

Slim size Industrial Switch for Automation

DS108 series

Industrial 8-port Unmanaged Ethernet Switch

DS108 is an industrial unmanaged Ethernet switch that provides 8-port Fast Ethernet for economical solution to industrial Ethernet connection. The rugged design can stand for harsh environment and wide temperature (from -40 to 75°C) use. The compact size can fit in for space limited cabinets. DS108F supports 2 fiber ports for up to 30KM uplink distance. The power input can support 9.6~60VDC wide power input range.



Features & Benefits

Broadcast Storm Protection

- Auto drop incoming broadcast packets for network availability protection
- Fast enable/disable through DIP Switch for customer requirement

QoS Service for Time-Sensitive Applications

- VIP port for Port 1/2
- Port base design for IEEE 802.1p, DiffServ, TCP/UDP port number
- Fast enable/disable through DIP Switch for customer requirement

IEEE 802.3az EEE Power Management

- Energy Efficient Ethernet
- Idle power saving mode for energy efficiency

Rugged Mechanical Design

- Robust design protects from mechanical deformation
- IP31 ingress protection to withstand harsh environment
- Wide operating temperature range **-40 ~ 75°C**
- Wide power input range 9.6~60VDC
- CE marking
- IEC61000-6-2/IEC61000-6-4 heavy industrial EMC



Interfaces

Power Connector

- 1 x 4 pin terminal block
- 3 pin for power input
- Ground

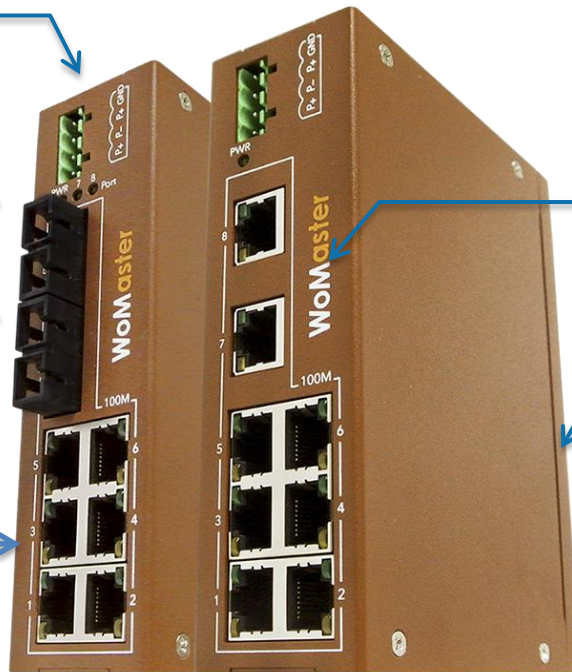
Power LED

2-port 100Base-FX

6-port 10/100Base-TX

DIP Switch

- BS
- QoS

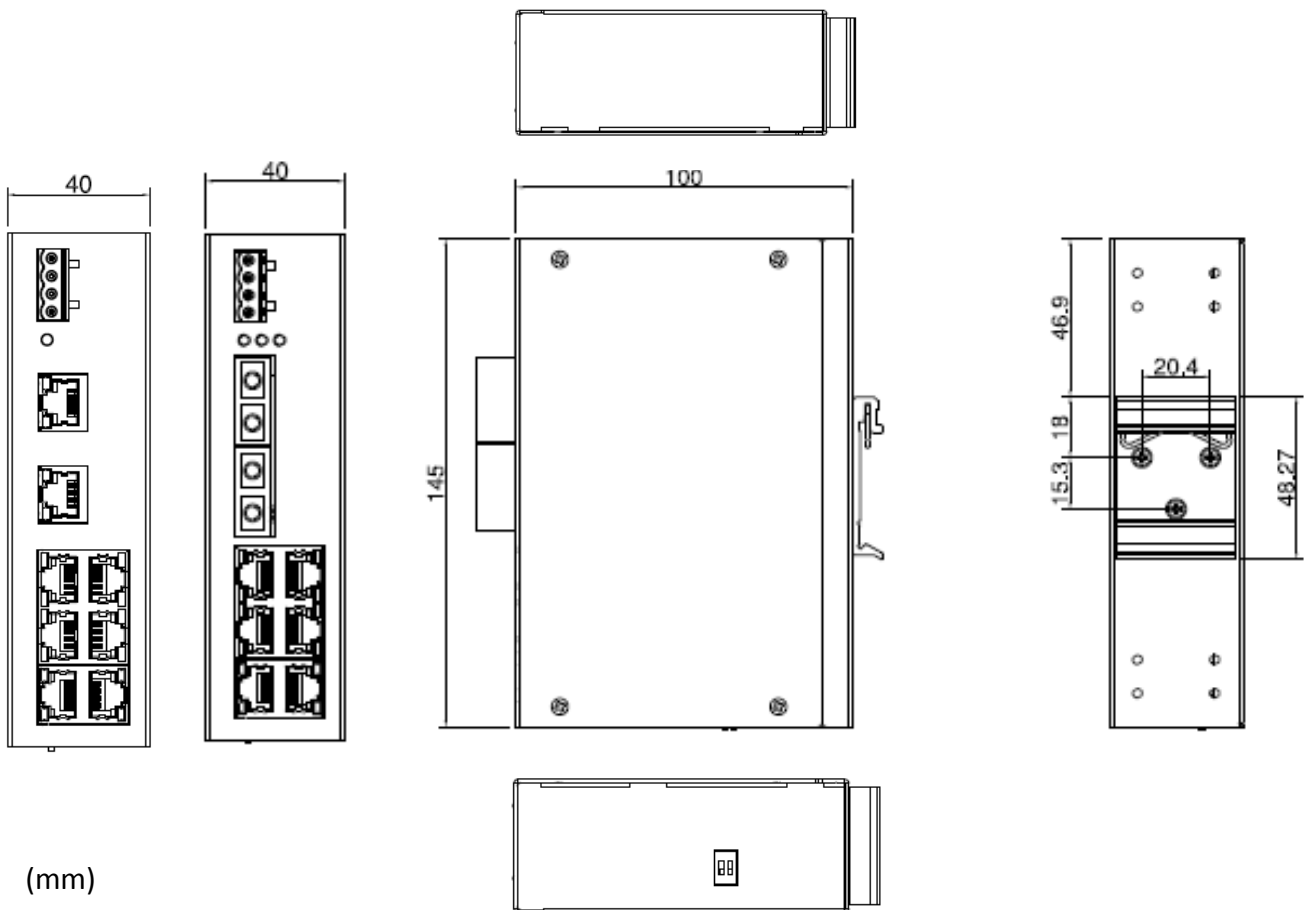


2-port 10/100Base-TX

Din Clip



Dimensions



Technology					
Standard	IEEE 802.3 10Base-T Ethernet				
	IEEE 802.3u 100Base-TX Fast Ethernet				
	IEEE 802.3x Flow Control and back-pressure				
	IEEE 802.1p Class of Service (CoS)				
	IEEE 802.3az (Energy Efficient Ethernet)				
Performance					
Switch Technology	Store and Forward Technology with Non-Blocking Switch Fabric				
Number of MAC Address	1K				
Packet Buffer Memory	448K bits				
Transfer performance	10Base-T: 14,880pps, 100Base-TX: 148,800pps				
Interface					
Ethernet Port	DS108: 8 x 10/100Base-TX RJ45, Auto Negotiation DS108-MM-SC/DS108-SS-SC: 6 x 10/100Base-TX RJ45, Auto Negotiation 2 x 100BaseFX (SC Connector) DS108-MM-ST/DS108-SS-ST: 6 x 10/100Base-TX RJ45, Auto Negotiation 2 x 100BaseFX (ST Connector)				
System LED	DS108: 1 x Power: Green On DS108-MM-SC/DS108-SS-SC/DS108-MM-ST/DS108-SS-ST: 1 x Power: Green On 2 x FX: Link (Green On), Activity (Green Blinking)				
Ethernet Port LED	Link (Green On), Activity (Green Blinking)				
DIP Switch	1 x Enable/disable broadcast storm protection 1 x Enable/disable QoS				
Power input	4-Pin Removable Terminal Connector 3 Pin for Power Input (V+, V-, V+) 1 Pin for Ground				
Optical Fiber					
	Distance	Wavelength	TX Range	RX Range	Link budget
Single-Mode	30KM	1310 (1280~1340)	-8~-15dBm	-3~-34dBm	19dB
Multi-Mode	2KM	1310 (1260~1360)	-10~-20dBm	-3~-32dBm	12dB
Power Requirement					
Input Voltage	12/24V/48DC (9.6~60VDC)				
Reverse Polarity Protect	Yes				
Input Current	DS108: 0.05A@24V; DS108-MM-SC-2: 0.12A@24V				
Power Consumption	DS108: Max. 1.2W@24VDC; DS108-MM-SC-2: Max. 2.88W@24VDC Full traffic, suggest to reserve 15% tolerance				

Mechanical	
Installation	DIN Rail
Enclosure Material	Steel Metal
Dimension	100mm (D) x 145mm (H) x 40mm (W) / without DIN Rail Clip
Ingress Protection	IP31
Weight	500g without package

Environmental	
Operating Temperature & Humidity	-40°C~75°C , 0%~95% Non-Condensing
Storage Temperature	-40°C~80°C
MTBF	>200,000 hours
Hi-Pot Insulation	AC1.5KV for Power/Ethernet port to Chassis Ground
Warranty	5 years

Standard	
EMC	EN61000-6-2/EN61000-6-4
EMI	CISPR 22, FCC part 15B Class A
EMS	EN61000-4-2 ESD: 8KV(Air), 6KV(Contact) EN61000-4-3 RS: 20V/m(80M~1GHz), 10V/m(1.4G~2.1GHz), 5V/m(2.1G~2.5GHz) EN61000-4-4 EFT: 2KV (Power, Signal Port, GND) EN61000-4-5 Surge: Power: 2KV/1KV(Line to Ground/Line to Line), Signal Port: 2KV(Line to Ground) EN61000-4-6 CS: 10Vrms(Power, Signal Port) EN61000-4-8 Magnetic Field: 30A/m continues /300A for 1~3s



Ordering Information

Model Name	Description
DS108	Industrial 8-port Unmanaged Ethernet Switch
DS108-MM-SC-2	Industrial 8-port Unmanaged Ethernet Switch, multi-mode, 2km/1310nm, SC
DS108-MM-ST-2	Industrial 8-port Unmanaged Ethernet Switch, multi-mode, 2km/1310nm, ST
DS108-SS-SC-30	Industrial 8-port Unmanaged Ethernet Switch, single-mode, 30km/1310nm, SC
DS108-SS-ST-30	Industrial 8-port Unmanaged Ethernet Switch, single-mode, 30km/1310nm, ST
	Package List
	1 x Product Unit
	1 x 4-pin Removable Terminal Connector
	1 x Attached Din Clip
	1 x Quick Installation Guide



Optional Accessory

MK-D1-2	Wall-mounting kit with 2 plates and 8 screws
PSD5-24	5W/24VDC DIN-rail power supply