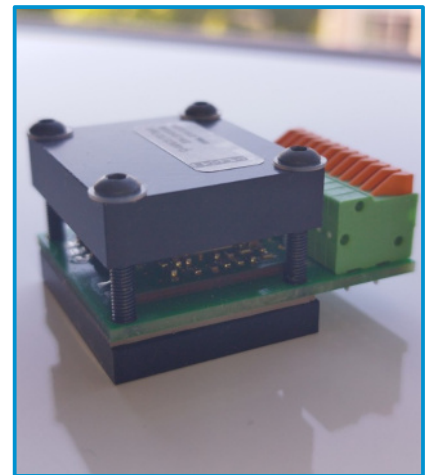
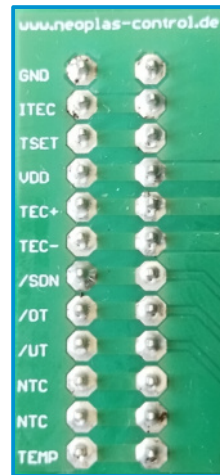
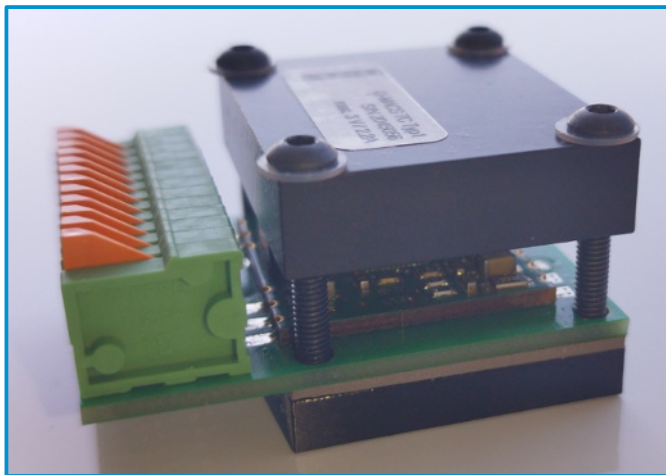




## Q-MACS TC-TYP1

The Q-MACS TC Type1 is ultra compact analog OEM temperature controller, with a fixed PID Loop. It will be delivered with a PID Loop that works in most conditions, or with user defined parameters. A PID Loop definition with user equipment is also possible. The Q-MACS TC Type1 is a highly compact PID controller designed specifically for small Peltier Elements, with up to 5V/3A. The Module provides monitoring signals for the TEC current and temperature as a function of a voltage from 0V to 5V. As a safety funktion an over- and undertemperature signal can be evaluated e.g. by the Shutdown funktion. The operation, with only one operating voltage, ensures easy use.



### General

description	compact analog temperature controller
dimensions	35 mm x 47 mm x 26,5 mm (L x D x H)
thermal management	air
temperatur stability	up to 0,001 K

### Terminal

type of terminal	Phoenix Contact FFKDSA1/H-2,54-12
------------------	--------------------------------------

### Type of thermistor

thermistor	NTC witch R25=10k
------------	-------------------

### Electrical parameters

supply voltage	+5V Vdd to GND
temperature protection	/OT, /UT +/-20mV (typ. +/-1,5 K to temp. setpoint)
monitor ltec	$V_{tec}=1,5V+(0,068\text{Ohm} \cdot I_{tec}) \cdot 8$
monitor Temperature	$V_{temp}=V_{ntc}$

### Material

mountig/cooling plates	anodized aluminium
electronic base	FR4