# ESW105 and ESW108 Series 

## 5 \& 8 Port, <br> Ultra Compact Industrial Ethernet Switches

## Features

$\checkmark$ Ultra Compact design - Less than 1 inch wide
$\checkmark$ NEW UL/cUL Class I Div 2 Groups A,B,C, and D
$\checkmark$ Designed to meet Level 3 (Heavy) Industrial
Environments - EN61000-6-2 Certifications
$\checkmark$ Shock, Vibration, Free Fall Tested
$\checkmark \quad$ LC Single and Multi mode fiber ports
$\checkmark$ 10/100M, full/half duplex, MDI/MDI-X (Autonegotiate)
$\checkmark$ Supports IEEE 802.3, 802.3u, and 802.3x standards

$\checkmark$ Industrial IP30 rated DIN rail case with 6 different Panel mount options
$\checkmark$ Dual power inputs, 12 to 36 VDC and 10 to 24 VAC
$\checkmark$ 2K MAC addresses

## Functional Description

Designed to fit many applications, the ESW105 and ESW108 series are more than just an Ethernet switch with a great low pricing. They are plug-and-play industrial Ethernet Switches with an ultra compact IP30 DIN rail case, 6 way mountable panel brackets, LEDs for Power, (Link / Speed / Activity for each port), 12 to 36 VDC and 10 to 24 VAC power inputs with removable terminal blocks. These switches are perfect for any applications that require special protection from hash environments.

Choose a switch with five or eight copper ports, or a combination of copper and fiber ports. Multimode fiber models extend range up to 2 km . Single-mode fiber models extend range up to 20 km . All models require an external power supply (sold separately).

The switch ships with 4 panel mount clips giving the user 6 different ways to panel mount the unit.

## Specifications

Technology

| Standards: | IEEE802.3, 802.3u, 802.3x |
| :--- | :--- |
| Processing Type: | Store and forward with IEEE802.3x full duplex, non-blocking flow control |
| Flow Control: | IEEE802.3x flow control, back pressure flow control |
| Packet buffer memory: | 64K bytes |
| Address Table Size | 2K MAC Addresses |

Interface

| RJ45 Ports: | 10/100BaseT(X) auto negation, Full/Half duplex, auto MDI/MD-X |
| :--- | :--- |
| Fiber Ports: | 100BaseFX, (multi-mode or single-mode with LC connectors) |
| LED Indicators: | Power, (Link / Speed / Activity for each port) |


| Fiber Optics |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fiber Type | Distance | Wavelength | Transmit Power | Receive Sensitivity |
| Multi-mode | 2 km | 1310 nm | Neg. 23.5 to Neg. 14 dBm | $\leq$ Neg. 35 dBm |
| Single-mode | 20 km | 1310 nm | Neg. 15 to Neg. 8 dBm | $\leq$ Neg. 35 dBm |


| Power |  |
| :---: | :---: |
| Input Voltage | 12 to 36 VDC and 10 to 24 VAC |
| Power Consumption | 4.00 W Max |
| Input Connection | Removable Terminal Block |
| Protection | Reverse Polarity Protection |
| Mechanical |  |
| Enclosure | IP30 DIN mount metal case |
| Dimensions (5 ports) | $\begin{aligned} & \text { H } 100 \mathrm{~mm} \times \mathrm{W} 25 \mathrm{~mm} \times \mathrm{D} 75 \mathrm{~mm} \\ & (3.94 \mathrm{in} \times 0.98 \mathrm{in} \times 2.95 \mathrm{in}) \end{aligned}$ |
| Dimensions (8 ports) | H $145 \mathrm{~mm} \times \mathrm{W} 24 \mathrm{~mm} \times \mathrm{D} 75 \mathrm{~mm}$ ( 5.71 in $\times 0.94$ in $\times 2.95 \mathrm{in}$ ) |
| Installation | 35 mm DIN or 6 way panel mount |

## Environmental

Op. Temperature
Storage Temperature
Humidity
MTBF
MTBF Calculation
-10 to 60 C ( 14 to 140 F )
-40 to $80 \mathrm{C}(-40$ to 176 F$)$
10 to $95 \%$ Non-condensing 200,000 hours
Parts count reliability prediction

Regulatory Approvals
CE, FCC,
RoHS

## Hazardous Locations

NEW UL/cUL Class I Div 2 Groups A,B,C, and D

Specifications-Level 3, EN 61000-6-2: 2006 Generic Standards for (Heavy) Industrial environments

| Test | Description | Test Level |  | Level |
| :---: | :---: | :---: | :---: | :---: |
| EN 55022: $2006+\mathrm{A1}: 2007$ | Class B Emissions |  |  |  |
| EN 61000-4-2: 2009 | Electro-Static Discharge (ESD) | Enclosure Contact | 6kV | 3 |
|  |  | Enclosure Air | 8 kV | 3 |
| EN61000-4-3:2006+A1:2008 | Radiated Field Immunity (RFI) | Enclosure Ports | 10V/m | 3 |
| EN61000-4-4:2004 | Burst (Fast Transient) | Signal Ports | 1kV@2.5Khz | 3 |
|  |  | DC Ports | 2 kV | 3 |
| EN61000-4-5:2006 | Surge | Signal Ports | 1 kV | 3 |
|  |  | DC Power Ports | 2 kV | 3 |
| EN61000-4-6: 2009 | Induced (Conductive) RFI | Signal Ports | 10 V RMS | 3 |
|  |  | DC Power Ports | 10 V RMS | 3 |

## Environmental Specifications




ESW105-xx Series


ESW108-xx Series

