teroline

16-port Unmanaged Industrial Switch

TI-1016G

16-port Unmanaged Industrial Ethernet Switch

Temperature hardened and increased surge protection

Overview

Teroline's TI-1016G is an unmanaged Industrial Ethernet Switch with 16 x 10/100/1000Base-T ports. It is featured with port isolation, flow control, QoS (1-2 ports) and broadcast storm control functions, which can be easily configured by a DIP switch on the top panel.

TI-1016G is an ideal and cost-effective solution for industrial automation applications. It's designed with a wide-range power input 12-58VDC, redundant inputs with polarity reverse and over-voltage protection, enclosed in a robust IP40 fan-less housing with DIN-rail installation clamp to support extended operation temperature from -40°C to 75°C as well as enhanced EMI/EMC capability. It is easy and fast to deploy in manufacturing facilities, transportation, oil & gas, chemistry, video surveillance and other various industry automation networks in which the operation condition is harsh and electromagnetic compatibility must be fulfilled.
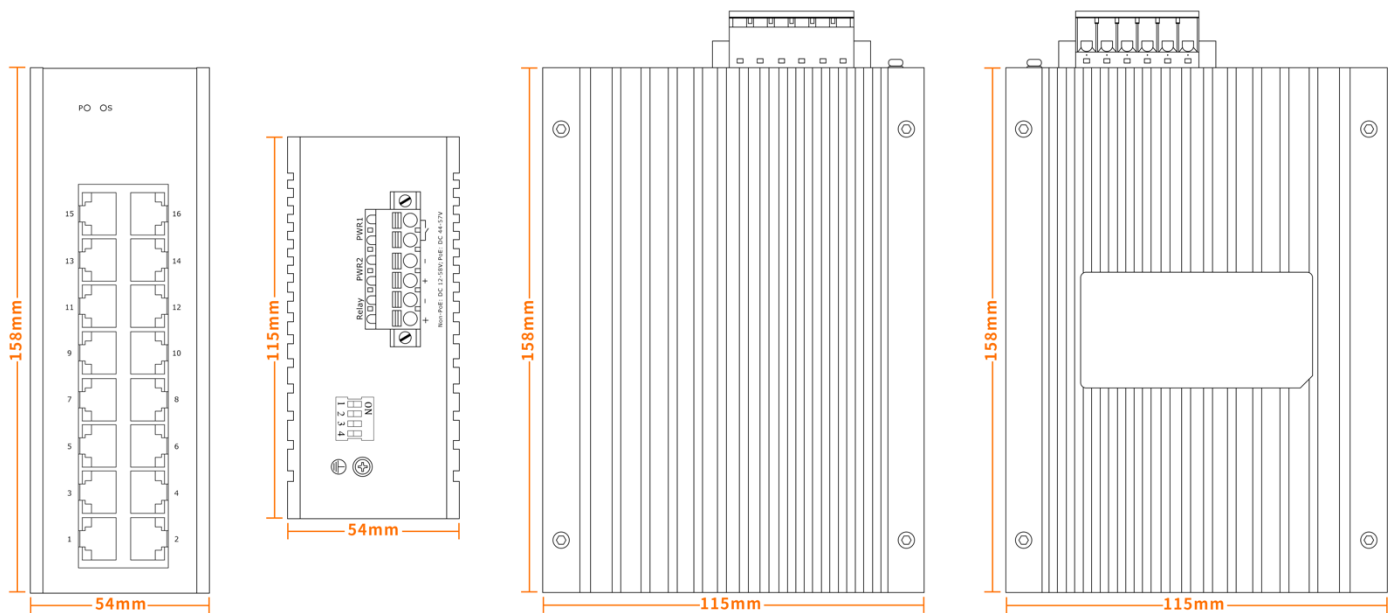
Key features

> 16 x 10/100/1000BASE-T RJ45 interfaces with auto MDI/MDI-X function

> DIP-switch configuration for Port Isolation, Flow Control, QoS and Broadcast Storm Control functions

> 1 x Alarm relay output port (Pin 5 & 6 on terminal block connector)

> Up to 10K Bytes Jumbo frame support

> IP40 protection level, Fan-less design, and DIN-rail mounted

> 6KV surge protection; ESD: 8KV/contact, 15KV/air protection

> Dual redundant wide-range DC12-58V inputs, with reverse & over-voltage protection

> Operation temperature from -40 to +75°C

Specifications

Interface Specifications	Fiber port	None
	Copper port	16 *10/100/1000Base-T (RJ45)
	Alarm output	Alarm output for power failure, 1A@24VDC
Power Specifications	Input voltage	12-58VDC, redundant inputs
	Input current	0.7A max
	Power consumption	≤ 8W (full load)
	Power interface	6-pin terminal block (Pin 5 & 6 for alarm output)
	Reverse polarity protection	Supported
	Over-voltage protection	Supported
	Over-current protection	Supported
LED Indicators	1 – PWR (Green)	Power on indicator
	2 – SYS (Red)	Device working status indicator
	3 – LNK/ACT (Green)	RJ45 port link up/down/act indicator
	4 – SPEED (Yellow)	RJ45 port speed indicator
DIP Switch	1 – Port Isolation	Port Isolation function on/off (Port 8 as WAN)
	2 – Flow Control	Flow Control function on/off
	3 – QoS (1-2 ports)	Port 1-2 QoS function on/off
	4 – Broadcast Control	Broadcast storm control on/off
Switching features	Switching capacity	32Gbps
	Packet forwarding rate	47.6Mpps
	MAC address table	16K
	VLAN	8K
	Buffer	2M
	Forwarding delay	< 5us
	Jumbo frame	10K bytes
	Auto MDI/MDIX	Supported
	Watchdog	Supported
Standards	IEEE 802.3	10BASE-T
	IEEE 802.3u	100BASE-TX
	IEEE 802.3ab	1000BASE-T
	IEEE 802.3x	Full-duplex flow control
	IEEE 802.3az	Energy Efficient Ethernet
Environment	Operating temperature	-40°C to +75°C
	Storage temperature	-40°C to +85°C
	Relative humidity	5% to 95% (non-condensing)
	Thermal design	Fan-less, natural heat dissipation
	MTBF	100,000 hours
Standards compliance	Power surge protection	IEC 61000-4-5 (6KV/4KV) (8/20us)
	Ethernet port surge protection	IEC 61000-4-5 (6KV/2KV) (10/700us)
	EMI	FCC Part 15B Class A
	ESD	IEC 61000-4-2 Level 4 (8K/15K)
	RS	IEC 61000-4-3 80MHz-1GHz: 10V/m
	EFT	IEC 61000-4-4 power port: 4K, Eth port: 2K
	CS	IEC 61000-4-6: 10V

	Shock	IEC 60068-2-27
	Free fall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
	Certifications	CE, FCC, RoHS
Physical parameters	Dimensions	54(W)*115(D)*158(H)mm
	Weight	Net weight 1.37KG
	Protection Level	IP40
	Installation Method	DIN-Rail

Physical dimensions

Ordering information

Model	Description
TI-1016G	16-port 10/100/1000Base-T unmanaged Industrial Ethernet switch, DC12-58V input, dual redundant power inputs, Din-rail, operation temperature: -40°C to +75°C