

Opal8



8 Port Entry-level Unmanaged DIN-Rail Switch

- 2 Fast Ethernet fiber/RJ45 optional ports, 6 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

Opal8 unmanaged 8-port switch is specially designed for automation control applications. It is equipped with two fast Ethernet fiber/RJ45 optional ports and 6 10/100Base-TX RJ45 ports. Opal8 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. Opal8 provides both standard (-10 to 60°C) operating temperature range model and wide (-40 to 75°C) operating temperature range models to meet different needs of applications.

Technical Specification

Technical Parameter

Standard

- ▼ IEEE 802.3i (10Base-T)
- ▼ IEEE 802.3u (100Base-TX and 100Base-FX)
- ▼ IEEE802.3x (Flow Control)

Switch Properties

MAC Table	2K
Packet Buffer	1Mbit
Packet Forwarding Rate	1.2Mpps
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	<4.6W
Overload Protection	Support
Reverse Protection	Support
Redundancy Protection	Support

Physical Characteristics

Housing	Metal
Cooling	Natural convection, fanless
Protection Class	IP30
Dimension	46mm×115mm×68mm(W×H×D)
Weight	0.2Kg
Mounting	DIN-Rail or Panel Mounting

Environmental Limits

Operating Temperature	▼ -10°C~+60°C (Opal8-E) ▼ -40°C~+75°C
Storage Temperature	-40°C~+85°C
Ambient Relative Humidity	5-95% (non-condensing)

Approvals

MTBF	4,044,813 hrs
Warranty	5 years

Certificates

UL508, Class I Div 2, ATEX Zone 2, IECEx, CE, FCC
(The certificate status for 1SFP7T and 2SFP6T models are pending.)

Industrial Standard

EMI

▼ FCC CFR47 Part 15, EN55022/CISPR22, Class A

EMS

▼ IEC61000-4-2(ESD): $\pm 6\text{kV}$ (contact), $\pm 8\text{kV}$ (air)

IEC61000-4-3(RS): 10V/m ($80\text{MHz} \sim 2\text{GHz}$)

▼ IEC61000-4-4(EFT): Power Port: $\pm 2\text{kV}$; Data Port: $\pm 1\text{kV}$

▼ IEC61000-4-5(Surge): Power Port: $\pm 1\text{kV/DM}$, $\pm 2\text{kV/CM}$; Data Port: $\pm 1\text{kV}$

IEC61000-4-6(CS): 10V ($150\text{kHz} \sim 80\text{MHz}$)

Machinery

▼ IEC60068-2-6 (Vibration)

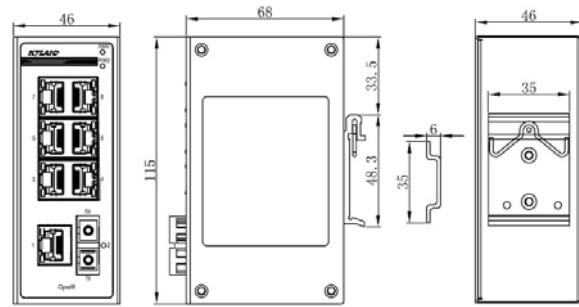
▼ IEC60068-2-27 (Shock)

▼ IEC60068-2-32 (Free Fall)

Ordering Information

Opal8-X-Ports-Connector-PS	
X	Operating temperature range
E	$-10^{\circ}\text{C} \sim +60^{\circ}\text{C}$ operating temperature
None	$-40^{\circ}\text{C} \sim +75^{\circ}\text{C}$ operating temperature
Ports	
8T	8×10/100Base-T(X) RJ45 ports
1S7T	1×100Base-FX, single mode fiber port; 7×10/100Base-T(X) RJ45 ports
1M7T	1×100Base-FX, multi mode fiber port; 7×10/100Base-T(X) RJ45 ports
1SFP7T	1×100Base-X, SFP slot; 7×10/100Base-T(X) RJ45 ports
2S6T	2×100Base-FX, single mode fiber ports; 6×10/100Base-T(X) RJ45 ports
2M6T	2×100Base-FX, multi mode fiber ports; 6×10/100Base-T(X) RJ45 ports
2SFP6T	2×100Base-X, SFP slots; 6×10/100Base-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

Mechanical Drawing



Accessories

Model	Description
100Base-X SFP module	Please refer to the 100Base-X SFP module ordering list
DT-BGAZ-10	Panel for Panel mounting
DT-FCZ-RJ45-01	Dustproof cover for RJ45 port