

# Maximum Temperature of Industrial Switches



## Overview

Most industrial switches are rated for a temperature range of  $-40^{\circ}\text{C}$  to  $+75^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+167^{\circ}\text{F}$ ). This wide range makes them suitable for various industrial and outdoor applications where environmental control is limited, and temperature fluctuations are common. Both high temperatures and low temperatures can degrade network switch performance in different ways. When a network switch operates in a high-temperature environment, several issues may occur: Slower chip performance:. With the rapid development of IIoT, networking applications have penetrated into various industrial scenarios. This article will introduce the temperature range and rich application scenarios of industrial. Industrial limit switches serve as critical safety and control components in automated systems, detecting the presence, absence, or positioning of objects within mechanical processes.



## Article Content

Nov 17, 2025

How industrial switches cope with extreme environments

All components of the New H3C industrial switch are made of industrial grade products. The fanless metal casing can achieve passive heat dissipation,

Feb 27, 2026

Temperature switches

Temperature switches are used in a variety of industrial and technical processes. If a preset temperature is reached, then the temperature switch opens or closes a

Aug 12, 2025

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

Jun 16, 2026

What is the maximum temperature range for industrial

Most industrial switches are rated for a temperature range of -40°C to +75°C (-40°F to +167°F). This wide range makes them suitable for various industrial and

Nov 28, 2025

How Does Temperature Affect Limit Switch Performance?

Thermal Expansion and Actuation Distance Thermal expansion can significantly affect the actuation distance and performance of limit switches, especially in high-temperature or outdoor industrial

Apr 05, 2026

The Effect of Extreme Temperatures on Industrial Limit

The performance of industrial limit switches under extreme temperature conditions depends on careful selection, proper installation, and

Apr 20, 2026

Extended Temperature DC/DC Switching Regulator Solutions

ABSTRACT Many applications need electronics that operate up to the typical industrial ambient temperature range of -40°C to 85°C. Texas Instruments developed DC/DC switching regulators to

Jan 22, 2026

## Temperature Range and Application Scenarios of Industrial Switches

In the field of industrial Internet of Things, industrial switches are key network devices that connect various devices and systems, and their performance and stability are crucial. Among them, the

Jun 29, 2025

## Network Switch Safe Operating Temperature Explained

Learn the safe operating temperature of network switches, from commercial models to extended temperature Ethernet switches rated -40°C to

Aug 04, 2025

## Temperature range and application scenarios of industrial switches

Industrial switches are usually designed with a wide range of temperature adaptability, and their operating temperature range is generally -40 ° C to 85 ° C. This wide temperature design ensures

Mar 19, 2026

## Why Ethernet Switches Can Take the Heat (or Cold)

Typically, the temperature tolerance range for standard commercial-grade switches is about 0°C to 45°C (32°F to 113°F), while the temperature range expands to approximately -40°C to 85°C (-40°F to

Jul 11, 2025

## What Is The Temperature Range Of Standard Switches?

Key Takeaway Standard temperature switches typically operate within a range of -40°C to 150°C (-40°F to 300°F). Some specialized switches can handle extreme temperatures beyond this range. The

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## Operating Temperature Range

Chart showing minimum and maximum operating temperatures for standard product.

Dec 25, 2025

## Extreme Temperatures & Limit Switch Performance

This comprehensive guide examines the specific ways extreme temperatures impact limit switch performance, identifies the most vulnerable components, and

Feb 18, 2026

How industrial switches cope with extreme environments

The normal operating temperature range of ordinary switches is relatively narrow, possibly around 0 °C to 40 °C, while industrial switches can

Jun 08, 2026

Max temperature range for a switch : r/networking

Hi all, I've read some articles on switches' maximum temperature limit, around +75°C (167°F). My question is: Are there any switches that continue operate over that temperature? and in these cases

Apr 28, 2026

Industrial Temperature Switches: Types and Applications

Temperature switches are used in a variety of industrial and technical processes. If a preset temperature is reached, then the temperature switch opens or closes a corresponding switch contact. Depending

Nov 15, 2025

Network Switch Safe Operating Temperature Explained

Industrial Ethernet switches are specifically engineered to withstand extreme temperatures. Using Come-Star industrial switches as an example,

Oct 16, 2025

ExtremeSwitching Hardware Installation Guide

Maintain a storage temperature between -40°C (-40°F) and 70°C (158°F). Thermal Shutdown and Restart Behavior summarizes the behavior of ExtremeSwitching switches when they experience high

Dec 15, 2025

What is the maximum allowed temperature rise on the terminal ...

Temperature rise tests are performed at the rated operational current I<sub>e</sub>. The maximal allowed temperature can be calculated as ambient temperature (temperature of air around the

Dec 02, 2025

New IEEE Temperature Limitations for Disconnecting Switches

The new IEEE air switch temperature limitations define classes of temperature rise and maximum temperatures for various materials used in switch construction. These temperature classifications

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What affects the operating temperature within LV

Maximum ambient condition BS EN 60439 states a maximum indoor ambient temperature of 40°C, a maximum daily average of 35°C and a minimum

Jun 02, 2026

Temperature range and application scenarios of industrial switches

The operating temperature range of industrial switches is usually -40°C to 85°C, and even some products may reach -40°C to 80°C. This wide temperature range enables industrial switches to

Aug 30, 2025

What Temperature Should A Network Switch Run At

Importance of Temperature in Network Switches The temperature at which network switches operate directly impacts their performance, reliability, and

Jun 11, 2026

Thermal Switches and Thermal Protectors Selection

Thermal switches and thermal protectors are thermally-actuated electro-mechanical on/off switches. They differ from thermal fuses as they are reusable, and suited to

Aug 31, 2025

Temperature Range Of Standard Switches | Guide

Temperature switches used in industrial settings are designed to operate within specific temperature ranges, depending on the sensing element and construction. Bimetallic switches typically cover

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Industrial Temperature Switches: Types and Uses

Mechanical temperature switches are used in a broad range of applications, especially in the agriculture, construction and material handling industries.

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Temperature range and application scenarios of industrial switches

This article will introduce the temperature range and rich application scenarios of industrial switches in detail, helping you better understand and apply this key device.

## Contact Us

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