



# TI-1005G

5-port Unmanaged Industrial Ethernet Switch

*Temperature hardened and increased surge protection* 

#### Overview

Teroline's TI-1005G is an unmanaged Industrial Ethernet Switch with 5 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-1005G 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

- > 4 x 10/100/1000BASE-T RJ45 LAN interfaces and 1 x 10/100/1000Base-T RJ45 WAN interface with auto MDI/MDI-X function
- > DIP-switch configuration for Port Isolation, Flow Control, QoS and Broadcast Storm Control functions
- > Up to 10K Bytes Jumbo frame support
- > IP40 protection level, Fan-less design, and DIN-rail mounted
- > 4KV 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

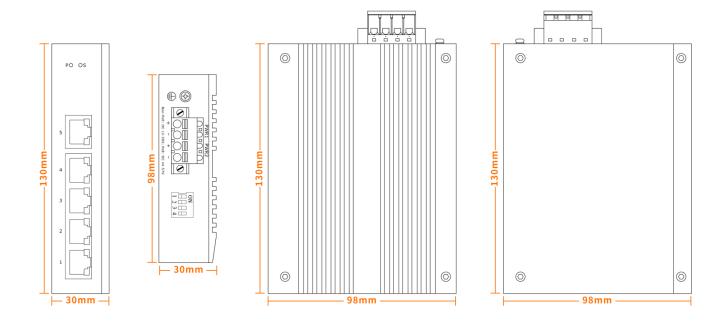
| Interface<br>Specifications | Fiber port:                       | None                                       |
|-----------------------------|-----------------------------------|--|
| •                           | Copper port:                      | (4 LAN + 1 WAN) *10/100/1000Base-T (RJ45)  |
| Power<br>Specifications     | Input voltage:                    | 12-58VDC, redundant inputs                 |
|                             | Input current                     | 0.5А тах                                   |
|                             | Power consumption                 | ≤ 5W                                       |
|                             | Power interface                   | 4-pin terminal block                       |
|                             | Reverse polarity protection       | Supported                                  |
|                             | Over-voltage 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             |
|                             | 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                | 10Gbps                                     |
|                             | Packet forwarding rate            | 14.8Mpps                                   |
|                             | MAC address table                 | 2K   |
|                             | VLAN                              | 4K   |
|                             | Buffer                            | ME   |
|                             | 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                             |
| Environment                 | Storage temperature               | -40°C to +85°C                             |
| Chan da ada                 | Relative humidity                 | 5% to 95% (non-condensing)                 |
|                             | •                                 |  |
|                             | Thermal design                    | Fan-less, natural heat dissipation         |
|                             | MTBF                              | 100,000 hours                              |
| Standards<br>compliance     | Power surge protection            | IEC 61000-4-5 Level 3 (4KV/2KV) (8/20us)   |
|                             | Ethernet port surge<br>protection | IEC 61000-4-5 Level 3 (4KV/2KV) (10/700us) |
|                             | DIP                               | IEC 61000-4-11 Level 3 (10V)               |
|                             | ESD                               | IEC 61000-4-2 Level 4 (8K/15K)             |
|                             | Shock                             | IEC 60068-2-27                             |
|                             | Free fall                         | IEC 60068-2-32                             |
|                             | Vibration                         | IEC 60068-2-6                              |
|                             | Certifications                    | CE, FCC, RoHS                              |
|                             |                                   | · - ·                                      |



# Product Datasheet

| Physical   | Dimensions          | 30(W)*98(D)*130(H)mm |  |
|------------|---------------------|----------------------|--|
| parameters |                     |                      |  |
|            | Weight              | Net weight 0.5KG     |  |
|            | Protection Level    | IP40                 |  |
|            | Installation Method | DIN-Rail             |  |
|            |                     |                      |  |

### Physical dimensions



## Ordering information

| Model    | Description   |
|----------|---|
| TI-1005G | 5-port 10/100/1000Base-T unmanaged Industrial Ethernet switch, DC12-58V<br>input, dual redundant power inputs, Din-rail, operation temperature: -40°C to<br>+75°C |