

Number of ports on industrial switches



AI Overview

Industrial switches can support up to 48 ports or more, depending on the model and configuration. Industrial switches vary widely in port count based on application needs, network size, and device connectivity requirements. Small or edge switches may have 4 to 8 ports, while medium-sized industrial switches typically offer 8 to 24 ports. High-end models, such as the Cisco Industrial Ethernet 5000 Series, can provide up to 24 Gigabit Ethernet downlink ports plus 4 uplink ports, totaling 28 ports per switch. Some modular or specialized industrial switches can exceed 48 ports, especially when combining copper and fiber connections.

Factors Affecting Maximum Port Count

1. **Network Size and Device Count:** Larger industrial networks with multiple PLCs, sensors, cameras, and HMIs require more ports. Planning for future expansion often leads to selecting switches with additional ports beyond current needs.
2. **Port Types:** Industrial switches may include: Ethernet ports (10/100 Mbps, 1 Gbps, or higher) Fiber ports for long-distance or high-bandwidth connections PoE ports to power devices like IP cameras or wireless access points
3. **Redundancy and Uplinks:** Extra ports are often reserved for network redundancy, uplinks, or ring topologies to ensure high availability in industrial environments.
4. **Modular Design:** Some industrial switches allow adding expansion modules, increasing the total number of ports beyond the fixed configuration.

Practical Considerations

- PoE Budget:** Even if a switch has many ports, the total PoE power may limit how many devices can be powered simultaneously.
- Environmental and Space Constraints:** Industrial switches must fit within control cabinets and withstand harsh conditions, which can limit extremely high port counts.
- Data Speed Requirements:** High-speed applications may require fewer ports with higher throughput (e.g., 10GbE uplinks) rather than maximizing port count.

In summary, while typical industrial switches range from 4 to 48 ports, high-end or modular models can exceed this, with the practical maximum depending on...

Article Content

TP-Link Omada SG3428XMP 24 Port Gigabit PoE+ Managed Switch

Omada 24-Port Gigabit and 4-Port 10GE SFP+ L2+ Managed Switch with 24-Port PoE+ 4× 10 Gbps SFP+ slots 24× Gigabit 802.3af/at PoE+ ports 384 W total PoE budget with up to 30 W PoE output

Features to Consider with Industrial Switches

Ports: The number and type of ports vary with each model and brand of industrial Ethernet switches. Typically, in a mid-sized blended network, the switch must have at least 2-4 SFP

MACH102 Series

Hirschmann MACH102 series is a range of fanless 19 inch rack Managed Modular Fast Ethernet layer 2 Industrial Ethernet switches available with up to 26 ports with 2 ...

Phoenix Contact 2891005 Industrial Ethernet Switch, 8 Port,

With the SFN switches, networks can be quickly and inexpensively extended up to the field level. Thanks to its narrow housing design, the variable port number and versatile connection method, as

Used Industrial 8-Port Gigabit PoE Switch with 2 Uplink Ports, IEEE

Item Weight: 1.32 pounds Item model number: Unmanaged 10-Port PoE Switch Date First Available: February 24, 2025 Manufacturer: Zhpuostd Features 8 PoE+ 10/100/1000 Mbps RJ45 ports and 2

Cisco Industrial Ethernet Switches FAQ

The switches offer advanced security and industrial protocol support and are supported by Cisco Catalyst Center. Models in the DIN rail family deliver high-density PoE, with up to 16 ports

Professional guide for selecting Industrial Ethernet Switch ports

Through meticulous analysis and comparison, you will be able to find the most suitable Industrial Ethernet Switch port setting scheme for your networking application needs, laying a solid foundation

TP-Link Network Switch TL-SG1005P, Unmanaged Gigabit

About this product Number of basic switching RJ-45 Ethernet ports: 5 - Gigabit Ethernet (10/100/1000)

Network Switches

Our rack-mount industrial switches provide versatile connectivity with PoE, high-speed ports, stacking capabilities, and built-in security. These attributes make

Industrial Ethernet Switches | Managed & Unmanaged 5 or 8 RJ45

Industrial Ethernet switches are indispensable to guarantee secure and reliable communication in industrial networks. Available in both managed and unmanaged options and with 5 or 8 RJ45 ports.

Port numbering/placement

The port numbering starts from the first port on the far left, top. So, the first port is 1/1 and the port below it will be 1/2, the next port on the top will be 1/3 and the one below is 1/4 and so on.....

All Industrial Switch Products

Ruijie offers next-generation industrial Ethernet switches designed for harsh industrial environments, providing flexible full-gigabit access as well as 10GE uplink ports, and supporting a wide operating

Red Lion Controls 7026TX Ethernet Switch, Managed, 26 Port, 24

The 7000 Series 7026TX and 7026TX-AC fully managed Industrial Ethernet Switches deliver expanded port offerings, including gigabit capability, in a standard 1U rackmount form factor. Loaded with a

Brainboxes | Trusted Connectivity: Switches, IoT, Serial, IO

Trusted UK manufacturer of industrial data connectivity. Upgrade: rugged Industrial Ethernet switches, IoT, serial converters & IO. Lifetime warranty & support

Sixnet® SL-8ES-1 Unmanaged 8-port Industrial Ethernet Switch

Ruggedized design is engineered to last and offers superior performance in industrial settings. Get fast, reliable connectivity for your applications through eight 10/100BaseTX RJ-45 ports.

Phoenix Contact 1085256 Unmanaged Switch 8 X RJ45

Phoenix Contact FL Switch 1000 Series - Unmanaged Ethernet Switches The 1000 and 1100 series unmanaged switches are fully Plug and Play-capable, and do

StarTech IES1G52UPDIN Ethernet Switch, 6 Port, Unmanaged,

Easily deploy or scale your network with this Gigabit Ethernet switch, features four dedicated PoE+ enabled ports, and one dedicated open SFP slot plus the flexibility of a switchable RJ-45/Open SFP

Moxa EDS-P510A-8PoE-2GTXSFP Ethernet Switch, 10 Port,

Reliable PoE Connectivity for Your Industrial Network: The Moxa EDS-G205A-4PoE Switch The Moxa EDS-G205A-4PoE is a compact, unmanaged Gigabit Ethernet switch designed for industrial

4FE + 2-Port Multi-Mode Optical Fiber, Managed Ethernet Switch For ...

4FE + 2-Port Multi-Mode Optical Fiber, Managed Ethernet Switch For Industrial Use, Wide Temperature from ADVANTECH. MISUMI has various products of Automation Components,

How many ports should an industrial switch have?

Industrial switches can range from 4 ports to as many as 48 ports or more, depending on the application. Device Count: In industrial settings, you may need to connect several devices such

EKI-6559TMI-AE | EN50155 Certified, IP67 8-Port M12 + 2-Port

EN50155 Certified, IP67 8-Port M12 + 2-Port Optical Fiber Managed Ethernet Switch For Industrial Use, Wide Temperature from ADVANTECH. MISUMI has various products of Automation Components,

Industrial Ethernet Switches

Advantech's industrial Ethernet switch solutions provide an abundance of options, including Gigabit Ethernet switches.

Industrial Ethernet Switches | Phoenix Contact

Industrial unmanaged switches from Phoenix Contact feature variable numbers of ports and a narrow design. We provide unmanaged switches with a variety of functions, depending on the application.

Moxa EDS-G509-T Ethernet Switch, 8 Port, Managed, 5 Combo SFP Ports

DIN-rail Managed Switches Our DIN-rail managed switches feature industrial-grade reliability, network redundancy, and security features based on the IEC 62443 standard. The compact DIN-rail

Industrial Switches

10-Port Industrial Gigabit L2 Managed DIN-Rail Switch TI-G102i (Version v1.6R) MORE INFO FIND RETAILERS Add to cart

1783 Us8t Stratix 2000 8t Port Unmanaged Switch Allen Bradley

Auto Logic Automation - Offering 1783-US8T Stratix 2000 8T Port Unmanaged Switch Allen Bradley, Industrial Network Switch at ₹ 11491 in Loni, Uttar Pradesh. Check best price of Industrial Ethernet

Buy Wachendorff ETHSWG8C1 ETHSWG8C1 Industrial Ethernet switch

The ETHSWG8C1 is a very compact and robust Industrial Ethernet switch with 8x 10/100/1000BaseT (X). In addition to IEEE 802.3, IEEE802.3u, IEEE 802.3ab and IEEE802.3x, CoS are also supported

Molex 1120361001 Unmanaged 8 Port Industrial Ethernet Switch

Specifications Brand Molex Product Type Industrial Ethernet Switch Number of Ports 8
Switch Type Unmanaged Network Speed 100Mbps Desktop/Rack Mount DIN Rail
Model Number 1120361001

Industrial Ethernet Switches at ₹ 25000

Robonex Automation Private Limited - Offering Industrial Ethernet Switches, Industrial Ethernet Switches at ₹ 25000 in Ahmedabad, Gujarat. Get contact number of verified dealers of Industrial Pc | ID:

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