Opal20
18+2G port entry-level unmanaged DIN-Rail switches

Overview

Opal20 series is a well-designed entry level unmanaged switches with compact structure, flexible port combinations and reliable performance, fulfilling different demands in automation control applications. Opal20 supports 2 optional 10/100/1000Base-TX ports, 2 optional 100Base-FX ports and up to 16 10/100Base-TX RJ45 ports. Opal20 support 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. Opal20 provide 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

Flexible port combinations, supporting max 2 10/100/1000 Base-TX ports, 2 100Base-FX ports, 16 10/100Base-TX 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)

IEEE 802.3ab(1000Base-T)

-Switch Properties

MAC Table: 8K

Packet Buffer: 2Mbit

Packet Forwarding Rate: 5.7Mpps

Switching Delay:<10μs

-Interface

Gigabit Port: 10/100/1000Base-T(X), RJ45 port

Fast Ethernet Port:

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

100Base-X, SFP slot

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

-LED

LED on Front Panel:

Power LED: PWR1, PWR2

Interface LED: Link/ACT, Speed (RJ45 port); Link/ACT, Speed (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:<8W

Overload protection: Support

Reverse protection: Support

Redundancy protection: Support

-Physical Characteristics

Housing: Metal

Cooling: Natural convection, fanless

Protection Class: IP30

Dimension: 80mm×134mm×106mm (W×H×D)

Weight: 0.7Kg

Mounting: DIN-Rail or Panel mounting

-Environmental Limits

Operating Temperature:

-10°C to +60°C(Opal20-E)

-40°C to +75°C

Storage Temperature: -40°C to +85°C

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

-Quality Assurance

MTBF: 2,486,573 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: ±2kV

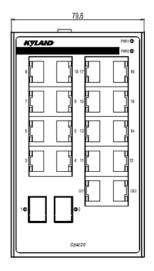IEC61000-4-6(CS): 10V (150kHz–80MHz)

Machinery:
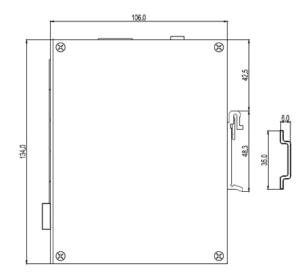
IEC60068-2-6(Vibration)

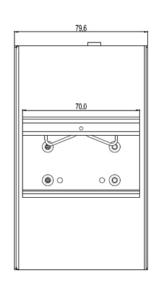IEC60068-2-27(Shock)

IEC60068-2-32(Free Fall)

⟫ Mechanical Drawing

⟫ Ordering Information

Opal20-Ports-Connector-PS1-PS2
Opal20-E-Ports-Connector-PS1-PS2

	Operating temperature range
E	-10 -+60 operating temperature
None	-40 -+75 operating temperature
Ports	
2GE2S16T	2x10/100/1000Base-T(X) RJ45 ports; 2x100Base-FX, single mode fiber ports; 16x10/100Base-T(X) RJ45 ports
2GE2M16T	2x10/100/1000Base-T(X) RJ45 ports; 2x100Base-FX, multi mode fiber ports; 16x10/100Base-T(X) RJ45 ports
2GE2SFP16T	2X10/100/1000Base-T(X) RJ45 ports; 2X100Base-X, SFP slots; 16X10/100Base-T(X) RJ45 ports
2GE16T	2X10/100/1000Base-T(X) RJ45 ports; 16X10/100Base-T(X) RJ45 ports
2S16T	2x100Base-FX, single mode fiber ports; 16x10/100Base-T(X) RJ45 ports
2M16T	2x100Base-FX, multi mode fiber ports; 16x10/100Base-T(X) RJ45 ports
2SFP16T	2X100Base-X, SFP slots; 16X10/100Base-T(X) RJ45 ports
16T	16X10/100Base-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 SFP module	Please refer to the 100Base SFP module ordering list
DT-BGAZ-02	Panel for Panel mounting

DT-FCZ-RJ45-01   Dustproof cover for RJ45 port