

Cold and heat resistant industrial-grade switch



Article Overview

Industrial-grade switches designed for extreme temperatures can operate reliably from -40°C to $+75^{\circ}\text{C}$, offering rugged performance for harsh environments.

Key Features of Industrial-Grade Switches

Temperature Resistance: Industrial switches from D-Link, Extreme Networks, Cisco, and Perle are engineered to withstand extreme heat and cold. For example, D-Link DIS-100G, DIS-300G, and DIS-700G-28XS operate between -40°C and $+75^{\circ}\text{C}$, while DIS-200G supports -40°C to $+65^{\circ}\text{C}$. Perle industrial switches also cover -40°C to 75°C . These switches are designed to cold start at low temperatures and maintain performance in high heat conditions.

Rugged Construction: These switches are built to endure vibration, shock, and free-fall, making them suitable for industrial and outdoor deployments such as offshore rigs, pipelines, wind farms, and factory floors.

Cisco IP66/IP67-rated switches are dustproof and waterproof, meeting IP66/IP67 standards for protection against dust and water submersion.

Power over Ethernet (PoE): Many industrial switches provide PoE capabilities, supporting IEEE 802.3af, 802.3at, and 802.3bt standards, delivering up to 90W per port. This allows powering devices like IP cameras, wireless access points, and sensors without additional cabling.

Network Reliability and Redundancy: Industrial switches often include features like full redundant ring technology, rapid failover, and support for industrial protocols such as PROFINET and Modbus TCP. These features ensure continuous uptime and fault-tolerant networks in critical applications.

Long Lifespan: Unlike commercial switches, industrial-grade switches are designed for extended operation...

Article Content

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Industrial temperature switches and controls | Danfoss

Reliable mechanical temperature controls The temperature switches program includes temperature controls for general industrial as well as light industrial applications, controlling air and water. The

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Industrial Ethernet Switches

Built to endure the demanding conditions of factories, transportation infrastructure, grid substations, and other harsh environments, Cisco Industrial Ethernet switches come in a wide range of form factors to

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Industrial Ethernet Switches

FS Industrial Ethernet Switches with robust design for harsh industrial and outdoor environments subject to vibrations, shocks and extreme temperature fluctuations

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Differences Between Industrial Ethernet Switches and Co...

When users are purchasing network products such as Ethernet Switches, they are often confused about whether to choose industrial-grade or commercial-grade Ethernet Switches. They may wonder what

Mar 15, 2026

Industrial Network Switches

Industrial network switches are essential components for maintaining robust and efficient communication within industrial environments. Designed to withstand harsh conditions, these switches ensure

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Industrial Switches (ISW) | Extreme Networks

Extreme Industrial Switches are a family of ruggedized Layer 2 switches designed to operate under harsh environments and extended temperature conditions. They provide continuous uptime,

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Industrial Switches (ISW) | Extreme Networks

Extreme Industrial Switches are an excellent choice for industrial environments, including intelligent transportation systems, utilities, and smart cities. Full redundant ring technology creates fault-

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The Ultimate Guide to Choose Rugged Industrial Ethernet Switches

Industrial Ethernet switches are often deployed in environments where temperatures can vary significantly. Extreme heat or cold can impact network performance, potentially leading to power

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Industrial Extra Heavy Duty Specification Grade Switch,

Glass-reinforced, chemical-resistant thermoplastic back body for durability, strength, and resistance to harsh cleaners. One-piece nickel-plated

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Industrial Ethernet Switches: A Guide to Hardened Hardware

A complete guide to industrial Ethernet switches—certifications, managed vs. unmanaged, and Cisco solutions for Industry 4.0 networks.

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Industrial PoE Switch Selection Guide: Models for Harsh Environments

Industrial-grade PoE switches are core devices that transmit both data and power. It is crucial to choose the appropriate model in harsh environments. This article will analyze the key

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Extreme Temperatures & Limit Switch Performance

The performance of industrial limit switches under extreme temperature conditions depends on careful selection, proper installation, and proactive maintenance. Understanding the specific ways that heat

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Industrial Ethernet Switches | Industrial Network Switch | Perle

Industrial-grade Ethernet Switches are specifically designed to connect devices in network environments that are subject to extreme operating temperatures of -40°C to 75°C, vibrations, and shocks.

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The difference between industrial-grade switches and enterprise-grade ...

Industrial-grade switches and enterprise-class switches exhibit notable differences in design philosophy, structural design and durability, data transmission performance and redundancy, anti-interference

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H3C IE4320 Din-rail Industry Ethernet Switches

The IE4320 industrial switch series are the latest Ethernet switches developed with industrial compliance and wide operating temperature in mind. All models are built with industrial grade components, with

May 31, 2026

Durable Industrial Switches

D-Link's Industrial Switches have industrial-grade resilience to maintain your network uptime despite extreme hot and cold temperature variances. With

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Durable Industrial Switches

The DIS switches are designed to easily handle hot and cold temperature variances,* and can cold start at their coldest temperatures. With superior

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Industrial Ethernet Switches

Managed, unmanaged and Power-over-Ethernet (PoE) IP20- and IP67-rated Industrial Ethernet Switches are robust and versatile, helping enable industrial automation and monitoring in challenging

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Cisco Catalyst IE3400 Heavy Duty Series switches

Catalyst IE3400 Heavy Duty Series overview Optimize and protect your industrial processes with IP67-rated dustproof and waterproof switches. They're engineered to be reliable even in the toughest

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Temperature Range Of Standard Switches | Guide

What is the temperature range of standard switches? Discover typical ranges for HVAC, industrial, and engine systems.

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Why Ethernet Switches Can Take the Heat (or Cold)

By leveraging industrial-grade Ethernet switches that are designed and built to withstand extreme conditions, organizations can build redundant networks that will operate regardless of location.

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Industrial Switches | Industrial Ethernet Switches | Antaira

Industrial Ethernet Switches Antaira offers a variety of industrial Ethernet switches, including industrial-grade network switches, DIN mount switches, and Ethernet switchboards, that can perform efficiently

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How industrial switches cope with extreme environments

In short, industrial switches, with their unique characteristics and significant advantages compared to ordinary switches, have become a powerful

May 08, 2026

Industrial Ethernet Switches with 8/16/24 Ports for

FS Industrial Ethernet Switches with robust design for harsh industrial and outdoor environments subject to vibrations, shocks and extreme temperature fluctuations

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Industrial Switches | D-Link UK

The DIS switches are designed to easily handle hot and cold temperature variances,* and can cold start at their coldest temperatures. With superior environmental protections to commercial switches, these

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