

# INS-8405

## Unmanaged 5 x 10/100/1000 RJ45 Industrial Switch

### Description

INS-8405 is an unmanaged industrial Fast Ethernet switch with 5 auto-negotiation 10/100Mbps downlink ports to expand Ethernet networks in factory floors and for high demanding environments with complex networks and limited space.

The switch offers in-built traffic optimization with Flow Control and network performance features to prioritize important industrial data packets. It prioritizes industrial protocol PROFINET and Qos Tag 802.1p. This networking device is built with industrial grade components to protect it from hazards like vibration, shock, free fall, interference, and extreme temperatures that make it resistant to harsh industrial environments.



**RoHS** **CE** **FC**



### Features Highlight

#### Ruggedized Components Designed for Harsh Industrial Environments

Built with industrial-grade components, good thermal conductivity, and enclosed in an IP30 metal case, this Ethernet switch is resistant to extreme environments, vibration, EMI (electromagnetic interference), ESD (electrostatic discharge), power surge, over-voltage, over-current, and reverse polarity. It withstands operation at extreme temperatures between -40°C~75°C (-40°F~167°F). It follows international safety standards like CE, FCC, and ROHS for safe operation.



#### Quick and Convenient Installation with Auto-negotiation

INS-8405 works as soon as it is connected and makes installation convenient. One 9~48VDC power supply connects to the 3-pin terminal block for power. The 10/100/1000 Mbps ports use auto MDI/MDI-X connection for auto-negotiation to work as soon as connected to other network devices at the required speed without extra software installation needed. The LED light displays when the device is in operation. The slim and small design allows it to fit at different locations for many devices to operate in the same network and can be mounted to a standard TH35 DIN rail.

#### Traffic Control Mechanisms to Optimize Bandwidth Usage

Traffic control mechanisms regulate excessive traffic to avoid delay, data loss and connection issues between devices. This unmanaged switch uses Flow Control to prevent devices from overwhelming each other during the exchange of data hence keeping devices working within their capacity.

### Applications

The INS-8405 is compatible with 10/100/1000Mbps through RJ45 transceivers to guarantee a strong, stable connection of Ethernet, Fast Ethernet or Gigabit Ethernet, as an ideal solution for deployment in multiple high-speed automation systems.



## Specifications

Standards	
IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-TX
IEEE 802.3ab	1000BASE-T
IEEE 802.3	Nway Auto-negotiation
IEEE 802.3x	Flow Control
Interface	
Ports	5 x 10/100/1000BASE-T (RJ45)
LED Panel	PWR, 1000, 10/100
Features	
Performance	Jumbo Frame size: 9K
	MAC Table size: 2K
	Throughput: 14,880 pps to 10 Mbps ports
	148,800 pps to 100 Mbps ports
	1,488,000 pps to 1000 Mbps ports
	Switch Fabric: 10Gbps
Power	
Input Voltage	9~48VDC
Connection	Terminal Block
Power Input Polarity Protection	Present
Power Consumption	4W
Surge Protection	Present
ESD Protection	Present
Mechanical and Environment	
Housing	Aluminum (IP30 Protection)
Mounting	DIN-Rail, Wall Mount
Operating Temperature	-40°C~75°C (-40°F~167°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Operating Humidity	5 to 95% RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	160 g (0.3 lb)
Dimension (WxHxD)	23.4 x 109.2 x 73.8 mm (0.9 x 4.3 x 2.9 in)

## Standards and Certifications

EMI	FCC Part 15 Subpart B class A
	EN 55011
	EN 55022
	EN 61000-6-4
EMS	EN 55024
	EN 61000-6-2
	EN 61000-4-2 (ESD): Level 3
	EN 61000-4-3 (RS): Level 3
	EN 61000-4-4 (Burst): Level 3
	EN 61000-4-5 (Surge): Level 2
	EN 61000-4-6 (CS): Level 3
	EN 61000-4-8 (PFMF)
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Safety	UL 61010-1, UL 61010-2-201

## Ordering Information

INS-8405	Unmanaged 5 x 10/100/1000 RJ45 Industrial Switch
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\*Specifications subject to change without notice.

## Dimension

