

RJ Switch

Industrial Ethernet Unmanaged Switch in a slim packaging



Industrial Rugged Ethernet Switch

Amphenol proposes a full range of Rugged Ethernet switches for industrial use. Those switches are specifically designed for industrial applications where Real-Time is a key requirement. The wide range, from unmanaged Plug & Play switches to managed with fiber optics ports, will fulfill to all your needs. This family of switches, IP30 rated, is provided in a slim packaging suitable for both Din-Rail or flat panel mounting.

This is an easy way to make the Ethernet networks of your manufacturing site, automation or control units deterministic.

Two models of those Unmanaged Ethernet Switch are offered:

- 5 ports including 1 ST multimode fiber optic port.
- 9 ports including 3 ST multimode fiber optic ports.

Key Features

- ✓ Slim packaging to fit on DIN rail
- ✓ Redundant power inputs with surge/spike protection
- ✓ Ultra reliable **1,000,000 hours MTBF**
- ✓ Hazardous location: operation in Zone 2
- ✓ **Wide operating temperature range of -40°C to 75°C**
- ✓ Auto-sensing for speed and duplex
- ✓ Auto-crossover and auto-polarity
- ✓ Full-Duplex operation with flow control (no collisions!)



**Industrial
Ethernet Switches**

Industrial Applications

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

Unmanaged Switch Features



IEEE Ethernet Standards

All IEEE 802.3 /u	10 Mbps Ethernet and 100 Mbps Fast Ethernet
All IEEE 802.3x	Full-Duplex with Flow Control

Regulatory Approvals

EMI emissions	EN55022, FCC part 15, ICES-003
EMC immunity:	IEC61326-1, IEEE C37.90
Shocks:	IEC60068-2-27
Vibrations:	IEC60068-2-6
Free Fall:	IEC60068-2-32
Hazardous Location:	UL1604, CSA C22.2/213 (Class 1, Div. 2), EN50021/Zone 2

Ethernet features

RJ45 ports	Shielded RJ45 ports 10/100BaseTX
Fiber optic ports	ST connectors Data rate 100BaseFX (100Mbps) Wavelength 1300 nm center Fiber multimode (mm) optimal: 62.5/125 um Fiber max distance (Full duplex): 2km
Ethernet switch type	Intelligent store & forward
Full / Half Duplex	Configurable
RJ45 speed	10 or 100 Mbps auto-negotiation
RJ45 MDI/MDIX	Auto-crossover connection
RJ45 TD and RD polarity	Auto-polarity
Typical latency	16 us + frame time @ 10 Mbps (varies on load and settings) 5 us + frame time @ 100 Mbps
MAC addresses supported	1024
Memory bandwidth	3.2 Gbps
Ethernet isolation	1500 VRMS 1 minute

Power Supply

Redundant Inputs	10 – 30 VDC
Input Power	3 W (5 ports with 1 FO) – typical, all ports active at 100 Mbps 6 W (9 ports with 3 FO) – typical, all ports active at 100 Mbps
Transient Protection	15 KW peaks
Spike Protection	5 KW (10 times for 10 uS)

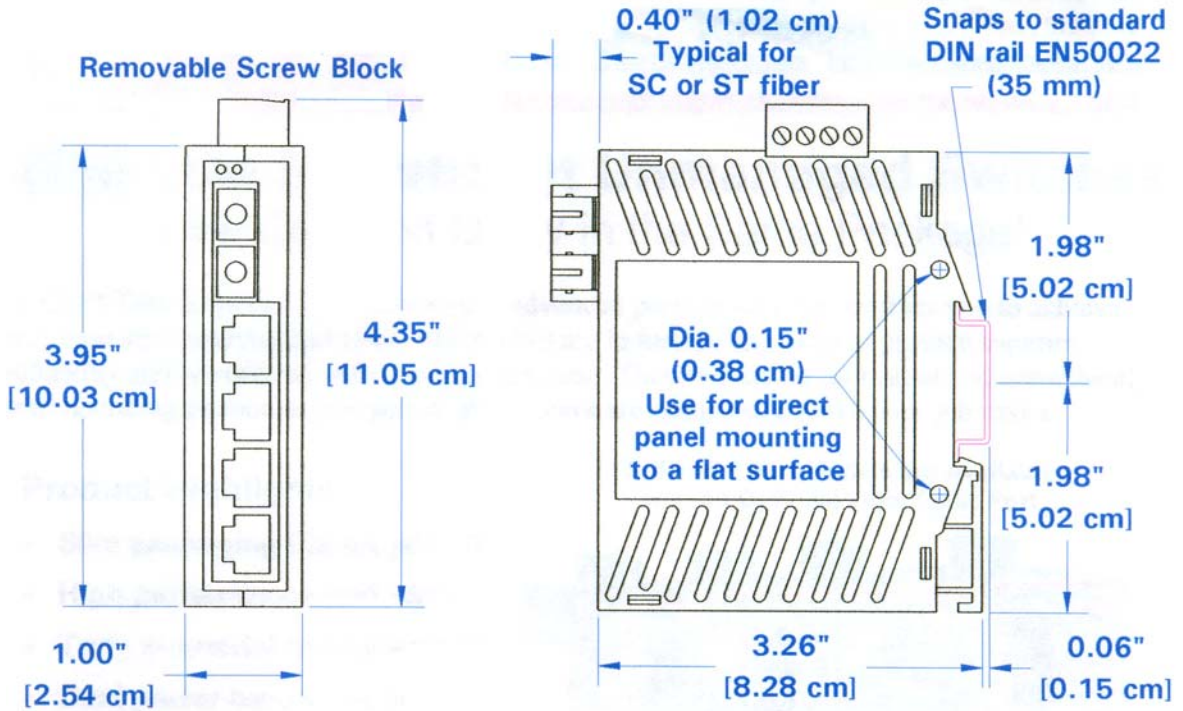
Temperature

Operating Temperature	- 40°C to +75°C
Storage Temperature	- 40°C to +75°C

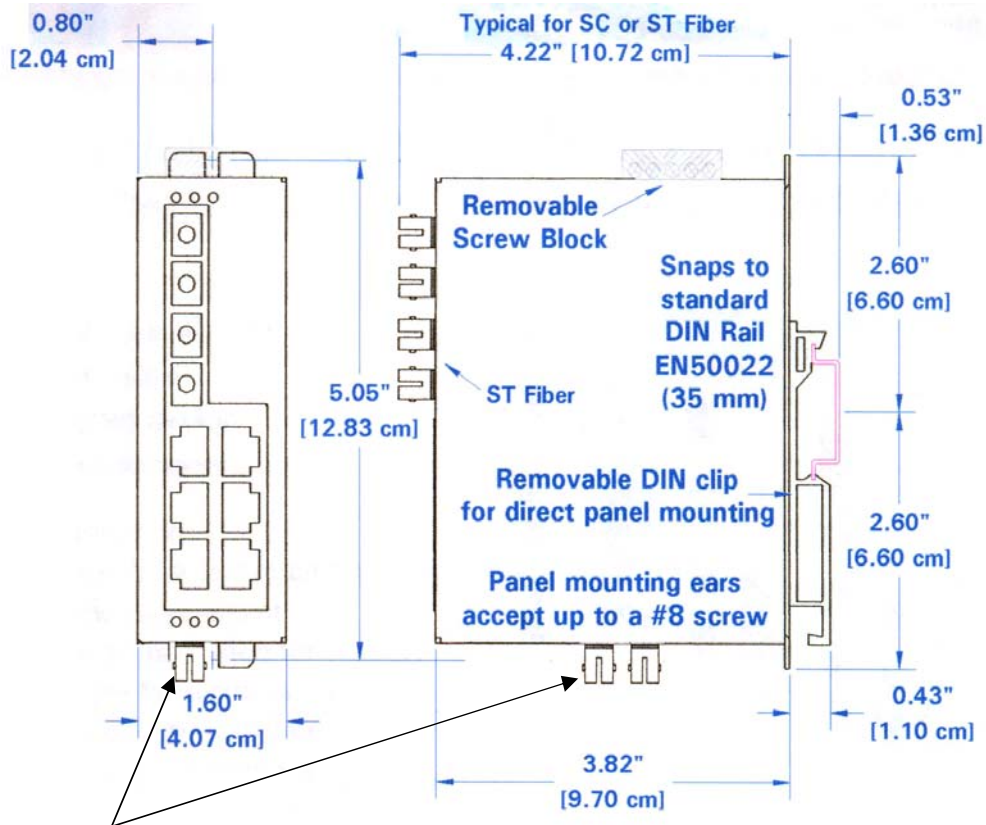
Packaging

Protection	IP30
Material	ABS for 5 ports model Aluminum for 9 ports model

Dimensions



Mechanical dimensions for 5 Ports Unmanaged Models with 1 fiber port

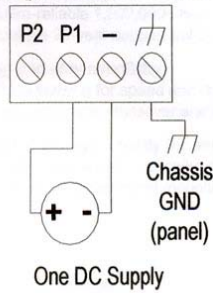


The position of the third fiber port is preliminary

Mechanical dimensions for 9 Ports Unmanaged Models with 3 fiber port

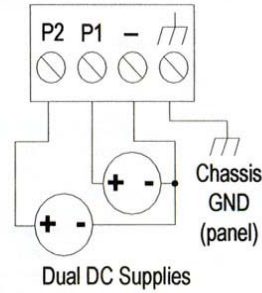
Power and alarm wiring

Single DC Power



One DC Supply

Redundant DC Power



Dual DC Supplies

Optional mounting positions for the 9 ports model



Snap On DIN rail



Vertical Direct to Panel

Part Numbers

Series	RJS-SLX	5ES
RJ-Switch in a Slim package		
Type of Electronics		
5ES-2ST : Ethernet Unmanaged switch, 5 ports (4 RJ45 + 1 fiber port ST multimode)		
9ES-6ST : Ethernet Unmanaged switch, 9 ports (6 RJ45 + 3 fiber ports ST multimode)		

A complete range of IP67 sealed Industrial Ethernet switches

Amphenol proposes the widest range of IP67 sealed Industrial Ethernet switches for very harsh environments. The Ethernet interfaces are waterproof & rugged RJ45 connectors from the RJ FIELD series.

Consult our dedicated website for more information: www.rjswitch.com



RJS-PC5 series

- ✓ 5 ports IP67 RJ45 connectors
- ✓ polyester enclosure
- ✓ Ring or unmanaged models



RJS-AL series

- ✓ 8 ports IP67 RJ45 connectors
- ✓ aluminum enclosure
- ✓ Managed or unmanaged models



RJS-PC series

- ✓ 8 ports IP67 RJ45 connectors
- ✓ polyester enclosure
- ✓ Managed or unmanaged models