

Optocoupler output low potential



Overview

In logic mode the output signal is either logic high ($\sim VCC2$) or logic low ($\sim$ ground potential); logic high is the same voltage as the supply rail and logic low is the same voltage as the ground. In linear (non-saturated) mode the output voltage can be set to a fraction. Optocouplers, also known as opto-isolators, are components that transfer electrical signals between two isolated circuits by using infrared light. Optocouplers contain both a light-emitting diode (LED) and a photo detector. The current transfer ratio. Output signals from the LTV-816, when the AC is "ON", are around 1. From the MCP specs, the INPUT low voltage should be 0. In this guide, you'll learn how they work and how you can use one in your own projects.



Article Content

Nov 18, 2025

Optocoupler

If the transistor fails, it will generally fail short, and the output will be shorted to V-, which would disable the SMPSU controller, and there would be no output.

Feb 06, 2026

U-160 Simple Circuit Modifications Enhance Optocoupler Performance

As the output voltage (VO) drops below its nominal value, due to a sudden increase in load, the photodiode current decreases. This decrease causes the emitter voltage on the photo-transistor to

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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. This process ensures there is no

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Using Opto Couplers

The output current available from a HCT gate to drive the optocoupler input is limited to 4mA, which is quite low for driving an optocoupler. The PC817 must then be

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What is Optocoupler? How does Optocoupler work?

In this article, what is optocoupler, how optocoupler works and some important specifications of the optocouplers are explained.

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opto isolator

The multimeter will integrate the pulse train and the result will be lower than expected. Adding a capacitor and resistor to serve as a low pass filter will

Mar 02, 2026

optocouplers to generate a pulse

i used an optocoupler to make interfacing the parallel port safer. however, the optocouplers can only short or open the connection between the phototransistor (i think between the

Aug 09, 2025

OPTOCOUPLER DEVICES AND APPLICATION

OPTOCOUPLER DEVICES AND APPLICATION An optocoupler (or an optoelectronic coupler) is basically an interface between two circuits which operate at (usually) different voltage levels. The key

Aug 12, 2025

ANO007 | Understanding Phototransistor Optocouplers

A low CIO is important in applications where very high dv/dt transients across input and output of the optocoupler are generated, like for example, high-side isolated gate driver systems in power

Jul 12, 2025

Optocoupler_Feedback_Drive_Techniques_Using_the_UC3901_and_

A variety of low cost supervisory ICs contain the required building blocks for the more demanding optocoupler feedback drive applications. Initially developed to address other specific power supply

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Optocouplers Selection Guide: Types, Features,

Video credit: myvideoisonutube / CC BY-SA 4.0 Types Optocoupler types are determined by the type of detector used, as described below. Certain types have

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Optocoupler specifications for circuit design | doEEEt

Optocoupler dissipates power through the Light-Emitting Diode and the phototransistor in the function of LED's forward current and forward voltage and

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Explanation of Photocoupler / Optocoupler Specifications

Generally, this voltage depends on the reverse withstand voltage between the emitter and base of the phototransistor and is low. If a reverse voltage that

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Dealing with Low-Current Optocouplers

The correspondingly low CTR associated with a low-frequency optocoupler pole will not hurt the performance at the end, as long as their natural variations are well

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Optocouplers in Electrical Isolation and Signal

High-speed optocouplers are used for fast-switching applications, and the optocoupler with the logic output can be used in applications where the digital

Jan 05, 2026

Activity: Optocouplers. [Analog Devices Wiki]

An optocoupler, or optical isolator, is an electronic device designed to transfer electrical signals by light across an electrical isolation barrier between its input

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Optocoupler Tutorial for Beginners

An optocoupler (or opto-isolator) is a component that transfer signals between circuits using light. In this guide, you'll learn how they work and how you

Jun 28, 2025

Guidelines for reading an optocoupler datasheet

Figure 13: Optocoupler in common collector C-C (left) and common emitter C-E (right) configurations In logic mode the output signal is either logic high ($\sim V_{CC2}$) or logic low ($\sim$ ground potential); logic high is

Jun 03, 2026

Optocoupler Circuits | Nuts & Volts Magazine

Typical isolating optocoupler applications include low-voltage to high-voltage (or vice versa) signal coupling, interfacing of a computer's output signals to external

May 14, 2026

Understanding Phototransistor Optocouplers

Understanding Phototransistor Optocouplers Content you may also like An optocoupler, also known as photo-coupler or opto-isolator, is a component

Jan 10, 2026

Optocouplers, Part 2: Parameters and applications FAQ

Part 1 of this FAQ explored the basics of the optocoupler. This part looks at key parameters and some application examples.

Jan 25, 2026

Transistor Output Optocouplers Frequently Asked Questions (FAQs)

The lifetime of an optocoupler depends on the forward current I_F , the long term operating temperature as well as the natural degradation of the LED. For low power and low temperature applications, a

Sep 26, 2025

Optocoupler TLP-291

Hello All, I want to use the TLP-291 optocoupler (OC) as a switch and also isolate the input and output. The output of the OC will activate the Solid state relay (SSR) as shown in the

May 04, 2026

SIMPLE CIRCUIT MODIFICATIONS ENHANCE OPTOCOUPLER

This large area makes a good detector but it increases the collector to base capacitance. Larger capacitance adversely effects the band-width of the optocoupler by introducing a phase lag, even at

Jan 19, 2026

How Photocouplers / Optocouplers Are Used | Renesas

Photocouplers Use Light from a Light-Emitting Diode to Conduct Current through a Phototransistor Photocouplers (also known as optocouplers) generate light by

Jul 13, 2025

Make sure your optocoupler is properly biased

If the optocoupler is current-starved, the output voltage will keep rising until the proper amount of LED current conducts through the optocoupler. This results in overvoltage conditions on the output, and is

Feb 07, 2026

Optocoupler, Phototransistor Output, Low Input Current, with Base ...

The MCT5211 is a optocoupler with a high efficiency AlGaAs LED optically coupled to a NPN phototransistor. The high performance LED makes operation at low input currents practical.

Contact Us

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