

# Opal5

## 5 port entry-level unmanaged DIN-Rail switches



### » Overview

Opal5 unmanaged 5-port switch is specially designed for automation control applications. It is equipped with one fast Ethernet fiber/RJ45 optional port and 4 10/100Base-TX RJ45 ports. Opal5 supports SC/ST/SFP type fiber ports, redundant power inputs, metal housing with IP30 protection class, thus ensuring fast and reliable data transmission in harsh industrial environments. Opal5 provides both standard (-10°C to 60°C) operating temperature range model and wide (-40°C to 75°C) operating temperature range models to meet different applications.

### » Key Features

1 Fast Ethernet fiber/RJ45 optional port, 4 10/100Base-T(X) ports

Both standard and wide operating temperature models are available

IP30 protection class

CE, FCC, UL61010, Class I Div 2, IECEx, ATEX Zone 2, Ex nA IIC T4 Gc

### » Product Specifications

>Technical Specification

-Standard

IEEE 802.3i (10Base-T)

IEEE 802.3u (100Base-TX and 100Base-FX)

**-Switch Properties**

MAC Table: 2K

Packet Buffer: 1Mbit

Packet Forwarding Rate: 0.75Mpps

Switching Delay: <10 $\mu$ s

**-Interface**

Fast Ethernet Port:

100Base-FX, SM/MM, SC/ST connector

100Base-X, SFP slot

10/100Base-T(X), RJ45 port

**-LED**

LEDs on Front Panel

Power LED: PWR1, PWR2

Interface LED: Link/ACT, Speed (RJ45 port); Link/ACT (Fiber port)

**-DIP-Switch**

Enable/Disable broadcast storm protection

**-Power Requirements**

Power Input: 12-48VDC/18-30VAC

Power Terminal:

4-pin 5.08mm-spacing plug-in terminal block

Power Consumption: <3.4w

Overload Protection: Support

Reverse Protection: Support

Redundancy Protection: Support

Communication ports isolation: 500 Vdc, 1 minute

**-Physical Characteristics**

Housing: Metal

Cooling: Natural convection, fanless

Protection Class: IP30

Dimension: 30mm×115mm×68mm (W×H×D)

Weight: 0.2Kg

Mounting: DIN-Rail or Panel Mounting

#### **-Environmental Limits**

Operating Temperature:

-10°C to +60°C (Opal5-E)

-40°C to +75°C

Storage Temperature: -40°C to +85°C

Ambient Relative Humidity: 5-95% (non-condensing)

Operating Altitude : 2000M

#### **-Quality Assurance**

MTBF: 5832000 hrs

Warranty: 5 years

#### **-Approvals**

CE, FCC, UL61010, Class I Div 2, IECEx, ATEX Zone 2, Ex nA IIC T4 Gc

#### **-Industry Standard**

EMI:

FCC CFR47 Part 15,EN55022/CISPR22,Class A

EMS:

IEC61000-4-2(ESD): ±6kV (contact), ±8kV (air)

IEC61000-4-3(RS): 10V/m (80MHz–2GHz)

IEC61000-4-4(EFT): Power Port: ±2kV; Data Port: ±1kV

IEC61000-4-5(Surge): Power Port: ±1kV/DM, ±2kV/CM; Data Port: ±1kV

IEC61000-4-6(CS): 10V (150kHz–80MHz)

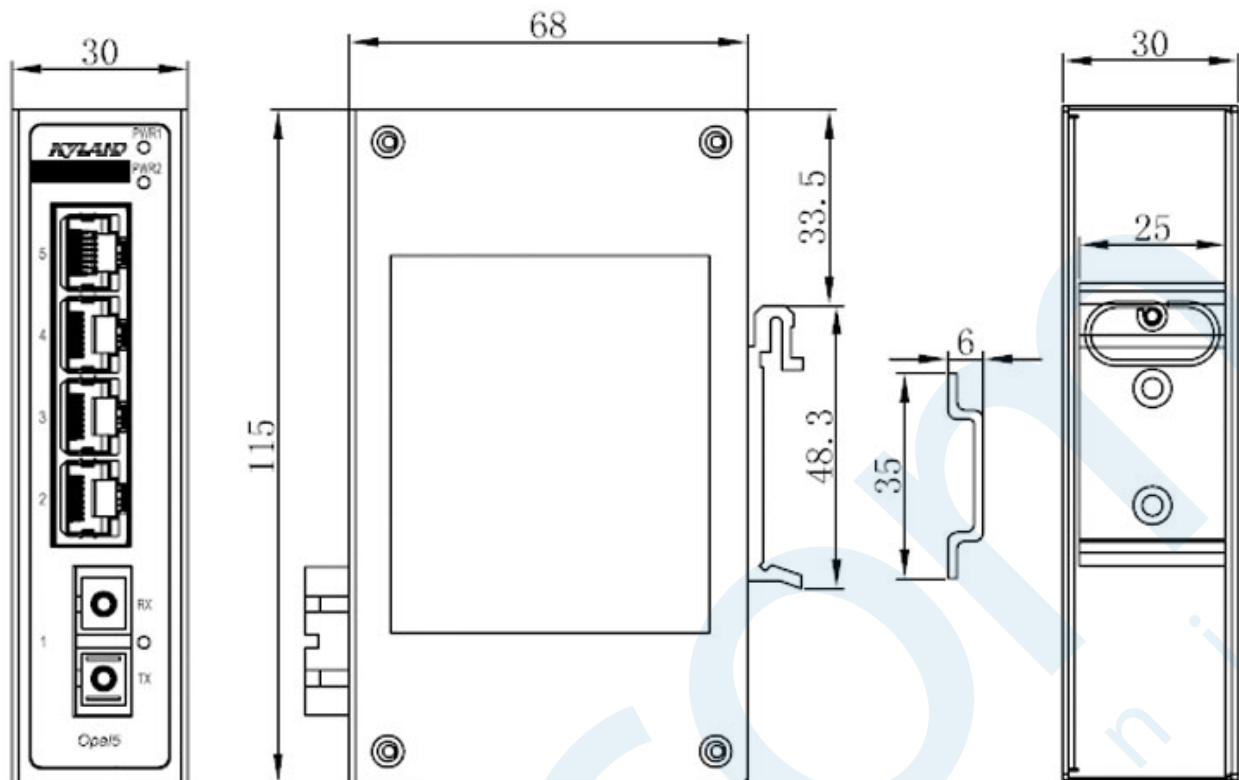
Machinery:

IEC60068-2-6 (Vibration)

IEC60068-2-27 (Shock)

IEC60068-2-32 (Free Fall)

## **» Mechanical Drawing**



## Ordering Information

### Opal5-X-Ports-Connector-PS

**X**

#### Operating temperature range

**E**

-10 to +60°C operating temperature

**None**

-40 to +75°C operating temperature

#### Ports

**5T**

5 10/100Base-T(X) RJ45 ports

**1S4T**

1x100Base-FX, single mode fiber port; 4x10/100Base-T(X) RJ45 ports

**1M4T**

1x100Base-FX, multi mode fiber port; 4x10/100Base-T(X) RJ45 ports

**1SFP4T**

1 100Base-X, SFP slot; 4 10/100Base-T(X) RJ45 ports

#### Connector

#### 100M fiber port specifications

**SC05**

SC connector, multi-mode, 1310nm, 5km

**ST05**

ST connector, multi-mode, 1310nm, 5km

**SC40**

SC connector, single-mode, 1310nm, 40km

**ST40**

ST connector, single-mode, 1310nm, 40km

**SC60**

SC connector, single-mode, 1310nm, 60km

**SC80**

SC connector, single-mode, 1550nm, 80km

**None**

No 100M fiber port

#### PS

**LV-LV**

12-48VDC/18-30VAC, redundant power inputs

#### Accessories

100Base-X SFP module

Please refer to the 100Base-X SFP module ordering list

DT-BGAZ-01

Panel for Panel mounting

DT-FCZ-RJ45-01

Dustproof cover for RJ45 port

