

# 5 & 8 Port, Compact Industrial Ethernet Switches

ESW205 & ESW208 Series



## PRODUCT FEATURES

- UL/cUL Class I Division 2 Groups A,B,C, and D
- EN61000-6-2 - Generic standard for (heavy) industrial environments
- NEMA TS2 options
- Shock, vibration, tested
- Operating temperature
  - 10° to 60°C (Standard)
  - 40° to 75°C (-T models)
- 10/100M, full/half duplex, MDI/MDI-X (Auto-negotiate)
- Supports IEEE 802.3, 802.3u, and 802.3x standards
- Industrial IP30 rated DIN rail case with 6 way panel mount options
- Dual power inputs, 12 to 36 VDC and 10 to 24 VAC
- 2K MAC addresses

Designed to fit many applications, the ESW205 and ESW208 series are more than just an Ethernet switch with low pricing. They are plug-and-play industrial Ethernet Switches with an 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 harsh environments.

Choose a switch with five or eight copper ports, or a combination of copper and fiber ports. Multi-mode 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.

## ACCESSORIES

DFMM-SCSC-1M - Multi-Mode Duplex Fiber Cable, SC to SC, 1 Meter

MDR-20-24 - DIN rail mount power supply 24VDC, 1.0 A output power

MDR-40-24 - DIN rail mount power supply 24VDC, 1.7 A output power

EIRSP1 - Industrial DIN rail mount Ethernet Surge Suppressor

## ORDERING INFORMATION

| MODEL NUMBER                            | 10/100 COPPER | MULTI-MODE FIBER | SINGLE-MODE FIBER |
|---|---------------|------------------|-------------------|
| ESW205                                  | 5             |                  |                   |
| ESW205-MT                               | 4             | 1 (ST)           |                   |
| ESW205-MC                               | 4             | 1 (SC)           |                   |
| ESW205-ST                               | 4             |                  | 1 (ST)            |
| ESW205-SC                               | 4             |                  | 1 (SC)            |
| ESW205-T*                               | 5             |                  |                   |
| ESW205-MT-T*                            | 4             | 1 (ST)           |                   |
| ESW205-MC-T*                            | 4             | 1 (SC)           |                   |
| ESW205-ST-T                             | 4             |                  | 1 (ST)            |
| ESW205-SC-T*                            | 4             |                  | 1 (SC)            |
| ESW208                                  | 8             |                  |                   |
| ESW208-2MT                              | 6             | 2 (ST)           |                   |
| ESW208-2MC                              | 6             | 2 (SC)           |                   |
| ESW208-2ST                              | 6             |                  | 2 (ST)            |
| ESW208-2SC                              | 6             |                  | 2 (SC)            |
| ESW208-T*                               | 8             |                  |                   |
| ESW208-2MT-T*                           | 6             | 2 (ST)           |                   |
| ESW208-2MC-T                            | 6             | 2 (SC)           |                   |
| ESW208-2ST-T*                           | 6             |                  | 2 (ST)            |
| ESW208-2SC-T*                           | 6             |                  | 2 (SC)            |
| ESW208-4MT-T*                           | 4             | 4 (ST)           |                   |
| ESW208-4MC-T*                           | 4             | 4 (SC)           |                   |
| ESW208-4ST-T*                           | 4             |                  | 4 (ST)            |
| ESW208-4SC-T*                           | 4             |                  | 4 (SC)            |
| -T Models available in wide temperature |               |                  |                   |
| * NEMA TS2 models                       |               |                  |                   |

# 5 & 8 Port, Compact Industrial Ethernet Switches

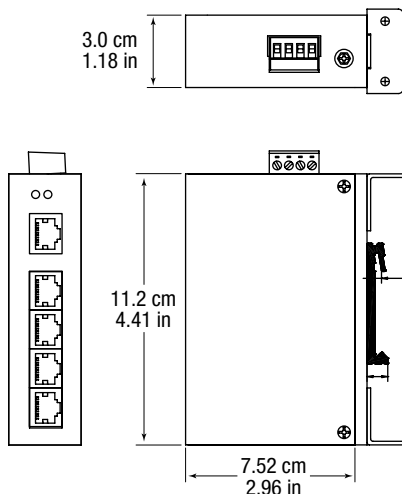
ESW205 & ESW208 Series



## 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)                           |
| 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  |
| ENVIRONMENTAL                                  |  |
| Operating Temperature                          | -10 to 60°C (14 to 140°F)  |
| Wide Temperature (-T Model)                    | -40 to 75°C (-40 to 167°F)   |
| Storage Temperature                            | -40 to 80°C (-40 to 176°F)   |
| Humidity                                       | 10 to 95% Non-condensing   |
| MTBF   | 200,000 hours  |
| MTBF Calculation                               | Parts count reliability prediction                                       |
| MECHANICAL                                     |  |
| Enclosure                                      | IP30 DIN mount metal case  |
| Dimensions (5 ports)                           | H 112mm x W 30mm x D 75.2 mm<br>(4.41 in x 1.18 in x 2.96 in)            |
| Dimensions (8 ports)                           | H 130 mm x W 44 mm x D 105 mm<br>(5.1 in x 1.73 in x 4.13 in)            |
| 8 copper,<br>6 copper/2 fiber ports            | H 130mm x W 44mm x D 105mm<br>(5.1 in X 1.7 in x 4.13 in)                |
| Dimensions (8 ports)<br>4 copper/4 fiber ports | H 130mm x W 44mm x D 105mm<br>(5.1 in X 1.7 in x 4.13 in)                |
| Installation                                   | 35 mm DIN or 6 way panel mount   |

## MECHANICAL DIAGRAM - ESW205 MODEL



## FIBER OPTICS

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

## REGULATORY APPROVALS

CE, FCC, RoHS

## HAZARDOUS LOCATIONS

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

## ENVIRONMENTAL SPECIFICATIONS

| TEST           | DESCRIPTION | TEST LEVEL | LEVEL |
|----------------|-------------|------------|-------|
| IEC60068-2-6   | Vibration   | Test Fc    | 2G    |
| IEC60068-2-27  | Shock       | Test Ea    | 30G   |
| IEC 60068-2-32 | Free Fall   |            | ----- |

## MECHANICAL DIAGRAM - ESW208 MODEL

