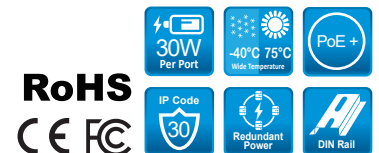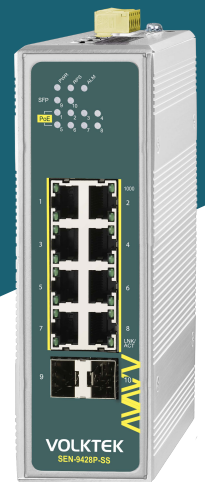# VOLKTEK

SEN-9428P-24V-SS

Umanaged 8 x 10/100/1000 PoE+ & 2 x FX/GbE SFP Switch, Substation Approval

Description

To enforce the IP surveillance and provide sufficient power to PD devices Volktek introduces SEN-9428P-24V-SS, unmanaged PoE+ switch designed for reliable network connectivity even in substation environment. SEN-9428P-24V-SS secured with IEEE 1613 and IEC 61850-3 certificates guarantee trustworthy operation in critical environments where vibration and shock are common place. With IP30 protection it exhibits extreme tolerance in harsh temperature environment ranging from -40°C to 75°C.

Since industrial applications use 24V as their input voltage, SEN-9428P-24V-SS is built with 24V input and its Power Booster technology boosts power up to 30W per port with available 24V voltage. IEC 61850 standard prioritize the packets based on GOOSE and SMV type for mission-critical operation by default. Simple set up with no software or additional configuration needed, SEN-9428P-24V-SS proves to be a perfect solution for round the clock surveillance in hard-to-reach locations

IEEE1613
IEC61850-3

RoHS

30W Per Port
-40°C 75°C Wide Temperature
PoE +
IP Code 30
Redundant Power
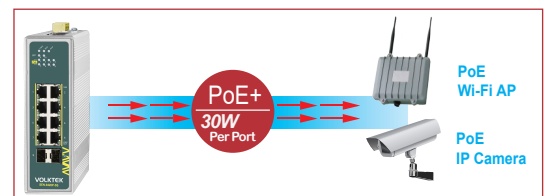DIN Rail
CE FC

Features Highlight

Robust Switch Performance

SEN-9428P-24V-SS is enclosed within IP30 aluminum case and can able to sustain harsh temperature ranging between -40°C~75°C. Along with this, the switch is built with various protection features such as ESD Protection, Surge Protection and Reverse Polarity Protection to deliver non-stop PoE service to the Powered Devices.

Cold -40°C   Hot 75°C

High-Power Budget for PoE Network Devices

SEN-9428P-24V-SS is capable of delivering PoE power up to 30W per port (IEEE 802.3af/at) to PoE+ compliant powered devices. Addition to this, the switch allows simple "plug and play" PoE for various types of high power consuming PoE devices. Thereby, irrespective of their location, powered devices can be powered without installing additional power outlets or cabling and significantly reduce your CAPEX.

PoE+ 30W Per Port

PoE Wi-Fi AP
PoE IP Camera

Efficient Power Booster Support

There are many places such as small factories, workstations where the voltage supply is not sufficient for PoE operation. Hence to deal with this situation, SEN-9428P-24V-SS is designed with innovative power booster technology which can boost DC voltage from 24V DC to 48~57V DC for demanding IP surveillance saving additional cost and space for external voltage converter.

Redundant Power Supply

Considering the power failure impact in surveillance applications, SEN-9428P-24V-SS is developed for redundant power to provide continuous service resulting reliable and consistent network. In addition, the switch is equipped with alarm feature to notify the occurrence of power failure, helps in quick respond and faster troubleshooting.

Advanced QoS Support

Understanding the need of smoother data transmissions for specific surveillance applications, the SEN-9428P-24V-SS 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. Addition to the beneficial fetures, the switch is also configured with efficient Storm Control functionalities which can only allow the traffic of a predefined rate. Both the QoS and Storm Control function can easily managed by DIP Switch without any burden of manual enable and disable.
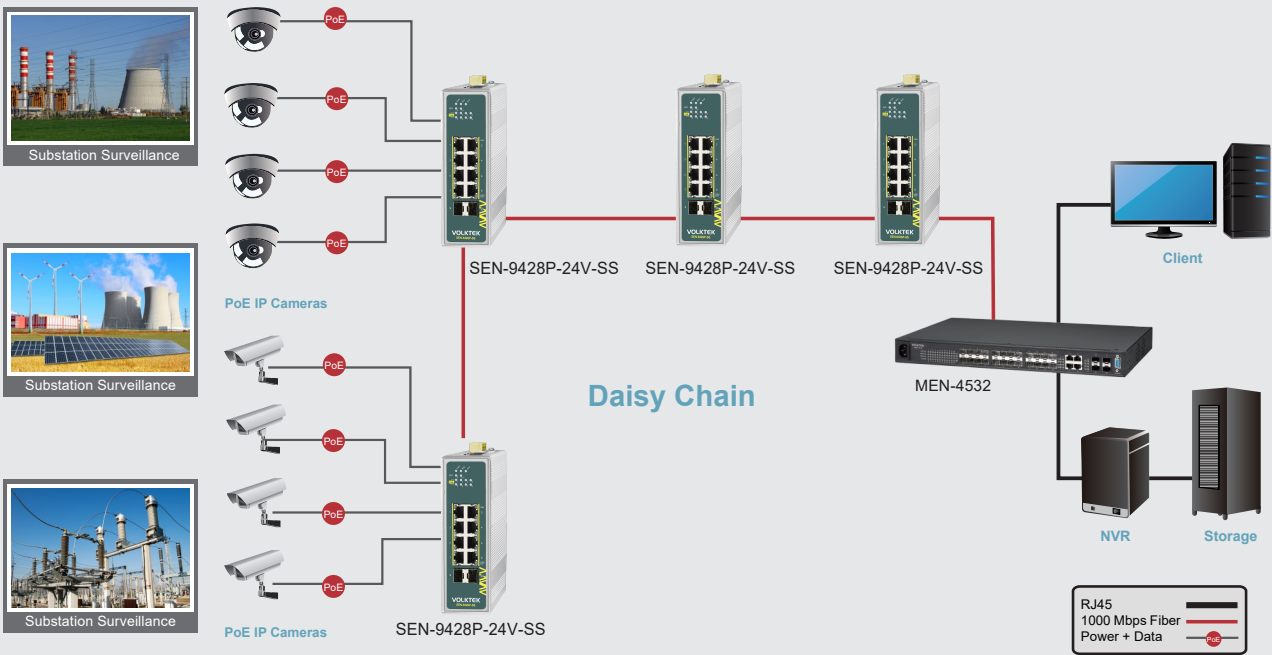
VOLKTEK

Features Highlight

Eco-friendly Green Ethernet Design

To address the concerns of increasing power consumption, SEN-9428P-24V-SS 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.
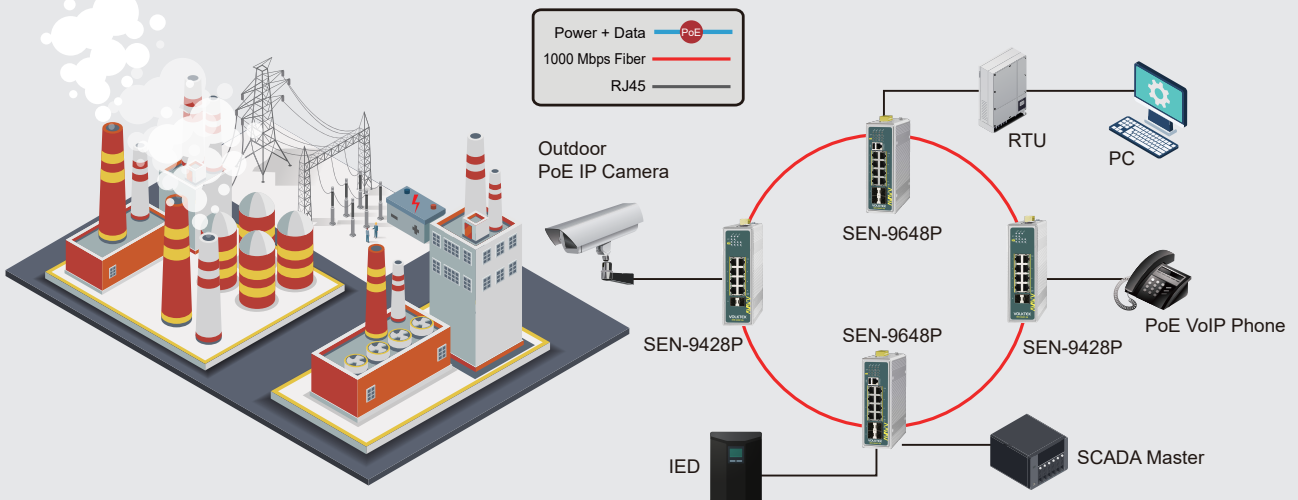
Applications

Sufficient PoE Power with Cost-saving Fiber Connectivity

The intelligent PoE+, compactable size, rugged design of SEN-9428P-24V-SS ensure continuous operations in some special requirements for transportation, factory and outdoor places where high vibration degree, shock and wide range temperatures are present. Addition to this the dual Gigabit SFP ports which can easily make daisy chain topologies to power more number of PoE+ enable power devices as well as saves the amount of fiber cabling connecting to the control room. Due to daisy chain architecture only a single fiber connects to the control room which in turn saves CAPEX.

The SEN-9428P-24V-SS 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.

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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 802.3	Nway Auto-negotiation
IEEE 802.3x	Flow Control
IEEE 802.3af	Power over Ethernet
IEEE 802.3at	Power over Ethernet Plus
IEEE 802.1p	Class of Service

Interface	
Ports	8 x 10/100/1000BASE-T (PoE RJ45)
	2 x FX/GbE SFP Slots
DIP Switch	Power voltage drop alarm setting (PWR & RPS), Broadcast strom 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, PoE, 1000, LNK/ACT

Features	
Throughput	14,880 pps to 10 Mbps ports
	148,800 pps to 100 Mbps ports
	1,488,000 pps to 1000 Mbps ports
Performance	Max Jumbo Frame Size: 10KBytes
	MAC Table Entries: 8K
	Switch Fabric: 20Gbps
Functions	Flow Control, Storm Control, LLDP Filter, VLAN Passthru, Port Priority(p1-2), 802.1p/Tag QoS, EIP QoS (via TCP/UDP #), PROFINET QoS (via VLAN 0), GOOSE QoS (via Ether-type)
PoE+ Functions	Up to 8 IEEE 802.3at powered devices
	Supports PoE Power up to 30W for each PoE port
	Auto detect powered device (PD)
	Remote Power Feeding up to 100m

Power	
Input Voltage	Primary input: 24~57VDC
	Redundant: 24~57VDC
Connection	Terminal Block
Power Consumption	System: 15W
	PoE Power Budget: 124W @ 24V DC
	240W @ 48V DC
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
Operating Temperature	-40°C~75°C (-40°F~167°F) 70°C Substation Certified
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	930 g (2.1 lb)
Dimension (WxHxD)	50 x 160 x 120 mm (1.97 x 6.3 x 4.72 in)

Standards and Certifications		
CE	EMI	FCC Part 15 Subpart B Class A EN 55022: class A EN 55011: 2009 class A EN 61000-6-4
	EMS	EN 55024 EN 61000-6-2 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
Power Substation		IEEE1613 IEC61850-3

Ordering Information	
SEN-9428P-24V-SS	Umanaged 8 x 10/100/1000 PoE+ & 2 x FX/GbE SFP Switch, Substation Approval
SEN-9425P-24V-SS	Unmanaged 4 x 10/100/1000 PoE+ & 1 x 10/100/1000 RJ45 & 2 x GbE SFP Switch, Substation Approval
SEN-9648P-24V-SS	Managed 8 x 10/100/1000 PoE+ & 4 x GbE SFP Switch, Substation Approval

Optional Accessories	
Power Supply	SDR-240P-48: 240W, 48V DC, 240W Single Output Industrial DIN Rail with PFC Function
Power Adapter	GST-160: 160W, 52V, Industrial Grade AC Power Adapter for PoE Switch, -30°C~70°C (-22°F~158°F)
DIN-Rail Holder	DR-160 (for GST-160)
GBM-104	1000BASE-SX 1.25G, Multi-mode SFP, 500m
GBM-104-2	1000BASE-SX 1.25G, Multi-mode, 3.3V, 1310nm, 2Km
GBM-104-10	1000BASE-LX 1.25G, Single mode SFP, 10Km
GBM-123	1000BASE-LX Bi-di Single Mode SFP Module, 10Km

*Industrial SFP with wide operating temperature from -40°C~85°C (-40°F~185°F) is available upon request
*Specifications subject to change without notice.

Dimension