Port — Straight-Through Cable — NIC Port

RJ-45 Connector — RJ45 Plug Pin1 — RJ-45 Connector

Tx+	3		3	Rx+
Tx-	6		6	Rx-
Rx+	1		1	Tx+
Rx-	2		2	Tx-

■ RJ45 (8-pin) to RJ45 (8-Pin) Cross-Over Cable Wiring

Switch Port (NIC Port) — Cross-Over Cable — Switch Port (NIC Port)

RJ-45 Connector — RJ45 Plug Pin1 — RJ-45 Connector

(Rx+)	Tx+	3	1	Rx+	(Tx+)
(Rx-)	Tx-	6	2	Rx-	(Tx-)
(Tx+)	Rx+	1	3	Tx+	(Rx+)
(Tx-)	Rx-	2	6	Tx-	(Rx-)

1000Base-T Ethernet Connection

■ RJ45 (8-pin, MDI) Port Pinouts

Pin	MDI
1	BI_DA+
2	BI_DA-
3	BI_DB+
4	BI_DC+
5	BI_DC-
6	BI_DB-
7	BI_DD+
8	BI_DD-

■ RJ45 (8-pin, MDI-X) Port Pinouts

Pin	MDI-X
1	BI_DB+
2	BI_DB-
3	BI_DA+
4	BI_DD+
5	BI_DD-
6	BI_DA-
7	BI_DC+
8	BI_DC-

100/1000Base-X SFP Port Connection

LC-Port Pinouts

LC-Port to LC-Port Cable Wiring

LC-Port Pinouts

Cable Wiring

Tx ————— Rx
Rx ————— Tx

Additional Information

You can refer to the user manual or visit http://support.dlink.com/ for more support.

Online Support
If there are any issues that are not in the user manual, please visit http://support.dlink.com/ which will direct you to your appropriate local D-Link support website.

Warranty Information
Visit http://warranty.dlink.com/ to view the D-Link Warranty information.

Regulatory Statements

Federal Communication Commission Interference Statement

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.

Non-modifcation Statement

Any changes or modifcations not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution

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

Industry Canada Statement:

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Japan Voluntary Control Council for Interference Statement

この装置は、クラス A 情報技術装置です。 この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。 この場合には使用者が適切な対策を講ずるよう要求されることがあります。
VCCI-A

Japan Voluntary Control Council for Interference Statement

This is a Class A product based on the standard of the Voluntary Control Council for Interference (VCCI). If this equipment is used in a domestic environment, radio interference may occur, in which case the user may be required to take corrective actions.

警告使用者:
此為甲類的資訊技術設備，在居住環境中使用時，可能會造成射頻擾動，在這種情況下，使用者會被要求採取某些適當的對策。
Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CE EMI Class A Warning

This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

SAFETY INSTRUCTIONS

The following general safety guidelines are provided to help ensure your own personal safety and protect your product from potential damage. Remember to consult the product user instructions for more details.
Static electricity can be harmful to electronic components. Discharge static electricity from your body (i.e. touching grounded bare metal) before touching the product.
Do not attempt to service the product and never disassemble the product. For some products with user replaceable battery, please read and follow the instructions in the user manual.
Do not spill food or liquid on your product and never push any objects into the openings of your product.
Do not use this product near water, areas with high humidity or condensation unless the product is specifcally rated for outdoor application.
Keep the product away from radiators and other heat sources.
Always unplug the product from mains power before cleaning and use a dry lint free cloth only