

EGT-K Thermocouple Amplifier

EGT-K manufactured by **REVELTRONICS** is a precision **thermocouple amplifier** providing high accuracy temperature measurement in range of **0 - 1250°C**. It converts **thermocouple type-k** non-linear millivolts signal to **0-5V linear (4mV/°C) analog output** so it's compatible with most industrial applications and data-loggers. It has **built-in cold junction compensation** so any length wires can be used. EGT-K is available in single, dual or quad channel.

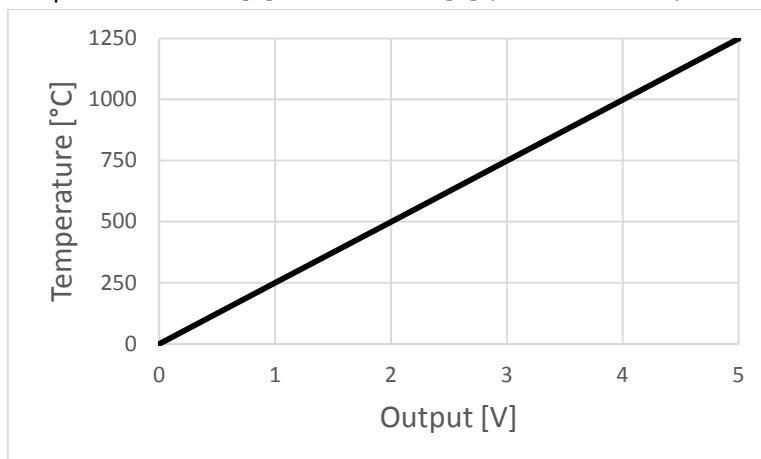


Example application:

- automotive gauges and data-loggers - as a conditioner for exhaust temperature (EGT) measurements, coolant temperature, cylinder head, brakes etc. (working with REVELTRONICS UTCOMP & UTCOMP-PRO, AEM EMS, GReddy e-MANAGE, Motec, Stack, ACR systems, HRC etc.)
- industrial applications (which require 0-5V linear signal on input),
- oven temperature measurements and control,
- hobbyist electronics (as a thermocouple signal converter from millivolts to 0-5V linear, e.g. for Arduino projects, as a ADC input signal for microcontrollers etc.)

Technical data:

- measurement range: 0-1250°C (32-2282°F),
- compatible thermocouples: type "K" probe,
- built-in cold junction compensation,
- output signal analog 0-5V, 4mV/°C (0V = 0°C, 5V = 1250°C),
 - output function: $T [C] = 250 * OUT [V]$ (a = 250 ; b = 0)



- filters: input low-pass $f_c = 160\text{Hz}$, output low-pass $f_c = 16\text{Hz}$
- accuracy (gain error): +/- 1.5% (EGT-K is based on AD8495 precision thermocouple amplifier with cold-junction compensation – please take a look for AD8495 datasheet for characteristics),
- ADC input resistance: >100kOhm (recommended >1MEG)
- power supply: 8-32V DC for full range of measurement 0-1250°C (lower voltage will limit maximum range, e.g. +5V power supply limit output range to +3,2V),
- dimensions: 85mm x 54mm x 6mm (without terminal blocks)