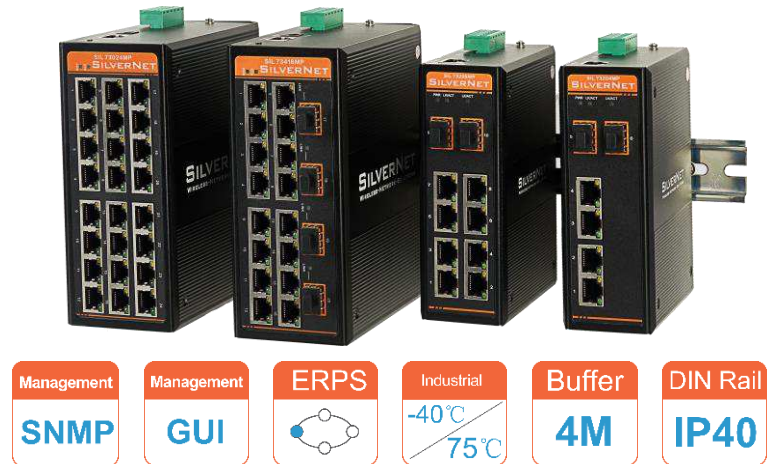


Series 7 Managed Network Switch

SIL 73204MP
SIL 73208MP
SIL 73416MP
SIL 73024MP

Industrial Gigabit PoE+ Managed Switches



OVERVIEW

The SilverNet Industrial Gigabit PoE+ Managed Switches are fully managed layer 2 switches. The rugged industrial design makes the switches ideal for installation in harsh environments.

The Industrial Gigabit PoE+ Managed Switches come in four different versions, 4 or 8 x 10/100/1000Base-T ports with 2 x 1000Base-FX SFP slots, 16 x 10/100/1000Base-T ports with 4 x 1000Base-FX SFP slots and 24 x 10/100/1000Base-T PoE+ ports.

The Industrial Gigabit PoE+ Managed Switches have dual input design, no fan, low power consumption and high reliability.

The SilverNet Industrial Gigabit PoE+ Managed Switches are ideal for extending Ethernet over distance via fibre daisy chain, whilst eliminating the need for individual power supplies for IP video cameras and wireless access points. The switches have an extended temperature range to enable them to cope with unconditioned outdoor cabinets and industrial environments.

The SilverNet Industrial Gigabit PoE+ Managed Switches are fully compliant with the IEEE802.3af/at standard, providing Power-over-Ethernet over twisted pair cables. The fibre optics ports feature a modular SFP slot for any kind of MSA-compliant pluggable 1.25Gbps SFP transceiver.

Features

- 4, 8, 16 or 24 x 10/100/1000Base-T
- 2 or 4 x 1000Base-FX SFP slots
- 20Gbps or 56Gbps bandwidth
- IEEE803.af/at compliant
- RJ45 supports auto MDI/MDI-X function
- Auto negotiation speed, half/full duplex
- Store and forward
- Max packet size: 10K bytes
- MAC address size: 8K
- Wide range power design (9~56VDC)
- Operating temperature (-40°C ~+75°C)
- Resettable fuse to protect against overcurrent
- Reverse Polarity Protection
- DIN Rail or wall mountable
- EFT protection for power line
- Ethernet ESD protection
- IP40 Protection
- Rugged

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Technical Specifications

Part No.	SIL 73204MP	SIL 73208MP	SIL 73416MP	SIL 73024MP
Ports				
Total number of ports	6 ports	10 ports	20 ports	24 ports
Gigabit Ethernet	4 ports	8 ports	16 ports	24 ports
Gigabit Fibre	2 SFP		4 SFP	N/A
Number of PoE ports	4 ports	8 ports	16 ports	24 ports
Max output per port	30W			
Performance				
Switch bandwidth	20Gbps		56Gbps	
MAC address size	8K			
Processing type	Store and Forward			
Time delay	<10µs			
Jumbo Frames	10K bytes			
Packet buffer space	4Mbit			
Power				
Power input	9~56VDC, Redundant			
Power consumption	<10W (Excluding PoE)		<15W (Excluding PoE)	
Standards				
Standards	G.8032 (ERPS) IEEE.802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1p, IEEE802.1x, IEEE802.3ab, IEEE802.1Q, IGMP snooping			
EMC	CE			
EMI	FCC Part 15 Class A			
EMS	IEC 61000-4-2 (ESD): Level 4 (8K/15K) IEC 61000-4-3 (RS): Level 3 (10V/m) IEC 61000-4-4 (EFT): Level 3 (1V/2V) IEC 61000-4-5 (surge): Level 3 (4KV/2KV) IEC 61000-4-6 (RF coupling): (10V/m) IEC61000-4-8 (Power Frequency Magnetic Field):Level 4 (30A/m)			
Shock	IEC 60068-2-27			
Freefall	IEC 60068-2-32 0.5m			
Vibration	IEC 60068-2-6			
Physical				
Dimensions and weight	Dimensions Approx: 120 x 90 x 40mm Weight: 0.6kg	Dimensions Approx: 120 x 90 x 40mm Weight: 0.65kg	Dimensions Approx: 160 x 140 x 75mm Weight: 1.1kg	Dimensions Approx: 160 x 140 x 70mm Weight: 1.15kg
Enclosure	IP40 Protection, Aluminium Alloy			
Mounting	DIN Rail, Wall mountable			
Environment				
Operating Temperature	-40~+75°C (Storage -40~+85°C)			
Humidity	5-90% (non-condensing)			

Standard Features

STANDARD FEATURES

Physical Ports

RJ45 with Auto MDI/MDI-X and Auto-negotiation
SFP 100/1000Base-X

SIL 73204MP

4-port 10/100/1000Base-T with PoE+ and 2-ports SFP (fibre) 100/1000Base-X

SIL 73208MP

8-port 10/100/1000Base-T with PoE+ Plus 2-ports SFP (fibre) 100/1000Base-X

SIL 73416MP

16-port 10/100/1000Base-T with PoE+ and 4-ports SFP (fibre) 100/1000Base-X

SIL 73024MP

24-port 10/100/1000Base-T with PoE+

Power over Ethernet

Complies with IEEE 802.3af / IEEE 802.3at Power over Ethernet
IEEE 802.3af / 802.3at / devices powered
Supports PoE power up to 30.8 Watts for each PoE port
Auto detect powered device (PD)
Circuit protection helps reduce power interference between ports
Remote power feeding up to 100m
PoE Management features
IEEE 802.3af and IEEE 802.3at mode switch control
Total PoE power budget control
Per port PoE function enable/disable
PoE Admin mode control
PoE Port Power feeding priority
Per PoE port power limit
PD classification detection
Temperature threshold control
PoE Usage threshold control
PD Alive check/reboot
PoE schedule

Rugged Design

IP40 Aluminium metal case protection
DIN-rail and wall mount design
48V DC, redundant power with polarity reverse protect function
Supports EFT protection 4K for power line
Supports 4K Ethernet ESD protection
-40°C~+75°C operating temperature

Security

IP-Based Access Control List (ACL)
MAC-Based Access Control List
Source MAC / IP address binding
DHCP Snooping to filter untrusted DHCP messages

Layer 2 Features

Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x pause frame flow control (Full-Duplex)
Store and Forward architecture and runt/CRC filtering
Storm control support
Broadcast / Multicast / Unicast
Supports VLAN
IEEE 802.1Q Tagged VLAN
Up to 255 VLANs groups, out of 4094 VLAN IDs
Provider Bridging (VLAN Q-in-Q) support (IEEE 802.1ad)
Supports Spanning Tree Protocol
STP, IEEE 802.1D Spanning Tree Protocol
RSTP, IEEE 802.1w Rapid Spanning Tree Protocol
MSTP, IEEE 802.1s Multiple Spanning Tree Protocol, spanning tree by VLAN
BPDU Guard
Supports Link Aggregation
802.3ad Link Aggregation Control Protocol (LACP)
Provides Port Mirror (1-to-1)
Port mirroring to monitor the incoming or outgoing traffic on a particular port
Loop protection to reduce the possibility of broadcast loops

Quality of Service

Ingress shaper and egress rate limit per port bandwidth control
8 priority queues on all switch ports
Traffic classification
IEEE 802.1p CoS
Typical network application
Strict priority and Weighted Round Robin (WRR) CoS policies
Supports QoS and In/Out bandwidth control on each port

Multicast

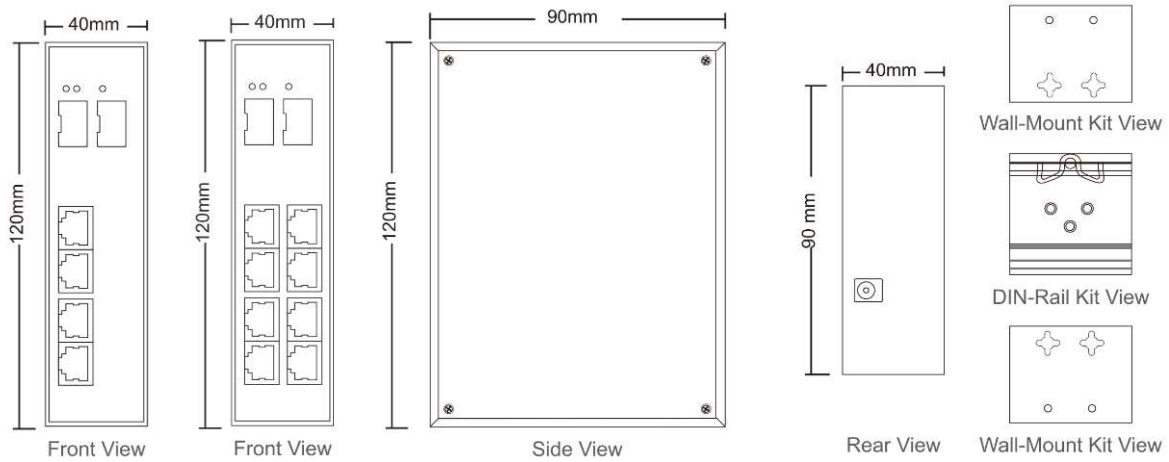
Supports IGMP snooping v1, v2 and v3
Supports MLD snooping v1 and v2
Querier mode support
IGMP snooping port filtering

Management

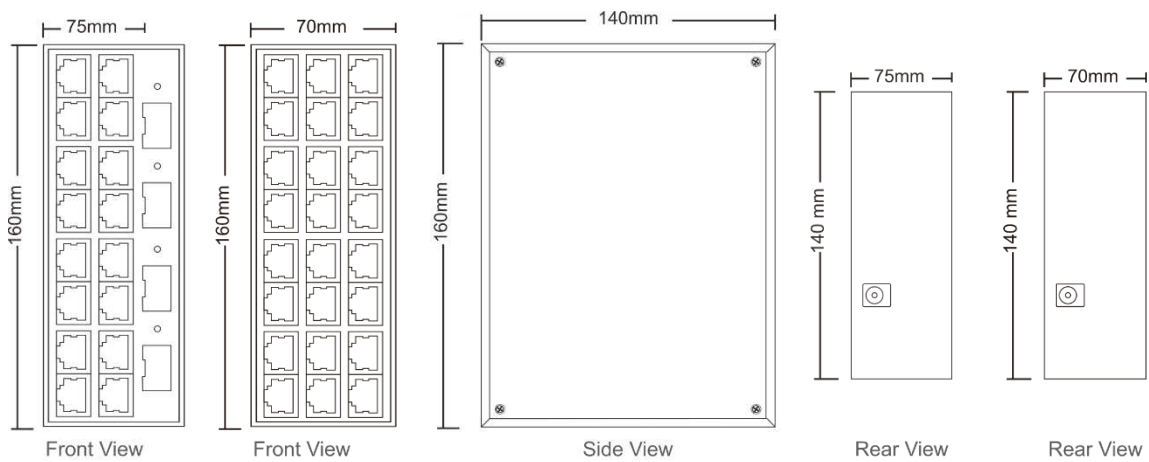
Switch Management Interfaces
Console / Telnet Command Line Interface
Web switch management
SNMP v1 and v2c switch management
Built-in Trivial File Transfer Protocol (TFTP) client
Firmware upload / download via HTTP / TFTP
NTP (Network Time Protocol)
Reset button for system reboot or reset to factory default

Dimension Diagrams

SIL 73204MP & SIL 73208MP

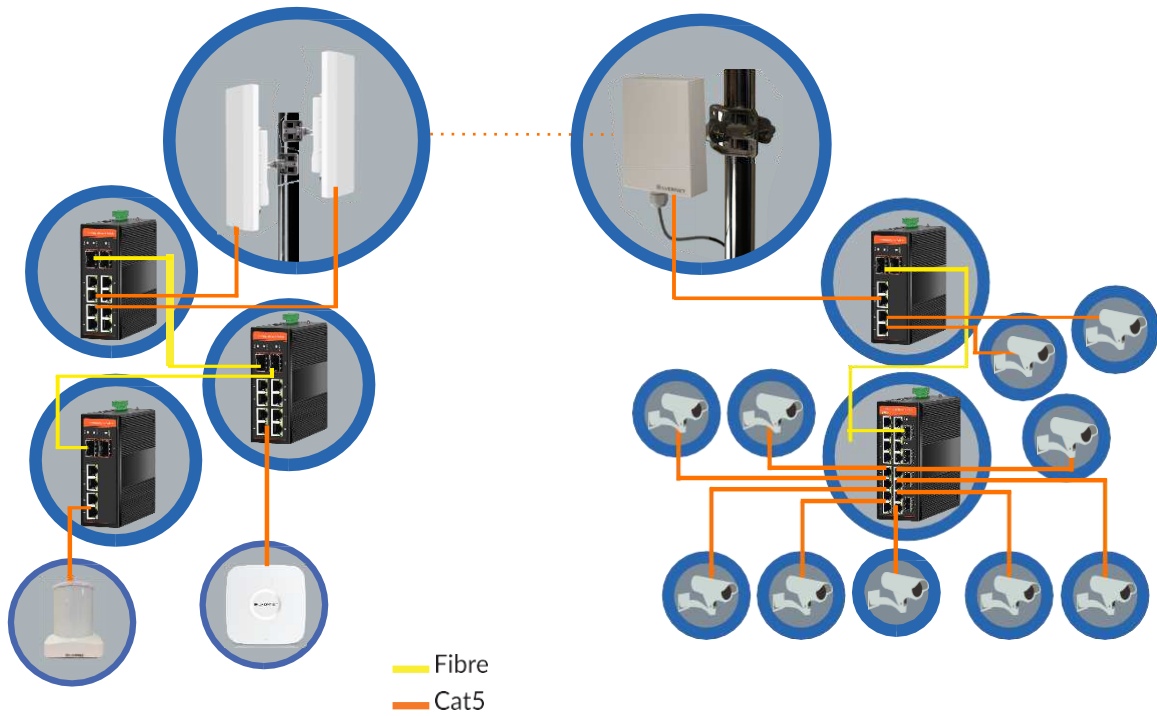


SIL 73416MP & SIL 73024MP



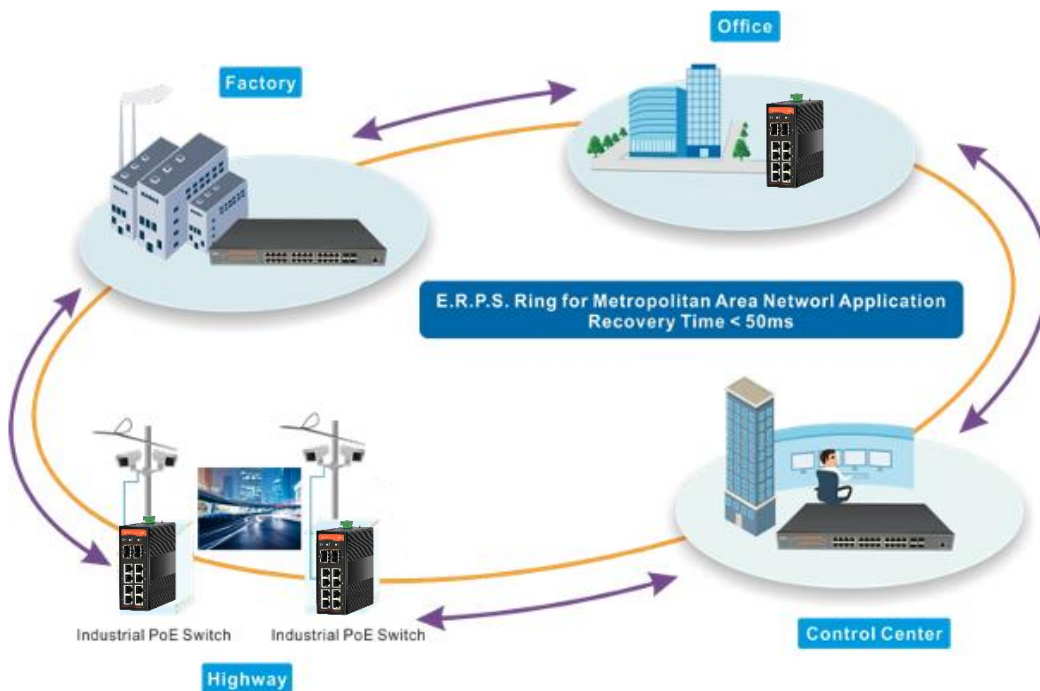
Typical Applications

Connection Applications



Redundant Ring

Fast Recovery for Critical Network Applications



Part Numbers & Accessories

Series 7 Industrial Managed Fibre Switches

Part Code	Description
SIL 73204MP	10/100/1000M 2Gx4GE POE+, two SFP slot, Excluding Power Supply
SIL 73208MP	10/100/1000M 2Gx8GE POE+, two SFP slot, Excluding Power Supply
SIL 73416MP	10/100/1000M 4Gx16GE POE+, four SFP slot, Excluding Power Supply
SIL 73024MP	10/100/1000M 24GE POE+, Excluding Power Supply

Power Supplies

Part Code	Description
SIL NDR-120-48	120W 48V 2.5A Industrial Din Rail Power Supply
SIL NDR-240-48	240W 48V 5A Industrial Din Rail Power Supply
SIL NDR-480-48	480W 48V 10A Industrial Din Rail Power Supply

1Gbps Fibre Transmission

Part Code	Description
SIL-SFP0-01-25-X850-0-5D	1G Multimode 850nm SFP, 550m
SIL-SFP0-01-25-X131-10XD	1G Singlemode 1310nm SFP, 10km
SIL-SFP0-01-25-X131-40XD	1G Singlemode 1310nm SFP, 40km
SIL-SFP0-01-25-X155-80XD	1G Singlemode 1550nm SFP, 80km
1Gbps BiDi	
SIL-SFP0-01-25-B131-10XD	1G SM 1310nm TX FP 10km with DDM, 1550nm RX
SIL-SFP0-01-25-B155-10XD	1G SM 1550nm TX FP 10km with DDM, 1310nm RX
SIL-SFP0-01-25-B139-10XD	1G SM 1310nm TX FP 10km with DDM, 1490nm RX
SIL-SFP0-01-25-B149-10XD	1G SM 1490nm TX FP 10km with DDM, 1310nm RX
SIL-SFP0-01-25-B131-40XD	1G SM 1310nm TX DFB 40km with DDM, 1550nm RX
SIL-SFP0-01-25-B155-40XD	1G SM 1550nm TX DFB 40km with DDM, 1310nm RX
SFP to Ethernet	
SIL-SFP0-01-25-XXXT-0-1	1G RJ45 Copper SFP, 100m