



PROFINET Unmanaged Ethernet Switches

FICE1005 • FICE1008

FICE2005 • FICE2008

- Industrial Unmanaged 5 or 8-port 10/100Base-TX PROFINET Ethernet Switch with Redundant DC Power Inputs
- Industrial Unmanaged 5 or 8-port 10/100/1000Base-TX PROFINET Ethernet Switch with Redundant DC Power Inputs

Product Data Sheet



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Main Features

- ❖ Wide temperature design: Supports -40°C~75°C
- ❖ Complies with Level 4 industrial EMC immunity requirements, resistant to all harsh electromagnetic interference environments
- ❖ DIP Switch supports Broadcast Storm Protection
- ❖ Built-in QoS-4 priority queues, enabling automatic priority forwarding during network congestion
- ❖ Meets on-site insulation performance requirements
- ❖ Compact structural design, suitable for embedded installation in any cabinet; high-quality aluminum alloy housing with heat-conducting design.

Overview

The PROFINET Unmanaged Ethernet Switches are designed for industrial automation networks requiring stable and efficient Ethernet transmission. It provides 10/100/1000Mbps Ethernet ports for connecting PLCs, I/O modules, HMIs, and other automation devices. Its compact design allows installation in space-limited environments such as control cabinets or machine-level installations.

As a plug-and-play unmanaged switch, it supports broadcast storm suppression, QoS-4 queue priority, and real-time forwarding of PROFINET 0x8892 key frames (complying with PROFINET-A conformance), ensuring stable data transmission for PLCs and I/O modules. Available in 100M/1000M variants (5-port/8-port) with DC12~48V wide voltage input, it adapts flexibly to diverse on-site requirements.

Auto Broadcast Suppression The switch automatically learns device addresses by analyzing incoming frame sources. Only packets with unknown addresses, packets originating from the same port, or multicast/broadcast packets are forwarded. Up to **2048** MAC addresses can be stored, reducing unnecessary broadcast traffic.

Auto PROFINET PTCP Filtering Frames with destination MAC addresses **01-80-C2-00-00-02 to 01-80-C2-00-00-0F** are filtered to block PROFINET PTCP-Delay traffic. Because PTCP-Delay uses MAC address **01-80-C2-00-00-0E**, LLDP frames are also filtered.

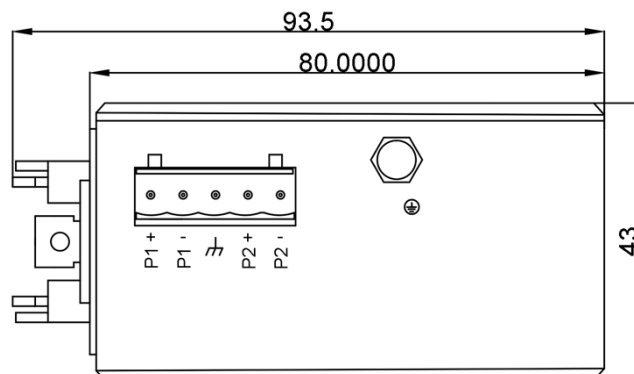
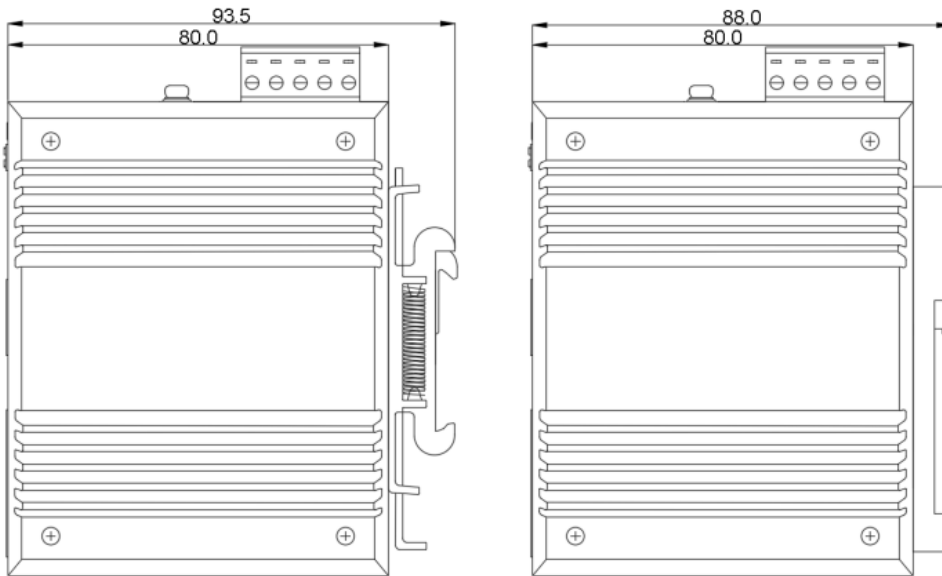
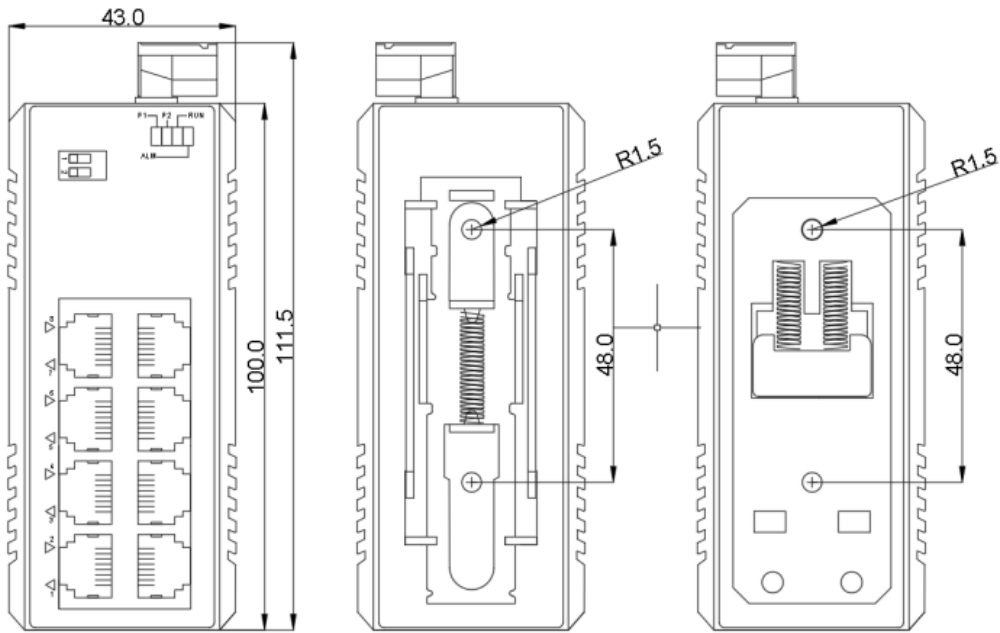
Auto QoS Traffic Prioritization During heavy traffic, packets with **802.1Q priority level 4-7** or **IPv4 ToS precedence ≥ 1** are treated as high priority and forwarded before lower-priority traffic, ensuring timely transmission of critical industrial data.

	FICE1005	FICE1008	FICE2005	FICE2008
10/100Base-TX RJ45	5	8		
10/100/1000Base-TX RJ45			5	8
Power Supply				
DC12~48V	Yes	Yes	Yes	Yes
Redundant input	Yes	Yes	Yes	Yes
AC/DC220	-	-	-	-
Power Consumption	≤1.1W	≤1.6W	≤2.8W	≤4W
Function				
Broadcast Suppression	Yes	Yes	Yes	Yes
QoS-4 Queue	Yes	Yes	Yes	Yes
PROFINET Class A Compliance	Yes	Yes	Yes	Yes
Environmental				
Operating Temperature	-40°C~75°C			
Storage Temperature	-40°C~85°C			
Operating Humidity	5%~95% (non-condensing)			
EMC Immunity Design Specifications				
ESD	Air: ±15kV Contact: ±8kV			
Surge	Power supply common-mode ±4kV, differential-mode ±2kV, Ethernet port common-mode ±2kV			
EFT	Power supply ±4kV, Ethernet port ±2kV			
Physical Characteristics				
Housing	High-strength aluminum alloy housing with deep heat sink grooves and fanless cooling design			
Dimensions	100mm×43mm×80mm			
Net weight	400g			
IP Rating	IP40			
Installation	Din-rail installation with standard spring-loaded metal rails			

DIP Switch	Name	Status	Description
#1	Broadcast Storm Protection	OFF	Disable
		ON	Enable
#2	Function Reservation	\	\

LED Indicators	
PI & P2	ON: Power is being supplied , OFF: Power is not being supplied
LINK/ACT	ON: Port connection is active, Blinking: Data transmitted, OFF: Port connection not active
RUN	Blinking: The system is running well, OFF: The system is running unwell

Dimensions Unit: mm



Ordering Information

Available Model	Description	Input Voltage	Operating Temp.
FICE1005	Industrial Unmanaged 5-port 10/100Base-TX PROFINET Ethernet Switch with Redundant DC Power Inputs	DC12-48V	-40 to +75°C
FICE1008	Industrial Unmanaged 8-port 10/100Base-TX PROFINET Ethernet Switch with Redundant DC Power Inputs	DC12-48V	-40 to +75°C
FICE2005	Industrial Unmanaged 5-port 10/100/1000Base-TX PROFINET Ethernet Switch with Redundant DC Power Inputs	DC12-48V	-40 to +75°C
FICE2008	Industrial Unmanaged 8-port 10/100/1000Base-TX PROFINET Ethernet Switch with Redundant DC Power Inputs	DC12-48V	-40 to +75°C

Precautions

To prevent equipment damage or personal injury caused by improper operation, please observe the following precautions:

- ❖ Turn off the power before installation. Wear an anti-static wrist strap and ensure proper skin contact to prevent electrostatic discharge (ESD) damage.
- ❖ Ensure the power supply voltage matches the voltage specified on the switch.
- ❖ Before powering on the switch, verify that the power circuit is not overloaded to avoid abnormal operation or equipment damage.
- ❖ Do not open the chassis while the switch is operating. To avoid the risk of electric shock, do not disassemble the device.
- ❖ Disconnect the power before cleaning. Do not use a wet cloth or liquid cleaners.
- ❖ When installing in a rack, mount equipment from bottom to top to prevent overloading.
- ❖ Do not place heavy objects on the switch.

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