

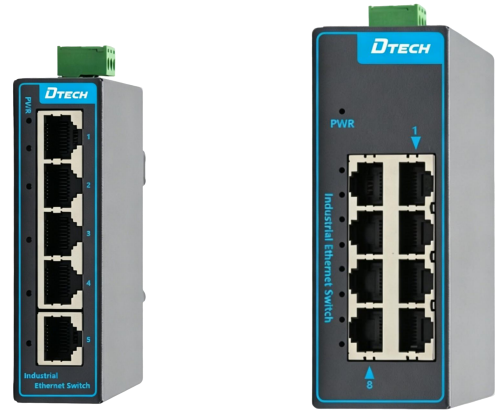
## Industrial-grade DIN-rail unmanaged Ethernet switch



**SW1000 Product Series Specification Document v1.0.1**


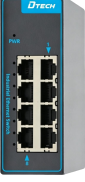
## Product Presentation

The SW1000 Series represents a new generation of industrial-grade unmanaged Ethernet switches designed for harsh industrial and outdoor environments, widely deployed in industrial automation, outdoor security monitoring, intelligent transportation, urban infrastructure and industrial edge network access. Built with full industrial hardware, wide-temperature architecture, IP40 enclosure rating and fanless passive cooling, the product delivers outstanding high reliability, low power consumption and plug-and-play quick deployment, serving as an ideal solution for industrial & outdoor network edge access-layer applications.



**SW1000 Series  
Industrial-grade Ethernet Switches**

## Specification Details

			
<b>Parameters</b>	<b>Model</b>	SW1000-5FT-BU-2D	SW1000-8FT-BU-2D
<b>Interface</b>	<b>RJ45 Port</b>	5x10/100 Mbps	8x10/100 Mbps
	<b>LED Indicators</b>	Power indicator light, Network indicator light	
<b>Switching Performance</b>	<b>Switching Capacity</b>	1 Gbps	1.6 Gbps
	<b>Packet Forwarding Rate</b>	7.5 Mpps	11.904 Mpps
	<b>Buffer Memory</b>	1.2 Mbit	2 Mbit
	<b>MAC Address Table</b>	4k	4k
	<b>Jumbo Frame</b>	9 Kbit	9 Kbit
	<b>Port Operating Mode</b>	The network port supports half-duplex, full-duplex, auto-negotiation, and MDI/MDI-X adaptive modes.	
<b>Compliance Standards</b>	<b>Supported Protocols</b>	IEEE 802.3 IEEE 802.3u IEEE 802.3x	
<b>Environmental Conditions</b>	<b>Temperature</b>	Operating temperature: -30°C to 70°C Storage temperature: -40°C to 80°C	
	<b>Humidity</b>	Working humidity: 10%–90% RH (no condensation).Storage humidity: 5%–95% RH (no condensation).	
<b>Power Supply</b>	<b>Input Voltage</b>	DC 12-52 V	
	<b>Reverse Polarity Protection</b>	Supported	
<b>Mechanical Characteristics</b>	<b>Installation Method</b>	DIN 35 Rail	
	<b>Cooling</b>	Fanless natural cooling	
	<b>Ingress Protection</b>	IP40	
	<b>Dimensions</b>	(W × D × H) 94 x 76 x 26 mm	(W × D × H) 110 x 91 x 40 mm
<b>Protection Specs</b>	<b>Surge Protection</b>	Power interface: 1.2/50 μs.Common-mode: 1 kV.Differential-mode: 0.5 kV. Network interface: 10/700 μs. Common-mode: 2 kV.Differential-mode: 1 kV.	
	<b>ESD Protection</b>	Contact discharge: ±6 kV (metal surfaces: RJ45.housing, screws. grounding terminal) Air discharge: ±8 kV (insulated surfaces: RJ45 port.indicator light. gaps)	



Parameters	Model	SW1000-5GT-BU-2D	SW1000-8GT-BU-2D
Interface	<b>RJ45 Port</b>	5x10/100/1000 Mbps	8x10/100/1000 Mbps
	<b>LED Indicators</b>	Power indicator light, Network indicator light	
Switching Performance	<b>Switching Capacity</b>	10 Gbps	16 Gbps
	<b>Packet Forwarding Rate</b>	7.5 Mpps	11.904 Mpps
	<b>Buffer Memory</b>	1.2 Mbit	2 Mbit
	<b>MAC Address Table</b>	4k	4k
	<b>Jumbo Frame</b>	9 Kbit	9 Kbit
	<b>Port Operating Mode</b>	The network port supports half-duplex, full-duplex, auto-negotiation, and MDI/MDI-X adaptive modes.	
Compliance Standards	<b>Supported Protocols</b>	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.3x	
Environmental Conditions	<b>Temperature</b>	Operating temperature: -30°C to 70°C Storage temperature: -40°C to 80°C	
	<b>Humidity</b>	Working humidity: 10%–90% RH (no condensation).Storage humidity: 5%–95% RH (no condensation).	
Power Supply	<b>Input Voltage</b>	DC 12-52 V	
	<b>Reverse Polarity Protection</b>	Supported	
Mechanical Characteristics	<b>Installation Method</b>	DIN 35 Rail	
	<b>Cooling</b>	Fanless natural cooling	
	<b>Ingress Protection</b>	IP40	
	<b>Dimensions</b>	(W × D × H) 94 x 76 x 26 mm	(W × D × H) 110 x 91 x 40 mm
Protection Specs	<b>Surge Protection</b>	Power interface: 1.2/50 μs.Common-mode: 1 kV.Differential-mode: 0.5 kV. Network interface: 10/700 μs. Common-mode: 2 kV.Differential-mode: 1 kV.	
	<b>ESD Protection</b>	Contact discharge: ±6 kV (metal surfaces: RJ45.housing, screws. grounding terminal) Air discharge: ±8 kV (insulated surfaces: RJ45 port.indicator light. gaps)	

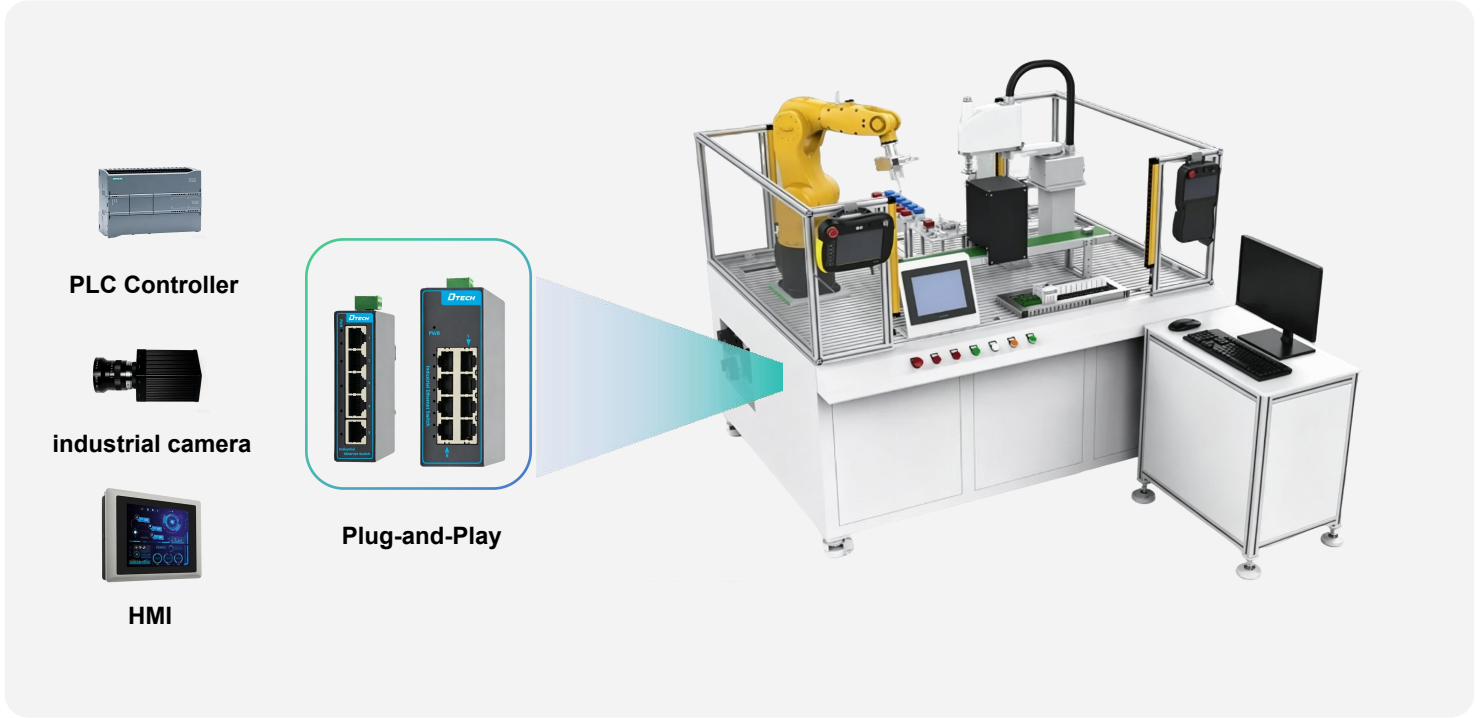
### Product Features

- Auto-Negotiation: Supports full/half-duplex, automatic port matching
- Redundant Power Input: Dual DC 12–52 V wide-voltage inputs with built-in reverse polarity protection; uninterrupted operation during single-power failure
- Industrial operating temperature range: -30°C to +70°C with stable performance across the entire spectrum
- Enhanced EMC protection: ESD rating of ±6 kV/±8 kV, network port surge resistance of 2 kV, and strong anti-interference capability
- High Reliability: MTBF ≥ 300,000 hours, durable and long-lasting
- Body Protection: Full metal housing, IP40 protection rating
- Line-rate forwarding: Full-port line-rate transmission with low latency and zero packet loss
- Plug-and-play, zero configuration: Non-management-oriented design, plug-and-play

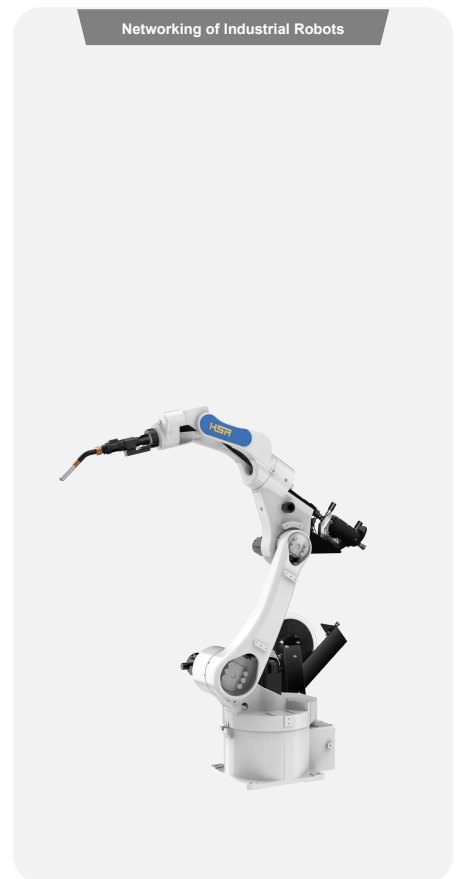
**Product Application**

**1. Integration of Production Line PLC and Visual Inspection Systems**

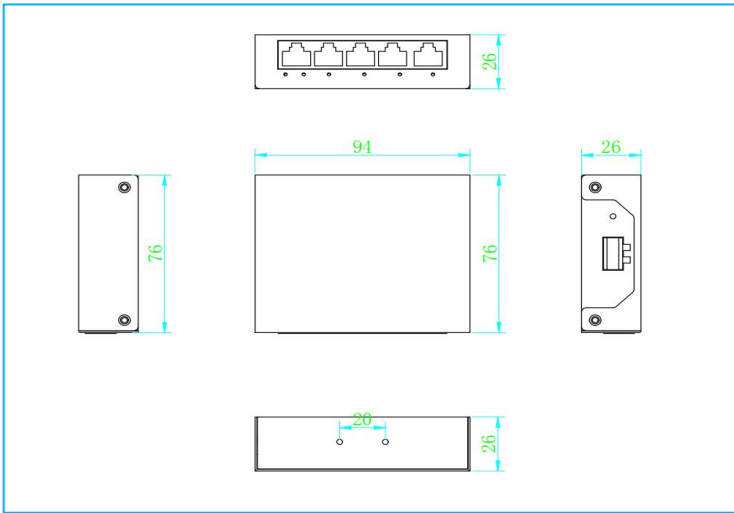
Modern automated production lines adopt PLC Controllers paired with Industrial Cameras for visual inspection, requiring low-delay, anti-interference industrial network. When insufficient ports or long transmission distance occur at on-site workstations, 5/8-port industrial switches realize economical local network convergence.



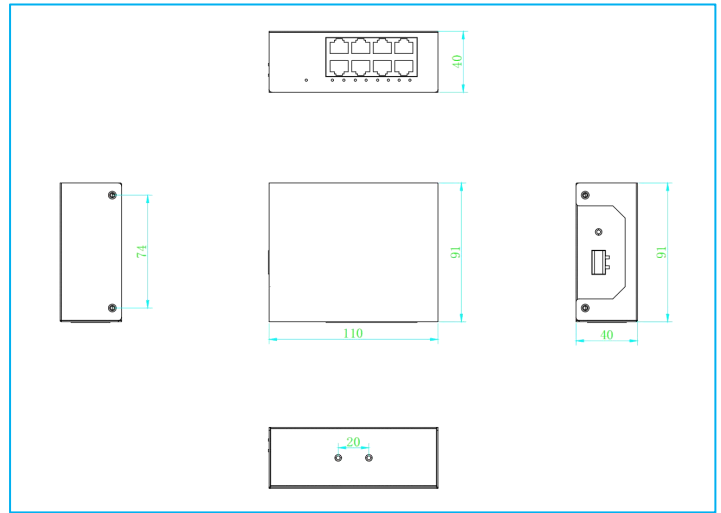
**2. Other Typical Application Areas**



Product Size



Dimensions: (W × D × H) 94 x 76 x 26 mm  
 Model: SW1000-5FT-BU-2D, SW1000-5GT-BU-2D



Dimensions: (W × D × H) 110 x 91 x 40 mm  
 Model: SW1000-8FT-BU-2D, SW1000-8GT-BU-2D

Installation Instructions

Guided installation

To install the product using the rail-mounted installation method, follow these steps: Step 1: Check the grounding and stability of the rail by inserting the switch's rail slot into the rail; Step 2: Tighten the positioning screws along the rail from the center toward both sides in sequence; Step 3: Secure the rail slots to the fixed guide grooves at both ends of the rail with screws, ensuring the rail is mounted perpendicularly and stably on the switch.

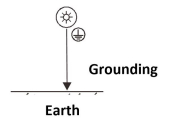


⚠ Practical Considerations

Do not reverse polarity: Reversing V+ and V-connections will immediately cause the device to fail or even permanently damage the device.  
 Grounding recommendations: The third cores ground connection (FG) must be reliably connected to effectively enhance surge and anti-static performance.  
 Voltage selection: Preferably use the device's rated power supply of 12/24/48 V, and avoid prolonged operation at extreme voltages of 10.8 V or 52.8 V.

Grounding

Secure the grounding wire to the grounding screw on the switchgear and ensure a reliable connection within the proper grounding system.



Power Connection

Insert the power cable into the designated position of the three-pin terminal, then connect it to the power input interface (V+ and V-terminals). These terminals support supply voltages of 12/24/48 VDC (12–52 VDC).

Packing List

- 1 x Industrial-grade Ethernet switch
- 1 x 5.08mm wire terminal
- 1x Product Manual

Order Model

Model	Specifications	Working Voltage	Working Temperature
SW1000-5FT-BU-2D	5 × 10/100Base-TX Ethernet Ports	DC 12-52V	-30 °C to 70 °C
SW1000-8FT-BU-2D	8 × 10/100Base-TX Ethernet Ports	DC 12-52V	-30 °C to 70 °C
SW1000-5GT-BU-2D	5 × 10/100/1000Base-T Ethernet Ports	DC 12-52V	-30 °C to 70 °C
SW1000-8GT-BU-2D	8 × 10/100/1000Base-T Ethernet Ports	DC 12-52V	-30 °C to 70 °C