

Limit Switch

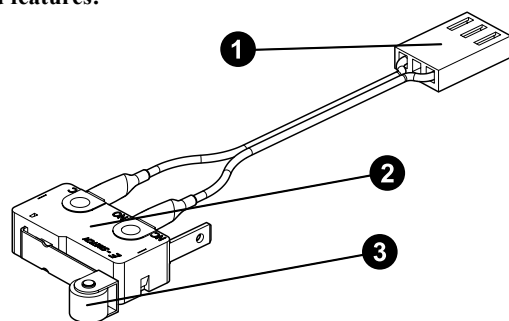
PS-3351

Introduction

The Limit Switch is designed to limit the movement of a physical system and provide an electronic signal when the system reaches this limit. The Limit Switch plugs into the //control.Node Voltage Sensor (PS-3349) attached to a //control.Node (PS-3232). When the lever on the Limit Switch is pressed against the switch, a circuit is completed and the switch produces a digital signal. This signal can then be detected by PASCO Capstone or SPARKvue data collection software, allowing you to monitor the status of the switch in real time using a data display.

Equipment

Included features:



- ❶ Three-pin female connector
- ❷ Switch
- ❸ Lever
- ❹ Switch mounting screws (not pictured)

Required equipment:

- //control.Node (PS-3232)
- //control.Node Voltage Sensor (PS-3349)
- PASCO Capstone or SPARKvue data collection software

Recommended equipment:

- Limit Switch Holder (PS-3343)
- Turntable (ME-7024)

Get the software

You can use the sensor with SPARKvue or PASCO Capstone software. If you're not sure which to use, visit [pasco.com/products/guides/software-comparison](https://www.pasco.com/products/guides/software-comparison).

A browser-based version of SPARKvue is available for free on all platforms. We offer a free trial of SPARKvue and Capstone for Windows and Mac. To get the software, go to [pasco.com/downloads](https://www.pasco.com/downloads) or search for **SPARKvue** in your device's app store.

If you have installed the software previously, check that you have the latest update:

SPARKvue: Main Menu > Check for Updates

PASCO Capstone: Help > Check for Updates

Hardware setup

1. Plug the //control.Node Voltage Sensor into the sensor port of the //control.Node.
2. Connect the Limit Switch's three-pin female connector to one of the sets of digital input pins on the //control.Node Voltage Sensor.

Software setup

1. Start PASCO Capstone or SPARKvue.
2. Connect the //control.Node to the program. For more information on this, see the //control.Node manual and the Capstone or SPARKvue online help.
3. In the program, create a display to measure the value of the **Digital Input** measurement from the appropriate port.
4. Begin recording data. The program will display a value of 0 when the lever is not in contact with the switch and a value of 1 when the lever is in contact with the switch.

Hardware mounting options

The Limit Switch can be mounted in a wide variety of positions as needed. The following mounting options are recommendations based on common experiment setups.

Limit Switch Holder

The Limit Switch Holder (PS-3343) is designed to hold the Limit Switch and mount it to an I-beam in a PASCO Structures set. The switch attaches to the mounting rod using the mounting screws provided with both the Limit Switch and the Limit Switch Holder. You can then insert an I-beam into the I-beam hole on the base of the holder, as shown in Figure 1. For full details on the mounting procedure, see the Limit Switch Holder manual.

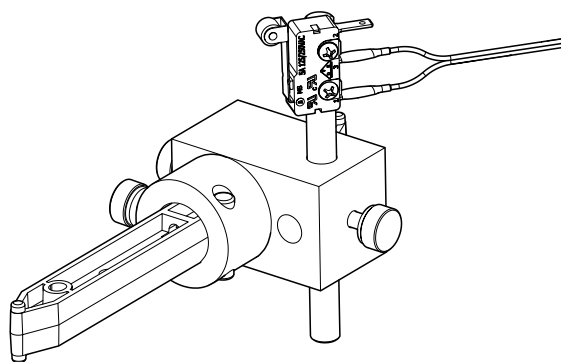


Figure 1: The Limit Switch mounted on a Limit Switch Holder.

Turntable

You can also mount the Limit Switch to the underside of a PASCO Turntable (ME-7024) used in the Motorized Crane (ME-7030). The holes in the switch align with a pair of threaded holes in the underside of the upper part of the Turntable, and the mounting screws provided with the Limit Switch can be used to secure the switch in place, as shown in Figure 2. For more information, see the Turntable manual.

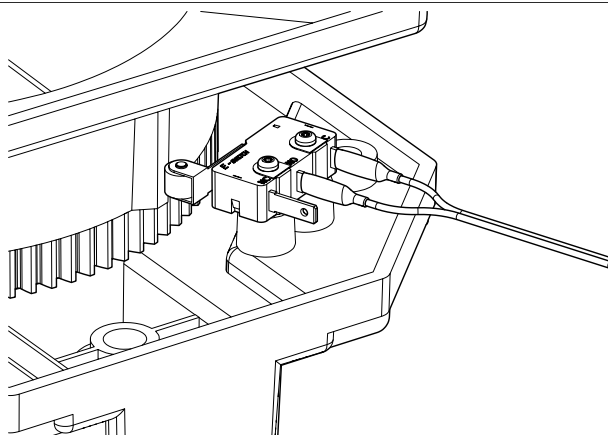


Figure 2: The Limit Switch mounted on a Turntable.

Software help

The SPARKvue and PASCO Capstone help sites provide information on how to use this product with the software. You can access the help from within the software or online.

SPARKvue

Software: Main Menu  > Help

Online: help.pasco.com/sparkvue


PASCO Capstone

Software: Help > PASCO Capstone Help

Online: help.pasco.com/capstone

Technical support

Need more help? Our knowledgeable and friendly Technical Support staff is ready to answer your questions or walk you through any issues.

-  Chat pasco.com
-  Phone 1-800-772-8700 x1004 (USA)
+1 916 462 8384 (outside USA)
-  Email support@pasco.com

Limited warranty

For a description of the product warranty, see the Warranty and Returns page at www.pasco.com/legal.

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