

SDS-G3016 系列

16G 埠全 Gigabit 智慧乙太網路交換器



特色與優點

- 小巧靈活的外殼設計，可容納到狹小的空間內
- 網頁式 GUI 可輕鬆進行裝置配置與管理
- 多語言網頁式 GUI：英文、繁體中文、簡體中文、日文、德文與法文
- 支援 RSTP/STP 與 MRP 的網路備援能力，可確保高網路可用性
- 支援 EtherNet/IP、PROFINET 與 Modbus TCP 工業通訊協定，可在自動化 HMI/SCADA 系統中輕鬆整合與監控
- 符合 IEC 62443 的資安防護功能
- 旋轉式 DIP 開關無需使用網頁瀏覽器即可執行設定檔型設定
- 支援 MXstudio，輕鬆實現可視化的工業網路管理

認證



簡介

SDS-G3016 智慧型乙太網路交換器是適用於 IA 工程師與自動化機器製造商的理想產品，可使其網路相容於工業 4.0 的願景。透過將生命活力注入機器與控制機櫃，智慧型交換器以簡單的設定與安裝方式簡化了日常工作。此外，他在完整的產品生命週期中是可監控的，並可以輕鬆維護。

最常用的自動化通訊協定，包括 EtherNet/IP、PROFINET 與 Modbus TCP，都內嵌於 SDS-G3016 交換器中，透過自動化 HMI 的控制能力與可見性提供強化的操作效能與彈性。它也支援各種實用的管理功能，包括 IEEE 802.1Q VLAN、連接埠鏡像、SNMP、繼電器警告及多語言網頁式 GUI。

附加特色與優點

- IP 連接埠繫結可確保快速替換關鍵裝置而無需重新指派 IP 位址
- IEEE 802.1Q VLAN 可簡化網路規劃
- 支援 ABC-02-USB (自動備份配置器) 以進行快速系統配置備份/還原與韌體升級
- 發生例外狀況時透過繼電器輸出自動發出警告
- 鎖定未使用的連接埠、SNMPv3 與 HTTPS 可增強網路安全
- 連接埠鏡像可用於線上除錯與監控
- 本機記錄檔與匯出存貨檔案的能力可簡化存貨管理

規格

Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	SDS-G3016(-T) models: 16 SDS-G3016-2GSFP(-T) models: 14 Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
100/1000BaseSFP Slots	SDS-G3016-2GSFP(-T) models: 2
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

Rotary Switch Configuration

Industrial Profile	Indicator	Mode
	0	No function enabled via DIP switch (Default)
	1	PROFINET profile enabled
	2	PROFINET profile and DHCP client enabled
	3	EtherNet/IP profile enabled
	4	EtherNet/IP profile and DHCP client enabled
	5	Modbus TCP profile enabled
	6	Modbus TCP profile and DHCP client enabled
	7-9	Reserved (currently performs the same behavior as indicator 0)

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), 1000M (TP port), 100/1000M (SFP port)
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USB Interface

Storage Port	USB Type A (for ABC-02 only)
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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	SDS-G3016(-T) models: 1.08 A max. 12-48 VDC SDS-G3016-2GSFP(-T) models: 1.29 A max. 12-48 VDC
Power Consumption (Max.)	SDS-G3016(-T) models: 12.95 W SDS-G3016-2GSFP(-T) models: 15.49 W
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
IP Rating	IP40
Dimensions	36 x 135 x 111 mm (1.42 x 5.32 x 4.37 in)
Weight	SDS-G3016(-T) models: 772g (1.70 lbs) SDS-G3016-2GSFP(-T) models: 796g (1.75 lbs)
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) -10 to 60°C (14 to 140°F) -40 to 75°C (-40 to 167°F) -10 to 60°C (14 to 140°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 IEC 62368-1 UL 61010-2-201
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

MTBF

Time	SDS-G3016(-T) models: 2,982,863 hrs SDS-G3016-2GSFP(-T) models: 2,844,904 hrs
Standards	Telcordia (Bellcore), GB

Warranty

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

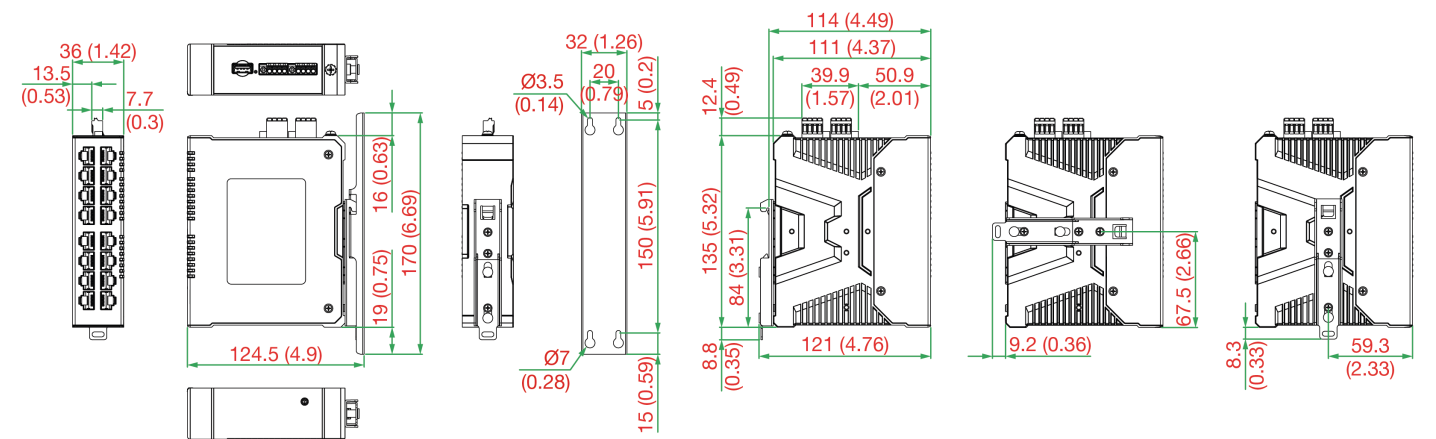
Package Contents

Device	1 x SDS-G3016 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

尺寸

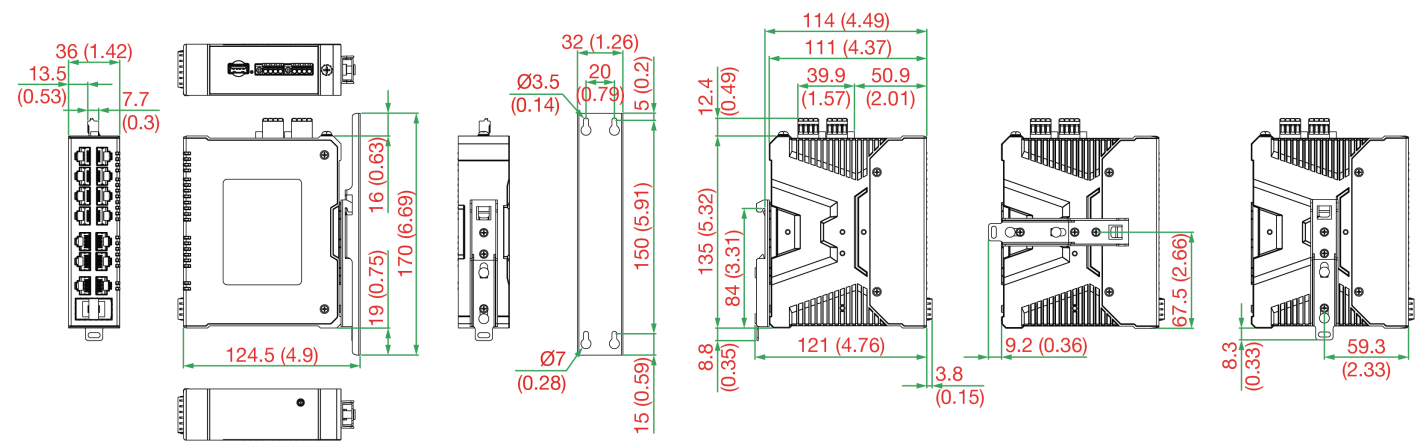
SDS-G3016 型號

單位：公釐（英吋）



SDS-G3016 2GSFP 型號

單位：公釐（英吋）



訂購資訊

Model Name	10/100/1000BaseT(X) Ports, RJ45 Connector	100/1000BaseSFP Ports	Operating Voltage	Operating Temp.
SDS-G3016	16	-	9.6 to 60 VDC	-10 to 60°C
SDS-G3016-T	16	-	9.6 to 60 VDC	-40 to 75°C
SDS-G3016-2GSFP	14	2	9.6 to 60 VDC	-10 to 60°C
SDS-G3016-2GSFP-T	14	2	9.6 to 60 VDC	-40 to 75°C

配件（選購）

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

SFP Modules

SFP-1GEZXLC	SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXLC-120	SFP module with 1 1000BaseEZXC port with LC connector for 120 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature
SFP-1GLHXLC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLSXLC	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, 0 to 60°C operating temperature
SFP-1GLXLC	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature
SFP-1GSXLC	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, 0 to 60°C operating temperature
SFP-1GZXLC	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC-T	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature
SFP-1GLHXLC-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature

SFP-1GLSXLC-T	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, -40 to 85°C operating temperature
SFP-1GLXLC-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature
SFP-1GSXLC-T	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, -40 to 85°C operating temperature
SFP-1GZXLC-T	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1G10ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G10BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G20ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G20BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G40ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G40BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G10ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G10BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G20ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G20BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G40ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G40BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1FELLC-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1FEMLC-T	SFP module with 1 100Base multi-mode, LC connector for 2/4 km transmission, -40 to 85°C operating temperature
SFP-1FESLC-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GTXRJ45-T	SFP module with 1 1000BaseT port with RJ45 connector for 100 m transmission, -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

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