

MS-1000G-M12

10 Port M12 Industrial Managed Gigabit Ethernet Router



- Compliant with EN50155
- 8x 10/100T(x) M12 connector with IEEE 802.3at PoE+
- 2x 10/100/1000T(x) M12 connector with relay bypass
- Support Bypass function for non-stop communication even when no power exists
- 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
- Supports industrial automation protocols Ethernet/IP and Modbus TCP
- Supports PoE PD Alive Check Function for PoE Device Power Recycle
- Isolated redundant PoE power 190W

Specifications

Technology

Standard

IEEE 802.3 10BaseT
IEEE 802.3u 100BaseTX
IEEE 802.3ab 1000BaseT
IEEE 802.3x Flow Control
IEEE 802.3az Energy-Efficient Ethernet

IEEE 802.3af Power over Ethernet
IEEE 802.3at PoE+
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

Processing Type

Store and Forward

Switch properties

Priority Queues 8 Queues

Jumbo Frame 9216bytes

MAC Table Size 16K

Packet Buffer 12Mbits

VLAN Table Size 4094

IGMP 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

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

PoE Powering Status, PoE Monitoring, Scheduling, PD Alive Check

Industrial Profiles Ethernet/IP, Modbus TCP, Profinet

L3 Routing NAT

Interface

Network Connector	10x 10/100/1000T(x) M12 Female X-coded 8-pole with 8x PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X	LED Indicators	Per unit: PWR1, PWR2, Fault, Ring Master, Ring State Ports: Link/Active with highest speed(Green), low speed(Amber) PoE: Output Power
Alarm Contact	1x relay output with current carrying capacity of 1A @ 24 VDC	Serial Console	1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1

Power Requirements

Operation Voltage	24VDC, 48VDC, HV: 72-110VDC, redundant dual inputs	Protection	Overload Current Protected, Reverse Polarity Protected
Connection	M12 Male S-coded 4-pole	PoE Power Budget	Max. 30 W per PoE port. Max. total output power for PD: 190W@24V input.
Power Consumption	15W without PDs' consumption		

Mechanical Construction

Enclosure	SECC	Weight	2.16 kg
Protection Class	IP40/IP54(Optional)	Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits
Dimensions	143x209x77 mm (WxHxD)		

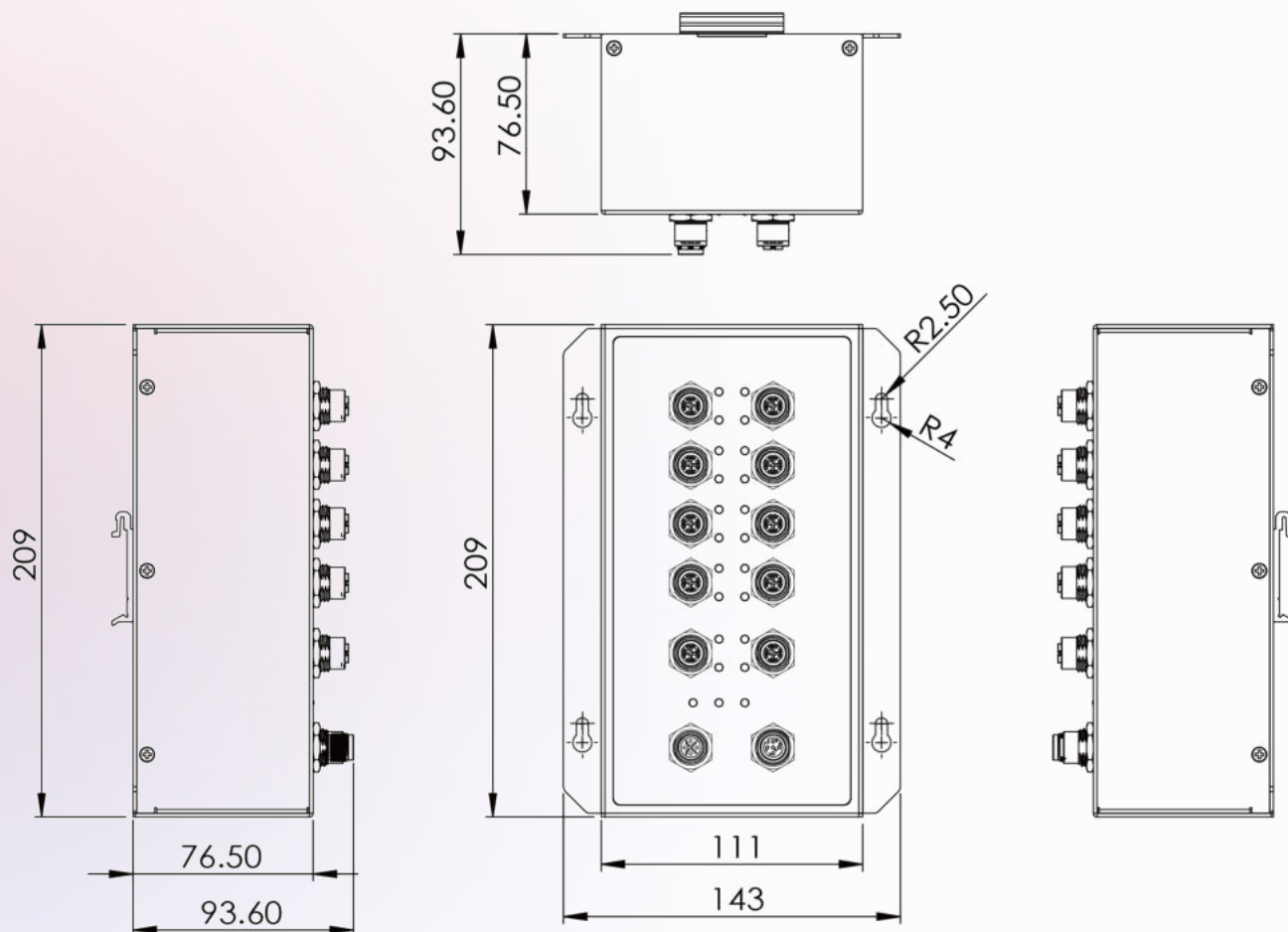
Environmental Limits

Operating Temperature	Extended: -40°C ~ 75°C (-40°F ~ 167°F) For 10G SFP+: -40 ~ 60°C (32°F ~ 140°F)	Ambient Relative Humidity	5 to 95%, (Non-Condensing)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)		

Regulatory Approvals

EMI	FCC Part 15 Subpart B Class A CE EN 55032 Class A	Shock	IEC60068-2-27
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)	Vibration	IEC60068-2-6
Free Fall	IEC60068-2-32	Green	RoHS Compliant
		Certifications	UL 62368 (Optional) EN 50155 EN 45545-2
		MTBF	>100,000 hours
		Warranty	5 Years

Dimensions (unit = mm)



Ordering Information

Available Models

MS-1000G-M12-LVU-T 10 Port M12 Industrial Managed Gigabit Ethernet Switch

- 10x 10/100/1000T(x) M12 connector
- Power Input: 24~48VDC
- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)
- Protection Class: IP40
- UL Compliant

MS-1000G-M12-HVU-T 10 Port M12 Industrial Managed Gigabit Ethernet Switch

- 10x 10/100/1000T(x) M12 connector
- Power Input: 72~110VDC
- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)
- Protection Class: IP40
- UL Compliant

MS-1000G-M12-LVU-WT 10 Port M12 Industrial Managed Gigabit Ethernet Switch

- 10x 10/100/1000T(x) M12 connector
- Power Input: 24~48VDC
- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)
- Protection Class: IP54
- UL Compliant

MS-1000G-M12-HVU-WT 10 Port M12 Industrial Managed Gigabit Ethernet Switch

- 10x 10/100/1000T(x) M12 connector
- Power Input: 72~110VDC
- Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)
- Protection Class: IP54
- UL Compliant

Optional Accessories

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

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