Colorlight

OP1s

Gigabit Ethernet Media Converter

Specification V1.0

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01 INTRODUCTION

1.1 Overview

The OP1s enables the conversion between electrical signals and optical signals, allowing for a transmission distance of up to 10km.

It supports various IEEE standards, including 802.3i, 802.3j, 802.3u, 802.3z, and 802.3ab.

Featuring link failure alarms, a wide operating temperature range, and lightning protection for ports and power supply, the OP1s is designed to meet deployment requirements of outdoor monitoring scenarios, such as the rail transportation, intelligent transportation system, Safe City project, and more.

1.2 Appearance

Front panel

No.	Name	Description
1	SC fiber optic ports	1000Base-X fiber optic ports, for data transmission

2	LED indicators	FX	Fiber port connection status: Steady on: Normal Blinking: Data exchanging
		TX	Ethernet port connection status: Steady on: Normal Blinking: Data exchanging Off: Abnormal
		FDX	Ethernet port working mode: Steady on: FDX (Full-duplex) Off: HDX (Half-duplex)
		PWR	Power indicator: Steady on: Normal power supply Off: No power supply
3	Ethernet port	10/100/1000Base-T RJ45 port, for data transmission	

Rear panel

No.	Name	Description
1	DC power connector	DC 5V power supply

02 SPECIFICATIONS

Model		OP1s
Electrical	Power supply	DC5V, 1A
	Rated power	≤1.6W
Communication distance	Ethernet cable	CAT5a≤100m
	Fiber optic cable	SC single-mode optic fiber: 10km
Operating environment	Temperature	-30°C~75°C (-22°F~167°F)
	Humidity	0%RH~80%RH, non-condensing
Storage environment	Temperature	-40°C~80°C (-40°F~176°F)
	Humidity	0%RH~90%RH, non-condensing
Physical	Dimensions (W×H×D)	70.5mm(2.8")×26.0mm(1.0")×106.5mm (4.2")
	Net weight	196g (0.43 lb)
Packing	Dimensions (W×H×D)	145.0mm(5.7")×38.0mm(1.5")×220.0mm (8.7")
	Gross weight	486g (1.07 lb)
Protection	Power surge protection	IEC61000-4-5 Level4 (4kV) (8/20μs)
	Port surge protection	IEC61000-4-5 Level4 (4kV) (10/700μs)
	ESD protection	IEC61000-4-2 Level4 (8kV/15kV)

03 REFERENCE DIMENSIONS

Unit：mm

Tolerance：±0.5
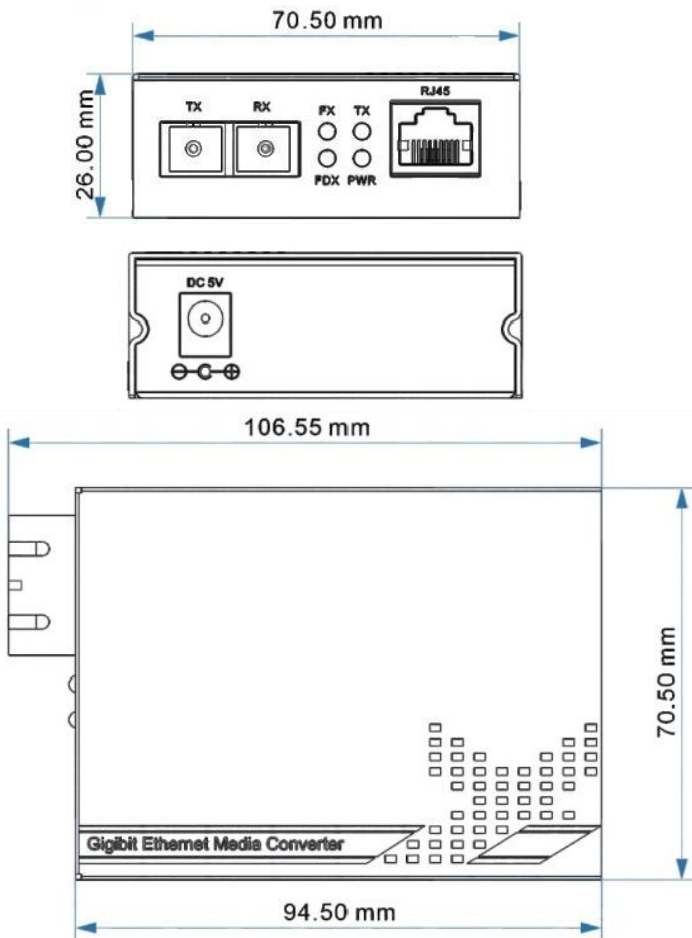
04 STATEMENT

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