

SDS-3008 Series

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
- Multi-language web GUI: English, Traditional Chinese, Simplified Chinese, Japanese, German, and French
- Supports RSTP/STP, and MRP for network redundancy to ensure high network availability
- EtherNet/IP, PROFINET, and Modbus TCP industrial protocols supported for easy integration and monitoring in automation HMI/SCADA systems
- Security features based on IEC 62443
- Supports MXstudio for easy, visualized industrial network management

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

- IP port binding to ensure critical devices can be replaced quickly without reassigning the IP Address
- IEEE 802.1Q VLAN to ease network planning
- Supports the ABC-02-USB (automatic Backup Configurator) for quick system configuration backup/restore and firmware upgrade
- Automatic warning by exception through relay output
- Unused port lock, SNMPv3 and HTTPS to enhance network security
- Port mirroring for online debugging and monitoring
- Local log and the ability to export inventory files ease inventory management

Specifications

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 802.3ab for 1000BaseT(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 Fiber check Flow control IPv4/IPv6 LLDP Port Mirror RMON 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 |
| Security | Broadcast storm protection HTTPS/SSL SNMPv3 Port Lock Trust access control |
| 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 |

LED Interface

| | |
|----------------|---|
| LED Indicators | PWR1, PWR2, STATE, FAULT, 10/100M (TP Port) |
|----------------|---|

USB Interface

| | |
|--------------|------------------------------|
| Storage Port | USB Type A (for ABC-02 only) |
|--------------|------------------------------|

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 |

Power Parameters

| | |
|-----------------------------|---|
| Connection | 2 removable 4-contact terminal block(s) |
| Input Voltage | 12-48 VDC Redundant dual inputs |
| Operating Voltage | 9.6 to 60 VDC |
| Input Current | 0.55 max. A @ 12-48 VDC |
| Power Consumption (Max.) | 6.8 W |
| 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 Wall mounting (with optional kit) |

Environmental Limits

| | |
|--|---|
| Operating Temperature | Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -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 800 MHz: 10 V/m; 800 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 (1.2/50 µs), 1 kV (10/700 µs) IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF |
| Safety | EN 60950-1 (LVD) UL 61010-2-201 |
| 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

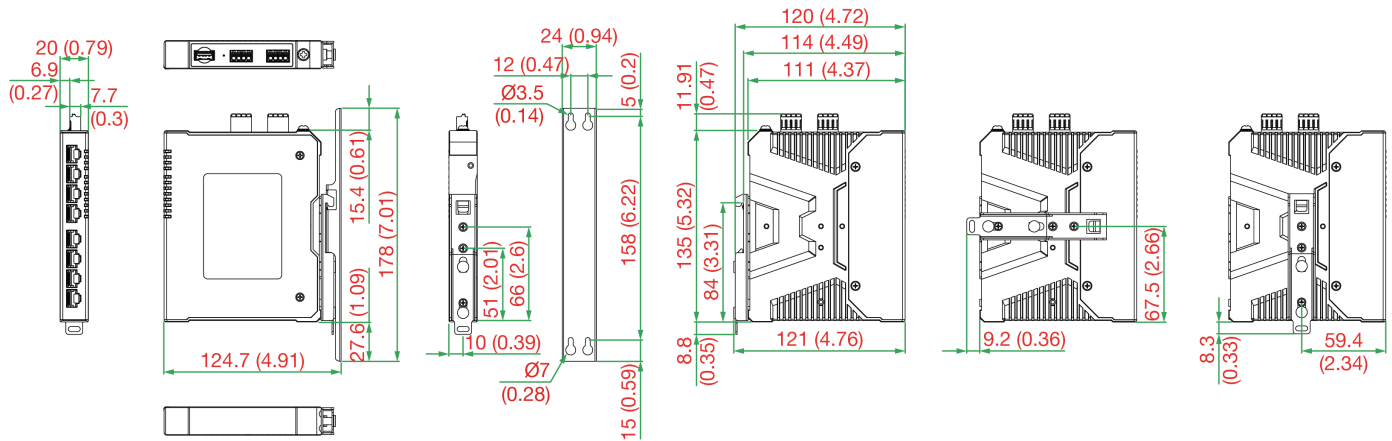
| | |
|-----------------|--|
| Warranty Period | 5 years |
| Details | See www.moxa.com/warranty |

Package Contents

| | |
|---------------|---|
| Device | 1 x SDS-3008 Series switch |
| 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)



Ordering Information

| Model Name | 10/100BaseT(X) Ports, RJ45 Connector | Operating Voltage | Operating Temp. |
|------------|--------------------------------------|-------------------|-----------------|
| SDS-3008 | 8 | 9.6 to 60 VDC | -10 to 60°C |
| SDS-3008-T | 8 | 9.6 to 60 VDC | -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

| | |
|-----------|---|
| 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 |

© Moxa Inc. All rights reserved. Updated Nov 29, 2024.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.