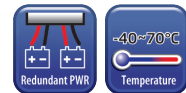# IES-A1080/A1062 Series

**1**

❯ *Industrial C1D2/ATEX 8-port unmanaged Ethernet switch*

## Features

- C1D2 and ATEX compliant for harsh industrial environments application
- IES-A1080 provide 8x10/100Base-T(X) ports
- IES-A1062GT provide 6x10/100Base-T(X) and 2x10/100/1000Base-T(X) ports
- IES-A1062FX series provide 6x10/100Base-T(X) and 2x100Base-FX fiber ports
- IES-A1062GF series provide 6x10/100Base-T(X) and 2x1000Base-X fiber ports
- Triple redundant DC power inputs of terminal block and power jack
- Support auto-negotiation and auto-MDI/MDI-X
- Support store and forward transmission
- Support flow control
- Rigid IP-30 aluminum housing design
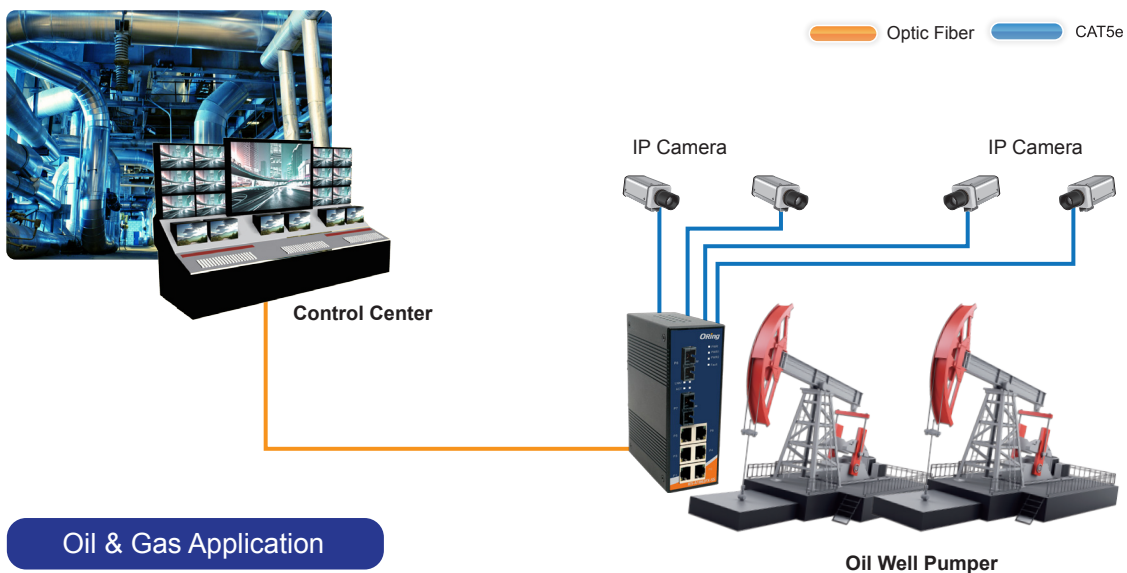- DIN-Rail and wall mounting enabled

## Introduction

IES-A1080/A1062 series are unmanaged Ethernet switches with 6x10/100Base-T(X) and 2x100Base-FX, 10/100/1000Base-T(X), 1000Base-SX or 1000Base-LX ports which is specifically designed for the C1D2/ATEX certified with hazardous locations requirement. IES-A1080/A1062 series support redundant power input and surge protection. The wide operating temperature range from -40 to 70°C and C1D2/ATEX certified can satisfy most of harsh or hazardous locations operating environments.
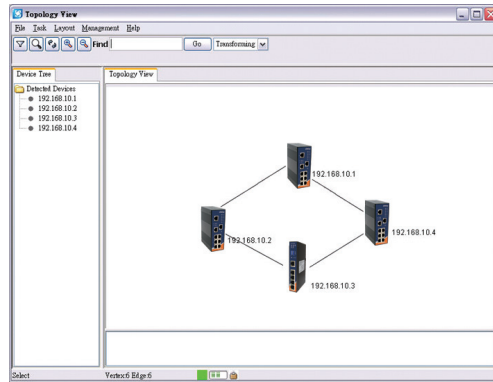
## Practical Operation

IES-A1080/A1062 series can be used in connecting several Ethernet devices like Ethernet I/O, IP-Camera or other Ethernet switches. In addition, there are three different power inputs to enhance its reliability, two supplied by terminal block, and one by power jack to avoid interruption caused by power down. When the primary DC power input fails, the backup power input will take over immediately to guarantee a non-stop operation.
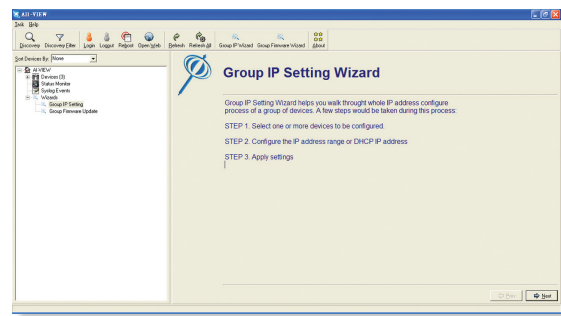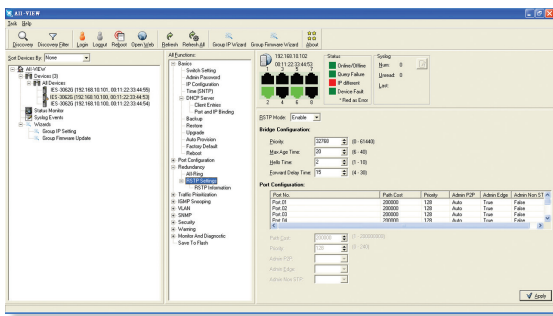
**Control Center**

Optic Fiber    CAT5e

IP Camera          IP Camera

**Oil & Gas Application**

**Oil Well Pumper**

Connections of Ethernet devices

Industrial
Ethernet Switch

Industrial
Media Converter

Industrial
Device Server

Industrial Wireless
Access Point

Industrial Cellular
VPN Router

Industrial
M2M Gateway

Accessories

Network
Management Software

## Open-Vision

ORing's switches are intelligent switches. Different from other traditional redundant switches, ORing provides a set of Windows utility **(Open-Vision)** for user to manage and monitor all of industrial Ethernet switches on the industrial network.
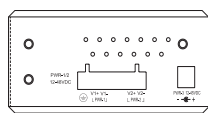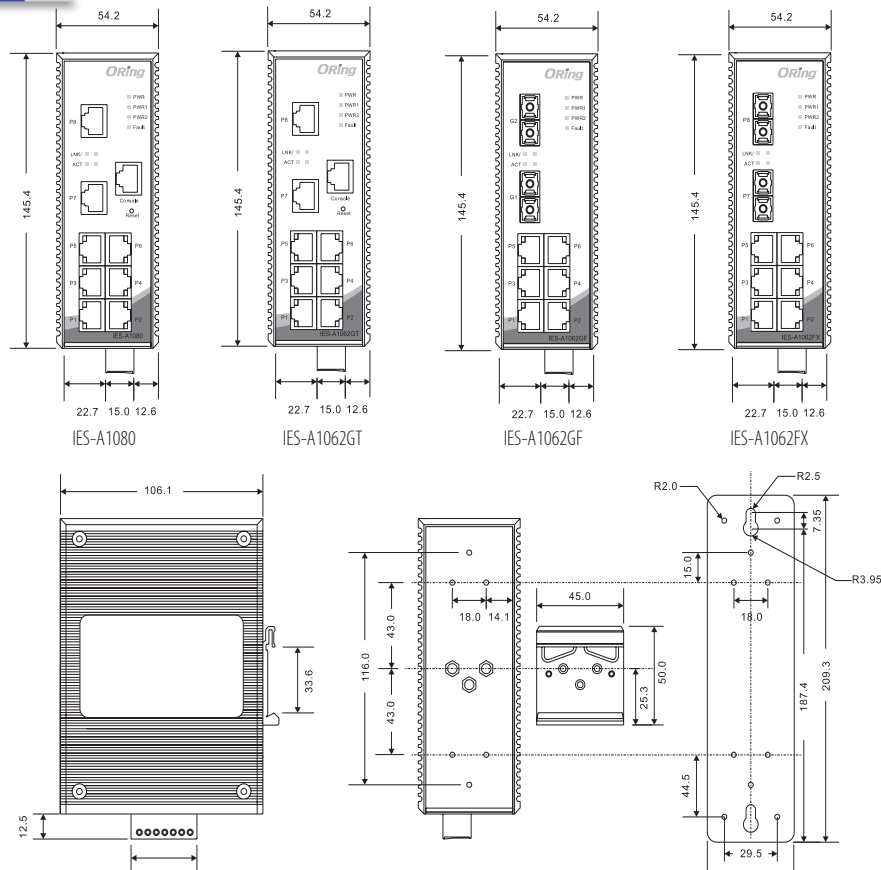


Topology View



Monitoring and Configuration interface

## Dimensions



IES-A1080

IES-A1062GT

IES-A1062GF

IES-A1062FX



(Unit=mm)

| ORing Switch Model | IES-A1080 | IES-A1062GT | IES-A1062FX-MM-SC | IES-A1062FX-SS-SC | IES-A1062GF-MM-SC | IES-1062GF-SS-SC |
|---|---|---|---|---|---|---|
| **Physical Ports** | | | | | | |
| 10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX | 8 | 6 | 6 | 6 | 6 | 6 |
| 10/100/1000Base-T(X) Ports in RJ45 Auto MDI/MDIX | - | 2 | - | - | - | - |
| **Fiber Ports Specifications** — Fiber Ports Number | - | - | 2 | 2 | 2 | 2 |
| Fiber Ports Standard | - | - | 100Base-FX | 100Base-FX | 1000Base-SX | 1000Base-LX |
| Fiber Mode | - | - | Multi-mode | Single-mode | Multi-mode | Single-mode |
| Fiber Diameter (μm) | - | - | 62.5/125 μm 50/125 μm | 9/125 μm | 62.5/125 μm 50/125 μm | 9/125 μm |
| Fiber Optical Connector | - | - | SC | SC | SC | SC |
| Typical Distance (km) | - | - | 2 km | 30 km | 0.55 km | 10 km |
| Wavelength (nm) | - | - | 1310 nm | 1310 nm | 850 nm | 1310 nm |
| Max. Output Optical Power (dBm) | - | - | -14 dBm | -8 dBm | -4 dBm | -3 dBm |
| Min. Output Optical Power (dBm) | - | - | -23.5 dBm | -15 dBm | -9.5 dBm | -9.5 dBm |
| Max. Input Optical Power (Saturation) | - | - | 0 dBm | 0 dBm | 0 dBm | -3 dBm |
| Min. Input Optical Power (Sensitivity) | - | - | -31 dBm | -34 dBm | -18 dBm | -20 dBm |
| Link Budget (dB) | - | - | 7.5 dB | 19 dB | 8.5 dB | 10.5 dB |
| **Technology** | | | | | | |
| Ethernet Standards | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-TX and 100Base-FX<br>IEEE 802.3ab for 1000Base-T<br>IEEE 802.3z for 1000Base-X<br>IEEE 802.3x for Flow control | | | | | |
| MAC Table | 8192 MAC addresses | | | | | |
| Processing | Store-and-Forward | | | | | |
| **LED Indicators** | | | | | | |
| Power Indicator | Green : Power LED x 3 | | | | | |
| Fault Indicator | Amber : Indicates PWR1 or PWR2 failure occurred | | | | | |
| 10/100Base-FX RJ45 Port Indicator | Green for port Link/Act.  Amber for Duplex/Collision | | | | | |
| 10/100/1000Base-T(X) / Fiber Port Indicator | Green for port Link/Act.  Amber for Link | | | | | |
| **Power** | | | | | | |
| Redundant Input Power | Triple DC inputs :<br>Dual 12~48VDC on 7-pin terminal block<br>One 12~48VDC on power jack (power jack cannot use in hazardous location application) | | | | | |
| Power Consumption (Typ.) | 4 Watts | 7 Watts | 8 Watts | 8 Watts | 6 Watts | 6 Watts |
| Overload Current Protection | Present | | | | | |
| Reverse Polarity Protection | Present on terminal block | | | | | |
| **Physical Characteristics** | | | | | | |
| Enclosure | IP-30 | | | | | |
| Dimensions (W x D x H) | 52(W) x 106.1(D) x 144.3(H) mm (2.05x4.18x5.68 inch.) | | | | | |
| Weight (g) | 666 g | 677 g | 680 g | 680 g | 685 g | 685 g |

Industrial
Ethernet Switch

Industrial
Media Converter

Industrial
Device Server

Industrial Wireless
Access Point

Industrial Cellular
VPN Router

Industrial
M2M Gateway

Accessories

Network
Management Software

| Environmental | |
|---|---|
| Storage Temperature | -40 to 85°C (-40 to 185°F) |
| Operating Temperature | -40 to 70°C (-40 to 158°F) |
| Operating Humidity | 5% to 95% Non-condensing |
| **Regulatory Approvals** | |
| EMI | FCC Part 15, CISPR (EN55022) class A |
| EMS | EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11 |
| Shock | IEC60068-2-27 |
| Free Fall | IEC60068-2-32 |
| Vibration | IEC60068-2-6 |
| Safety | EN60950, UL508 (E331061), UL/cUL Class 1 Division 2 Group A/B/C/D, ATEX Class 1 Zone 2 |
| Warranty | 5 years |

## Ordering Information

IES-A1 AA B CC - DD - EE

| Code Definition | 10/100Base-T(X) Port Number | Additional Port Number | Additional Port Type | Fiber Optical Mode | Fiber Optical Connector |
|---|---|---|---|---|---|
| **Option** | **- 08:** 8 ports<br>**- 06:** 6 ports | **- 0:** 0 port<br>**- 2:** 2 ports | **- GT:** 10/100/1000Base-T(X)<br>**- FX:** 100Base-FX<br>**- GF:** 1000Base-X | **- MM:** Multi-mode<br>**- SS:** Single-mode | **- SC:** SC connector |

| | Model Name | Description |
|---|---|---|
| | IES-A1080 | Industrial C1D2/ATEX 8-port slim type unmanaged Ethernet switch with 8x10/100Base-T(X) |
| | IES-A1062GT | Industrial C1D2/ATEX 8-port unmanaged Ethernet switch with 6x10/100Base-T(X) and 2x10/100/1000Base-T(X) |
| Available<br>Model | IES-A1062FX-MM-SC | Industrial C1D2/ATEX 8-port unmanaged Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, multi-mode, 2Km/1310nm, SC connector |
| | IES-A1062FX-SS-SC | Industrial C1D2/ATEX 8-port unmanaged Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, single-mode, 30Km/1310nm, SC connector |
| | IES-A1062GF-MM-SC | Industrial C1D2/ATEX 8-port unmanaged Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-SX, multi-mode, 550m/850nm,SC connector |
| | IES-A1062GF-SS-SC | Industrial C1D2/ATEX 8-port unmanaged Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-LX, single-mode, 10Km/1310nm, SC connector |

### Packing List
- IES-A1080 / A1062 series
- DIN-Rail Kit
- Wall-mount Kit
- Quick Installation Guide

### Optional Accessories
- DR-45 series, 45W DIN-Rail power supply
- DR-75 series, 75W DIN-Rail power supply
- DR-120 series, 120W DIN-Rail power supply
- PAA-121000, 12VDC/1000mA 12W Power Adapter with universal 100 to 240VAC input, US plug
- PAE-121000, 12VDC/1000mA 12W Power Adapter with universal 100 to 240VAC input, EU plug