PEPPERL+FUCHS

ROCKET*LINX*

ICRL-U-5RJ45-DIN

ICRL-U-5RJ45-DIN-NT

Quick Installation Guide

Introduction

The ICRL-U-5RJ45-DIN and ICRL-U-5RJ45-DIN-NT provide a slim industrial design to save rail space for compact system requirements. The switches are enclosed in an industrial-grade aluminum case with IP31 grade protection. It provides one relay output to alarm port link failure events, which is enabled and disabled by a DIP switch.

ICRL-U-5RJ45-DIN provides an extended temperature range and C1D2 certification. ICRL-U-5RJ45-DIN-NT provides a normal temperature range.

Refer to www.pepperl-fuchs.com for specification information.

ICRL-U-5RJ45-DIN Only In C1D2 Environments

The ICRL-U-5RJ45-DIN is open-type and is to be installed in an enclosure suitable for the environment and only accessible with a tool.

The ICRL-U-5RJ45-DIN is suitable for use in Class I, Division 2, Groups A, B, C, and D or non-hazardous locations only.

WARNING - EXPLOSION HAZARD - Substitution of any components on the switch may impair suitability for Class I, Division 2.

Wiring the Power Inputs

The switch provides reverse polarity protection and accepts a positive or negative power source. The recommended working voltage is 24VDC (18-32VDC).

WARNING - EXPLOSION HAZARD - Do not disconnect the ICRL-U-5RJ45-DIN unless the power has been removed or the area is known to be non-hazardous.
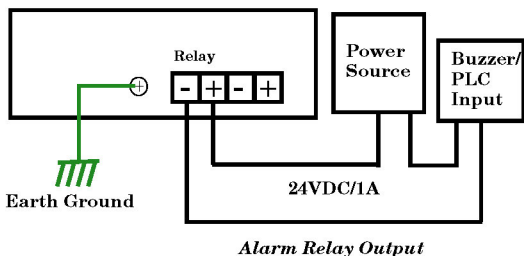
1. Insert the positive and negative wires into the power V+ and V- contacts on the terminal block connector.
2. Tighten the wire-clamp screws to prevent the wires from being loosened.

Note: Power should be disconnected from the power supply before connecting it to the switch. Otherwise, your screwdriver blade can inadvertently short your terminal connections to the grounded enclosure.

Wiring Positive Power Supplies
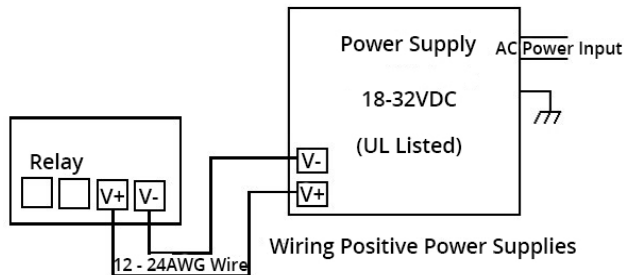
Wiring the Relay Output (DO)

The switches have a built-in alarm-relay for port link and power events notifications. The relay contacts are normally open and remain open when there is no failure event. The relay contacts close when there is a failure event to notify.

Alarm Relay Output

The failure events are selectable and enabled using the DIP switch on the switch. The relay contacts are rated for a maximum of 1A at 24VDC.

1. Insert positive and negative wires into V+ and V-.
2. Tighten the wire-clamp screws to prevent the wires from coming loose.

WARNING - Exposure to some chemicals may degrade the sealing properties of materials used in the sealed relay.

Grounding the Switch

Wire the earth ground to ensure the system is not damaged by noise or any electrical shock. We recommend that you make a direct connection between the switch and earth ground.

1. Using a screwdriver, loosen the earth ground screw on the bottom of the switch between the DIP switch and the terminal block.
2. Tighten the screw after the earth ground wire is connected.

Enabling the Event Alarm Switch

The switch is equipped with one dry relay output for port link failure.

On the bottom of the switch, there is a DIP switch for alarm control. If you connect the alarm (Wiring the Relay Output) and set the DIP switch of the intended alarm to ON, the relay output forms a short circuit if a port failure occurs.

Use this table to set the DIP switch for the relay output alarm.

Port	Status	Description
1-5	On	Enables the port link failure alarm on this port.
	Off	Disables the port link failure alarm on this port.

ON

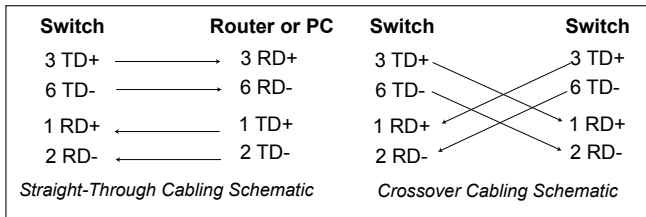1 2 3 4 5

Mounting the Switch

You can mount the switch on a DIN rail. The DIN rail clip is attached to the switch.

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

Connecting the RJ45 Ports

Connect one end of an Ethernet cable into an RJ45 Ethernet port of the switch and the other end to the attached networking device. The Fast Ethernet ports support 10BASE-T and 100BASE-TX, full- or half-duplex modes.

The Fast Ethernet ports automatically detect the signal from the connected devices to negotiate the link speed and duplex mode. Auto MDI/MDIX allows you to connect another switch, hub, or workstation without changing straight-through or crossover cables. Crossover cables cross-connect the transmit lines at each end to the received lines at the opposite end.

Switch	Router or PC	Switch	Switch
3 TD+ ⟶	3 RD+	3 TD+	3 TD+
6 TD- ⟶	6 RD-	6 TD-	6 TD-
1 RD+ ⟵	1 TD+	1 RD+	1 RD+
2 RD- ⟵	2 TD-	2 RD-	2 RD-
Straight-Through Cabling Schematic		*Crossover Cabling Schematic*	

The LINK/ACT LED is lit when the cable is correctly connected. The LINK/ACT LED is lit yellow for a 10BASE-TX Ethernet connection or green for a 100BASE-TX Ethernet connection. Always make sure that the cables between the switches and attached devices (for example, switch, hub, or workstation) are less than 100 meters (328 feet).

The cable must meet EIA/TIA-568 100-ohm specifications:
- 10BASE-T: Category 3, 4, 5, or 5e
- 100BASE-TX: Category 5 or 5e

LED Indicators

LED	LED Lit	LED Blinking	LED Off
PWR	Device powered on	Not applicable	No power
Alm	Port link down or power failure event occurred.	Not applicable	Not activated
1- 5	Green: A network device is detected and linked.	Green: The port is transmitting or receiving packets.	No port link
	Yellow: A network device is detected and link established at 100Mbps.	Not applicable	Yellow: A network device is detected and link established at 10Mbps.

Customer Service

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

Worldwide Headquarters
Pepperl+Fuchs AG
68307 Mannheim, Germany
+49 621 776-0
info@de.pepperl-fuchs.com

USA Headquarters
Pepperl+Fuchs, Inc.
Twinsburg, Ohio 44087 - USA
+1 330 425 3555
sales@us.pepperl-fuchs.com

Asia Pacific Headquarters
Pepperl+Fuchs Pte Ltd.
Company Registration No. 199003130E
Singapore 139942
+65 67799091
sales@sg.pepperl-fuchs.com

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