OPT-GY1014 Series
Industrial Fiber Switch

100Base-Fx to 4*10/100Base-Tx

RoHS Compliant

>>Description

The OPT-GY1014 series are Optone new ultra low power consumption Green Ethernet series, its full load power consumption is as low as 2.16 watts. The OPT-GY1014 switches supports a wide operating temperature range from -40°C to 85°C. All models have IP40 protection class and meet EMC industrial level 4 requirements.

OPT-GY1014 series support IEEE 802.3 and IEEE802.3u with 10/100M full/half-duplex, MDI/MDI-X auto-sensing. The OPT-GY1014 switches provide 12~48VDC power supply. These switches are specially designed for harsh industrial environments certified by UL508 and UL Class 1 Div 2 certifications.

OPT-GY1014 is a "green", embedded industrial Ethernet module with low-power consumption. It is applicable to wind power, subway PIS, power SCADA, sewage treatment, metallurgy, intelligent transportation, rail transit, and many other industries.OPT-GY1014 Embedded Ethernet Switching Module can be directly installed in the target device.

>>Main Features

- Green Ethernet solution with ultra low power consumption design
- Both standard and wide operating temperature
- Complies with IEEE 802.3, IEEE 802.3u, IEEE 802.3x auto-negotiation
- Extends distances ranging from 2km (multi-mode fiber) to 120km (single mode fiber)
- Supports auto MDI/MDIX function
- Status LED for easy monitoring of device status
- Support max forwarding packet length 1552/1536 bytes option
- IP40 protection class
- FCC Class A & CE approved

>>Specifications

Interface
- 4 x Ethernet port (RJ45) 10/100Base-Tx
- 1 x Optical port (1x9) 100Base-Fx

Optical Port
- Available for 1310nm and 1550nm Single mode, and 1310nm Multi mode
- Transfer Distance: up to 120km
- Connectors: SC/PC, ST/PC, optional
- Fiber core: 8.3μm, 8.7μm, 9μm and 10μm on single-mode fiber; 50, 62.5 and 100μm on multi-mode fiber

Ethernet Port
- Standard: IEEE802.3, IEEE802.3u, IEEE802.3x
- Available speed: force 10Mbps, force 100Mbps and auto-detective 10/100Mbps Full-Duplex and Half-Duplex auto-negotiation
- Connectors: RJ-45 Connector; MDI/MDI-X connection auto-sensing

Switch Properties
- MAC Table: 2K
- Packet Buffer: 1Mbit
- Switching Delay: <5μs

LED Indicators
- Power, Status, Speed, FX Link/Act, TX Link/Act

Power Requirement
- Input: 12VDC~48VDC
- Consumption：3.5W
- Overload Protection: Support
- Reverse Connection Protection: Support
- Redundancy Protection: Support

Physical Characteristics
- Housing: Metal enclosure
- Protection Class: IP40
- Dimensions: 36 x 120 x 103mm
- Weight: 0.4kg
- Installation: DIN-Rail or Panel mounting

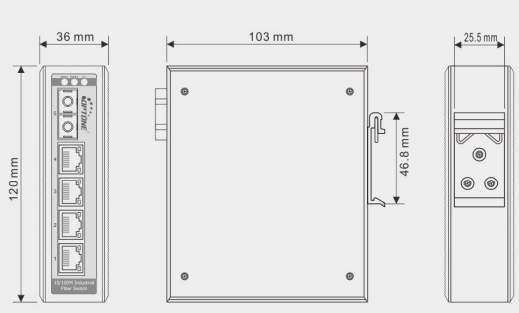
Environmental Limits
- Operating Temperature: -40°C to 85°C
- Storage Temperature: -40°C to 85°C
- Operating Humidity: 10% to 95% RH (non-condensing)
- Storage Humidity: 5% to 95% RH (non-condensing)

Agency Approvals
- FCC Part 15 of Class A & CE approved

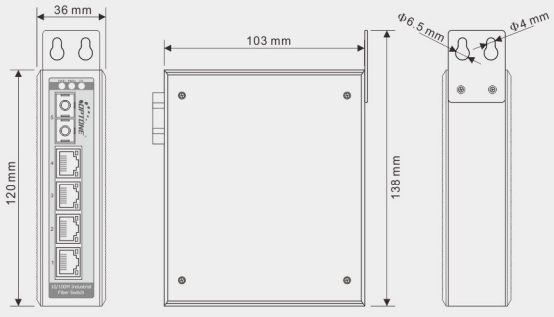
Industrial Standard
- EMI: FCC/CE/LVD/EMC
- EMS:
  IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air)
  IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)
  IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV
  IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV
  IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)
  IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)
- Shock: IEC 60068-2-27
- Free Fall: IEC 60068-2-32
- Vibration: IEC 60068-2-6

Warranty
- 5 years

>> Mechanical Drawing



DIN-Rail Mounting



Panel Mounting

>>Ordering Information

Double Fiber Media Converter	
OPT-GY1014M02	100Base-Fx to 4*10/100Base-Tx, Multi mode, 2Km, SC/ST
OPT-GY1014S20	100Base-Fx to 4*10/100Base-Tx, Single mode, 20Km, SC/ST
WDM Fiber Media Converter	
OPT-GY1014W20	100Base-Fx to 4*10/100Base-Tx, Bi-Directional, 20Km, SC/ST

>>Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by OPTONE before they become applicable to any particular order or contract. In accordance with the OPTONE policy of continuous improvement specifications may change without notice.

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