

How to wire an optocoupler quick-connect module



Article Overview

Wire the input side to your signal source and the output side to your microcontroller or load, keeping the two sides electrically isolated, and configure jumpers and pull-up resistors as needed.

Understanding the Module

A PC817 optocoupler module uses an infrared LED on the input side and a phototransistor on the output side to transfer signals optically, maintaining electrical isolation between circuits . Each channel is independent, allowing different input and output voltages simultaneously. The input is active LOW, meaning the LED turns on when the input pin is connected to GND through your signal source . The output is typically open-collector, requiring a pull-up resistor to the output voltage.

Wiring Steps

- Identify Pins
- Input side: VCC, GND, IN
- Output side: VCC, GND, OUT
- Each channel has an LED indicator that lights when the input is active .
- Connect Input Side
- Connect VCC to the positive voltage of your signal source.
- Connect GND to the signal source ground.
- Connect the IN pin to the signal you want to monitor. When this pin is pulled LOW,...

Article Content

Aug 24, 2025

Optocoupler Circuits, Working, Characteristics, Interfacing

Optocouplers become an effective replacement for relays, and for transformers for interfacing digital circuits stages.

Jun 01, 2026

How to Build an Optocoupler Circuit

How to Build an Optocoupler Circuit In this project, we will show how to connect an optocoupler chip to a circuit. An optocoupler or

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Optocoupler Circuits | Nuts & Volts Magazine

Simply described, an optocoupler device is a sealed, self-contained unit that houses independently-powered optical (light) Tx and Rx

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Optocoupler Tutorial and Optocoupler Application

What is an Optocoupler? An optocoupler (also called an opto-isolator, photo-coupler, or optical isolator) is a solid

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How to Use Optacoupler: Examples, Pinouts, and Specs

How to Use the Optocoupler in a Circuit Input Side (LED): Connect the anode to the positive voltage

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Arduino Tutorial: HY-M154 / 817 / PC817 Optocoupler Module

This tutorial gives an introduction to the HY-M154 / 817 optocoupler module. Moreover, a simple application is

Dec 03, 2025

How to Connect a Relay through an Opto-Coupler

In the following post I have explained how to drive a relay by using an isolated method, or through an optocoupler device. We will

Oct 30, 2025

How to Connect a Relay through an Opto-Coupler

The following concepts show how a relay driver can be configured with an optocoupler using transistors. As shown in the following

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PC817 Optocoupler Module User Guide | Wiring & Setup

Complete PC817 optocoupler isolation module guide. Covers 3.6V–30V wiring, jumper

Feb 10, 2026

How to make relay module with Optocoupler | Relay module circuit

How to make relay module with Optocoupler | Relay module circuit This video

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Optocoupler modules in interface electronics

So optocoupler modules are often employed by engineers as signal-protecting intermediaries between signal sources as well as

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Optoelectronics: Optocouplers

This learning module covers the concepts, design, and implementation of optocouplers, a

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Isolating Circuits From Your Arduino With Optocouplers

Isolating Circuits From Your Arduino With Optocouplers: A Optocoupler also called a photocoupler, optical isolator or opto-isolator is

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How Optocouplers Work and How to Use Them

In this episode, we look at the optocoupler, or optoisolator, as it's also known. This little

Jan 13, 2026

Optocoupler Tutorial for Beginners

An optocoupler (or opto-isolator) is a component that transfer signals between circuits using

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Interfacing Optocoupler with Arduino

Today in this tutorial we will see the interfacing optocoupler with Arduino (4N35 or MCT2E). Optocoupler is also called

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How to use optocoupler?? what is it ?? how to connect it ...

we will learn,how to use optocoupler ??how to connect it ??the 2 components of

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Interfacing PC817 4-Channel Optocoupler Module with

Learn How to interface a PC817 4-Channel Optocoupler Module with Arduino. using PC817

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Interfacing PC817 4-Channel Optocoupler Module with

The following circuit shows how you should connect Arduino to PC817 module. Connect

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How to Use Optocoupler: Examples, Pinouts, and Specs

Learn how to use the Optocoupler with detailed documentation, including pinouts, usage guides, and example projects. Perfect for

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Optocoupler Interfacing with AVR Pic and 8051 Microcontroller

An optocoupler consists of an LED that converts the input electrical signal into a light energy signal. A phototransistor at the output

Sep 25, 2025

All About PC817 Optocoupler : 9 Steps

To fully understand the optocoupler's working principle, we will explore it from four different perspectives, each highlighting a unique

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What Is an Optocoupler | ODG

Learn about optocoupler types, working principles, and applications in microcontrollers, AC

Oct 29, 2025

Using Opto Couplers

The main purpose of an optocoupler interface is to completely isolate the input circuit from the output circuit, which normally means

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Help with (JD-Vcc) Optocoupler Relay Module

Ralph_1982: But I'm stuck and need help understand how JD-Vcc works with the relay. Unlike the video and the

Apr 08, 2026

How do optocouplers work? And how to use an optocoupler.

This video will give you detailed explanation of an optocoupler and how it works. We'll

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Arduino: Using Photo Interrupter (Slotted Optocoupler)

Connect and use Photo Interrupter (Slotted Optocoupler) in your Arduino projects - quick and easy. Find this and other hardware

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What Is Optocoupler and Its Application with Examples

An optocoupler is a semiconductor device that transmits an electrical signal between two isolated circuits using light.

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.chromadecksigns-eastrand.co.za>

Email: sales@chromadecksigns-eastrand.co.za

Phone: +32 2 318 5792

Address: Avenue Louise 500, 1050 Brussels, Belgium

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