SWD-HE-8TX
SWD-HE-6TX-FM
SWD-HE-6TX-FS20

Unmanaged ruggedized Ethernet Switch

IEC61850 IEEE1613

FANLESS
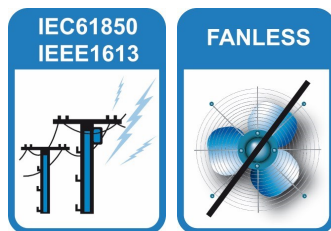
Characteristics

Ethernet
- IEEE: 802.3, 802.3u, 802.3x

Hardened design
- Extended operating temperature range: –40°C to +75°C - tested at +85°C

High EMI
- IEC 61000-6-2 industry
- EN 50121-4 railway
- IEC 61850-3 and IEEE 1613 Electric substation

Benefits
- Easy installation and operation
- WDM option
- Dry relay contacts
- DIN rail mounting
- 12 to 48 Vdc redundant power supply
- Robust metallic enclosure
- Designed for harsh environments

On option
- 19'' mounting kit

SWD-HE-8TX is an unmanaged ruggedized Ethernet switch designed for most stringent environments such as Electric Substations or Railway infrastructures.

SWD-HE-8TX comes in a robust and IP30 aluminum enclosure. It is made of industry grade components to operate over a wide –40 to +75 °C temperature range and even up to +85 °C for limited periods of time.

SWD-HE-8TX is not only chock and vibration resistant, but also it complies with the most severe Electromagnetic Immunity standards for railway infrastructures (EN 50121-4) and Electric Substations (IEC 61850 and IEEE 1613).

SWD-HE-8TX is offered with a choice of 10/100BaseT copper interfaces and optical ports for 2 km Multi-Mode and 20 km long range Single-Mode fibers also with single fiber WDM option.

SWD-HE-8TX is made for DIN rail mounting with good resistance to vibrations and chocks. It can be mounted in a 19'' shelf through an optional mounting kit.

SWD-HE-8TX has two redundant power supply inputs with 12 to 48 Vdc range. It has also a 12 Vdc power backup input.
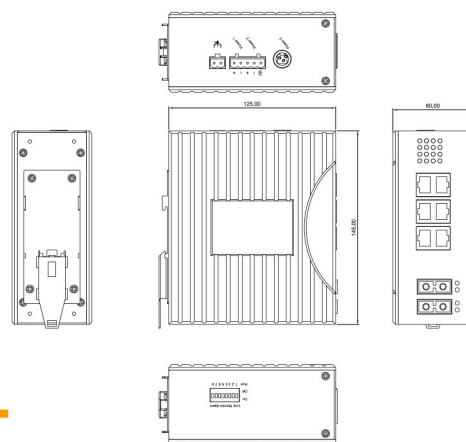
APPLICATIONS

- *Railway, Tramway infrastructure*
- *Electric substation, Utility Production, Distribution and Transport network*
- *SCADA / RTU*
- *Manufacturing plant*
- *Video surveillance*

8 Ports ruggedized Ethernet Switch

SPECIFICATIONS

- **Standards**
  IEEE 802.3   10Base-T
  IEEE 802.3u   100Base-TX/FX
  IEEE 802.3x   Flow Control

- **Ethernet ports**
  - 6 or 8x 10/100Base-TX Ethernet ports
  - MDI/MDI-X detection on RJ45 ports
  - 10/100Mbps Full/Half-duplex and flow control
  - Auto-Negotiation
  - 0, 1 or 2x 100FX ports with fixed optical interface
  - Multi-Mode or Single-Mode options
    MM with 2 km range,
    SM with 20 km range,
    SM single fiber WDM with 20 km range

- **Switching performance**
  14,880 pps at 10 Mbps
  148,810 pps at 100 Mbps

- **Switching**
  - Full wire speed forwarding rate
  - Store and forward
  - MAC address memory: 2,048 addresses
  - Frame Buffer : 448 kbits

- **Alarm relay**
  1x relay with 1 A / 24 Vdc switching current

- **Power supply**
  - Two redundant power supply inputs, 12 to 48 Vdc range
    Terminal block
    12 Vdc backup input, jack socket
  - Reverse polarity protection
  - Max power consumption: 6W (0,6 A/12v; 0.25A/24V; 0,125A/48V)

- **Temperature range**
  Operating: -40℃ to +75℃, tested at 85 °C
  Stocking: -40℃ to +85℃

- **Hygrometry**
  Operating: 5% to 95% RH
  Stocking: 5% to 95% RH

- **Safety standards**
  UL 508, EN 60950-1, IEC 60950-1

- **Electromagnetic standards**
  FCC Part 15, Class A
  EN61000-6-2
  EN61000-6-2
  EN61000-4-2
  EN61000-4-3
  EN61000-4-4
  EN61000-4-5
  EN61000-4-6
  EN61000-4-8

- **Environmental standards**
  IEC60068-2-6   Fc (Vibration)
  IEC60068-2-27 Ea (Shock)
  IEC60068-2-32 Ed (free fall)
  NEMA TS1/2 Intelligent Transport Systems
  IEC61850-3 & IEEE1613 electric substation
  EN50121-4 railway

- **Dimensions**
  60 x 125 x 145 mm (WxDxH)
  Aluminum enclosure
  Protection IP30

- **Weight**
  0.8 kg

- **Installation**
  DIN rail, panel mounting, 19'' mounting kit

- **Light indicators**
  Power input 1/2/3/fault
  Per Ethernet port: Link/activity and 100Mbps

- **MTBF**
  200.000 hours

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PRODUCT REFERENCE

SWD-HE-8TX	Non manageable ruggedized DIN rail switch, 8x 10/100BaseT ports, extended operating temperature range –40 to +75 °C, EMI standards IEC61000-6-2 (industry), EN50121-4 (railway), IEC61850-3 and IEEE1613 (electric substation). 50x110x76.5 mm, redundant power inputs, 12-48 Vcc, alarm relay
SWD-HE-6TX-FM	Non manageable ruggedized DIN rail switch, 6x 10/100BaseT ports and 1x 100FX Multi-Mode port, extended operating temperature range –40 to +75 °C, EMI standards IEC61000-6-2 (industry), EN50121-4 (railway), IEC61850-3 and IEEE1613 (electric substation). 50x110x76.5 mm, redundant power inputs, 12-48 Vcc, alarm relay
SWD-HE-6TX-FM5-W13	Non manageable ruggedized DIN rail switch, 6x 10/100BaseT ports and 1x 100FX Single-Mode WDM 1310 nm / 5 km, extended operating temperature range –40 to +75 °C, EMI standards IEC61000-6-2 (industry), EN50121-4 (railway), IEC61850-3 and IEEE1613 (electric substation). 50x110x76.5 mm, redundant power inputs, 12-48 Vcc, alarm relay
SWD-HE-6TX-FM5-W15	Non manageable ruggedized DIN rail switch, 6x 10/100BaseT ports and 1x 100FX Single-Mode WDM 1510 nm / 5 km, extended operating temperature range –40 to +75 °C, EMI standards IEC61000-6-2 (industry), EN50121-4 (railway), IEC61850-3 and IEEE1613 (electric substation). 50x110x76.5 mm,
SWD-HE-6TX-FS20	Non manageable ruggedized DIN rail switch, 6x 10/100BaseT ports and 1x 100FX Single-Mode port / 20 km, extended operating temperature range –40 to +75 °C, EMI standards IEC61000-6-2 (industry), EN50121-4 (railway), IEC61850-3 and IEEE1613 (electric substation). 50x110x76.5 mm, redundant power

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