RS-408/RSM-408

8-port Redundant Ring Switch with
Isolated Power Input +10 VDC ~ +30 VDC

Features

- Automatic MDI/MDI-X crossover for plug-and-play
- Store-and-forward architecture
- Each port supports both 10/100 Mbps speed auto negotiation
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- Modbus remote monitoring
- Supports Modbus OPC Server
- Absolutely free of software setting
- Built-in Cyber-Ring redundant technique

Introduction

The RS-408/RSM-408 series is a 8-port Industrial Ethernet (10/100 Base-TX) Real-time Redundant Ring Switch. RS-408/RSM-408 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.

Built-in ICP DAS Cyber-Ring technique enables multiple switches to be placed into a redundant ring. Typically the switch detects and recovers from a copper link failure within approximately 20 ms – for the majority of applications, it is seamless process. The RS-408/RSM-408 series is much more easy to use and absolutely free of software setting. After unpacking the shipping case, it just takes one or two dip or rotary switch to make it work.

RS-408/RSM-408 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 will act as a backup to automatically support the it's power needs. And the relay output facility can deliver warning signal while power or network link failure.

Comparison Table of 8-port Real-time Redundant Ring Switch

Mode Name	RS-408	RSM-408
Input Voltage Range	+10 VDC ~ +30 VDC	
Casing	Plastic	Metal
Installation	DIN-Rail Mounting	DIN-Rail Mounting or Wall Mounting
Dimensions (W x L x H)	64 mm x 118 mm x 98 mm	73 mm x 132 mm x 103 mm

■ Specifications

Model	RS-408	RSM-408
LED Indicators		
Status	Power, 10/100M, Link/Act, Master	
Ethernet		
Ports	8 x RJ-45, 10/100Base-TX	
Standards	IEEE 802.3, IEEE 802.3u, IEEE802.3x	
Processing Type	Store & forward wire speed switching	
MAC Table	2048	
Memory Bandwidth	3.2 Gbps	
Frame Buffer Memory	1 Mbit	
Flow Control	IEEE 802.3x flow control, back pressure flow control	
Protocol	Modbus/RTU, Modbus/TCP	
Redundant Strategy	STP, Ring (ICP DAS)	
Isolation	1500 Vrms 1 minute	
DIP Switch	Yes, 1x Redundancy mode configuration 1x Max. Recovery time selection	
COM Ports		
Ports	1 x RS-232/RS-485	
Power		
Reverse Polarity Protection	Yes	
Input Range	+10 ~ +30 VDC (Isolation,redundant input)	+10 VDC ~ +30 VDC Redundant Dual Inputs (Isolated)
Redundant Power Inputs	Yes	
Consumption	0.3 A @ 24 VDC	
Alarm Output	Yes, Relay 2 A @ 30 VDC	
Mechanical		
Casing	Plastic	Metal
Dimensions (mm)	64 x 118 x 98 (W x L x H)	DIN-rail mounting: 73 x 118 x 103 (W x L x H) Wall mounting: 73 x 132 x 103 (W x L x H)
Installation	DIN-Rail Mounting	DIN-rail mounting or wall mounting
Ingress Protection Rating	-	IP30
Environment		
Operating Temperature	-40 °C ~ + 75 °C	
Storage Temperature	-40 °C ~ + 85 °C	
Humidity	10 ~ 90% RH, non-condensing	

■ DIP/Rotary Switches

SW1: Redundancy mode configuration

	OFF	ON
1	Redundancy Mode	Tradition Mode
2	Normal State	Default Setting
3	Primary Switch	Secondary Switch
4	Ring Protocol	STP Protocol
5	Disable Ring Pair2	Enable Ring Pair2
6	Disable Ring Pair1	Enable Ring Pair1

SW2: Max. Recovery time selection

State	Time	State	Time	State	Time
F	1.5 s	9	900 ms	3	300 ms
E	1.4 s	8	800 ms	2	200 ms
D	1.3 s	7	700 ms	1	100 ms
C	1.2 s	6	600 ms	0	N/A
B	1.1 s	5	500 ms		
A	1.0 s	4	400 ms		

■ Applications

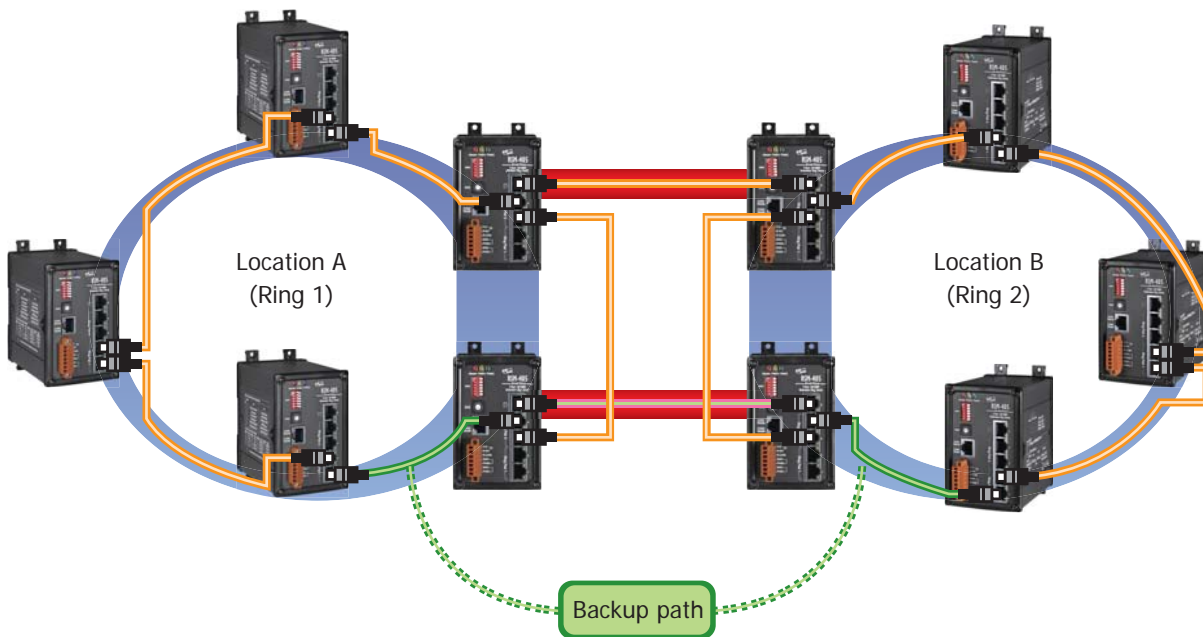**Redundant Power Inputs** ---

Both power inputs can be connected simultaneously to live DC power sources.
If one power source fails, the other live source will act as a backup, and automatically supplies all of RS-408/RSM-408 series power needs.
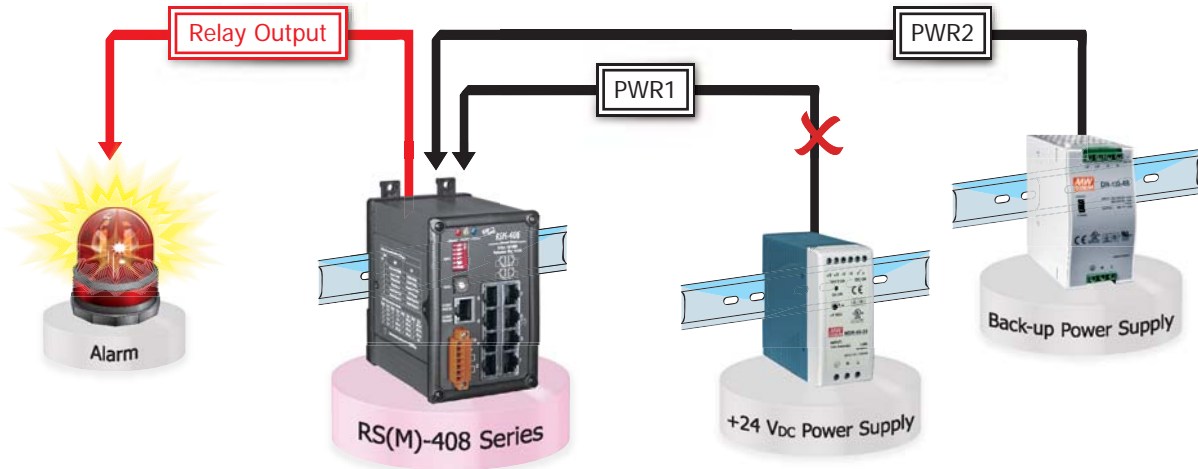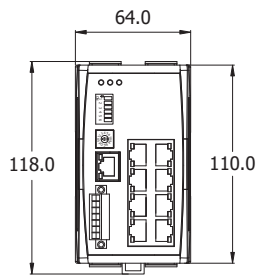

Double Ring Coupling ---

Double Ring Coupling is the enhanced version of Ring Coupling topology. It improves the reliability of Ring Coupling topology. In Double Ring Coupling topology, there are two coupling points providing redundant coupling path of two rings.
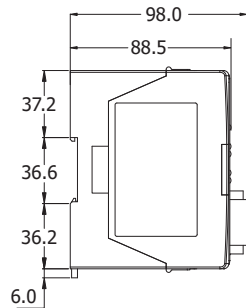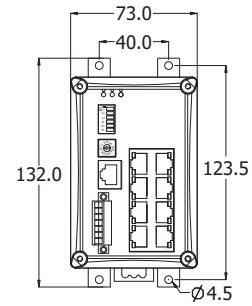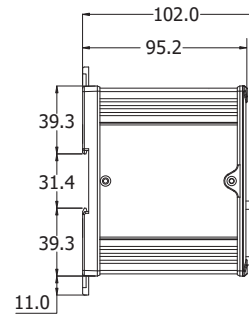
📁 Dimensions (Units: mm)

RS-408	RSM-408

RS-408

64.0

118.0 | 110.0

Front View

98.0
88.5

37.2
36.6
36.2
6.0

Left Side View

RSM-408

73.0
40.0

132.0 | 123.5

Ø4.5

Front View

102.0
95.2

39.3
31.4
39.3
11.0

Left Side View

📁 Ordering Information

RS-408 CR	8-port Redundant Ring Switch with Isolated Power Input +10 VDC ~ +30 VDC (RoHS)
RSM-408 CR	8-port Redundant Ring Switch with Isolated Power Input +10 VDC ~ +30 VDC, metal casing (RoHS) Includes 4SNPNA010021G Wall mount

📁 Accessories

CA-090510 CR	DB9 Female to RJ-45 Cable, 1M (RoHS)