Sensors
- Movement
- Biometrics
- Imaging
- Environment
- Capacitive
- All sensors

Tools
- 3D Printing
- CNC
- Soldering
- Hand Tools
- Instruments
- All tools

Miscellaneous
- All Kits
- Books
- Arts/Crafts Supplies
- SD Cards
- Swag
- All misc

Components
- LED & Illumination
- Buttons & Switches
- LCDs & OLEDs
- Power
- Cables
- All components

E-Textiles
- LilyPad
- Sewable Electronics
- Materials
- E-Textile Power
- E-Textile Kits
- All e-textiles

Robotics
- Actobotics
- Motors & Drivers
- Parts
- Hardware
- Robotics Kits
- All robotics

Wireless & IoT
- Bluetooth
- WiFi
- Satellite
- GPS
- Wireless Kits
- All wireless/IoT

Audio
- Audio Boards
- Audio Cables
- Speakers
- Audio Chips
- All audio

Home
- Product Categories
- Flex / Force

Downloaded from Arrow.com.
Load Cell - 200kg, S-Type (TAS501)

Description

This S-Type load cell (sometimes called a strain gauge) can translate up to 200kg of pressure (force) into an electrical signal. Each load cell is able to measure the electrical resistance that changes in response and proportion to the strain (e.g., pressure or force) applied to the form. With this gauge you will be able to tell just how heavy an object is, if an object’s weight changes over time, or if you simply need to sense the presence of an object by measuring strain or load applied to a surface.

Each straight bar load cell is made from an alloy steel and is capable of reading a capacity up to 200kg. These load cells have four strain gauges that are hooked up in a Wheatstone bridge formation. The color code on the wiring is as follows: red = E+, green = O+, black = E-, and white = O-. Additionally, these load cells offer an IP66 protection rating and feature two M4 and two M5 sized through-holes for mounting purposes.

Get Started with the Load Cell Guide

Tags

- 200kg
- Flex
- Force
- Force/Flex
- Load Cell
- Sensor
- S-Type
- TAS501
- Wheatstone

Downloaded from Arrow.com.
OpenScale Applications and Hookup Guide

July 22, 2016

OpenScale allows you to have a permanent scale for industrial and biological applications. Learn how to use the OpenScale board to read and configure load cells.

Getting Started with Load Cells

June 11, 2015

A tutorial defining what a load cell is and how to use one.

Load Cell Amplifier HX711 Breakout Hookup Guide

July 22, 2016

A hookup guide for the HX711 load cell amplifier breakout board

Core Skill: Soldering

This skill defines how difficult the soldering is on a particular product. It might be a couple simple solder joints, or require special reflow tools.

1 Soldering

Skill Level: Noob - Some basic soldering is required, but it is limited to a just a few pins, basic through-hole soldering, and couple (if any) polarized components. A basic soldering iron is all you should need.

See all skill levels

Core Skill: Electrical Prototyping

If it requires power, you need to know how much, what all the pins do, and how to hook it up. You may need to reference datasheets, schematics, and know the ins and outs of electronics.

2 Electrical Prototyping

Skill Level: Rookie - You may be required to know a bit more about the component, such as orientation, or how to hook it up, in addition to power requirements. You will need to understand polarized components.

See all skill levels

Comments

Customer Comments

Log in or register to post comments.

Member #455681 / about 6 months ago / 1

This is my biggest engineer pet peeve: the description says that this load cell can “translate up to 200kg pressure (force) into an electrical signal”. Kilograms are neither pressure nor force, kilograms are mass. I’m sure you all at SparkFun know that pressure, force, and mass are not interchangeable - so why use those terms inaccurately?

Member #57306 / about 6 months ago / 1

Thank you for at least mentioning once or twice what this CAN measure. Could the marketing people PLEASE take their copy to a physicist, and get the errors in this ironed out? I know that marketing wants us to think it can do anything, including iron our clothes, and include lots of words for search engines to pick up, but they have gone so far that to some readers they’ve made you look foolish.

Customer Reviews

No reviews yet.
In 2003, CU student Nate Seidle blew a power supply in his dorm room and, in lieu of a way to order easy replacements, decided to start his own company. Since then, SparkFun has been committed to sustainably helping our world achieve electronics literacy from our headquarters in Boulder, Colorado.

No matter your vision, SparkFun's products and resources are designed to make the world of electronics more accessible. In addition to over 2,000 open source components and widgets, SparkFun offers curriculum, training and online tutorials designed to help demystify the wonderful world of embedded electronics. We're here to help you start something.