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IEN-8528-PN

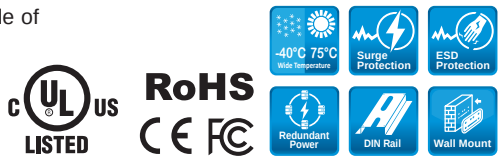
Managed 8 x 10/100 RJ45 & 2 x FX/GbE SFP Industrial Switch, PROFINET Compliance

Description

The IEN-8528-PN Managed Industrial PROFINET compliant switch is equipped with 8 10/100BASE-TX RJ45 ports and 2 FX/GbE SFP slots. The Gigabit SFP slots give the advantage of configuring Ring or Daisy Chain topologies offering full-proof fiber advantages: safety, reliability and long distance Gigabit connectivity. Engineered with hardened components and enclosed in a rugged case, the switch can operate in wide temperatures from -40°C to 75°C and also has an excellent tolerance capability to high vibration and shock.

In a high precision control of industrial instruments and factory automation, data exchange rate must be close to real-time to meet the speed requirements; PROFINET open standard enables real-time communication for automation control by bypassing the network layer for specific applications. The PROFINET switches can transmit the real-time and non-real-time data in 10 and 100ms, respectively.

PROFINET is able to operate in industrial demanding and harsh environments and is capable of delivering the speed and precision required by manufacturing plants.



Features Highlight

Robust Switch Performance

IEN-8528-PN is built with IP30 aluminum case protection, surge, and ESD protection to deliver robust performance and withstand extreme conditions in Industrial environments. The SFP ports support 1000Mbps for high bandwidth transmissions and the SFP DDM feature enables service providers to monitor SFP parameters. In case of any abnormal hardware condition, the switch automatically sends warnings through email and relay output with real-time alarm messages. This assists the system administrators to immediately react to emergency events and diagnose the faults more efficiently for smoother network operations.

Swift Communication on PROFINET Networks

PROFINET device properties stored in a Generic Station Description (GSD) file in XML format and the descriptive language is called GSDML (GSD Markup Language). The PROFINET I/O device manufacturer creates the GSD file which is imported by the engineering tool (STEP 7) to create the bus configuration. Besides, SNMP MIB (Management Information Base) also stores the device information in files for device management. These files can be downloaded from switch to field controller automatically through management interface, and can be integrated into TIA Portal software. An approved PROFINET certification, Volktek industrial Ethernet switch supports very high capability for industrial field.

Support powerful diagnostic function via PROFINET I/O protocol to response device and network status. The PROFINET I/O is an automation approach to create automation solutions using the PROFINET standard for automation devices. In this process, a software stack is allowed to access the PROFINET I/O-devices without any additional communication software which reduces the development cost and time.

Network Redundancy

Volktek's industrial switch redundant ring architecture enhances network reliability and make them ideal for deploying secure automation network systems in tough outdoor industrial environments, such as ITS, maritime, mining, and manufacturing systems. Our PROFINET switch supports Media Redundancy Protocol (MRP) Slave mode for high reliable demands of PROFINET operational environment. MRP is a data network protocol that allows rings of industrial Ethernet switches to overcome any single failure with recovery time much faster than Spanning Tree Protocol which is suitable for most Industrial Applications.

Redundant Power system

Mission-critical industrial applications need to operate without any interruptions because even a minimum network downtime can hugely impact the overall output. Providing continuous power as well as data to such applications is now made easy with IEN-8528-PN's redundant power system. The switch is designed with standard industrial terminal block for redundant power. In case the primary power supply fails, the secondary power source will enable the switch to provide continuous services.

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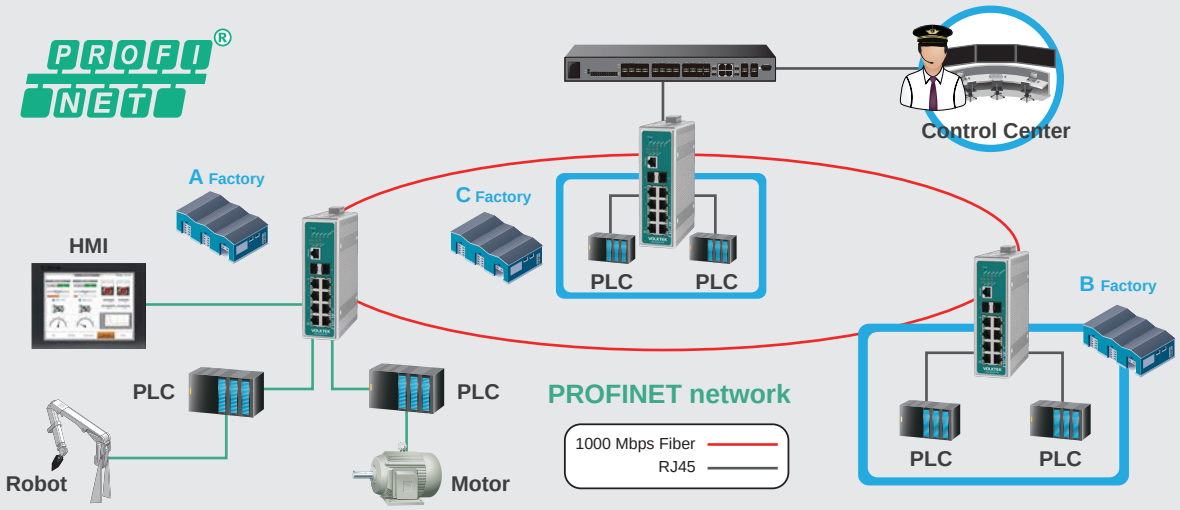
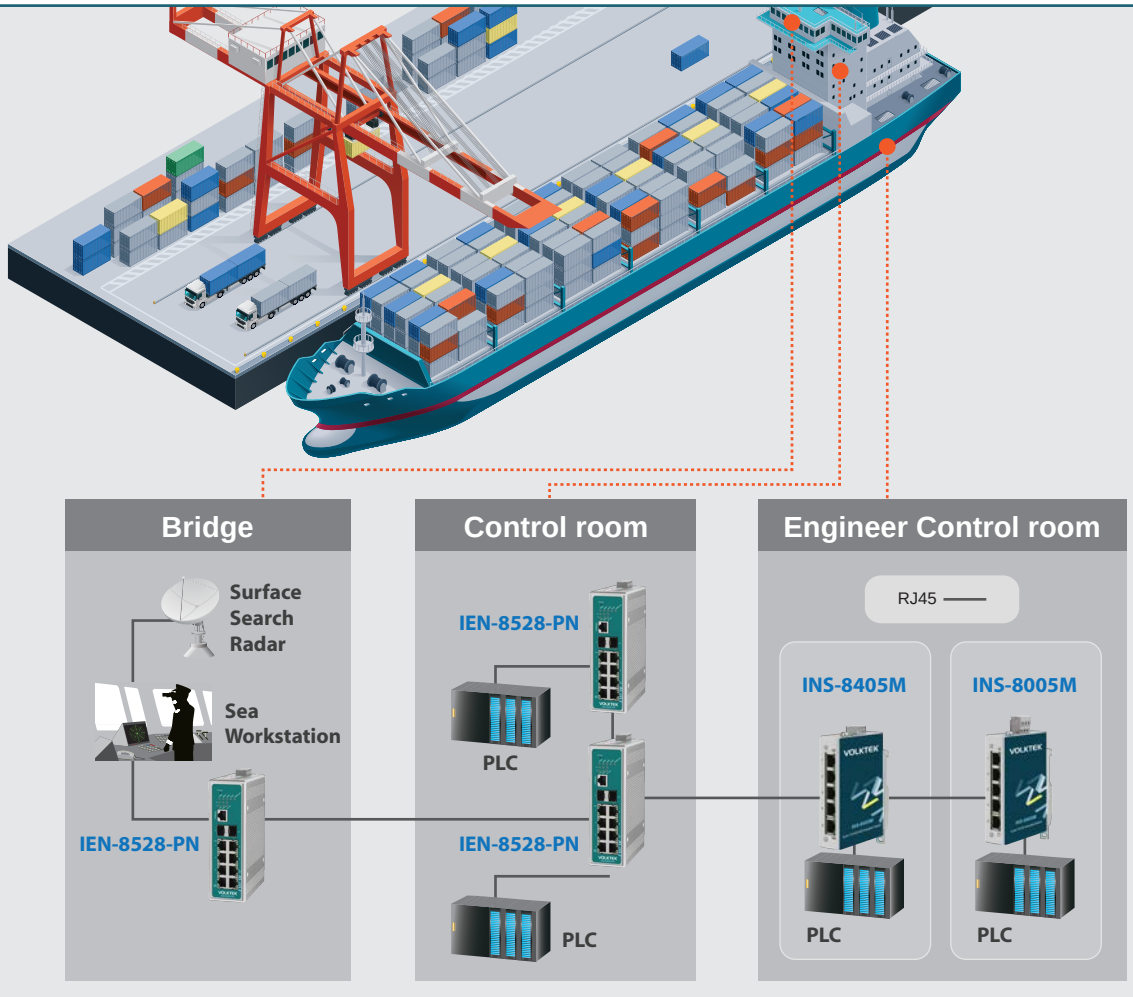
Features Highlight

Port-based VLAN, IEEE 802.1Q VLAN to ease network planning

Planning, designing and managing complex networks is now simplified with IEN-8528-PN. The switch supports VLANs which segment large networks into smaller parts and organize them into separate broadcast domains. This helps the administrators to control the traffic patterns, limit broadcast traffic and reduce broadcast storms.

Applications





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Specifications

Standards	
IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-TX
IEEE 802.3u	100BASE-FX
IEEE 802.3z	1000BASE-SX/LX
IEEE 802.3	Nway Auto-negotiation
IEEE 802.3x	Flow Control
IEEE 802.3ad	Link Aggregation
IEEE 802.1AB	LLDP
IEEE 802.1ad	QinQ
IEEE 802.1D	STP
IEEE 802.1w	RSTP
IEEE 802.1s	MSTP
IEEE 802.1p	Class of Service
IEEE 802.1Q	VLAN Tagging
IEEE 802.1X	Port Authentication
IEEE 1588v2	PTP
Interface	
Ports	8 x 10/100/BASE-T
	2 x FX/GbE SFP Slots
	1 x RJ45 Console Port
DIP Switch	Primary/Redundant Power Voltage Drop Alarm setting
LED Panel	PWR, RPS, ALM, POST, LASER ON, 1000, LNK/ACK, OFF LINE,100
Features	
Performance	Jumbo frame Size: 10KBytes
	MAC Table Entries: 16K
	Active VLAN: 4K
	Switch Fabric: 5.6Gbps
	L2 Forwarding Rate: 4.1Mpps
Management	CLI, Telnet/SSH, HTTP/HTTPs, SNMP v1//v2c/v3, SNMP Trap, MVLAN, Firmware Upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, UDLD, DHCP Client, DHCP Option 82, e-mail Alarm, Service Control, DDM, SFP Info, Auto-Provisioning, RMON Statistics, ModbusTCP
Reliability	STP/RSTP/MSTP, Xpress Ring, ERPS v1/v2, Dual Homing, LACP, Static Trunk, MRP Code Redundancy
VLAN	IEEE 802.1Q, GARP/GVRP, Port-based VLAN, MAC-based VLAN, IP-based VLAN, Protocol-based VLAN, QinQ
Traffic Control	IGMP snooping/Throttling/Proxy, MVR, QoS, MLD Flow Control, Rate Limit, Storm Control, Port Isolation, Loop Detection, Static Route
Security	ACL, SSH, HTTPs, SNMPv3, Port Security, Port-based 802.1x, MAC-based 802.1x, TACACS+, MAC limit, MAC Search, Refusal MAC, Static MAC, DHCP Snooping, DHCP Sever Screening, ARP Inspection, BPDU Guard/Filter, Root Guard, Management Host
PROFINET Compliance	PROFINET/RT Standard Conformance Class B (CC-B) PROFINET IO Device (Slave) PROFINET GSD file support MRP Client/Master

Power	
Input Voltage	Primary inputs: 12~60VDC
	Redundant inputs: 12~60VDC
Connection	Teminal Block
Power Consumption	System: 12W
Alarm Relay	One relay output, 1A @ 24V DC
Mechanical and Environment	
Housing	Aluminum (IP30 Protection)
Mounting	DIN-Rail
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	780 g (1.7 lb)
Dimension (WxHxD)	50 x 165 x 122.2 mm (1.97 x 6.50 x 4.81 in)
Certifications	
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
Safety	UL 61010-1, UL 61010-2-201
Ordering Information	
IEN-8528-PN	Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Industrial Switch, PROFINET Compliance
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 from -40°C~85°C (-40°F~185°F) is available upon request.*

** The highest degree of temperature operation certified by UL is -40˚C~70˚C (-40°F~158°F).*

** Specifications subject to change without notice.*

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Dimension