

# Industrial Ethernet 5-port Gigabit Switch

## SDW-541-F1G-T4G

- ⌘ Easy to install and use
  - Flexible SFP transceiver design
  - Gbit or FE auto-negotiation and polarity detection
  - Transparent to industrial Ethernet protocols
- ⌘ Designed for use in harsh industrial applications
  - Dual 10 – 57 VDC power input
  - Total galvanic isolation between each cable screen
  - IP21
- ⌘ Robust for long service life
  - 1.182.000 hours MTBF to MIL-HDBK-217K
  - –40 to +74 °C (–40 to +165 °F) with no moving parts
  - Industrial EMC, shock and vibration testing
- ⌘ Diagnostics and legacy connectivity
  - Port mirroring function
  - Diagnostic LEDs
  - DIP switches to lock port parameters for old equipment



**EN 50121-4**  
Railway Trackside

**EN 61000-6-1**  
Residential Immunity

**EN 61000-6-2**  
Industrial Immunity

**EN 61000-6-4**  
Industrial Emission

The SDW-541-F1G-T4G is an unmanaged 5 port switch with one SFP fibre port and four copper ports, all supporting 100 Mbit/s or Gbit Ethernet. It is designed for easy use in heavy duty industrial, maritime and rail trackside applications. The unit supports 802.1Q long packets which allow all standard industrial Ethernet protocols to be used.

The Westermo range of 100Mbit or Gbit Small Form-factor Pluggable (SFP) transceivers are available as multimode, single-mode or Bi-Di transceivers with distance up to 120 km.

The SDW-541-F1G-T4G is designed for use in industrial applications with dual 10 to 57VDC power input. The unique "tri-galvanic" isolation provides isolation between all ports, power supply and between each chassis screen avoiding ground loop currents. The IP21 rating ensures that the unit can be installed in locations where condensed water may occur.

Only industrial grade components are used which gives the SDW-541-F1G-T4G an MTBF of 1.182.000 hours and ensures a long service life. A wide operating temperature range of –40 to +74 °C (–40 to +165 °F) can be achieved with no moving parts.

The SDW-541-F1G-T4G has been tested both by Westermo and external test houses to meet EMC, isolation, vibration and shock standards, all to the highest levels suitable for heavy industrial, trackside and maritime environments.

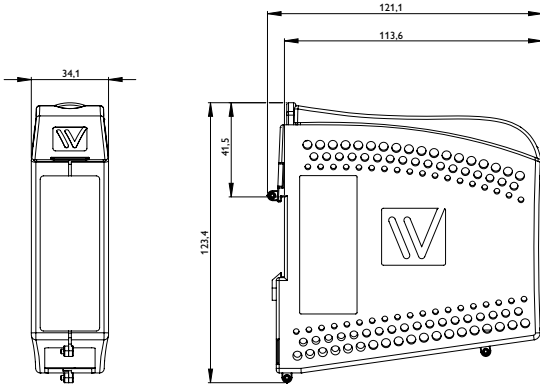
Network diagnostics are simplified with the inclusion of port mirroring on one port allowing data flow through the switch to be monitored using a network analyzer. All five ports can have data rate and flow control locked by DIP switch which can eliminate problems with old legacy Ethernet equipment that is unable to support auto negotiation.

### Ordering Information

| Art.no    | Description                                    |
|-----------|------------------------------------------------|
| 3644-2020 | SDW-541-F1G-T4G                                |
| 3125-0001 | PS-30, Power supply, DIN mounted (Accessories) |

# Specifications SDW-541-F1G-T4G

## Dimensional drawing



Dimension W x H x D 34 x 123 x 121 mm (1.33 x 4.84 x 4.76 in)

Weight 0.2 kg

Degree of protection IP21

### Power

|                   |                |
|-------------------|----------------|
| Operating voltage | 9.6 – 57.6 VDC |
| Rated current     | 100 mA @12VDC  |

### Interfaces

|             |                                                                    |
|-------------|--------------------------------------------------------------------|
| Ethernet TX | 4 x RJ-45, 10 Mbit/s, 100 Mbit/s or 1 Gbit/s                       |
| Ethernet FX | SFP (LC connector), 100 Mbit/s or 1 Gbit/s, transceivers supported |

### Temperature

|                     |                                   |
|---------------------|-----------------------------------|
| Operating           | -40 °C to +74 °C (-40 to +165 °F) |
| Storage & Transport | -50 °C to +85 °C (-58 to +158 °F) |

### Agency approvals and standards compliance

|     |                                                                                                                                             |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------|
| EMC | EN 50121-4, Railway applications – Electromagnetic compatibility – Emission and immunity of the signalling and telecommunications apparatus |
|     | EN 61000-6-1, Immunity residential environments                                                                                             |
|     | EN 61000-6-2, Immunity industrial environments                                                                                              |
|     | EN 61000-6-4, Emission industrial environments                                                                                              |