PEPPERL+FUCHS

ROCKET*LINX*

ICRL-U-8RJ45-DIN

ICRL-U-8RJ45-DIN-NT

Quick Installation Guide

DOCT-6558 | Release Date- November 2019

Introduction

The ICRL-U-8RJ45-DIN and ICRL-U8RJ45-DIN-NT switches are 8-port Fast Ethernet industrial switch featuring a 2.0Gbps Packet Switch engine with packet forwarding and filtering mechanisms to meet industrial communications standards. It provides packet forwarding capabilities to handle 64 to 1522 byte sizes in two priority queues to optimize data forwarding performance. Broadcast storm filtering and flow control functions ensure data delivery free of traffic congestion.

For installation in hazardous or industrial environments, the switches are equipped with two redundant power inputs, feature wide input voltage ranges, and operates within a broad temperature range. For ease-of-maintenance, the switches have one alarm relay for port link and power events to assist engineers with on-site notifications.

The ICRL-U-8RJ45-DIN provides an extended temperature range and C1D2 certification. The ICRL-U-8RJ45-DIN-NT provides a normal temperature range.

ICRL-U-8RJ45-DIN Only In CID2 Environments

The ICRL-U-8RJ45-DIN is open-type and is to be installed in an enclosure suitable for the environment and only accessible with a tool. The switch 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 in the ICRL-U-8RJ45-DIN may impair suitability for Class I, Division 2.

Wiring the Power Inputs

The switch provides redundant power, reverse polarity protection and accepts a positive or negative power source. If using redundant power supplies, they must be in the same mode.

Use this procedure to wire the power:

1. Insert the positive and negative wires into the + and - contacts on the PW1 or PW2 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.

WARNING - EXPLOSION HAZARD – Do not disconnect the ICRL-U-8RJ45-DIN unless the power has been removed or the area is known to be non-hazardous.
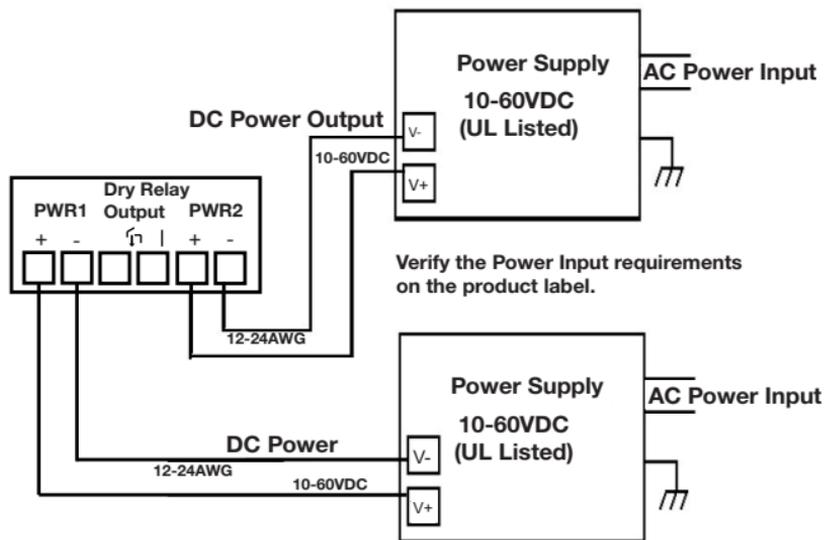
Grounding the Switch

There is an earth ground screw on the bottom of the switch. Connect the earth ground screw of the switch to a grounding surface to ensure safety and prevent noise.
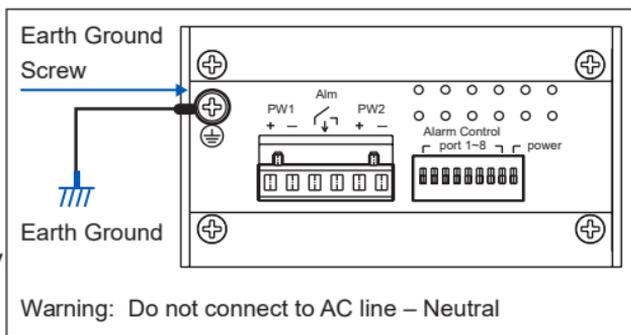
Wiring the Alarm Relay Output

The switch has 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.

The failure events are selectable and enabled using the DIP switch on the switch. The relay contacts of the switch is rated for a maximum of 1.0A 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.
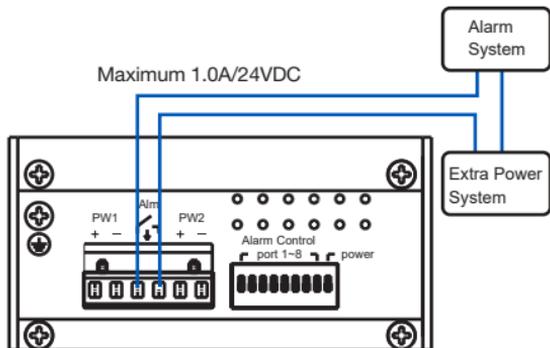
WARNING - Exposure to some chemicals may degrade the sealing properties of materials used in the sealed relay
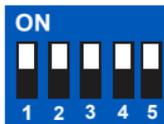
Setting the Dip Switch

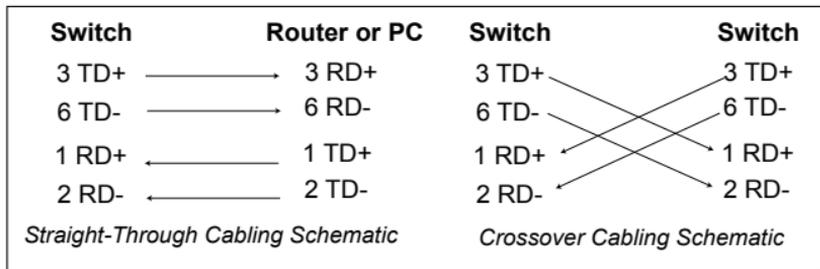| Switch	Status	Description
1 to 8 (Port)	ON	Enables port link down alarm for the corresponding port
	OFF	Disables port link down alarm for the corresponding port
9 (Power)	ON	Enables the power failure alarm
	OFF	Disables the power failure alarm

Mounting the Switch

Mount the switch on the DIN rail using the DIN rail clip that is attached to the rear of the unit.

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 the DIN rail clip into the track.
3. Verify that the DIN rail clip is tightly attached on the track.

Connecting to the Network

Connect one end of an Ethernet cable into the Ethernet port of the switch and the other end to the attached device. All Ethernet ports support auto MDI/MDIX functionality.

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*

Always make sure that the cables between the switches and attached devices (for example - switch, hub, or workstation) are no more than 100 meters (328 feet). The cable must meet EIA/TIA-568 100-ohm specifications:

•   10BASE-T: Category 3, 4, or 5
•   100BASE-TX: Category 5 or 5e

LED Indicators

There are system diagnostic and Ethernet port LEDs located on the front panel of the switch.

LED	LED Lit	LED Off
PWR 1/ PWR 2	Powered	No Power
Alm (Alarm)	Port Link is down or a power failure event has occured.	Not activated
Port 1-8	A green lit LED indicates that a network device is detected and linked up.	If the green Link LED is lit and the yellow speed LED is off, a network device is detected and a link has been established at 10Mbps.
Port 1-8	A yellow lit LED indicates that a network device is detected and linked up.	Both green and yellow LEDs are not lit - a port link has not been established.

Customer Service

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