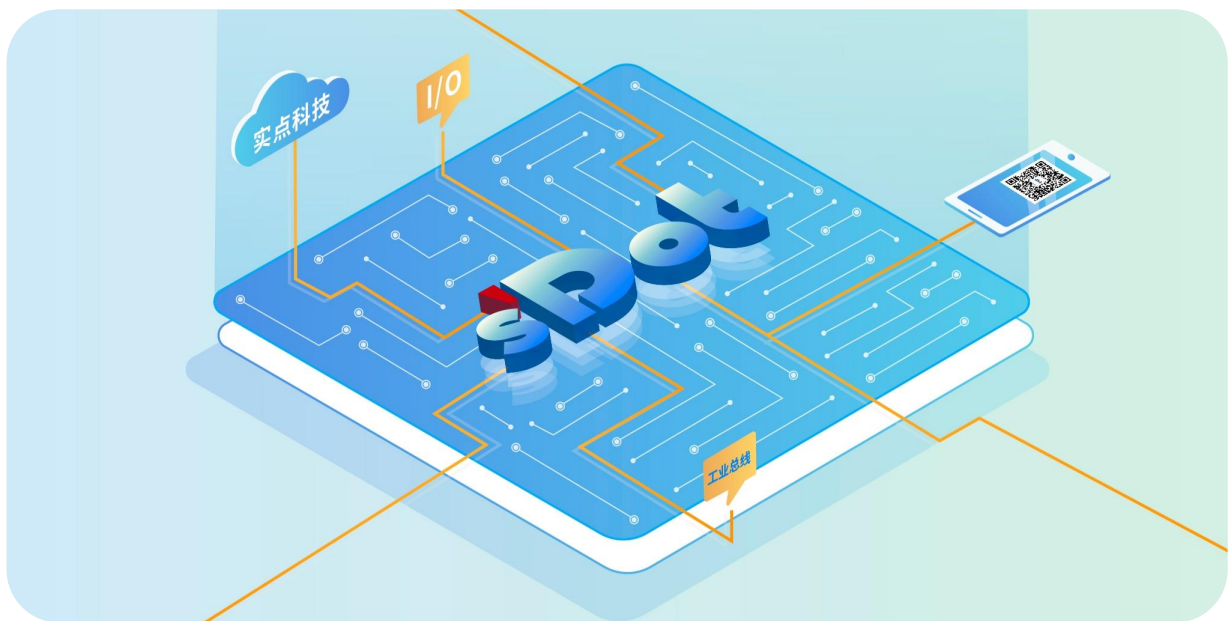




SW4-GUP08D-PN

Dedicated Switch

User Manual



Nanjing Solidot Electronic Technology Co., Ltd.

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1 Product Overview

1.1 Product Introduction

This 8-channel Gigabit Ethernet port unmanaged PROFINET industrial-grade switch supports industrial communication transmission design requirements. Adopting advanced automation design concepts, it is plug-and-play and supports advanced IEEE Ethernet power-saving technology and broadcast storm suppression. The product complies with CE and RoHS standards. The SW4-GUP08D-PN dedicated switch has an operating temperature range of -40°C to 80°C, possesses superior ruggedness to withstand various harsh environments, and can be easily installed in compact control boxes. Its DIN rail mounting characteristics, wide operating temperature range, IP40-rated enclosure, and LED indicators make the SW4-GUP08D-PN a plug-and-play industrial-grade device, providing users with a reliable and convenient solution for Ethernet device networking.

1.2 Product Features

- Supports 8 gigabit Ethernet ports
- Supports 10/100/1000M, full/half duplex, MDI/MDI-X auto-adaptive, plug and play.
- Supports 2-bit DIP switch, broadcast storm suppression, and QoS automatic priority function.
- Suitable for PROFINET-compliant Class A networks, enabling real-time data exchange and supporting the PROFINET-RT protocol.
- Suitable for providing PROFINET PTCP filters to achieve reliable PROFINET network communication.
- The compact design makes it easy to install in confined spaces.
- IP40 protection rating ensures the equipment can withstand various harsh field environments.
- Supports DC 9~56V wide voltage range, with total power consumption $\leq 5W$.
- Meets industrial-grade operating standards, with a mean time between failures (MTBF) of over 300,000 hours.
- The power supply supports overcurrent and overvoltage protection and reverse connection protection.

2 Product Parameters

2.1 General parameters

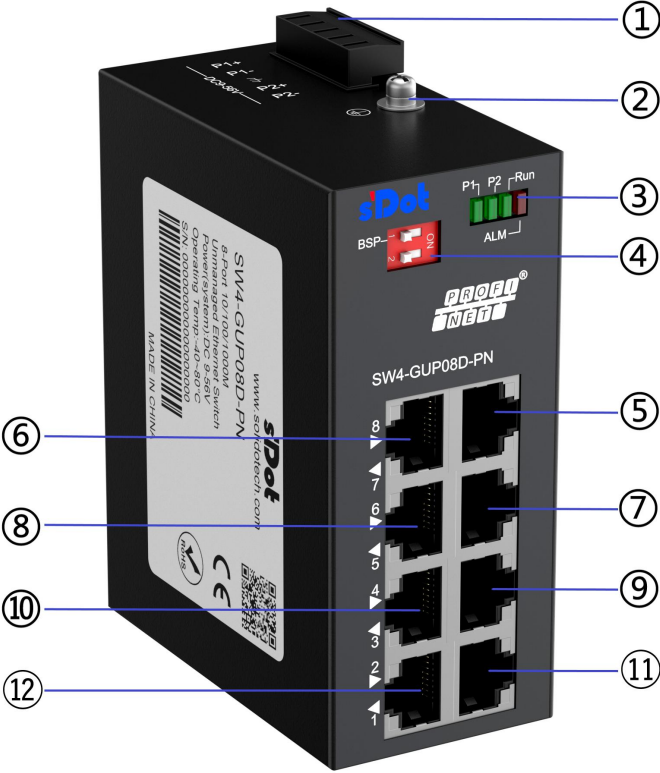
Interface parameters		
Product Name		1000M 8-port PROFINET dedicated switch
Product Model		SW4-GUP08D-PN
Product Description		Unmanaged 8-port Gigabit PROFINET dedicated switch
Bus interface		8×RJ45
RJ45 port		10/100/1000BaseT(X) auto-detection, full/half duplex MDI/MDI-X adaptive
Technical parameters		
Network Protocol		IEE802.3, IEE802.3u, IEE802.3ab
Operating temperature		-40°C~+80°C (-40°F~176°F)
Storage temperature		-40°C~+85°C (-40°F~185°F)
relative humidity		5%~95%, non-condensing
industry standards		IEC(EN)61000-4-2 (ESD): Contact discharge ±8kV, air discharge ±15kV IEC(EN)61000-4-3(RS): 10V/m(80~1000MHz) IEC(EN)61000-4-4(EFT): Power supply: ±4kV; Network port: ±2kV IEC(EN)61000-4-5(Surge): Power supply: ±4kV CM//±2kV DM Network ports: ±4kV CM//±2kV DM IEC(EN)61000-4-6 (Radio Frequency Conducted): 3V (10kHz~150kHz), 10V (150kHz~80MHz) IEC(EN)61000-4-16 (Common Mode Conduction): 30V cont. 300V, 1s Shock: IEC 60068-2-27 Freefall: IEC 60068-2-32 Vibration: IEC 60068-2-6
Swap properties	Transmission method	Store-and-forward
	MAC address	4K

	cache	1.5Mkbit
	Backplane bandwidth	16G
	Switching delay	$\leq 7\mu\text{s}$
	Power consumption	<5W
power supply	Input voltage	DC9~56V
	Input terminals	Phoenix Terminal
	Dual power supply redundancy	support
	Overcurrent protection	Supports built-in 4.0A overcurrent protection.
	Reverse connection protection	support
DIP switch		Supports DIP control panel DIP switch 1: Storm suppression function switch DIP switch 2: Reserved
Mechanical properties	shell	IP40 protection rating, metal casing
	Install	DIN rail type, wall mount installation
	Heat dissipation method	Natural cooling, fanless
	Weight	320g
	Size	100×80×44mm
Protection level		IP40
Certification Certificate		CE, RoHS, ISO9001
Mean Time Between Failures		300,000 hours
warranty		5 years

3 Panel

3.1 Panel structure

Product Parts Names



Serial Number	Name	Illustrate
①	Power interface	5P terminal
②	Grounding terminal	Protective grounding

③	Indicator lights and signs	Indicates power status and system operating status
④	DIP switch	Supports broadcast storm suppression function
⑤	Bus Interface 8	RJ45
⑥	Bus Interface 7	RJ45
⑦	Bus Interface 6	RJ45
⑧	Bus Interface 5	RJ45
9	Bus Interface 4	RJ45
⑩	Bus Interface 3	RJ45
⑪	Bus Interface 2	RJ45
⑫	Bus Interface 1	RJ45

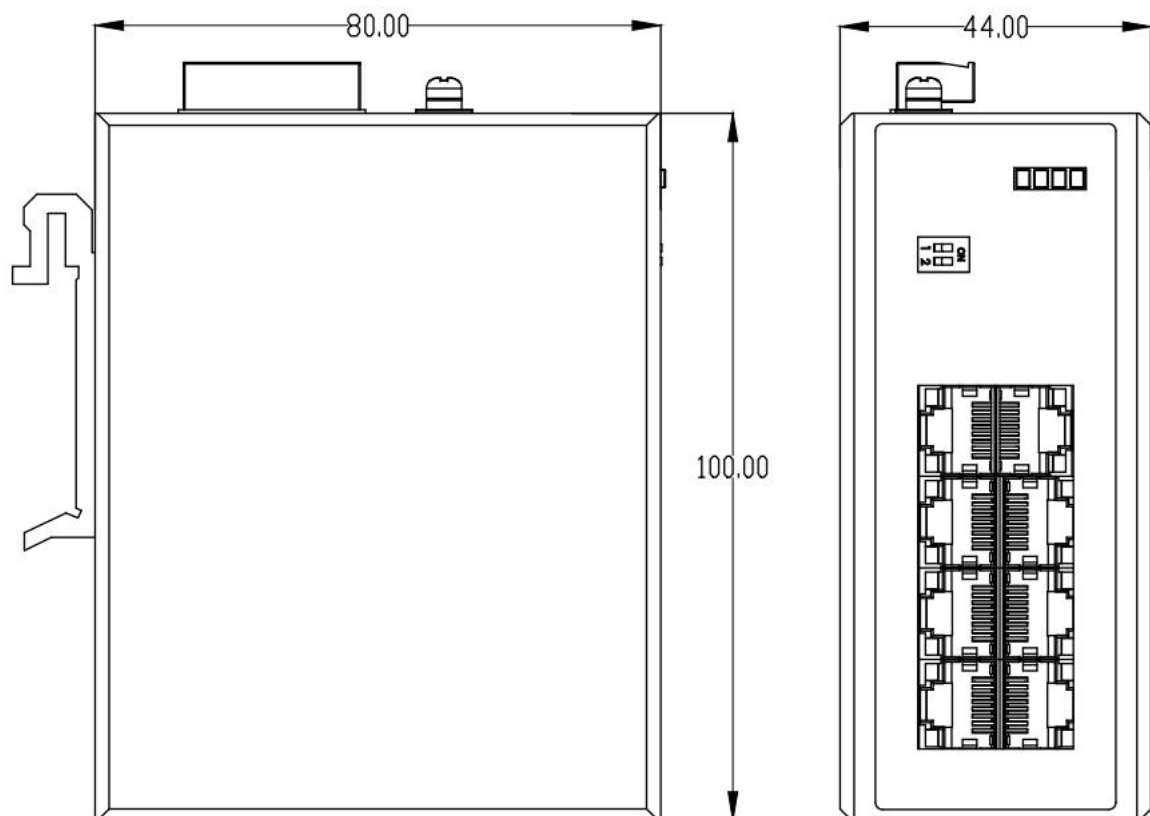
3.2 Indicator light definition

Name	Logo	Color	State	Status Description
Power indicator light	P1/P2	green	ON	Power supply is normal
			Extinguish	Power supply malfunction or no power.
System operation indicator light	RUN	green	blinking	The system is running normally.
			Extinguish	System malfunction
Port indicator lights	1~8	green	ON	Network link connection is normal
			blinking	Data transmission
			Extinguish	Power off or module malfunction
Power warning light	ALM	red	ON	Single power supply operation
			Extinguish	Dual power supply operation

4 Installation and removal

4.1 External dimensions

External dimensions (unit: mm)



5 Wiring

5.1 Wiring diagram

