

# KJJ12 Intrinsically Mining Safe Ethernet Exchange Equipment

## Application:

KJJ12 Intrinsically Mining Safe Ethernet Exchange Equipment is specially designed for IoT system of industrial-grade network. It is the key element of network transmission system in our mining IoT system. The equipment serves as an interconnection point between the underground equipment and the sever. It can either be used as the main net controller or branch network switch equipment.



## Features:

- ⊙ IEEE802.3 protocol, fiber optical port and ethernet port
- ⊙ RS485 communication protocol
- ⊙ Bidirectional circle redundancy network
- ⊙ Power interrupt protection function
- ⊙ Network management, SNMP/VLAN and traffic control function
- ⊙ Self-diagnosis and error indication function



## Technical parameters:

- ⊙ Power supply
  - ◆ Working voltage: DC12V (intrinsically safe power supply)
  - ◆ Working current:  $\leq 1A$
- ⊙ Gigabit optical signal interface
  - ◆ Number of interfaces: 3 (2 optical modules as standard)
  - ◆ Transmission mode: 1310nm single-mode optical fiber transmission
  - ◆ Connection: LC
  - ◆ Transmission rate: 1000Mbps
  - ◆ Optical transmission power:  $\geq -10dBm$
  - ◆ Light reception sensitivity:  $-36dBm$
  - ◆ Maximum transmission distance: 10km
- ⊙ 100 Gigabit optical signal interface
  - ◆ Number of interfaces: 4
  - ◆ Transmission mode: 1310nm single-mode optical fiber transmission
  - ◆ Connection mode: SC
  - ◆ Transmission rate: 100Mbps
  - ◆ Optical transmission power:  $\geq -10dBm$
  - ◆ Light reception sensitivity:  $-36dBm$
- ◆ Maximum transmission distance: 20km
- ⊙ Ethernet electrical signal interface
  - ◆ Number of interfaces: 4/5 (1 shared with RS485 interface)
  - ◆ Transmission mode: full-duplex TCP/IP protocol
  - ◆ Transmission rate: 10/100Mbps adaptive
  - ◆ Signal working voltage peak-to-peak: 1V~5V
  - ◆ Transmission distance: 100m
- ⊙ RS485 signal interface
  - ◆ Number of interfaces: 1
  - ◆ Transmission mode: half-duplex, bipolar
  - ◆ Transfer rate: 2400bps (configurable)
  - ◆ Signal working voltage peak-to-peak: 5V~15V
  - ◆ Signal operating current peak-to-peak:  $\leq 100mA$
  - ◆ Maximum transmission distance: 10km
- ⊙ Intrinsically safe parameters
  - ◆ Intrinsic safety parameters:  $U_i=12.9V$ ;  
 $I_i=1.25A$ ;
  - ◆  $C_i=14.4\mu F$ ;  $L_i=4.7\mu H$
  - ◆ Ex mark: Exib I Mb