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IEN-840GL

Lite Managed Gigabit Industrial Switch
16 x 10/100/1000 RJ45

Description

The IEN-840GL is a Lite Managed Industrial Switch specifically designed to suit your heavy industrial environments and contains all necessary standard features to deploy in automation systems. Engineered with hardened components and enclosed in a rugged IP30 case, the IEN-840GL can operate in wide temperatures from -10°C to 60°C and has excellent tolerance capability to high vibration and shock.

Despite the fact that the IEN-840GL is perfectly designed to operate in extreme industrial conditions; the switch is equipped with a variety of management functions that let you configure communication parameters as you desire and monitor the network behavior in number of different simple ways. In addition, the switch is built with dual redundant power inputs to ensure reliability and maximize network up time. Other integrated features of the switch such as Auto-negotiation, Rate limitation and QoS optimizes your network performance and provide a secure network, offering a cost-effective solution in a small but powerful package.
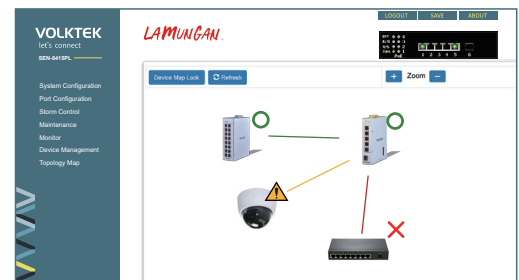
Features Highlight

Introducing the LAMUNGAN

LAMUNGAN is Volktek's embedded Element Management System that allows users to view the topology map of connected devices and neighboring switches along with the link status. Its LLDP feature allows it to advertise its identities and capabilities on the wired Ethernet. This map like feature simplifies the network connection viewing and helps patterning by clicking on the icon.

Dashboard

The dashboard is an intelligent system provides apparent views of real-time switch parameters in an engaging, easy-view format for the end-users. Dashboard's at-a-glance designs with the color scheme enable the users for easy understanding and troubleshooting within the device and connected network.

Wizard

The wizard is a smart assistant who provides the switch setup interfaces for the users. It allows users to go through a series of well-defined steps with easily manageable dialog boxes. It minimizes the complex setup procedures and easier to perform for an unfamiliar user.

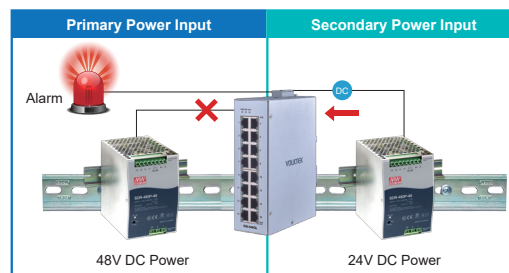### Robust Performance and Protection

Well-protected in an IP40 casing, the switch provides high level of immunity against EMI and EMS found in industrial environments. Along with those, the IEN-840GL is built with various protection features such as ESD Protection, Surge Protection, Over Current Protection, Reverse Polarity Protection and Short Circuit Protection to ensure continuous operation of mission-critical applications even in unstable power conditions.

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Features Highlight

Redundant Power Input

When taking the failure impact of mission-critical applications into consideration, the IEN-840GL 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.

Primary Power Input	Secondary Power Input
Alarm	DC
48V DC Power	24V DC Power

Eco-friendly Green Ethernet Design

To address the concerns of increasing power consumption, IEN-840GL 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.
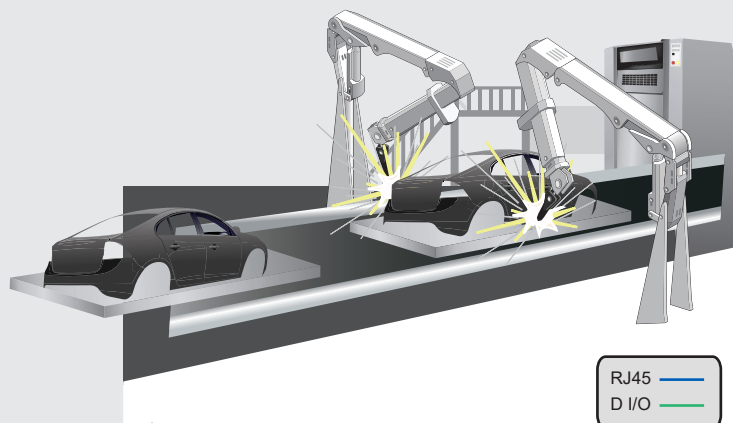
GREEN Solutions

Applications

In designing the IEN-840GL, the absolute necessary management functions were integrated to enable the configuration and monitoring of the switches. This allows the IEN-840GL switches to bring added value to areas where unmanaged switches cannot deliver the required performance. It can also be used when fully-managed switches are not needed, due to superfluous functionality or complex operation.

RJ45 ——

Industrial Automation Computer

PLC

PLC

Factory Automation

Factory Automation

Factory Automation

▶ **Relay Output Alarm for Power Failure**

The IEN-840GL 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.

RJ45 ——
D I/O ——

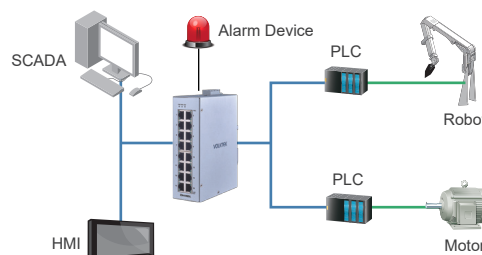SCADA   Alarm Device   PLC   Robot

HMI   PLC   Motor

▶ **Redundant Power input**

The IEN-840GL 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.

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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 802.1AB	LLDP
IEEE 802.1D	STP
IEEE 802.1w	RSTP
IEEE 802.1p	Class of Service
IEEE 802.1Q	VLAN tagging
IEEE 802.1X	Port Authentication

Interface	
Ports	16 x 10/100/1000BASE-T (RJ45)
DIP Switch	Power voltage drop alarm setting (PWR/RPS)
LED Panel	PWR, RPS, ALM, 1000, LNK/ACT

Features	
Performance	Jumbo frame Size: 10KBytes
	MAC Table Entries: 8K
	Switch Fabric: 32Gbps
Management	CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority
Reliability	STP/RSTP, ERPS v1/v2, Code redundancy
VLAN	802.1Q VLAN, Port-based VLAN (Port Isolation)
Traffic Control	802.1p QoS, Flow Control, Traffic Monitor (Abnormal Traffic Detection), Storm Control, Port Isolation, Loop Detection Storm alarm threshold per port
Security	ACL (Access control list), Port Security (MAC limit) Port-based 802.1X, BPDU Guard BPDU Filter, ROOT Guard, Trusted Managed Host

Power		
Input Voltage		Primary Inputs: 12~60VDC
		Redundant Inputs: 12~60VDC
Connection		Teminal Block
Power Consumption		18W (12V/1.5A)
Alarm Relay		One relay output, 1A @ 24VDC
Reverse Polarity		Present

Mechanical and Environment	
Housing	Metal (IP40 Protection)
Mounting	DIN-Rail, Wall Mount (Optional)
Operating Temperature	-10°C~60°C (14°F~140°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Operating Humidity	5~95% RH (non-condensing)
Storage Humidity	5~95% RH (non-condensing)
Weight	880g (1.94 lb)
Dimension (WxHxD)	50 x 160 x 120 mm (1.97 x 6.36 x 4.72 in)

Certifications	
EMI	FCC Part 15 Subpart B Class A
	EN 55011 class A
	EN 55032 class A
	EN 61000-6-4
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 Test	IEC 60068-2-27
Freefall Test	IEC 60068-2-32
Vibration	IEC 60068-2-6
Safety	UL 61010-1, UL 61010-2-201

Ordering Information	
INS-840GL	Lite managed 16 x 10/100/1000 RJ45 Industrial Switch

Optional Accessories	
Power Supply	SDR-120-48: 120W DIN-Rail 48V DC Industrial Power Supply, -25°C~70°C (-13°F~158°F)

Note:
* The highest degree of temperature operation certified by UL is -10˚C~60˚C (14°F~140°F).
* Specifications subject to change without notice.

Dimension