SILVERNET WIRELESS-NETWORK-SOLUTIONS

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Series 7 Managed Network Switch



OVERVIEW

SilverNet Industrial Gigabit PoE+ Managed Switches are a range of fully managed layer 2 Switches, offering an ideal solution for deployment in harsh environments thanks to their rugged industrial design.

Choose from one of four different configurations; 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, or 24 x 10/100/1000Base-T ports.

These Switches have a number of intelligent features, including a dual input design, no fan, low power consumption, overcurrent protection, and high reliability. The SilverNet Industrial Gigabit PoE+ Managed Switches offer a versatile solution for extending Ethernet over distance through fibre daisy chain. This negates the need for separate power supplies for IP video cameras and wireless access points. These Switches also have an extended temperature range, allowing them to operate effectively in outdoor cabinets and harsh industrial environments.

In compliance with the IEEE802.3af/at standard, Power-over-Ethernet delivery over twisted pair cables is possible.

The switches also include fibre optics ports with a modular SFP slot that supports any type 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

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- 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



Distributed By:

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Technical Specifications

| Part No. | SIL 73204MP | SIL 73208MP | SIL 73416MP | SIL 73024MP | |
|--------------------------|--|---|---|--|--|
| Po | rts | | | | |
| 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 | 16 ports (Ports 1-16) | |
| Max output per port | | 30W | | | |
| Performance | | | | | |
| Switch Bandwidth | 20Gbps 56Gbps | | | | |
| MAC address size | 8К | | | | |
| Processing type | Store and Forward | | | | |
| Time delay | <10µs | | | | |
| Jumbo Frames | 10K bytes | | | | |
| Packet buffer space | 4Mbit | | | | |
| Po | wer | | | | |
| Power input | 9~56VDC, Redundant (2 Inputs Available) | | 2 Inputs Available) | | |
| Power consumption | <10W (Exclud | ding PoE) | <15W (Excluding PoE) | | |
| Sta | andards | | | | |
| 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 | UKCA BS EN 55032:2015/A11:2020 UKCA BS EN IEC 61000-3-2:2019+A1:2023 UKCA BS EN 61000-3-3:2013/A2:2023 UKCA BS EN 55035:2017/A11:2020 | | | | |
| 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) IEC 61000-4-8 (Power Frequency Magnetic Field):Level 4 (30A/m) | | | | |
| LVD | | UKCA BS EN IEC 62368- | -1:2020+A11:2020 | | |
| ROHS | UKCA BS IEC 62321-1:2013, IEC 62321-3-1:2013 UKCA BS IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013 UKCA BS IEC 62321-6:2015, IEC 62321-7-1:2015 UKCA BS IEC 62321-7-2:2017, IEC 62321-8:2017 | | | | |
| Shock | IEC 60068-2-27 | | | | |
| Freefall | | IEC 60068-2- | 32 0.5m | | |
| Vibration | IEC 60068-2-6 | | | | |
| Ph | ysical | | | | |
| 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 | | | | |
| En | vironment | | | | |
| Operating Temperature | -40~+75°C (Storage -40~+85°C) | | | | |
| Humidity | 5-90% (non-condensing) | | | | |

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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 2ports SFP (fibre) 100/1000Base-X

SIL 73208MP

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

SIL 73416MP

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

SIL 73024MP

24-port 10/100/1000Base-T with ports 1 to 16 operating on PoE+

Power over Ethernet

Complies with IEEE 802.3af / IEEE 802.3at Power over Ethernet (minimum 48-56VDC input required) 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 possiblity 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

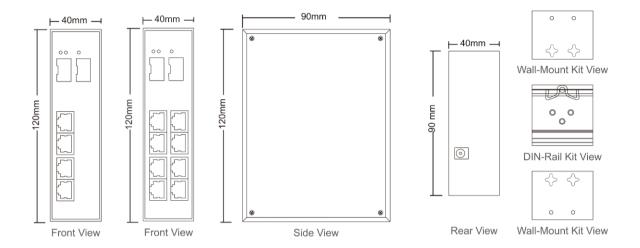
Management

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

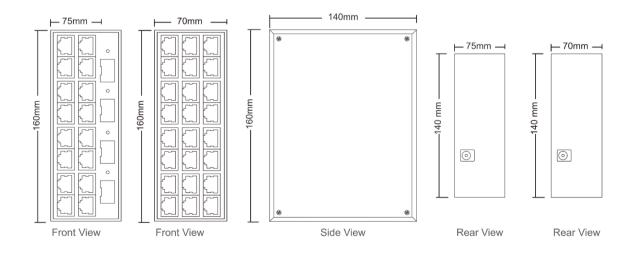


Dimension Diagrams

SIL 73204MP & SIL 73208MP



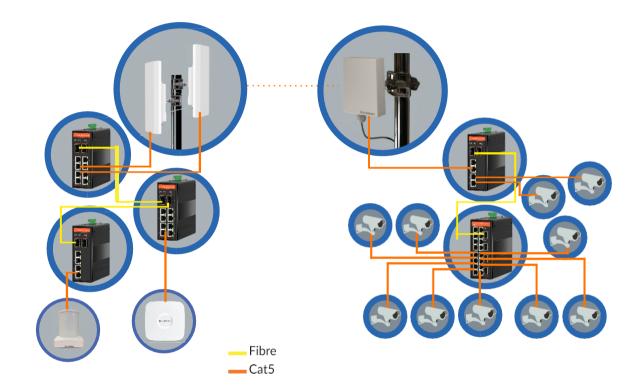
SIL 73416MP & SIL 73024MP





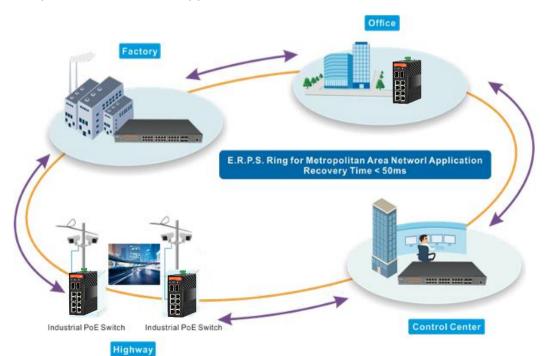
Typical Applications

Connection Applications



Redundant Ring

Fast Recovery for Critical Network Applications





Part Numbers & Accessories

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, 16 ports POE+, Excluding Power Supply |

Power Supplies

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