

# Opal5



## 5 Port Entry-level Unmanaged DIN-Rail Switches

- 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
- UL508, Class I Div 2, ATEX Zone 2, IECEx, CE, FCC



### 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.

### Technical Specification

#### Technical Parameters

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	<10μs

#### 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

#### 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)

## Warranty

MTBF	4,500,764 hrs
Warranty	5 years

## Approvals

UL508, Class I Div 2, ATEX Zone 2, IECEx, CE, FCC  
(The certificate status for 1SFP4T models are pending.)

## Industrial Standards

### 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)

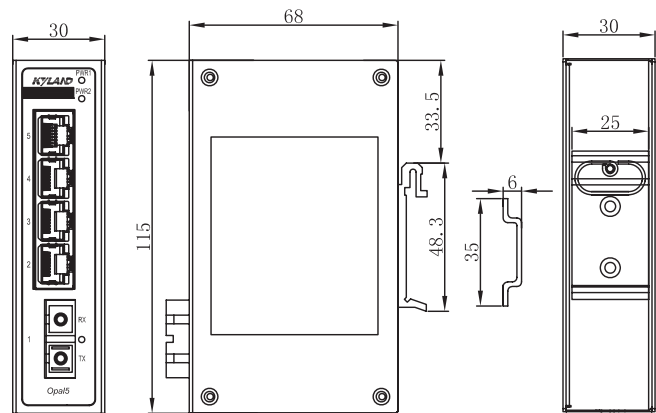
## Machinery

▼ IEC60068-2-6 (Vibration)

▼ IEC60068-2-27 (Shock)

▼ IEC60068-2-32 (Free Fall)

## Mechanical Drawing



## Ordering Information

	<b>Opal5-Ports-Connector-PS1-PS2</b>
	<b>Opal6-E-Ports-Connector-PS1-PS2</b>
	<b>Operating temperature range</b>
E	-10°C+60°C operating temperature
None	-40°C+75°C operating temperature
	<b>Ports</b>
5T	5x10/100Base-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	1x100Base-X,SFP slot; 4x10/100Base-T(X) RJ45 ports
	<b>Connector</b>
	<b>100M fiber port specifications</b>
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
	<b>PS</b>
LV-LV	12-48VDC/18-30VAC, redundant power inputs

## Accessories

Model	Description
100Base-X SFP module	Please refer to the 100Base-X SFP module ordering list
DT-BGAZ-13	Panel for Panel mounting
DT-FCZ-RJ45-01	Dustproof cover for RJ45 port