

# MSM-508



8-Port Industrial Ethernet Layer 2 Managed Switch

## Highlight Information ▶▶▶



### ● Introduction

The MSM-508 is an 8-Port Industrial Ethernet (10/100 Base-TX) Layer 2 Managed Switch. MSM-508 supports 10/100M auto negotiation feature and auto MDI/MDI-X function. It can automatically switch the transmission speed (10 Mbps or 100 Mbps) for corresponding connections. The connectors of Ethernet port are shielded RJ-45. The shielded RJ-45 connectors offer a high reliability Ethernet environment for industrial control and automation.

It can be managed through RS-232 port via serial console or Ethernet port using telnet or Web browser. In addition, the switch supports a lot of powerful managed functions, such as 802.1Q Tag-based VLAN, Port-based VLAN, 802.1p QoS (Quality of Service), Port Trunking, Spanning Tree, Cable Testing and Port Mirroring. Built-in ICP DAS Cyber-Ring technique that enable multiple switches to be placed into a redundant ring. The switch detects and recovers from a fiber or copper link failure within approximately 50 ms – for the majority of applications a seamless process. Modbus/TCP, Modbus/RTU and OPC supported, SCADA application can monitor status of Ethernet port with Modbus or OPC protocol.

MSM-508 provides two power inputs that can be connected simultaneously to live DC power sources. If one of the power inputs fails, the other live source acts as a backup to automatically support the MSM-508's power needs. And, the relay output facility can deliver warning signal while dual power or network link failure.

### ● Features

- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports both 10/100 Mbps speed auto negotiation
- Store-and-forward architecture
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- 3.2 Gbps high performance memory bandwidth
- Frame buffer memory: 1 Mbit
- Integrated look-up engine with dedicated 2048 unicast MAC addresses
- Supports +12 V<sub>DC</sub> ~ +48 V<sub>DC</sub>  
Power failure alarm by relay output
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail mount and Screw hole for wall mounting kit

## ● Specifications

<b>Technology</b>	
Standards	IEEE 802.3, 802.3u and 802.3x
Processing Type	Store & forward, wire speed switching
MAC Addresses	2048
Memory Bandwidth	3.2 Gbps
Frame Buffer Memory	1 Mbit
Flow Control	IEEE 802.3x flow control, back pressure flow control
Protocol	VLAN, QoS, Port Trunk, SMTP, TELNET
<b>Interface</b>	
RJ-45 Ports	10/100 Base-TX auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
LED Indicators	Power, 10/100M, Link/Act, Master
Ethernet Isolation	1500 V <sub>rms</sub> 1 minute
COM1	RS-232 (TXD, RXD and GND): Non-isolation
COM2	RS-485 (D2+, D2-; self-tuner ASIC inside): Non-isolation
Frame Ground for EMS Protection	Yes
<b>Digital Input/Output</b>	
Digital Input	3-channel, Wet Contact, L: +11 V <sub>DC</sub> Max., H: +19 V <sub>DC</sub> ~ +30 V <sub>DC</sub>
Digital Output	3-channel, Open Collector, Sink/NPN, 30V/100 mA Max.
<b>Power</b>	
Input Voltage Range	+12 V <sub>DC</sub> ~ +48 V <sub>DC</sub> (Non-isolation redundant input)
Power Consumption	0.25 A @ 24 V <sub>DC</sub> , +/-5% arrowed with 100M Full duplex
Protection	Power reverse polarity protection
Frame Ground for EMS Protection	Yes
Connection	20-Pin Removable Terminal Block
<b>Mechanical</b>	
Casing	Metal
Environmental Rating	IP30 Protection
Dimensions	47 mm x 128 mm x 175 mm (W x L x H)
Installation	DIN-Rail or Wall mounting
<b>Environmental</b>	
Operating Temperature	-40 °C ~ +75 °C
Storage Temperature	-40 °C ~ +85 °C
Ambient Relative Humidity	10% ~ 90% RH, non-condensing
<b>Include Cable</b>	
CA-090510 x 1	

## LED Functions

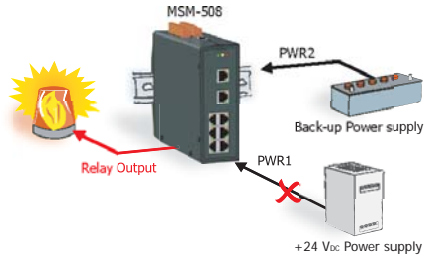
Standard RJ-45 female connectors are provided. A standard RJ-45 plug cable is all that is necessary to connect your device to the unit since switch that supports auto crossover.

MSM-508 Series LED Indicator Functions

LED	Color	Description
Master	Red On	The switch is master of ring network
	Red Off	The switch is slave of ring network
PWR1	Orange On	Power input 1 is alive
	Orange Off	Power input 1 is offline
PWR2	Green On	Power input 2 is alive
	Green Off	Power input 2 is offline
Ethernet Port	Orange On	Link to 100 Mbps
	Orange Off	Link to 10 Mbps
	Green Blink	Data Transmission

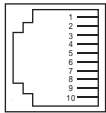
## Redundant Power Inputs

Both power inputs can be connected simultaneously to live DC power sources. If one power source fails, the other live source acts as a backup, and automatically supplies all of MSM-508 power needs.



## Serial Port

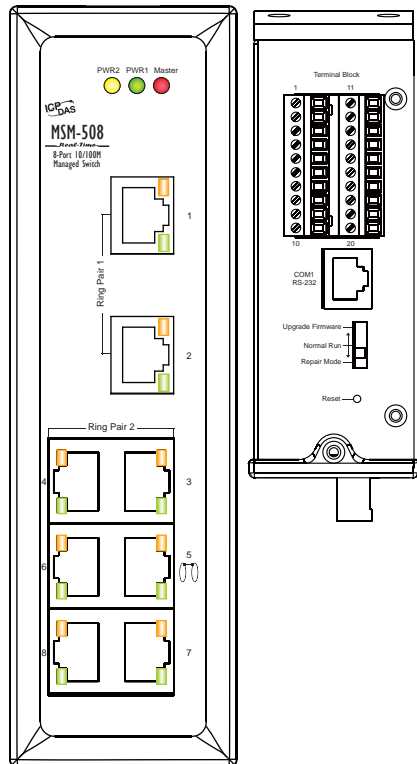
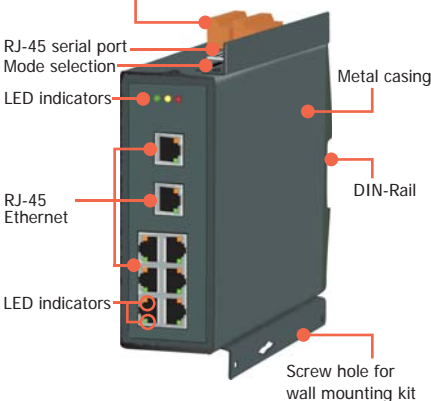
10-Pin RJ-45 Serial Port Pin-Out



Pin#	Signal Name	Function
1	NC	No Connection
2	NC	No Connection
3	NC	No Connection
4	GND	RS-232 Ground
5	TXD	RS-232 TXD
6	RXD	RS-232 RXD
7	NC	No Connection
8	NC	No Connection
9	NC	No Connection
10	NC	No Connection

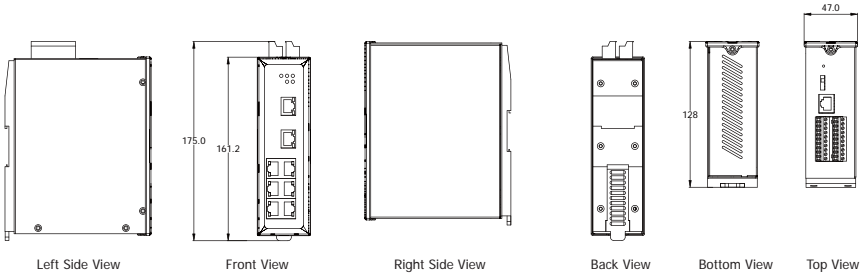
## Appearance

Redundant power inputs  
Relay output, Digital Input/Output, RS-485

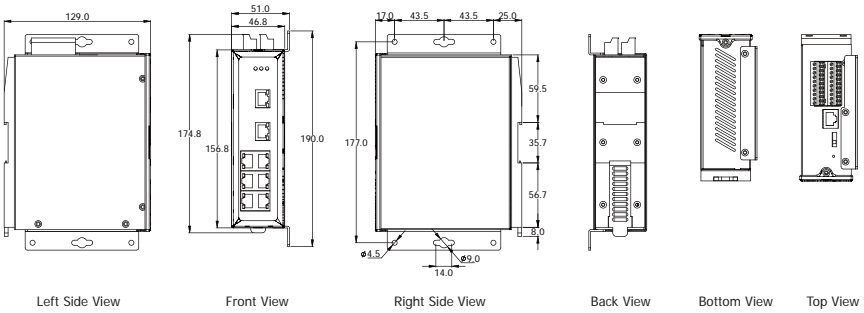


## ● Dimensions (Unit: mm)

### DIN-Rail



### Wall Mounting



## ● Ordering Information

MSM-508 CR	8-Port Layer 2 Managed Switch with Metal Casing (RoHS)
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## ● Accessories

CA-090510	9-Pin Female D-Sub & RJ-45 Cable, 1M Cable
MDR-20-24	24V/1A, 24 W Power Supply with DIN-Rail Mounting
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting