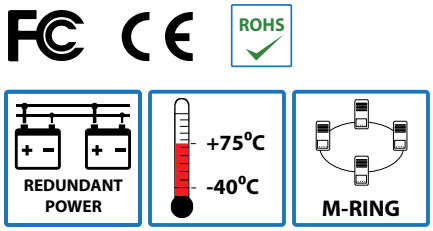
MS8FT8 / MS8FT6 | DigiNET

MANAGED ETHERNET SWITCH

Hardened 8-port Managed Ethernet Switch, Standard and C1D2/ATEX Zone 2 compliant models



FEATURES

- C1D2 and ATEX Zone 2 compliant with harsh industrial environments applications
- World's fastest Redundant Ethernet Ring: M-Ring (recovery time <10ms over 250 units of connection)
- Open-Ring support the other vendor's ring technology in open architecture
- M-Chain allow multiple redundant network rings
- Support standard IEC 62439-2 MRP (Media Redundancy Protocol) function
- STP/RSTP/MSTP supported
- Supports Auto Negotiation Speed
- Support PTP Client (Precision Time Protocol) clock synchronization
- Support Modbus/TCP protocol
- IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- Port Trunking for easy of bandwidth management
- SNMP v1/v2c/v3 support for secured network management
- RMON for traffic monitoring
- Support LLDP protocol
- Port lock to prevent access from unauthorized MAC address
- Event notification through Syslog, Email and SNMP trap
- Windows utility (SmartVision) support centralized management and configurable by Web-based ,Telnet, Console(CLI)
- Completely combination of 10/100Base-T(X), 100Base-FX, 1000Base-T, 1000Base-SX, and 1000Base-LX ports
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

DESCRIPTION

MS8FT8 / MS8FT6 series are managed Redundant Ring Ethernet switches with 6x10/100Base-T(X) and 2x10/100Base-T(X), 100Base-FX, 1000Base-T, 1000Base-SX or 1000Base-LX ports which is specifically designed for hazardous locations requirement.

These systems are available as Standard (non-ATEX) models and the C1D2/ATEX Zone 2 certified models.

With completely support of Ethernet Redundancy protocol, M-Ring (recovery time < 10ms over 250 units of connection), Open-Ring, M-Chain, MRP and MSTP/RSTP/STP (IEEE 802.1s/w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. Another Open-Ring technology is also supported which can applied for other vendor's proprietary ring. M-Chain is the revolutionary network redundancy technology that provides the add-on network redundancy topology for any backbone network, M-Chain allows multiple redundant network rings of different redundancy protocols to join and function together as a larger and more robust compound network topology. M-Chain providing ease of use while maximizing fault-recovery swiftness, flexibility, compatibility, and cost-effectiveness in one set of network redundancy topology. MS8FT8 / MS8FT6 series can be managed centralized and convenient by a powerful windows utility — SmartVision. In addition, the wide operating temperature range from -40 to 75°C can satisfy most of operating environment. Therefore, the switch is one of the most reliable choice for highly-managed Fiber Ethernet in hazardous location applications.

SPECIFICATIONS

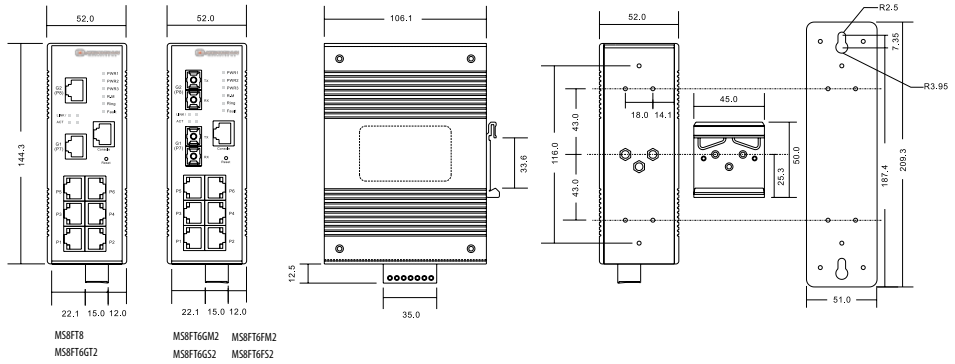
Standard Models		MS8FT8	MS8FT6GT2	MS8FT6FM2	MS8FT6FS2	MS8FT6GM2	MS8FT6GS2
C1D2/ATEX Zone2 Models		MS8FT8-A	MS8FT6GT2-A	MS8FT6FM2-A	MS8FT6FS2-A	MS8FT6GM2-A	MS8FT6GS2-A
Physical Ports							
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX		8	6	6	6	6	6
10/100/1000Base-T(X) Ports in RJ45 Auto MDI/MDIX		-	2	-	-	-	-
Fiber Ports	Fiber Ports Number	-	-	2	2	2	2
	Fiber Ports Standard	-	-	100Base-FX	100Base-FX	1000Base-SX	1000Base-LX
	Fiber Mode	-	-	Multi-mode	Single-mode	Multi-mode	Single-mode
	Fiber Diameter (µm)	-	-	62.5/125 µm 50/125 µm	9/125 µm	62.5/125 µm 50/125 µm	9/125 µm
	Fiber Optical Connector	-	-	SC	SC	SC	SC
	Typical Distance (km)	-	-	2 km	30 km	0.55 km	10 km
	Wavelength (nm)	-	-	1310 nm	1310 nm	850 nm	1310 nm
	Max. Output Optical Power (dBm)	-	-	14 dBm	-8 dBm	-4 dBm	-3 dBm
	Min. Output Optical Power (dBm)	-	-	-23.5 dBm	-15 dBm	-9.5 dBm	-9.5 dBm
	Max. Input Optical Power	-	-	0 dBm	0 dBm	0 dBm	-3 dBm
	Min. Input Optical Power (Sensitivity)	-	-	-31 dBm	-34 dBm	-18 dBm	-20 dBm
	Link Budget (dB)	-	-	7.5 dB	19 dB	8.5 dB	10.5 dB

Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3z for 1000Base-X IEEE 802.3ab for 1000Base-T IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.3x for Flow control IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1x for Authentication
MAC Table	8192 MAC addresses
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switching latency : 7 µs Switching bandwidth : 5.2Gbps Max. Number of Available VLANs : 4096 IGMP multicast groups : 1024 Port rate limiting : User Define
Security Feature	Enable/disable ports, MAC based port security Port based network access control (802.1x) VLAN (802.1q) to segregate and secure network traffic Supports Q-in-Q VLAN for performance & security to expand the VLAN space Radius centralized password management SNMPV1/V2c/V3 encrypted authentication and access security

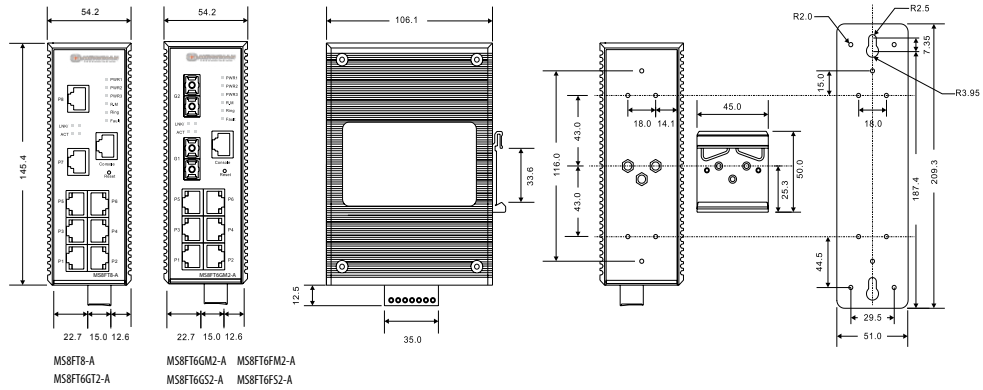
SPECIFICATIONS

Standard Models	MS8FT8	MS8FT6GT2	MS8FT6FM2	MS8FT6FS2	MS8FT6GM2	MS8FT6GS2
C1D2/ATEX Zone2 Models	MS8FT8-A	MS8FT6GT2-A	MS8FT6FM2-A	MS8FT6FS2-A	MS8FT6GM2-A	MS8FT6GS2-A
Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring (M-Ring) with recovery time less than 10ms over 250 units TOS/Diffserv supported Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported IGMP Snooping for multicast filtering Port configuration, status, statistics, monitoring, security SNTP for synchronizing of clocks over network Support PTP Client (Precision Time Protocol) clock synchronization DHCP Server / Client support Port Trunk support MVR (Multicast VLAN Registration) support Modbus TCP						
Network Redundancy	M-Ring Open-Ring M-Chain MRP STP / RSTP / MSTP					
Warning / Monitoring System	Syslog server / client to record and view events Include SMTP for event warning notification via email Event selection support					
RS-232 Serial Console Port	RS-232 in RJ45 connector with console cable. Baud rate setting: 9600bps, 8, N, 1					
LED indicators						
Power Indicator	Green : Power LED x 3					
R.M. Indicator	Green : Indicates that the system is operating in M-Ring Master mode					
Ring Indicator	Green : Indicates that the system is operating in M-Ring mode					
Fault Indicator	Amber : Indicates unexpected events occurred					
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for Duplex/Collision					
10/100/1000Base-T(X) / Fiber Port Indicator	Green for port Link/Act. Amber for Link					
Power						
Redundant Input Power	Triple DC inputs : Dual 12~48VDC on 7-pin terminal block One 12~48VDC on power jack (power jack cannot be used in hazardous location application)					
Power Consumption (Typ.)	5 Watts	8 Watts	9 Watts	9 Watts	7 Watts	7 Watts
Overload Current Protection	Yes					
Reverse polarity protection	Yes - on Terminal block					
Physical Characteristic						
Enclosure	IP-30					
Dimension (W x D x H)	Standard non-ATEX models: 52(W)x106.1(D)x144.3(H) mm (2.05x4.18x5.68 inch.) ATEX models: 54.2(W)x106.1(D)x145.4(H) mm (2.13x4.18x5.73 inch.)					
Weight (g)	710 g	722 g	735 g	735 g	740 g	740 g
Environmental						
Storage Temperature	-40 to 85°C (-40 to 185°F)					
Operating Temperature	-40 to 75°C (-40 to 167°F)					
Operating Humidity	5% to 95% Non-condensing					
Regulatory approvals						
EMI	FCC Part 15, CISPR (EN55022) class A					
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11					
Shock	IEC60068-2-27					
Free Fall	IEC60068-2-32					
Vibration	IEC60068-2-6					
Safety	EN60950, UL508 (E331061) UL/cUL Class 1 Division 2 Group A/B/C/D, ATEX Class 1 Zone 2 (ATEX Models only)					

Standard Models



C1D2/ATEX Zone 2 Models



(Unit=mm)

Ordering Information

Available Models

Standard Models

Model Name	Description
MS8FT8	Hardened 8-port managed Ethernet switch with 8x10/100Base-T(X)
MS8FT6GT2	Hardened 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x10/100/1000Base-T(X)
MS8FT6FM2	Hardened 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, multi-mode, 2Km/1310nm, SC connector
MS8FT6FS2	Hardened 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, single-mode, 30Km/1310nm, SC connector
MS8FT6GM2	Hardened 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-SX, multi-mode, 550m/850nm, SC connector
MS8FT6GS2	Hardened 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-LX, single-mode, 10Km/1310nm, SC connector

C1D2/ATEX Zone 2 Certified Models

Model Name	Description
MS8FT8-A	Hardened C1D2/ATEX Zone 2, 8-port managed Ethernet switch with 8x10/100Base-T(X)
MS8FT6GT2-A	Hardened C1D2/ATEX Zone 2, 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x10/100/1000Base-T(X)
MS8FT6FM2-A	Hardened C1D2/ATEX Zone 2, 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, multi-mode, 2Km/1310nm, SC connector
MS8FT6FS2-A	Hardened C1D2/ATEX Zone 2, 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, single-mode, 30Km/1310nm, SC connector
MS8FT6GM2-A	Hardened C1D2/ATEX Zone 2, 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-SX, multi-mode, 550m/850nm, SC connector
MS8FT6GS2-A	Hardened C1D2/ATEX Zone 2, 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-LX, single-mode, 10Km/1310nm, SC connector

Recommended Power supplies	**PSH48DC40 - 48VDC @ 0.83 Amps (40 Watts)** **PSH24DC24 - 24VDC @ 1 Amp (24 Watts)** **PSH24DC40 - 24VDC @ 1.7 Amps (40 Watts)**
SpectraVISION Software	**Consult factory for pricing and availability**

Packing List			
MS8FT8 / MS8FT6	1	Din-Rail Kit (attached)	1
Wall-Mount Kit	1	M-Ring Tool CD	1
Quick Installation Guide	1	Console Cable	1

MERIDIAN TECHNOLOGIES INC. • 700 ELMONT ROAD, ELMONT, NY 11003 • PHONE 516. 285.1000 • FAX 516. 285. 6300 • E-MAIL SALES@MERIDIAN-TECH.COM • WWW.MERIDIAN-TECH.COM