

MS-0804X

8+4 Port Industrial Managed Ethernet Switch with 10G Uplink



- 8x Gigabit Ethernet ports
- 4x 1/10 Gigabit Ethernet SFP+ Slot
- Built for harsh environments and wide temperature range application
- RSTP, MSTP, ERPS, MRP, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 512 groups
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Supports industrial automation protocols Ethernet/IP and Modbus TCP

Specifications

Technology

IEEE 802.3 10BaseT
IEEE 802.3u 100BaseTX
IEEE 802.3ab 1000BaseT
IEEE 802.3ae 10GBase over Fiber
IEEE 802.3x Flow Control
IEEE 802.3az Energy-Efficient Ethernet
IEEE 802.3ad/802.1AX LACP
IEEE 802.1D Spanning Tree Protocol
IEEE 802.1w Rapid STP
IEEE 802.1s Multiple STP
ITU-T G.8032 / Y.1344 ERPS
IEC 62439-2 Media Redundancy Protocol
IEEE 802.1Q VLAN Tagging
IEEE 802.1ad Stacked VLANs
IEEE 802.1p Class of Service
IEEE 802.1X Network Authentication
IEEE 802.1AB LLDP
IEEE 1588 PTP

Standards

Processing Type Store and Forward

Switch Properties

Switch Fabric 96Gbps

Priority Queues 8 Queues

Jumbo Frame 9216bytes

MAC Table Size 16K

Packet Buffer 12Mbits

VLAN Table Size 4094

IGMP Group 512

ACL Group 512

Software Feature

Network Redundancy RSTP, MSTP, G.8032 ERPSv2, IEC 62439-2 MRP, Port Trunking with LACP

Security 802.1X, RADIUS, TACACS+, SSL, SSH

Management IPv4, IPv6, Web, Telnet, Serial Console, CLI, SNMP v1/v2c/v3, uPnP

Diagnostics RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP, RSPAN

Configuration DHCP Server/Client, Relay Option 82, TFTP, USB

Filter 802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning

Time Sync. NTP, IEEE1588v2 OC (Software Timestamp), TC (Hardware Timestamp)

QoS CoS, DSCP, WRR/SPQ Queuing, Storm Protection

Industrial Profiles Ethernet/IP, Modbus TCP, Profinet

Interface

RJ45 Port 8x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X

Fiber Port 4x 1/10 Gigabit Ethernet SFP+ Slot

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|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| LED Indicators | Per unit: PWR1, PWR2, Fault, Ring Master, Ring State Ports: Link/Active with highest speed(Green), low speed(Amber) |
| Alarm Contact | 1x relay output with current carrying capacity of 1A @ 24 VDC |
| Digital Inputs | 1x isolated input from the electronics. +13 to +30V for state "1" -30 to +3V for state "0" Max. input current: 8mA |
| Button | Multiple functions reset button |
| Serial Console | 1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1 |
| Storage | 1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog |

Power Requirements

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|--------------------------|--------------------------------------------------------|
| Operation Voltage | 12-48VDC, redundant dual inputs |
| Connection | 1x removable 4-contact terminal block |
| Power Consumption | 0.66A@24VDC |
| Protection | Overload Current Protected, Reverse Polarity Protected |

Mechanical Construction

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|-------------------------|-----------------------|
| Enclosure | Aluminum |
| Protection Class | IP30 |
| Dimensions | 72x145x118 mm (WxHxD) |
| Weight | 0.87 kg |

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|-----------------|------------------------------------------------|
| Mounting | DIN-Rail Mounting, Optional Wall Mounting Kits |
|-----------------|------------------------------------------------|

Environmental Limits

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|----------------------------------|---------------------------------------------------------------------------------|
| Operating Temperature | Standard: -10°C ~ 60°C (14°F ~ 140°F) Extended: -40°C ~ 75°C (-40°F ~ 167°F) |
| Storage Temperature | -40°C ~ 85°C (-40°F ~ 185°F) |
| Ambient Relative Humidity | 5 to 95%, (Non-Condensing) |

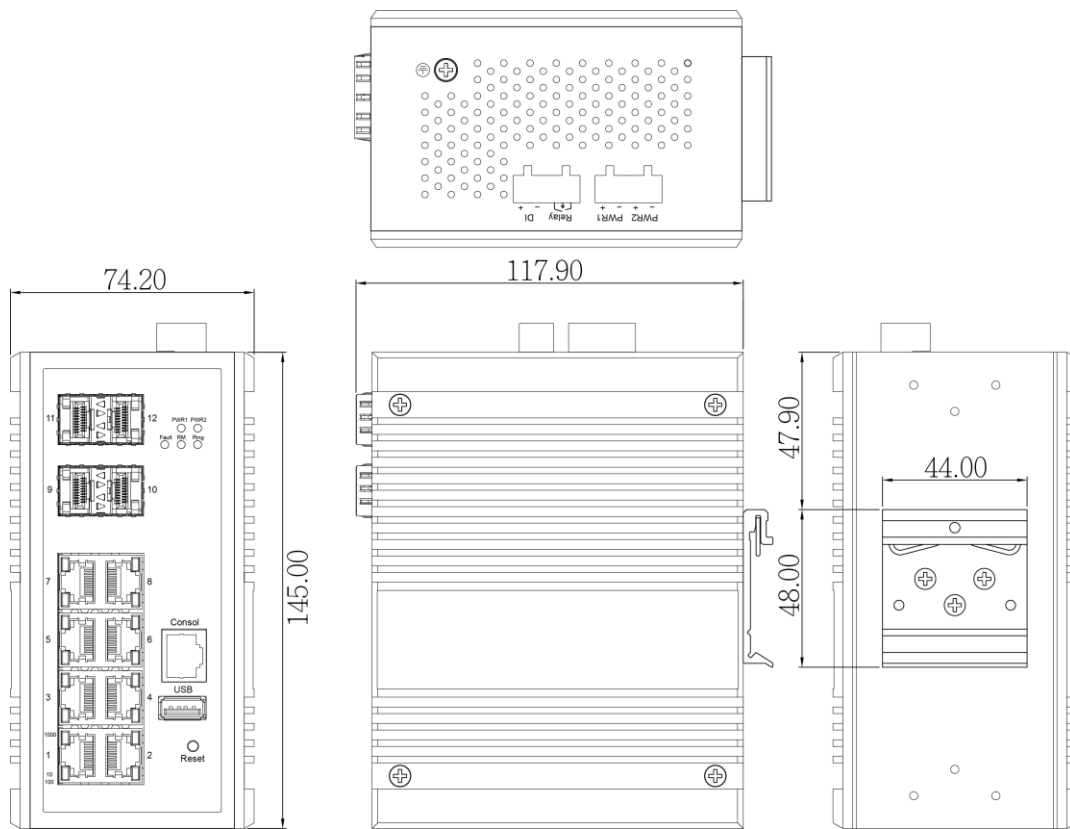
Regulatory Approvals

| | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| EMI | FCC Part 15 Subpart B Class A CE EN 55032 Class A |
| EMS | IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field) |
| Free Fall | IEC60068-2-32 |
| Shock | IEC60068-2-27 |
| Vibration | IEC60068-2-6 |
| Green | RoHS Compliant |
| Certifications | UL 60950-1/62368 (Pending) IEC 61000-6-2 IEC 61000-6-4 EN 50121-4 |
| MTBF | >100,000 hours |
| Warranty | 5 Years |

Features with star(*) implies those are under development.

In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

Dimensions (unit = mm)



Ordering Information

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|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MS-0804X | 8+4 Port Industrial Managed Ethernet Switch with 10G Uplink - 8x 10/100/1000T(x) + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -10°C ~ 60°C (14°F ~ 140°F) |
| MS-0804X-T | 8+4 Port Industrial Managed Ethernet Switch with 10G Uplink - 8x 10/100/1000T(x) + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) |

Optional Accessories

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|------------------|----------------------------------------------------------|
| NDR-75-24 | 75W Industrial DIN-Rail Power Supply, 24VDC (metal case) |
| NDR-75-48 | 75W Industrial DIN-Rail Power Supply, 48VDC (metal case) |