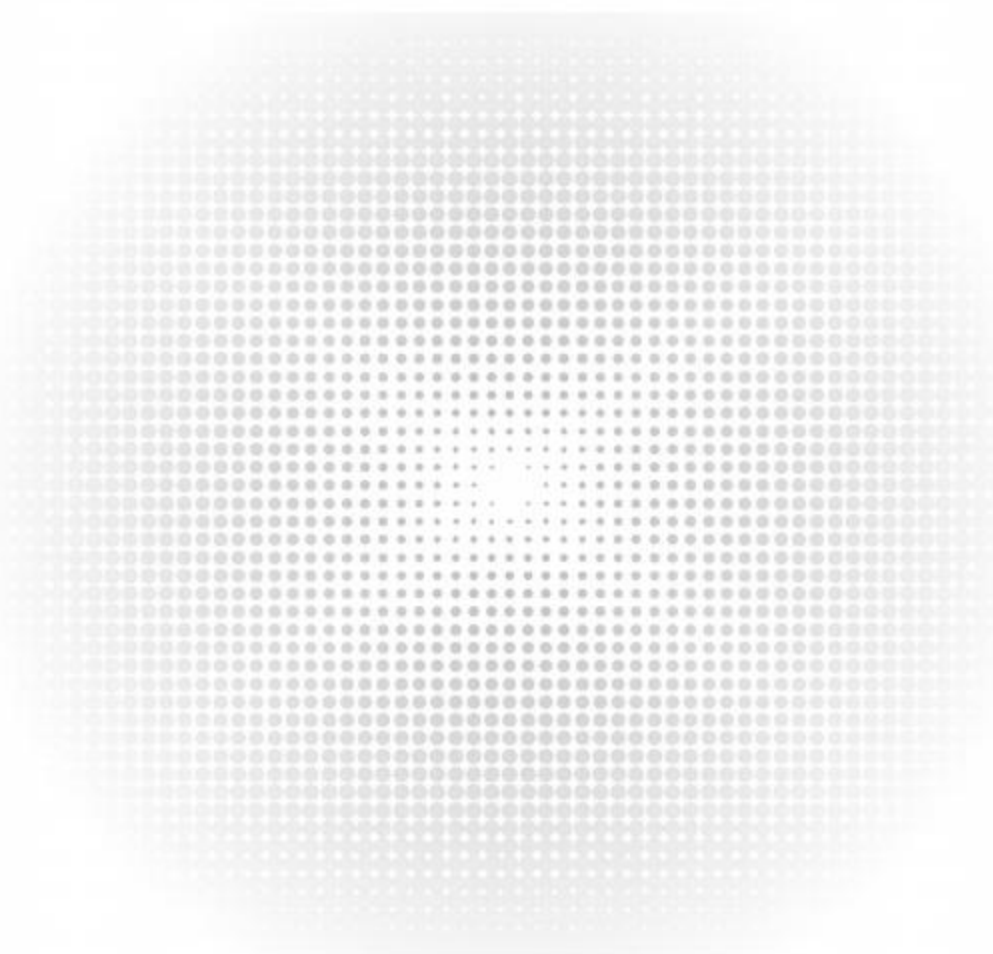


# Industrial Switches FAQ

Models: Industrial Switches FAQ



## Product Overview

### **Q: What are FS Industrial Switches?**

**A:** FS Industrial Switches are rugged, reliable, and high-performance networking devices tailored for industrial applications. They are engineered to withstand harsh environmental conditions while delivering stable and secure network connectivity.

### **Q: Why FS Industrial Switches?**

#### **A: Diverse Port Configuration**

Support Uplinks with Speeds Ranging from 100M to 10G to accommodate different network architecture layers and ensure scalability for industrial applications.

#### **High Durability**

Equipped with rugged IP41 metal enclosure and conformal coating, switches are built to withstand harsh environments like extreme temperatures, moisture, dust, and vibration.

#### **Fast Recovery**

Support multiple ring protection and redundancy protocols including ERPS, MRP, RRPP, and VRRP to provide fast convergence in Sub-20ms.

#### **Easy Deployment**

Support multiple mounting options, including DIN-rail, wall, and rack mounting, allowing flexible adaptation to different usage environments.

#### **Simplify Management**

Support WEB/CLI/SNMP for easy network management and SSH2.0, SSL, and SNMP v3 connections for encrypting the packet content at each session.

## Functionality

### **Q: Are FS Industrial Switches suitable for use in industrial automation and control systems?**

**A:** Yes, FS Industrial Switches are ideal for industrial automation and control systems, providing seamless integration and reliable communication between various devices and equipment. They support protocols commonly used in industrial environments, ensuring compatibility and interoperability.

**Q: Do FS Industrial Switches support PoE (Power over Ethernet) technology?**

**A:** Yes, many FS Industrial Switches support PoE technology, enabling the transmission of power and data over a single Ethernet cable.

This feature simplifies installation and reduces the need for additional power sources, making it ideal for powering IP cameras, wireless access points, and other PoE-enabled devices in industrial settings.

**Q: What kind of network redundancy features do FS Industrial Switches offer?**

**A:** FS Industrial Switches provide various network redundancy features, including Rapid Spanning Tree Protocol (RSTP), Link

Aggregation Control Protocol (LACP), and Ethernet Ring Protection Switching (ERPS). These features ensure uninterrupted network operation and rapid fault recovery, minimizing downtime and enhancing reliability.

**Q: Are FS Industrial Switches fanless?**

**A:** Yes, FS Industrial Switches are fanless, eliminating the risk of fan failure and reducing noise levels. Fanless design enhances reliability and makes these switches suitable for noise-sensitive environments such as control rooms and industrial production floors.

**Q: Can FS Industrial Switches withstand extreme temperatures?**

**A:** Yes, FS Industrial Switches are designed to operate reliably in a wide range of temperatures, from -40°C to 75°C (-40°F to 167°F). This temperature resilience ensures consistent performance even in harsh environmental conditions commonly encountered in industrial settings.

**Q: How do I select the right FS Industrial Switch for my application?**

**A:** When choosing an FS Industrial Switch, consider factors such as the number and type of ports required, PoE support, environmental conditions, network redundancy requirements, and specific industry certifications. Our technical support team is available to assist you in selecting the most suitable switch for your application needs.

**Q: Can FS Industrial Switches be integrated into existing industrial networks?**

**A:** Yes, FS Industrial Switches are designed for seamless integration into existing industrial networks. They support standard protocols and feature-rich management capabilities, ensuring compatibility and interoperability with a wide range of devices and systems.

**Q: What is TSN?**

**A:** Time-sensitive Networking (TSN) is a collection of standards that enables deterministic communication over standard Ethernet. As defined by the Institute of Electrical and Electronics Engineers (IEEE) 802.1 standards, including 802.1AS, 802.1Qbv, and 802.1CB, TSN creates a form of network traffic management that guarantees transmissions happen within a certain latency limit. To make this possible, all TSN devices must synchronize their clocks with each other and use a common time reference to achieve real-time communications for industrial automation and control applications.

**Q: What are the benefits of Ethernet with TSN compared with today’s Ethernet?**

**A:** Basically, Ethernet with TSN supplements the existing Ethernet mechanisms in the areas of Quality of Service (QoS), including bandwidth reservation, as well as synchronization, low latencies, and even seamless redundancy. The applications signal their communication requirements on the network and are guaranteed the requested QoS from the network. The various connections run in streams that enjoy bandwidth protection thanks to resource allocation in the memories of Ethernet switches.

## Installation

**Q: What installation methods does the industrial switch support?**

**A: Wall Mount**

Wall-mounting a switch allows you to utilize vertical space, making it a great option in environments with limited floor space.



Wall Mount

**Rackmount**

Rack-mounting allows for easy expansion and adding of additional switches or equipment. The standardized size and spacing of racks make it simple to integrate multiple devices into a single rack.



Rackmount

**DIN Rail Mount**

DIN rail mounting is simple and quick compared to other mounting options, as it involves snapping the switch onto a standardized DIN rail without the need for additional brackets or hardware



DIN Rail Mount

## Service

**Q: Does the switch system need an additional fee if it is to be upgraded?**

**A:** The FS OS is updated by the official image, so it doesn't need any additional fee. If you want to customize some of the features, we will charge a fee.

**Q: Can FS provide technical support and maintenance services?**

**A:** Of course, we have a professional engineering team ready to provide prompt technical support and maintenance services. You can purchase them on-demand through the FS website: <https://www.fs.com/c/industrial-ethernet-switches-4073>. If you already own FS Industrial Switches, it comes with the same 5-year warranty as top brands, along with a 30-day return and exchange policy, ensuring you the most reliable after-sales service. For more details on our support and maintenance services, please review the following agreements: <https://www.fs.com/policies/warranty.html>.