

# MS-2404X

## 24+4 Port Industrial Managed Ethernet Switch with 10G Uplink



- 24x Gigabit Ethernet ports
- 4x 1/10 Gigabit Ethernet SFP+ Slot
- Built for harsh environments and wide temperature range application
- RSTP, MSTP, ERPS, 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  
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** 128Gbps

**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, 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** 24x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X

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

**LED Indicators** Per unit: PWR1, PWR2(AC2/DC2), Fault,

Ring Master, Ring State  
**Ports:** Link/Active with highest speed(Green), low speed(Amber)

<b>Alarm Contact</b>	1x relay output with current carrying capacity of 1A @ 24 VDC
<b>Digital Inputs</b>	1x isolated input from the electronics. +13 to +30V for state "1" -30 to +3V for state "0" Max. input current: 8mA
<b>Button</b>	Multiple functions reset button
<b>Serial Console</b>	1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1
<b>Storage</b>	1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog

### Power Requirements

<b>Operation Voltage</b>	100~240VAC, 48VDC for "-2DC", 12VDC for "-AD", redundant dual inputs
<b>Connection</b>	AC socket, DC 4-pin terminal block
<b>Power Consumption</b>	0.38A@110VAC; 0.39A@48VDC; 1.55A@12VDC
<b>Protection</b>	Overload Current Protected, Reverse Polarity Protected

### Mechanical Construction

<b>Enclosure</b>	Aluminum / Steel metal
<b>Protection Class</b>	IP30
<b>Dimensions</b>	440x44x331 mm (WxHxD)

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.

**Weight** 6.00 kg

**Mounting** Rack Mounting

### Environmental Limits

**Operating Temperature** Extended: -40°C ~ 75°C (-40°F ~ 167°F)  
For 10G SFP+: -40 ~ 60°C (32°F ~ 140°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** IEC61373

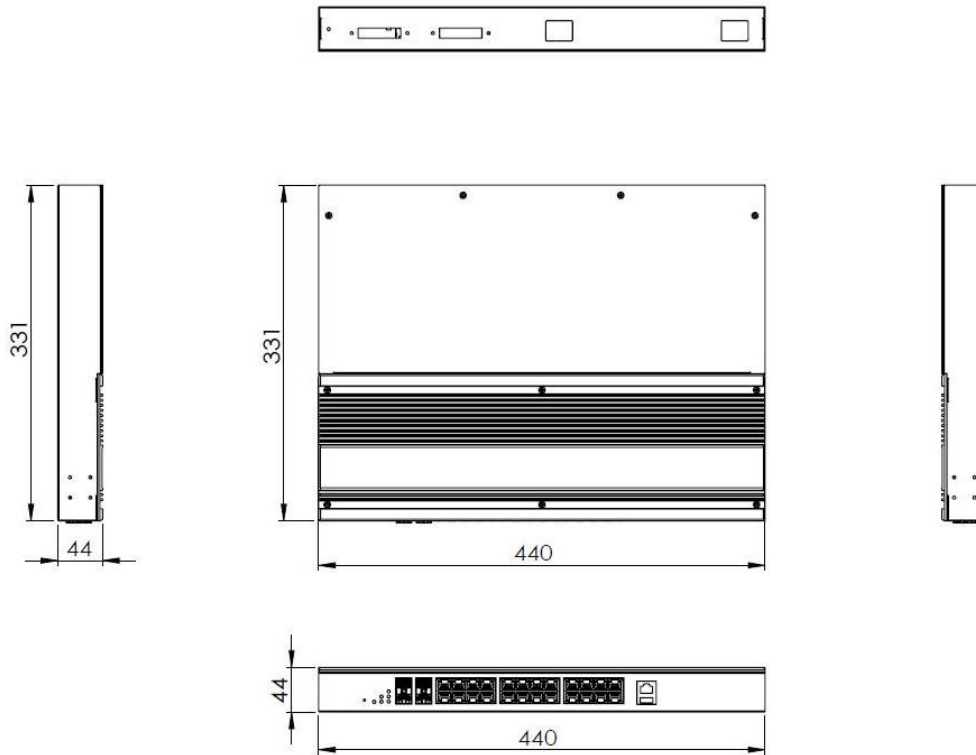
**Vibration** IEC61373

**Green** RoHS Compliant

**MTBF** >100,000 hours

**Warranty** 5 Years

## Dimensions (unit = mm)



## Ordering Information

<b>MS-2404X-1AC</b>	24+4 Port Industrial Managed Ethernet Switch with 10G Uplink - 24x 10/100/1000T(x) + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - 1x 90~264VAC Power Input
<b>MS-2404X-AD</b>	24+4 Port Industrial Managed Ethernet Switch with 10G Uplink - 24x 10/100/1000T(x) + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - 1x 90~264VAC Power and 1x 12VDC Power Input
<b>MS-2404X-DC</b>	24+4 Port Industrial Managed Ethernet Switch with 10G Uplink - 24x 10/100/1000T(x) + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - 2x 48VDC Robust Isolation Power Input

## Optional Accessories

<b>NDR-75-24</b>	75W Industrial DIN-Rail Power Supply, 24VDC (metal case)
<b>NDR-75-48</b>	75W Industrial DIN-Rail Power Supply, 48VDC (metal case)