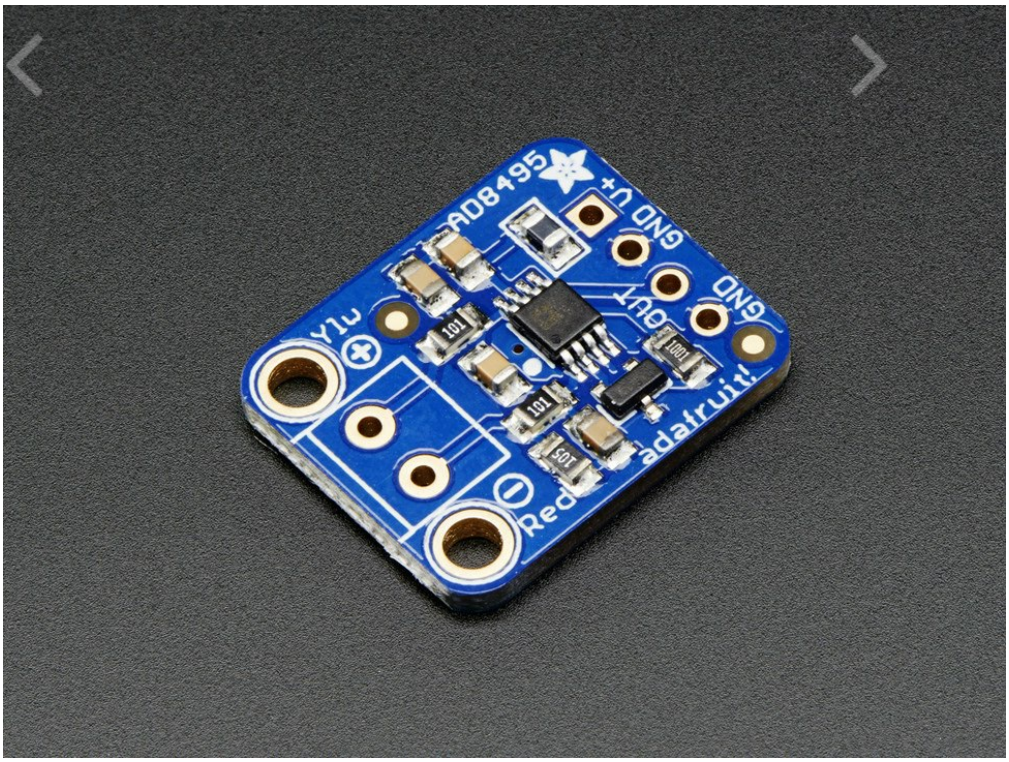

Analog Output K-Type Thermocouple Amplifier - AD8495 Breakout

PRODUCT ID: 1778

IN STOCK

1 ADD TO CART

☐ **Also include 1 x Thermocouple Type-K Glass Braid Insulated ()**

☐ **Also include 1 x Thermocouple Type-K Glass Braid Insulated Stainless Steel Tip ()**

1-9
10-99
100+

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DESCRIPTION

TECHNICAL DETAILS

DESCRIPTION

Thermocouples are very sensitive, requiring a good amplifier with a cold-compensation reference. We have a couple digital thermocouple amplifiers in the shop already from Maxim. Now we're happy to introduce an excellent analog-output amplifier. This is a very simple sensor to use, and if your microcontroller has analog input capability, you'll be ready to go really fast!

The AD8495 K-type thermocouple amplifier from Analog Devices is so easy to use, we documented the whole thing on the back of the tiny PCB. Power the board with 3-18VDC and measure the output voltage on the **OUT** pin. You can easily convert the voltage to temperature with the following equation: Temperature = (Vout - 1.25) / 0.005 V. So for example, if the voltage = 50°C

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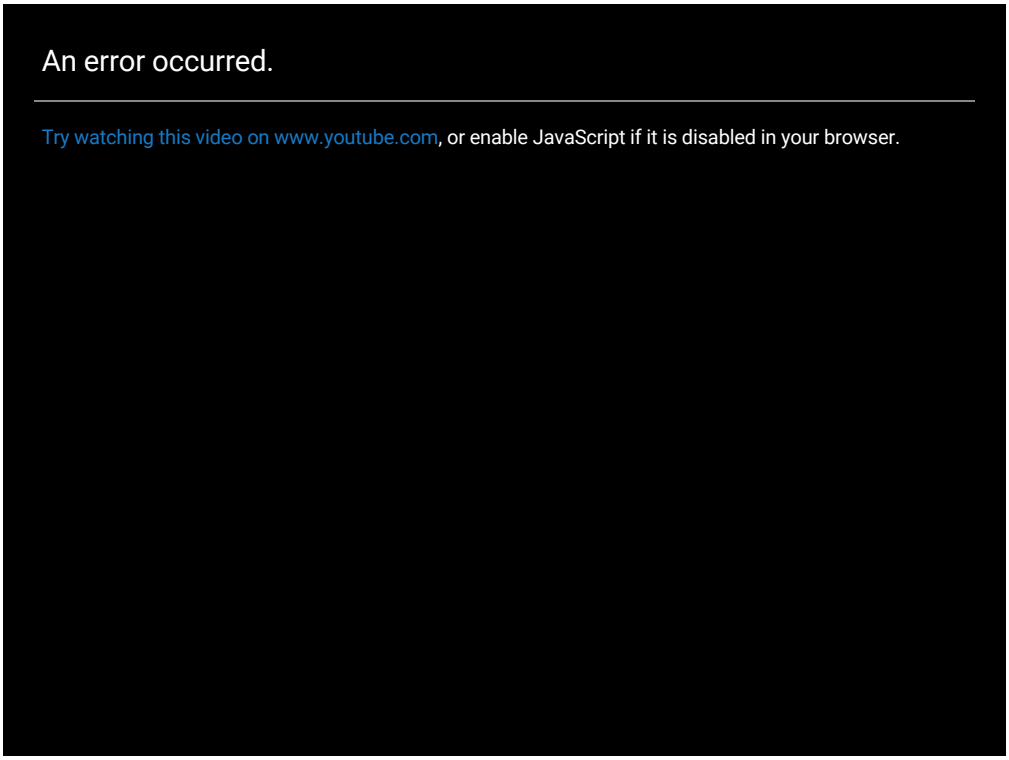
Each order comes with a 2 pin terminal block (for connecting to the thermocouple), a fully assembled PCB with the AD8495 + TLVH431 1.25V precision voltage reference, and pin header (to plug into any breadboard or perfboard). Goes great with our 1m K-type thermocouple (not included). Not for use with any other kind of thermocouple, K type only!

- Works with any K type thermocouple
- Will not work with any other kind of thermocouple other than K type
- Easy to use analog output
- Temp range with 5V power: **-250°C to +750°C output** (0 to 5VDC) as long as the thermocouple can handle that range
- Temp range with 3.3V power: **-250°C to +410°C output** (0 to 3.3VDC) as long as the thermocouple can handle that range

Note: The terminal blocks included with your product may be blue or black.



TECHNICAL DETAILS

- Sensing Accuracy Range: ± 1°C around room temperature, ± 2°C for −25°C to +400°C, beyond that range see the AN-1087 app note
- Supply Voltage: 3-18VDC
- AD8495 Datasheet
- EagleCAD PCB files on GitHub
- Fritzing object in Adafruit Fritzing Library

Dimensions:

- 20mm x 16mm x 2mm / 0.8" x 0.6" x 0.08"
- Weight: 1.1g

RoHS

MAY WE ALSO SUGGEST...

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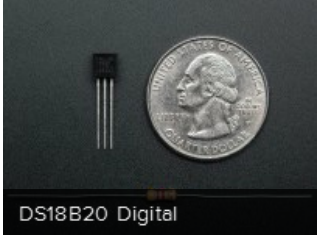

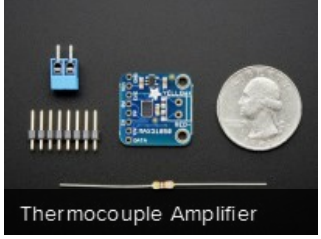

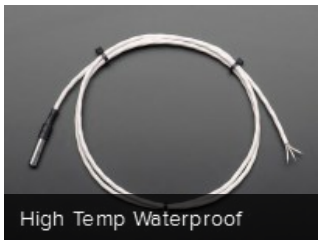

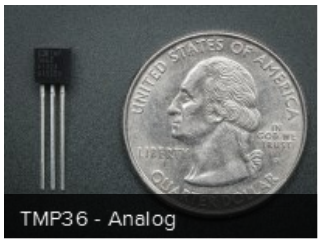

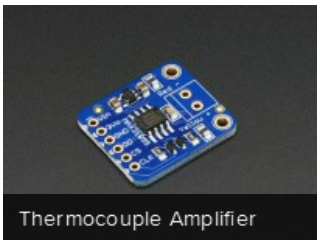

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