

# RJ Switch

## Harsh Environment Industrial Ethernet Switches

### Sealed, Rugged & Waterproof Switch

Today many applications require the use of rugged and sealed connection solutions for extreme environments. Amphenol offers 8 ports Ethernet Switches that can withstand a variety of extreme conditions. Whatever the situation - high temperatures, extreme shocks & vibrations, dust particles or even liquid immersion there is a solution available. This is an easy way to make the Ethernet networks of your manufacturing site, automation or control units deterministic.

### Amphenol Industrial RJ Switch

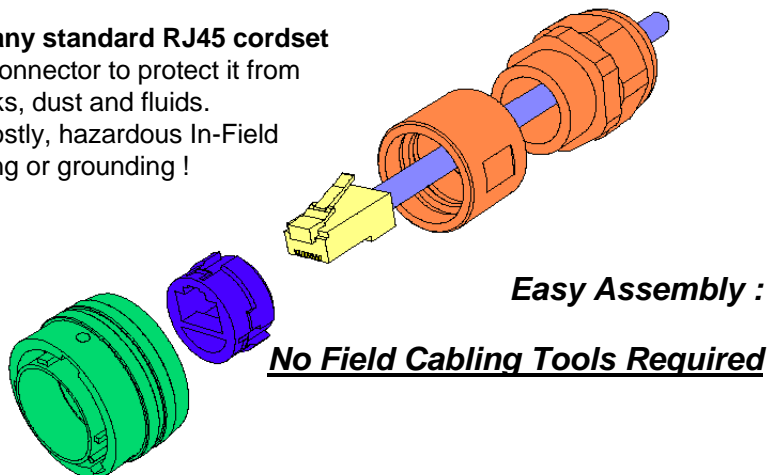
Amphenol offers a wide range of both managed and unmanaged Ethernet switches specifically designed for the harshest of environments. The switch electronics are sealed within a waterproof IP67 plastic enclosure (for highly corrosive environments) or a waterproof IP67 metallic enclosure (suitable for shocks and extreme EMI-RFI environments). The I/O interfaces are waterproof rugged RJ45 connectors from the RJ FIELD product series:

- RJF bayonet coupling, metal shell
- RJF EZ rectangular plastic, quick lever coupling.

### Key Features

✓ **Reduced Installation Costs** with the patented RJStop® system.

Use **any standard RJ45 cordset** in a connector to protect it from shocks, dust and fluids. No costly, hazardous In-Field cabling or grounding !



- ✓ Rugged **Enclosures** in Polyester or Die-Cast Aluminum
- ✓ Proven **Electronics**
- ✓ Wide **Offering of Capabilities:** Either Unmanaged versions or Managed Systems with **Elite Features** including Vlan, QoS, ...
- ✓ Rugged RJ Field **Connectors**
- ✓ Waterproof **IP67** Rating
- ✓ High **EMI & RFI** Protection



**Sealed and Rugged  
Industrial Ethernet  
Switches**

### Industrial Applications

- Factory Automation
- Robotics
- Process Control
- Transportation Systems
- Data Acquisition & Transmission

# Managed & Unmanaged Switch Features

## IEEE Ethernet Standards

		802.3	802.3u	802.3x	802.1D	802.1W	802.1Q	802.1p
RJS xx 308	Unmanaged	✓	✓	✓				
RJS xx 6008	Managed	✓	✓	✓	✓			
RJS xx 508	Managed Elite	✓	✓	✓	✓	✓	✓	✓

xx : Enclosure Type - See Page 4

## Regulatory Approvals

EMI:	EN55022 class A
EMS:	EN61000-4-2 to EN61000-4-5, EN61000-4-8
Shocks:	IEC60068-2-27 (Pending)
Vibrations:	IEC60068-2-6 (Pending)
Free Fall:	IEC60068-2-32 (Pending)
Hazardous Location:	UL/CSA 60079-15, EN50021 Class1, Div. 2 / Zone 2 (Pending)

## Power Supply

Redundant 24 VDC Input	12 – 48 VDC for Unmanaged (308) & Managed Elite (508) versions 9 – 32 VDC for Managed (6008) versions
Current Consumption	350 mA at 24 VDC
Reverse Polarity Protection	
Protection Against Current Overload:	
	1.1A Unmanaged Switch Version (308)
	2.5A Managed Switch Version (6008)
	1.6A Managed Elite Switch Version (508)

## Ethernet Ports

8 Ports 10/100 Base T(X)  
Full / Half Duplex  
Automatic MDI / MDIX connection

## Temperature

Operating Temperature Range:	Standard versions	0°C to +60°C
	Extreme Rugged versions	- 40°C to +75°C
Storage Temperature:	All Versions	- 40°C to +85°C

## Alarm

Relay Watchdog Output (1A at 24 VDC) in case of port disruption or power failures.  
Elite version offers 2 installed relays

## Managed Switch

### Features (6008 Version)

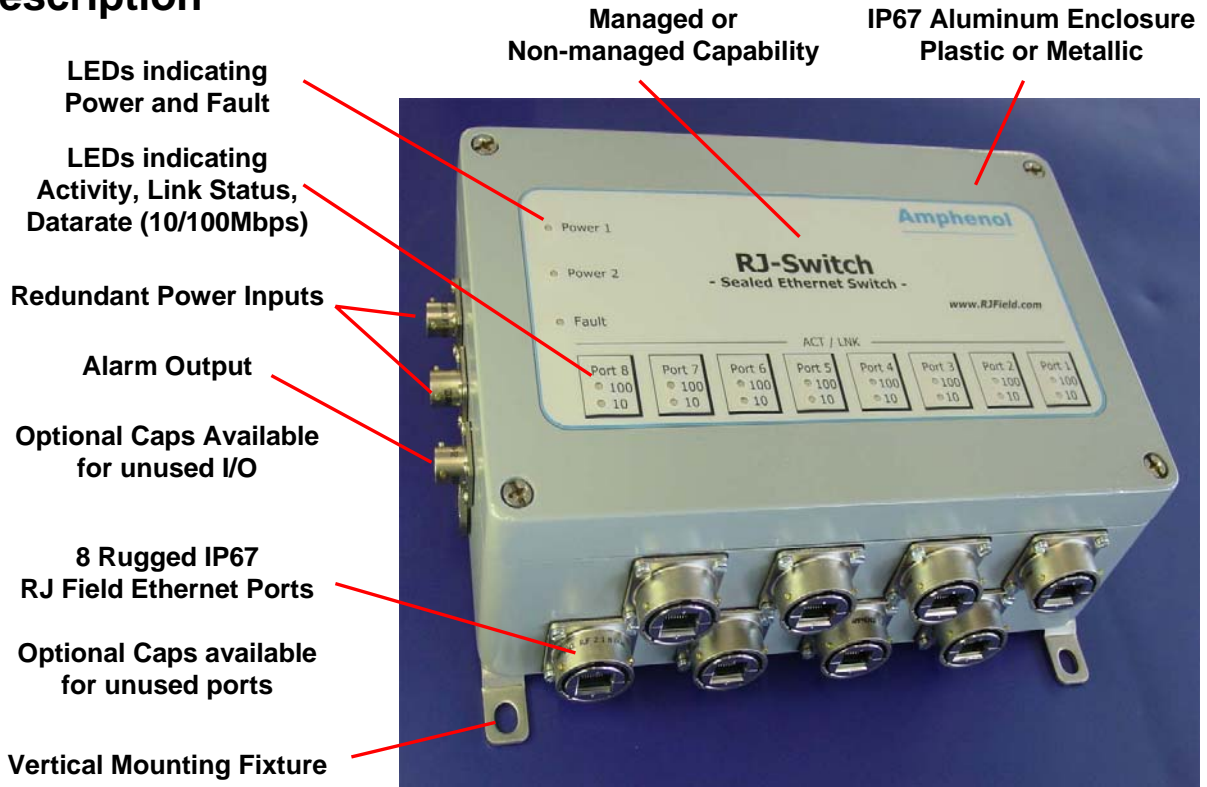
- Fast Redundant Ring Topology (Recovery time < 300 ms)
- Automatic Alarm via Relay Output or E-mail (Configuration defined by System Manager)
- Management via Web Interface or Telnet Interface
- Network Parameter Management
- Port Mirroring
- Ping Command controls Segment Integrity

## Elite Managed Switch

### Added Features (508 Version)

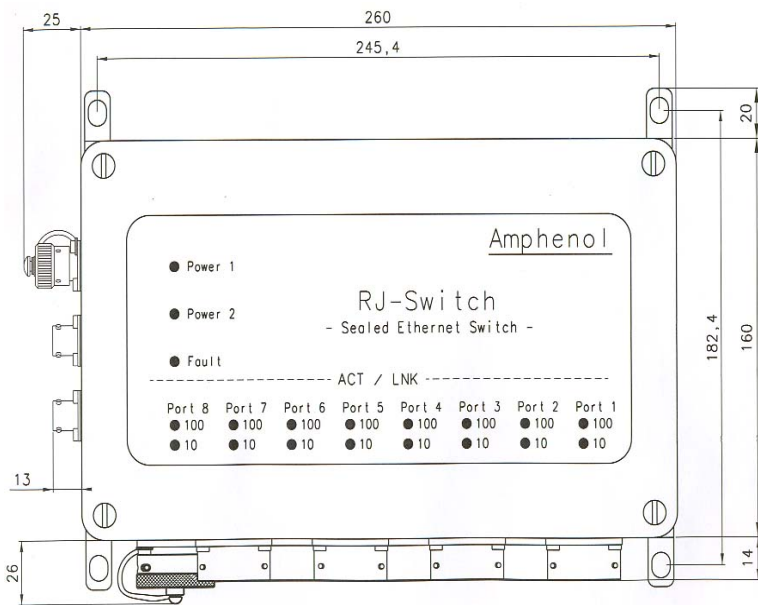
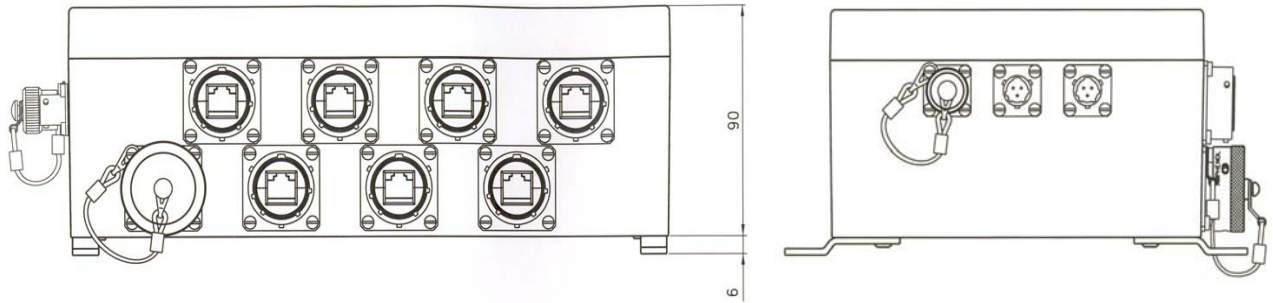
- All Basic Managed Features Included
- IGMP Snooping
- IEEE 802.1Q VLAN
- IEEE 802.1P/1Q Quality of Service
- Port Lock
- 2 Digital Inputs
  - Electrical Isolation from Electronics
  - 8 mA Maximum Current Input
  - Low state: - 30 to + 3 V
  - High state: +13 to + 30 V

# Description

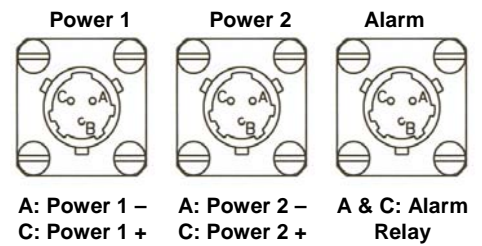


# Dimensions (mm)

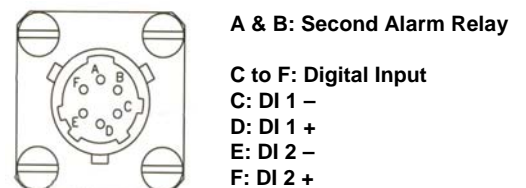
Industrial Aluminum AL Enclosure



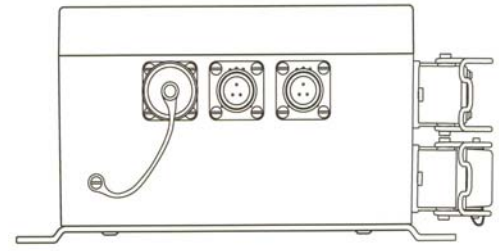
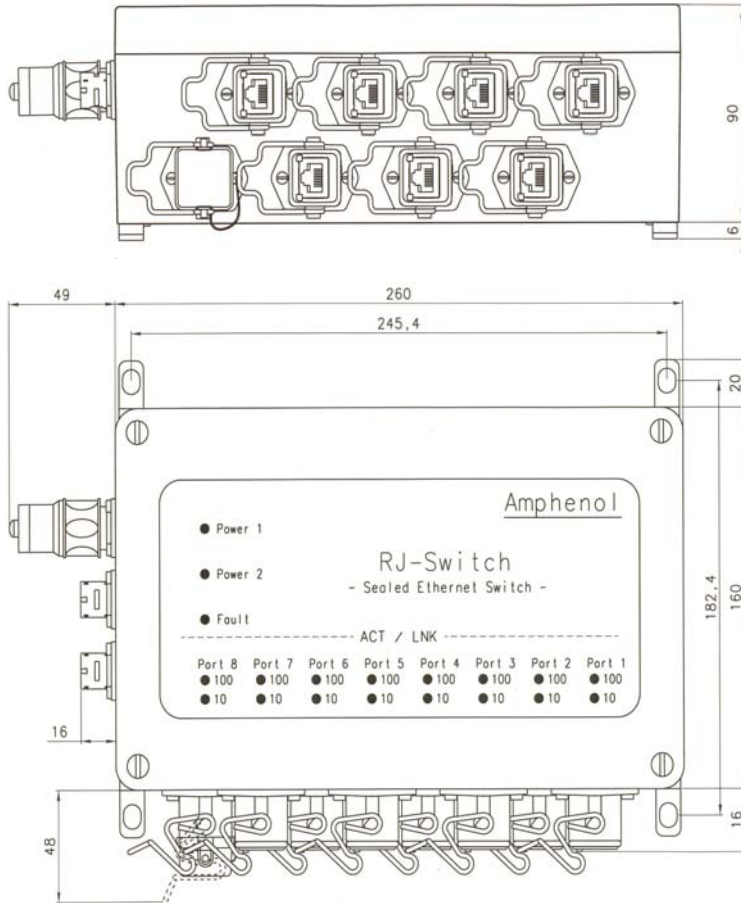
## Pin-Out for Aluminum AL Versions



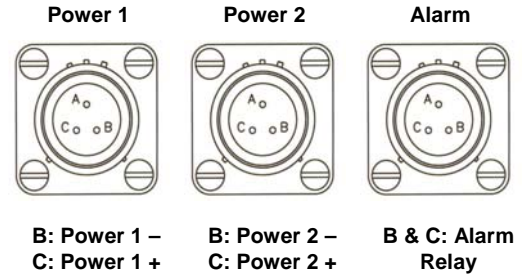
## Additional Connector for RJS AL 508 Elite version



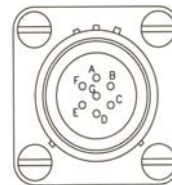
## Dimensions for Industrial PC Switch (Polyester Enclosure)



### Pin-out for Polyester PC Versions



### Additional Connector for RJS PC 508 Elite Version



A & B: Second Alarm Relay  
C to F: Digital Input  
C: DI 1 -  
D: DI 1 +  
E: DI 2 -  
F: DI 2 +

## Part Numbers

Series	RJS	PC	308	-	-
RJ-Switch					
Type of Enclosure					
PC : Grey plastic RAL 7000 with EZ Field Receptacles					
AL : Grey aluminium RAL 7001 paint with RJ Field receptacles					
Type of Electronics					
308 : Unmanaged 8 ports 10/100 Base T(X)					
6008 : Managed 8 ports 10/100 Base T(X)					
508 : Managed 8 ports 10/100 Base T(X) with Elite Features					
Type of Operating Temperature					
Blank : 0°C to 75°C					
T : - 40°C to 75°C					
Accessories: Caps for receptacles - fixed with string directly to the receptacle					
Blank : No caps included					
Caps : Attached caps for both power and data included					

**Example:** Managed, aluminum enclosure with 8 Ethernet ports (10/100BaseT(X), RJ Field bayonet coupling receptacles, extreme operating temperature and caps added to the switch:

**RJS AL 6008 T CAPS**

## Accessories

### Plugs for PC plastic Enclosures

Plugs for Power 1 & 2 and Alarm ports

**RJS PC Power Plug**

Plugs for I/O, for RJS-PC-508 only

**RJS PC I/O Plug**

Plugs for Ethernet ports

**RJF EZ 6**

*No tool required !!!*



### Plugs for AL Aluminum Enclosures

Plugs for Power 1 & 2 and Alarm ports

**RJS AL Power Plug**

Plugs for I/O, for RJS-AL-508 only

**RJS AL I/O Plug**

Plugs for Ethernet ports

**RJF 6 N**

*No tool required !!!*

