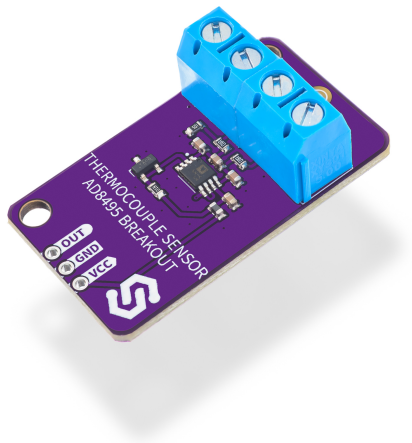
THERMOCOUPLE SENSOR AD8495



Weight 10 g

DESCRIPTION

Measure extreme temperatures from -25°C to +400°C with precision using our AD8495 K-Type thermocouple sensor breakout. Perfect for industrial monitoring, 3D printer hotends, furnace control, and high-temperature research applications, this sensor provides accurate temperature readings where standard sensors fail. The built-in cold junction compensation (CJC) eliminates the need for external reference temperature measurement, while the linear 5mV/°C output makes integration with Arduino and other microcontrollers straightforward and reliable.

Engineered around the precision AD8495 chip, this breakout board features built-in cold junction compensation with ±1°C typical accuracy within 0-50°C ambient range. The wide supply voltage range (2.7V to 36V single supply, or 2.7V to 18V dual supply) ensures compatibility with various power systems, while the ultra-low 180µA typical supply current makes it perfect for battery-powered applications. The 1.25V typical output at 0°C provides a stable reference point for accurate temperature calculations.

Essential for monitoring 3D printer hotends, industrial furnace control, measuring exhaust gas temperature in automobiles, temperature monitoring in food processing, and scientific research requiring precision at high temperatures. Compatibility with K-Type thermocouples and high accuracy make this sensor ideal for both hobby projects and industrial automation systems where reliable measurement is crucial.

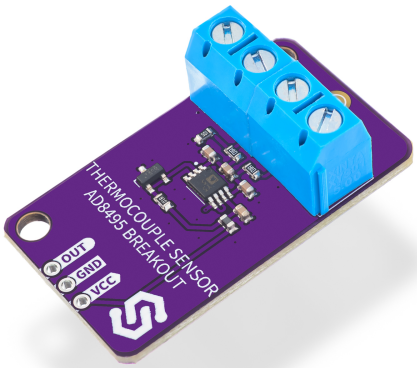
FEATURES

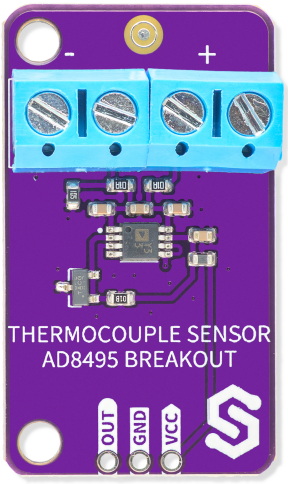
- Temperature Range: -25°C to +400°C with K-Type thermocouple
- Output: Linear 5mV/°C for easy microcontroller integration
- Reference Output: 1.25V typical at 0°C (cold junction)
- Accuracy: ±1°C typical, ±2°C max (0-50°C ambient range)

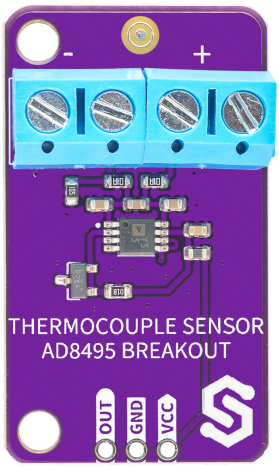
- Built-in CJC: Automatic cold junction compensation
- Stable Operation: Consistent readings across temperature ranges
- Supply Voltage: 2.7V to 36V (single supply) / 2.7V to 18V (dual supply)
- Supply Current: Ultra-low 180µA typical consumption
- Output Type: Analog voltage proportional to temperature

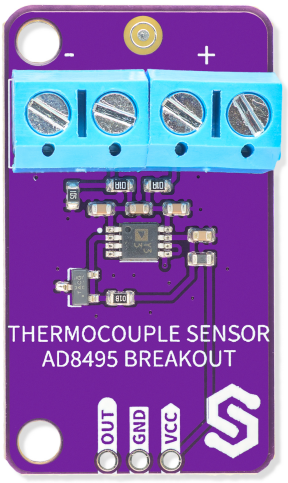
USEFUL LINKS

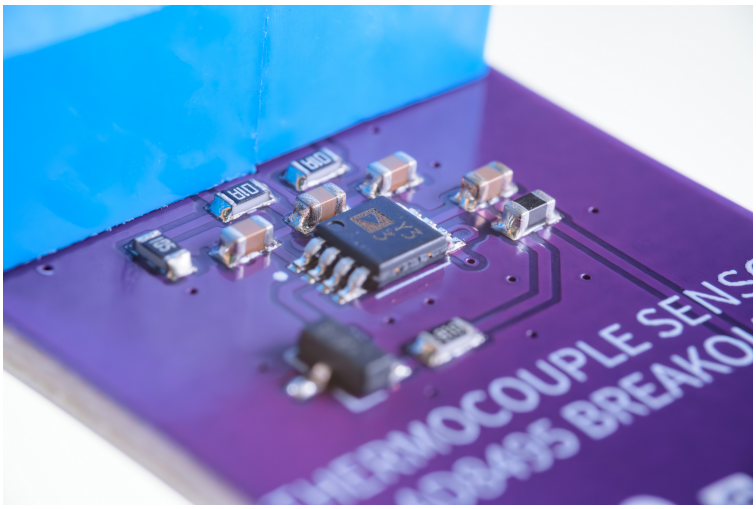
OTHER IMAGES











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