

ICRL-U-5RJ45-G-DIN
ICRL-U-4RJ45/SFP-G-DIN

## **Quick Installation Guide**

DOCT-6559 | Release Date- February 2020

#### Introduction

ICRL-U-5RJ45-G-DIN and ICRL-U-4RJ45/SFP-G-DIN are a compact size Ethernet unmanaged Gigabit switches, which ensure high switching performance and easy installation. Along with its high switching performance, it supports multiple internal performance features, such as 9K bytes Jumbo Frame, Flow Control, and it ensures quality traffic transmission.

The ICRL-U-5RJ45-G-DIN provides five 10/100/1000T(X) RJ45 ports. The ICRL-U-4RJ45/SFP-G-DIN provides four 10/100/1000T(X) RJ45 ports and one 1000BASE-F(X) SPF port.

The switch provides a rugged metal case design (IP31) to operate in harsh environments (-40 to 75°C).

It features one relay output to alarm users if power fails.

## **Wiring the Power Inputs**

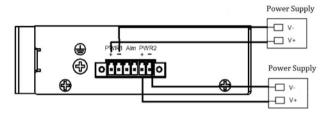
The switch provide power redundancy and polarity reverse protection. Use a UL Listed power supply with a recommended working voltage of 24VDC with an input range of 10-60VDC.

PWR1 and PWR2 are dual power inputs that can be connected to power sources simultaneously. When the primary power source fails (PWR1), the system automatically switches to the secondary power source (PWR2), preventing any power interruption.

Both of PWR1 and PWR2 support positive electricity and negative electricity power systems. Please notice the power system for PWR1 and PWR2 only accept either positive or negative electricity power system at one time



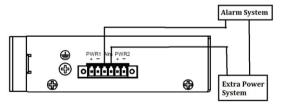
- Insert the positive and negative wires into the V+ and V- contact on the terminal block connector.
- 2. Tighten the wire-clamp screws to prevent the power wires loosened.



## Wiring the Relay Output (DO)

The relay output contacts are in the middle of the terminal block connector as shown below. Insert the wires as show below to connect the relay output alarm so that it detects power fault and avoids forming a short-circuit.

**Note:** The relay contact only support 1A current, 24VDC. Pepperl+Fuchs does not recommend apply higher voltage and current that over this specification.

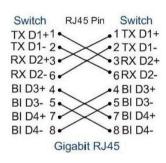


## **Connecting to Network**

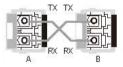
Connect one end of an RJ45 Ethernet cable into the UTP port of switch, while the other end is connected to the attached networking device. The UTP port supports the auto MDI/MDIX function.

Ethernet cables are categorized into unshielded twisted-pair (UTP) and shielded twisted-pair (STP) cables. Category 3, 4, 5 Ethernet cables are suitable for systems with 10 Mbps transmission speed. For systems with 100/1000 Mbps transmission speed, Category 5e or Category 6 Ethernet cables are the only suitable specifications for this environment. Also make sure that the distance between each node cannot be longer than 100 meters (328 feet).

Switch	RJ45 Pin	PC
TX D1+1 •	<del></del> 1	RX D2+
	2	
RX D2+3 •	•3	TX D1+
RX D2-6.	<del></del> 6	TX D1-
BI D3+ 4 •	•4	BI D4+
BI D3- 5 •	<b></b> 5	BI D4-
BI D4+ 7 •	<del>-</del> 7	BI D3+
BI D4- 8 •	8	BI D3-
G	igabit RJ45	



The ICRL-U-4RJ45/SFP-G-DIN SFP port supports hot-swapping and you can change the SFP fiber transceiver without system power off. This feature is useful for field site installations if the fiber signal cannot attach the other end device - just change to a different SFP transceiver type with



larger power launch power budget. The SFP port accepts a standard Gigabit MINI GBIC SFP transceiver. Plug in the SFP transceiver and cross-connect the transmit channel at each end to receive channel at the opposite end.



# **ATTENTION** This is a Class 1 Laser/LED product. Do not look into the Laser/LED beam.

#### **LEDs**

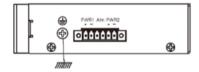
The LNK / ACT LED turns on for link up and blinks for packet transmit and receive. The Speed LED turns on for Gigabit link and turns off for 10/100Mbps link.

LED	Color	Function
P1, P2	Green	Power (1,2) on
P-F	Red	Power failure (1 or 2)
1-5 (ICRL-U-5RJ45-G-DIN) 1-4 (ICRL-U-4RJ45/SFP-G-DIN)	Green	Link
	Flashes Green	Activity
	Amber	Gigabit speed
SFP (ICRL-U-4RJ45/SFP-G-DIN)	Green	Link
	Flashes Green	Activity

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## **Grounding the Switch**

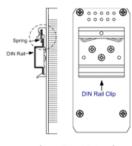
There is one grounding screw on the bottom side of switch. Connect the earth ground screw of the switch to the grounding surface to ensure safety and prevent noise.

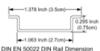


## **Mounting the Switch**

You can mount the switch on a DIN rail. The DIN rail clip is attached to the switch, which supports the EN 50022 DIN Rail standard.

- Insert the upper end of DIN rail clip into the back of DIN rail track from its upper side.
- Lightly push the bottom of DIN rail clip into the track.
- Verify that the DIN rail clip is tightly attached on the track.











### **Customer Service**

You can use one of the following methods to contact Pepperl+Fuchs.

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