

SDS-3008 Series

Industrial 8-port smart Ethernet switches



Features and Benefits

- Compact and flexible housing design to fit into confined spaces
- Web-based GUI for easy device configuration and management
- Port diagnostics with statistics to detect and prevent issues
- Multi-language web GUI: English, Traditional Chinese, Simplified Chinese, Japanese, German, and French
- Supports RSTP/STP for network redundancy
- Supports MRP client redundancy based on IEC 62439-2 to ensure high network availability
- EtherNet/IP, PROFINET, and Modbus TCP industrial protocols supported for easy integration and monitoring in automation HMI/SCADA systems
- IP port binding to ensure critical devices can be replaced quickly without reassigning the IP Address
- Security features based on IEC 62443

Certifications



Introduction

The SDS-3008 smart Ethernet switch is the ideal product for IA engineers and automation machine builders to make their networks compatible with the vision of Industry 4.0. By breathing life into machines and control cabinets, the smart switch simplifies daily tasks with its easy configuration and easy installation. In addition, it is monitorable and is easy to maintain throughout the entire product life cycle.

The most frequently used automation protocols—including EtherNet/IP, PROFINET, and Modbus TCP—are embedded in the SDS-3008 switch to provide enhanced operational performance and flexibility by making it controllable and visible from automation HMIs. It also supports a range of useful management functions, including IEEE 802.1Q VLAN, port mirroring, SNMP, warning by relay, and a multi-language Web GUI.

Additional Features and Benefits

- Supports IEEE 802.1D-2004 and IEEE 802.1w STP/RSTP for rapid network redundancy
- IEEE 802.1Q VLAN to ease network planning
- Supports the ABC-02-USB automatic backup configurator for quick event log and configuration backup. Can also enable quick device switch over and firmware upgrade
- Automatic warning by exception through relay output
- Unused port lock, SNMPv3 and HTTPS to enhance network security
- Role-based account management for self-defined administration and/or user accounts
- Local log and the ability to export inventory files ease inventory management

Specifications

Input/Output Interface

Alarm Contact Channels	1, Relay output with current carrying capacity of 1 A @ 24 VDC
Buttons	Reset button
Digital Input Channels	1
Digital Inputs	+13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	8 Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3x for flow control IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1Q for VLAN Tagging IEEE 802.1p for Class of Service

Ethernet Software Features

Industrial Protocols	EtherNet/IP, Modbus TCP, PROFINET IO Device
Management	Back Pressure Flow Control, DHCP Client, Flow control, IPv4/IPv6, LLDP, Port Mirror, SNMP Inform, SNMPv1/v2c/v3, Syslog
MIB	RFC1213, Ethernet-like MIB, IF MIB, LLDP MIB, Bridge MIB, Q-BRIDGE MIB
Redundancy Protocols	RSTP, STP, MRP (Client)
Security	Broadcast storm protection, HTTPS/SSL, SNMPv3, Port Lock
Time Management	NTP Server/Client, SNTP
Filter	802.1Q VLAN

Switch Properties

MAC Table Size	8 K
Max. No. of VLANs	8
VLAN ID Range	VID 1 to 4094
Packet Buffer Size	3 Mbits

USB Interface

Storage Port	USB Type A
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LED Interface

LED Indicators	PWR1, PWR2, STATE, FAULT, 10/100M (TP Port)
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Power Parameters

Connection	2 removable 4-contact terminal block(s)
Input Voltage	12/24/48/-48 VDC, Redundant dual inputs
Operating Voltage	9.6 to 60 VDC
Input Current	0.55 A @ 24 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

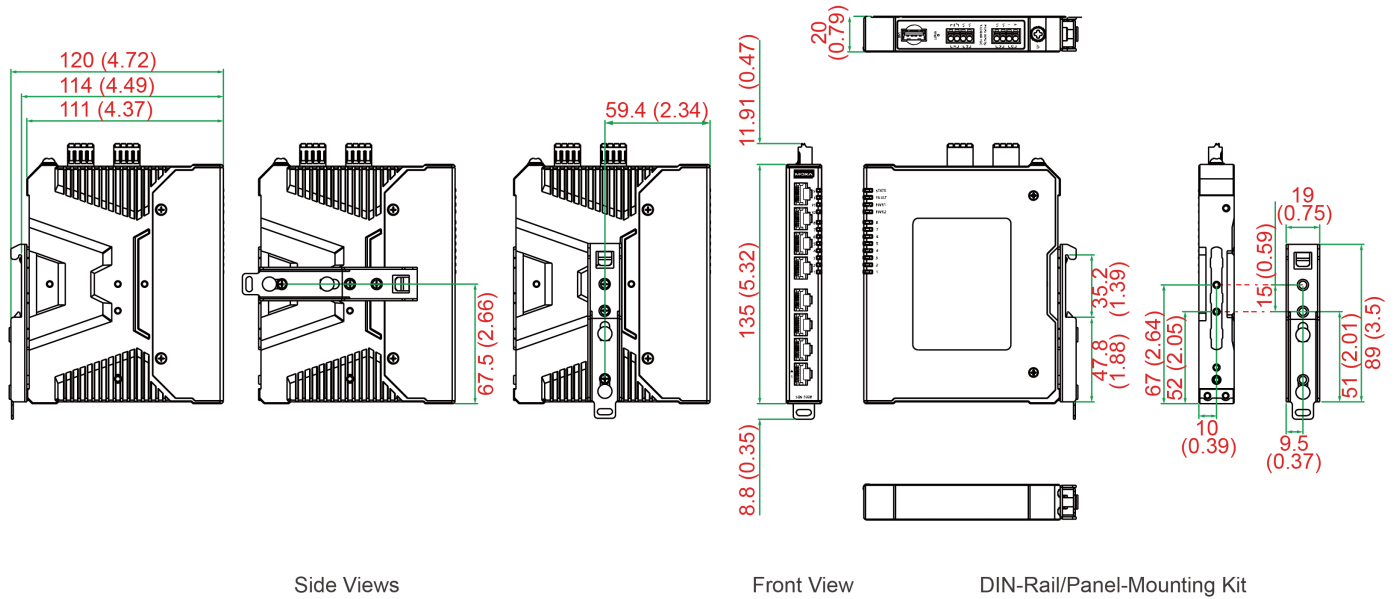
Physical Characteristics

Housing	Metal
IP Rating	IP40
Dimensions	20 x 135 x 111 mm (0.79 x 5.32 x 4.37 in)

Weight	438 g (0.97 lb)
Installation	DIN-rail mounting
Environmental Limits	
Operating Temperature	SDS-3008: -10 to 60°C (14 to 140°F) SDS-3008-T: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Standards and Certifications	
EMC	EN 55032/35, EN 61000-6-2/-6-4
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Safety	EN 60950-1 (LVD), UL 61010-2-201, UL 508
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
MTBF	
Time	1,391,620 hrs
Standards	Telcordia (Bellcore), GB
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty
Package Contents	
Device	1 x SDS-3008 Series switch
Installation Kit	4 x cap, plastic, for RJ45 port
Documentation	1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese 1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Side Views

Front View

DIN-Rail/Panel-Mounting Kit

Ordering Information

Model Name	Layer	Total No. of Ports	10/100BaseT(X) Ports10RJ45 Connector	Operating Temp.
SDS-3008	2	8	8	-10 to 60°C
SDS-3008-T	2	8	8	-40 to 75°C

Accessories (sold separately)

Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
ABC-02-USB-T	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, -40 to 75°C operating temperature

Power Supplies

DR-120-24	120W/2.5A DIN-rail 24 VDC power supply with universal 88 to 132 VAC or 176 to 264 VAC input by switch, or 248 to 370 VDC input, -10 to 60°C operating temperature
DR-4524	45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature
DR-75-24	75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature
MDR-40-24	DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
MDR-60-24	DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

Rack-Mounting Kits

RK-4U	19-inch rack-mounting kit
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