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INS-8415
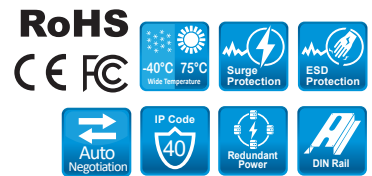
Unmanaged 5 x 10/100/1000 RJ45 & 1 x GbE SFP Industrial Switch

Description

INS-8415 is an unmanaged industrial Gigabit Ethernet switch with 5 auto-negotiation 10/100/1000 RJ45 downlink ports and 1 GbE SFP uplink port for communication between controllers and devices in automation settings. The SFP port allows long distance noise-free fiber transmission to data centers and other ethernet switches. The device can be used with multi-axis robots and their peripherals such as PLCs, HMIs, and legacy devices.

The switch offers in-built VLAN Passthru feature to ensure the delivery of data from one end to another.

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. The device also uses a Redundant Power Supply and Alarm System to ensure it works uninterruptedly, even during power outages and alert technicians if one power source fails.

INS-8415

RoHS
CE FC
-40°C 75°C Wide Temperature | Surge Protection | ESD Protection
Auto Negotiation | IP Code 40 | Redundant Power | DIN Rail

Features Highlight

Cold -40°C | Hot 75°C

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.
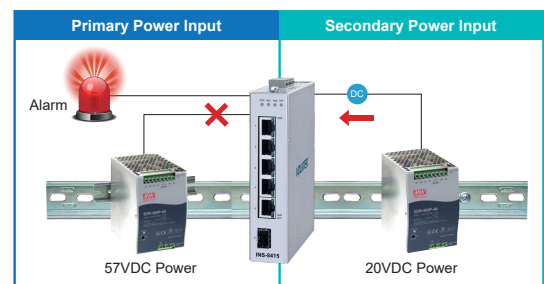
Quick and Convenient Installation with Auto-negotiation

INS-8415 works as soon as it is connected and makes installation convenient. Two 20~57VDC power supplies and one alarm connect to the 6-pin terminal block for power and notifications. 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 SFP port is compatible with multiple types of SFP modules. The LED light displays when the device is in operation. The compact and slim design allows it to fit at different locations and can be mounted to a standard TH35 DIN rail.

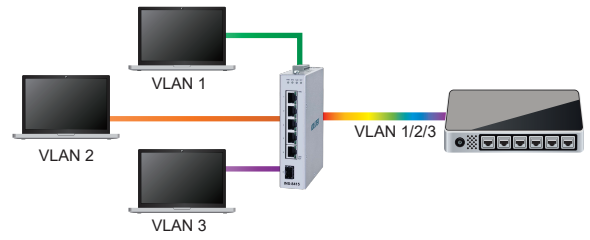### Redundant Power Supply and Alarm System

Two power supplies and one alarm connect to the 6-pin terminal block of this device to ensure it is powered all the time. When one of the connected power supplies stops working or in case of power outage, the device feeds power from the alternative power source and switches the alarm on. The Alarm signal on the LED panel lights up. The alarm notifications can be activated through the DIP switch on its physical interface.

Primary Power Input | Secondary Power Input

Alarm

57VDC Power | 20VDC Power
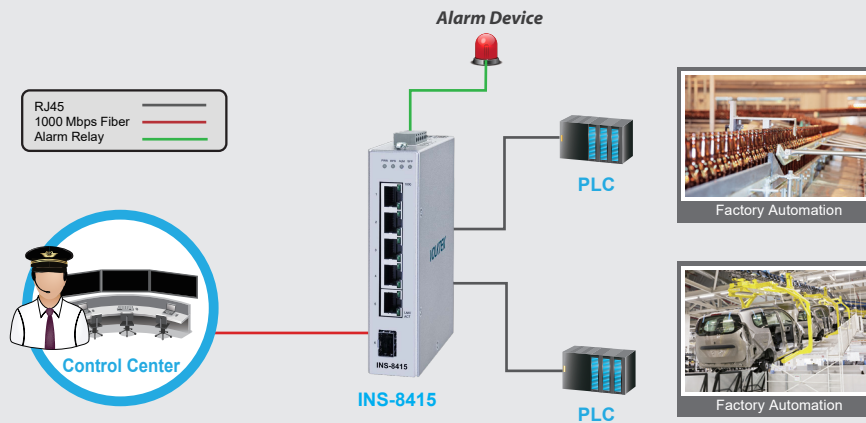
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Features Highlight

Intelligent VLAN Data Forwarding

INS-8415 is aware enough to read the source and destination of VLAN tagged data packets. This unmanaged switch delivers VLAN packets without changing or dropping them assuring operational data in industrial fields is delivered safely across devices.

VLAN 1
VLAN 2
VLAN 3
VLAN 1/2/3

Applications

The INS-8415 is compatible with 10/100/1000Mbps through RJ45 transceivers to guarantee a strong & stable connection of Ethernet, Fast Ethernet or Gigabit Ethernet, providing flexible deployment options to satisfy industrial networking requirements.

Alarm Device

RJ45
1000 Mbps Fiber
Alarm Relay

PLC

Factory Automation

Control Center

INS-8415

PLC

Factory Automation

Specifications

Standards	
IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-TX
IEEE 802.3ab	1000BASE-T
IEEE 802.3z	1000BASE-SX/LX
IEEE 802.3	Nway Auto-negotiation
IEEE 802.3x	Flow Control
IEEE 802.1p	Class of Service

Performance	
Switch Fabric	12Gbps
L2 Forwarding	8.93Mpps

Interface	
Ports	5 x 10/100/1000BASE-T (RJ45)
	1 x Gigabit SFP slot
DIP Switch	Primary/Redundant Power Voltage Drop Alarm setting
LED Panel	PWR, RPS, ALM, SFP, 1000, LNK/ACT

Power	
Input Voltage	Primary: 20~57VDC
	Redundant: 20~57VDC
Connection	Terminal block
Power Input Polarity Protection	Present
Power Voltage Drop Alarm	Primary/Redundant Power Input
Alarm Relay	One relay output, 1 A @ 24V DC
Power Consumption	10W (max)

Mechanical and Environment	
Housing	Metal Case (IP40 protection)
Mounting	DIN-Rail, Wall Mount (Optional)
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	533g (1.17lb)
Dimension (WxHxD)	31 × 136 × 105 mm (1.22 × 5.35 × 4.13 in)

Certifications	
EMI	FCC Part 15 Subpart B Class A
	EN 55011 class A
	EN 55032 class A
	EN 61000-6-4
	ICES-003, ISSUE 7
EMS	EN 61000-6-2
	EN 55035
	EN 61000-4-2 (ESD)
	EN 61000-4-3 (RS)
	EN 61000-4-4 (Burst)
	EN 61000-4-5 (Surge)
	EN 61000-4-6 (CS)
	EN 61000-4-8 (PFMF)
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Ordering Information	
INS-8415	Umanaged 5 x 10/100/1000 RJ45 & 1 x GbE SFP Industrial Switch

Optional Accessories	
Power Supply	SDR-120-48: DIN-Rail, 120W, 48VDC, Industrial Power Supply with PFC Function
GBM-104	1000Base-SX 1.25G, Multi-mode SFP, 500m
GBM-123TS	1000Base-LX, Bi-Di SFP TX:1310/RX:1550 Single Mode, 10Km, 0°C~70°C (32°F~158°F)
GBM-123RS	1000Base-LX, Bi-Di SFP TX:1550/RX:1310 Single Mode, 10Km, 0°C~70°C (32°F~158°F)

Note :

* The SFP communication distance upon the request.

* Industrial SFP with wide operating temperature is available upon request.

* Specifications subject to change without notice.

Dimension