

INS-840G

Unmanaged 16 x 10/100/1000 RJ45 Industrial Switch

Description

INS-840G, 16-port 10/100/1000Base-T is a current development of Volktek's Unmanaged Industrial Gigabit Ethernet Switch, specifically engineered with an excellent tolerance capability to withstand the harsh industrial environments like vibration, shock and extreme temperature range between -40°C~70°C. The switch is designed with a rugged IP30 aluminum housing featuring various EMC protections such as Surge and ESD. This for delivering a secure and uninterrupted operation in mission-critical applications like factory automation. INS-840G comes up with additional enhanced features such as redundant power supply, advanced QoS support, efficient link speed control, IEEE 802.3az Energy Efficient Ethernet, stable DIN-Rail and wall-mount installation. The switch proves to be cost effective, high performable and serve as a reliable solution for harsh environments of industrial applications.



RoHS CE FC



Features Highlight

Robust Performance and Protection

INS-840G is equipped with industrial grade components, enclosed with a rugged IP30 hardened aluminum housing to sustain in harsh industrial temperatures ranging between -40°C ~ 70°C, providing solid performance in mission-critical applications.

Industrial Grade EMC Protection Design

INS-840G is designed with efficient EMC protection to secure the device against electromagnetic failures occurred from various sources such as external lighting or transmission of static electricity between devices with different electrical potentials.

Redundant Power Input

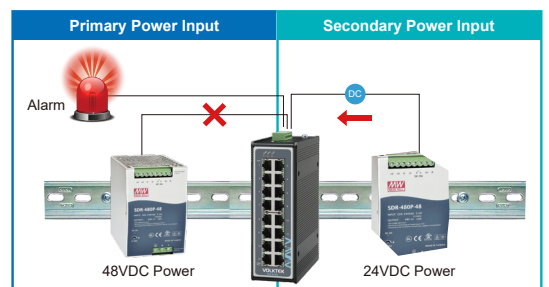
When taking the failure impact of mission-critical applications into consideration, the INS-840G development uses a standard of industrial terminal block along with wide-range redundant power inputs extending from 12 up to 60VDC. The redundant power provides continuous service even if the primary power fails, which results in a reliable and consistent network. In addition to this, the switch is also equipped with an alarm feature to notify the occurrence of power failure. This solution provides you with a quicker respond time and faster troubleshooting.

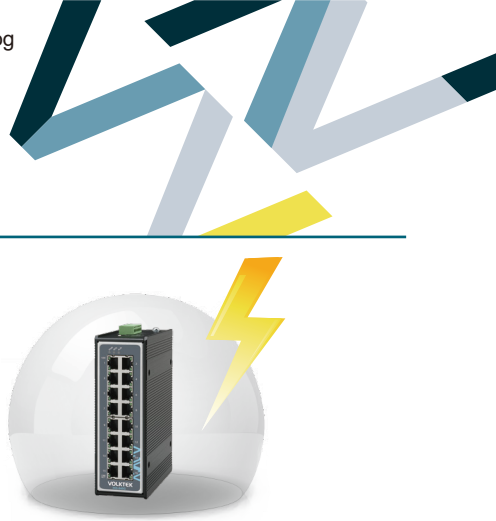
Eco-friendly Green Ethernet Design

To address the concerns of increasing power consumption, INS-840G implements IEEE 802.3az Energy Efficient Ethernet (EEE) compliant Green Ethernet technology. This eco-friendly design allows the switch to automatically adjust power consumption and conserve energy during the periods of low data activity. This helps you to lower the energy usage significantly and help you save operational costs.

Auto Negotiable Link Speed Control

To establish a fair and efficient communication among the devices which is having different link speeds, INS-840G provides an auto negotiation feature which balances the data transmission speed between the switch and the connected PLCs.





Features Highlight

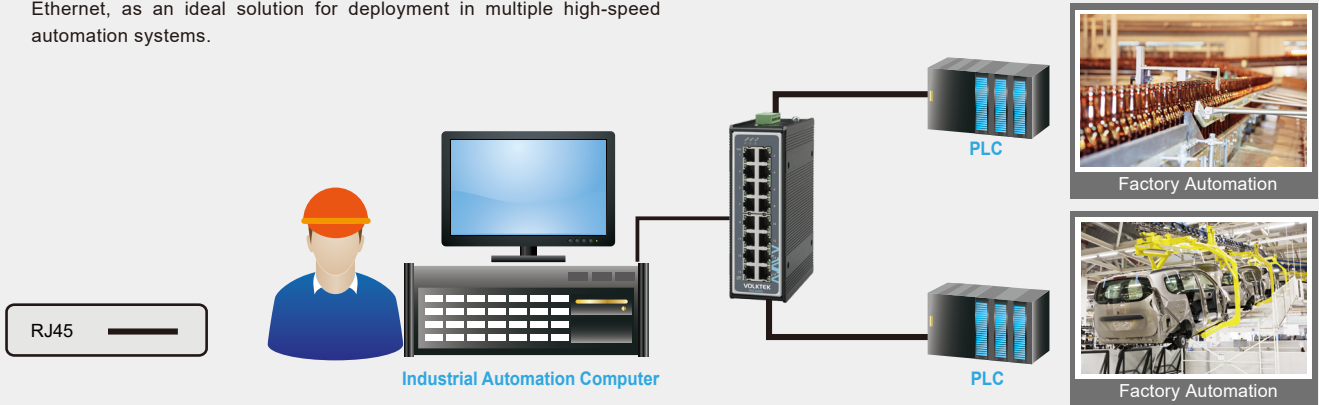
Strong Protection Against Electrical Threats

INS-840G is incorporated with enhanced Reverse Polarity Protection function to provide safety against wrong combinations of positive and negative poles, which prevents huge internal circuitry damage. The Over Current Protection is designed with a secured fuse component to safeguard the device during sudden increase of current flow. In addition, a Power Isolation concept is used to separate the transmitted data from grounded noise enabling steady and noise free transmission.

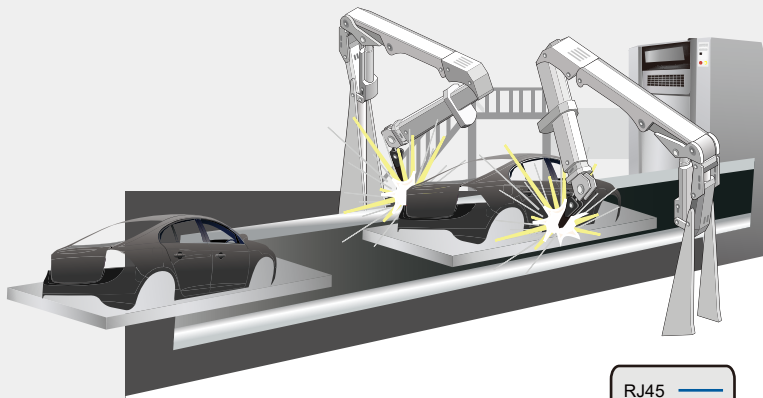


Applications

The INS-840G is compatible with 10/100/1000Mbps through RJ45 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.



Factory Automation

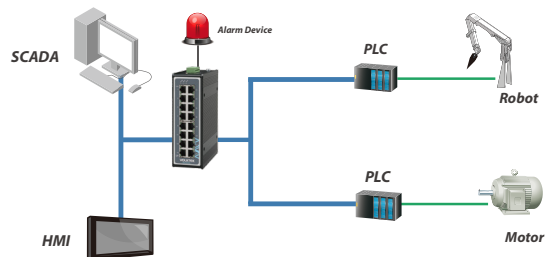


▶ Redundant Power input

The INS-840G has dual power inputs to provide a redundant system against power supply disruptions. In case of one power source failure, the other acts as a backup to remain continuous network power for critical industrial applications.

▶ Relay Output Alarm for Power Failure

The INS-840G is built with relay contact outputs that trigger alarms to notify network engineers in the event of power failure, and enables them to quickly respond and resolve high priority issues.



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
IEEE 802.3az	Energy Efficient Ethernet (EEE)
IEEE 802.1p	Quality of Service(QoS)
Interface	
Ports	16 x 10/100/1000Base-T (RJ-45)
Connectors	One removable 6-pin terminal block
Features	
Performance	Jumbo frame Size: 10KBytes
	MAC Table Entries: 8K
	L2 Forwarding Rate: 23.8Mpps
	Switch Fabric: 32Gbps
QoS	8 Hardware Queues
	Support priority tagged frame(VID=0)
Power	
Input Voltage	Primary inputs : 12~60VDC Redundant inputs : 12~60VDC
Power Consumption	12W (12V/1A)
Alarm Relay	One relay output, 1 A @ 24V DC
Reverse Polarity	Present
Overload current	Present
Mechanical and Environment	
Housing	Aluminum (IP30 protection)
Mounting	DIN-Rail, Wall Mount (Optional)
Operating Temperature	-40°C~70°C
Operating Humidity	5 to 95% RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	840g
Dimension (WxHxD)	50x161.5x119.9mm (1.97x6.36x4.72inch)

Certifications	
EMI	FCC Part 15 Subpart B Class A
	EN 55011 class A
	EN 55032 class A
EMS	EN 61000-6-4
	EN 61000-6-2
	EN 55024
	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)
Safety	EN 61000-4-8 (PFMF)
	EN 61000-4-11 (Dip)
Shock Test	UL61010-2-201
Freefall Test	IEC 60068-2-27
Vibration	IEC 60068-2-32
Vibration	IEC 60068-2-6
Ordering Information	
INS-840G	Unmanaged 16 x 10/100/1000 RJ45 Industrial Switch
Optional Accessories	
Power Supply	SDR-120-48: 120W DIN-Rail 48VDC Industrial Power Supply, -25°C~70°C

*Specifications subject to change without notice.

Dimension

