

## IEN-8428

Unmanaged 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP  
Industrial Switch, Aluminum

### Description

IEN-8428, 8-port 10/100/1000Base-T + 2-slot Gigabit SFP is the latest development of Volktek's Unmanaged Industrial Gigabit Ethernet Switch, specifically designed for high-speed industrial Ethernet networks that demand both, high bandwidths and rugged connectivity. The switch can able to operate in wide temperatures ranging from -40°C to 75°C and absorb higher than normal degrees of vibration and shock, making it perfectly suitable and safe choice for harsh industrial environments.

Equipped with 8-10/100/1000Base-T ports, the IEN-8428 supports both Gigabit and Fast Ethernet options with Auto MDI/MDIX and Auto-negotiation to offer greater flexibility in choosing the type of connectivity you need. In addition the switch supports advance Storm Control and QoS functionality to ensure delivery of critical data with optimized network traffic which can be easily managed by DIP Switch. With 2-slot Gigabit SFP, the switch can be expanded by cascading two or more switches together in a 'daisy-chain' fashion. Redundant power supply with wide-range input power, built-in relay alarm for instant notification of power and port failure, DIN-Rail mounting and many more features of the IEN-8428 fulfill the special needs of Industrial Ethernet networks.



### Features Highlight

#### Robust Switch Performance

Configuring with IP30 aluminum case, surge, power voltage drop, alarm, and ESD protection, the IEN-8428 provides a high level of immunity against electromagnetic interference and heavy electrical surges tolerating tough operating industrial temperatures -40°C~75°C.

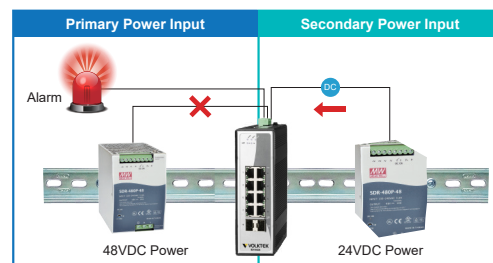


#### Efficient Storm Control Mechanism

In the challenging industrial environment, the Ethernet Switches are connected with various other devices which sometimes get defective or virus affected and thus results generation of huge amount of broadcast traffic that can impact the entire transmission process. To address this issue, IEN-8428 is configured with efficient Storm Control functionalities which can only allow the traffic of a predefined rate. The Storm Control function can easily managed by DIP Switch without any burden of manual enable and disable.

#### Redundant Power Supply

The IEN-8428 is designed with an impressive, much more compact and safer industrial terminal block for redundant power, offering a low-cost, simple solution to the problem of unexpected power failures. In case the primary power supply fails, the IEN-8428's terminal block immediately powers switch with redundant power supply, and enables to provide continuous network services to mission-critical applications in industrial environments. Thus protecting the network from a single failure of a network device power supply and resulting in more reliable network.



#### Redundant Power system

Understanding the need of smoother data transmissions for specific industrial applications, the IEN-8428 supports IEEE 802.1p Quality of Service (QoS) which enhances bandwidth utilization to ensure time sensitive data gets delivered efficiently to mission-critical applications without any delay even during burst of high traffic.



## Features Highlight

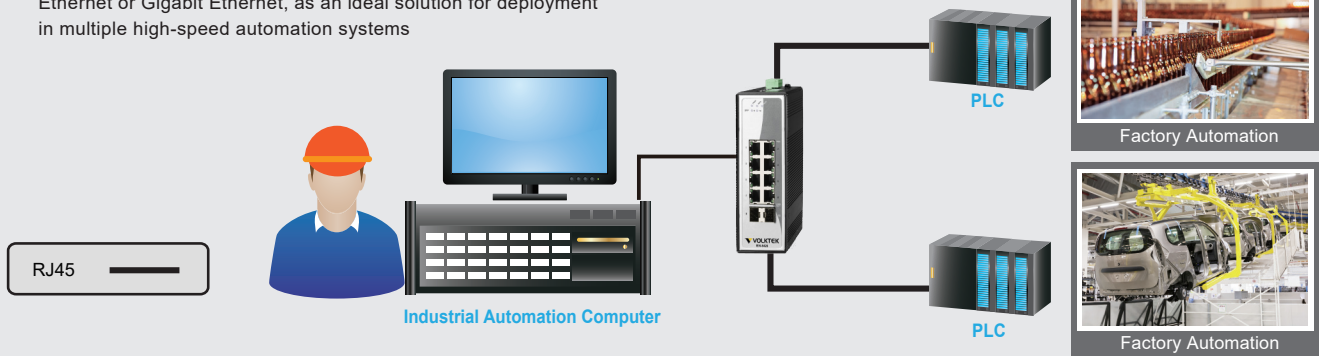
### Eco-friendly Green Ethernet Design

To address the concerns of increasing power consumption, IEN-8428 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.

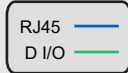
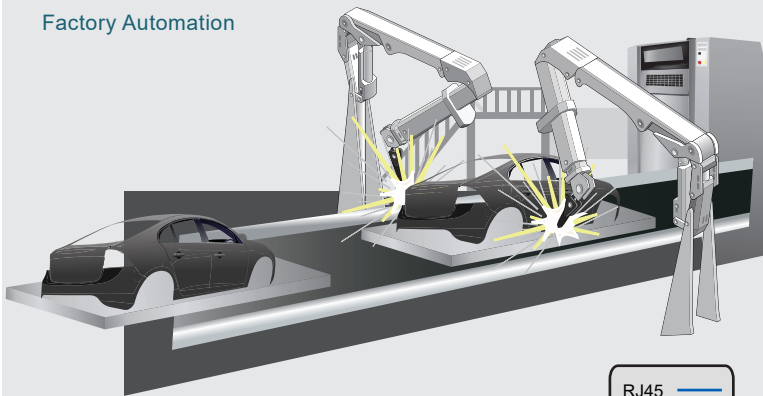


## Applications

The IEN-8428 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

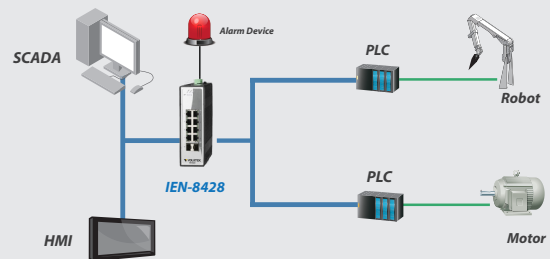


#### Redundant Power input

The IEN-8428 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 IEN-8428 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/FX
IEEE 802.3ab	1000BASE-T
IEEE 802.3z	1000BASE-SX/LX
IEEE 802.3x	Flow Control
IEEE 802.3az	Energy Efficient Ethernet (EEE)
Interface	
Ports	8 x 10/100/1000BASE-T (RJ45) 2 x 100FX/Gigabit SFP Slots
DIP Switch	Power voltage drop alarm setting (PWR & RPS), Broadcast storm control setting (STORM), Port-based QoS setting (QoS on P1 & P2), Fiber port speed setting (100FX on P9 & P10)
LED Panel	PWR, RPS, ALM, SFP, 1000, LNK/ACT
Features	
Performance	Max Jumbo Frame Size: 10KBytes
	MAC Table Entries: 8K
	Switch Fabric: 20Gbps
	L2 Forwarding Rate: 14.8Mpps
Throughput:	14,880 pps to 10 Mbps ports
	148,800 pps to 100 Mbps ports
	1,488,800 pps to 1000 Mbps ports
Power	
Input Voltage	Primary inputs: 12V~60V DC Redundant Inputs: 12V~60V DC
System Power Consumption	12W
Alarm Relay	One relay output with current carrying capacity of 1A@ 24V DC

Mechanical and Environment	
Housing	Aluminum Case (IP30 protection)
Mounting Kit	DIN-Rail, Wall Mount (Optional)
Operating Temperature	-40°C~75°C
Storage Temperature	-40°C~85°C
Operating Humidity	5 to 95% RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	840g
Dimension (WxHxD)	50x160x120 mm (1.97x6.3x4.72 inch)
Standards and Certifications	
EMI	TBD
EMS	TBD
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Ordering Information	
IEN-8428	Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Industrial Switch, Aluminum, -40°C ~ 75°C
Optional Accessories	
Power Supply	SDR-480-48: 480W, 48V DC, Single Output Industrial DIN Rail with PFC Function, -25°C ~ 70°C
GBM-104	1000BASE-SX 1.25G, Multi-mode SFP, 500m
GBM-104-10	1000BASE-LX 1.25G, Single mode SFP, 10Km
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

\*Industrial SFP with wide operating temperature from -40°C~85°C is available upon request  
\*Specifications subject to change without notice.

## Dimension

