

STCC-04 Series

STANDARD TEC CONTROLLER



Description

The **STCC-04** is a standard thermoelectric cooler controller with ± 0.01 °C stability.

The unit provides low noise power supply for integrated preamplifiers.

Features

- Provides proper detector cooling
- Preamplifier power supply included
- Temperature lock indicator

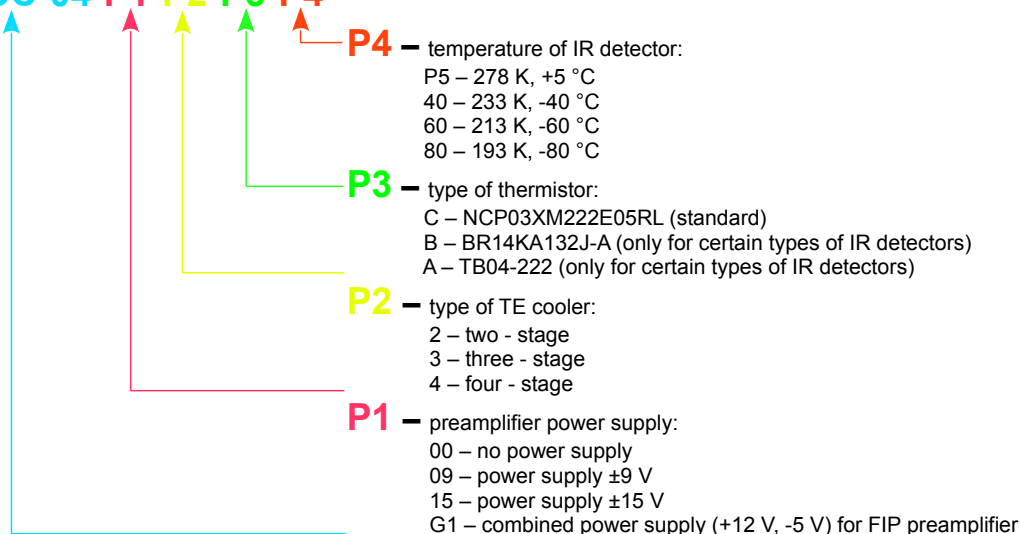
TEC Controller Specification

Parameter	Unit	Value			Conditions, Remarks
		Min	Typ	Max	
Temperature Stability	K		± 0.01		$T_{det} = 233$ K (-40 °C)
Detector Temperature Settling Time	s		25 300 300		$T_{det} = 233$ K (-40 °C), $\Delta T_{det} = 0.1$ °C $T_{det} = 213$ K (-60 °C), $\Delta T_{det} = 0.1$ °C $T_{det} = 193$ K (-80 °C), $\Delta T_{det} = 0.1$ °C
Maximum Voltage Across TEC Element	V		2.5 4.0 7.7		STCC-04-P1-2-P3-P4 STCC-04-P1-3-P3-P4 STCC-04-P1-4-P3-P4
Ripple of Output Current	%			0.5	$I_{TEC} = 1$ A
Output Current of the Built-In Power Supply	mA		± 100		STCC-04-09-P2-P3-P4 STCC-04-15-P2-P3-P4
Power Supply Voltage V_{sup}	V	4.5 11.5		5.5 12.5	STCC-04-P1-2-P3-P4, STCC-04-P1-3-P3-P4 STCC-04-P1-4-P3-P4
Power Supply Current I_{sup}	mA		3A 1A		STCC-04-P1-2-P3-P4, STCC-04-P1-3-P3-P4 STCC-04-P1-4-P3-P4
Series Resistance of the Connecting Cable	m Ω		1000		total resistance of the wires supplying TEC element
Dimensions	mm×mm×mm	82×60.5×150			width×height×depth
Weight	kg		0.25 0.27		STCC-04-00-P2-P3-P4 remaining models

Electrical characteristics @ $T_a = 20$ °C.

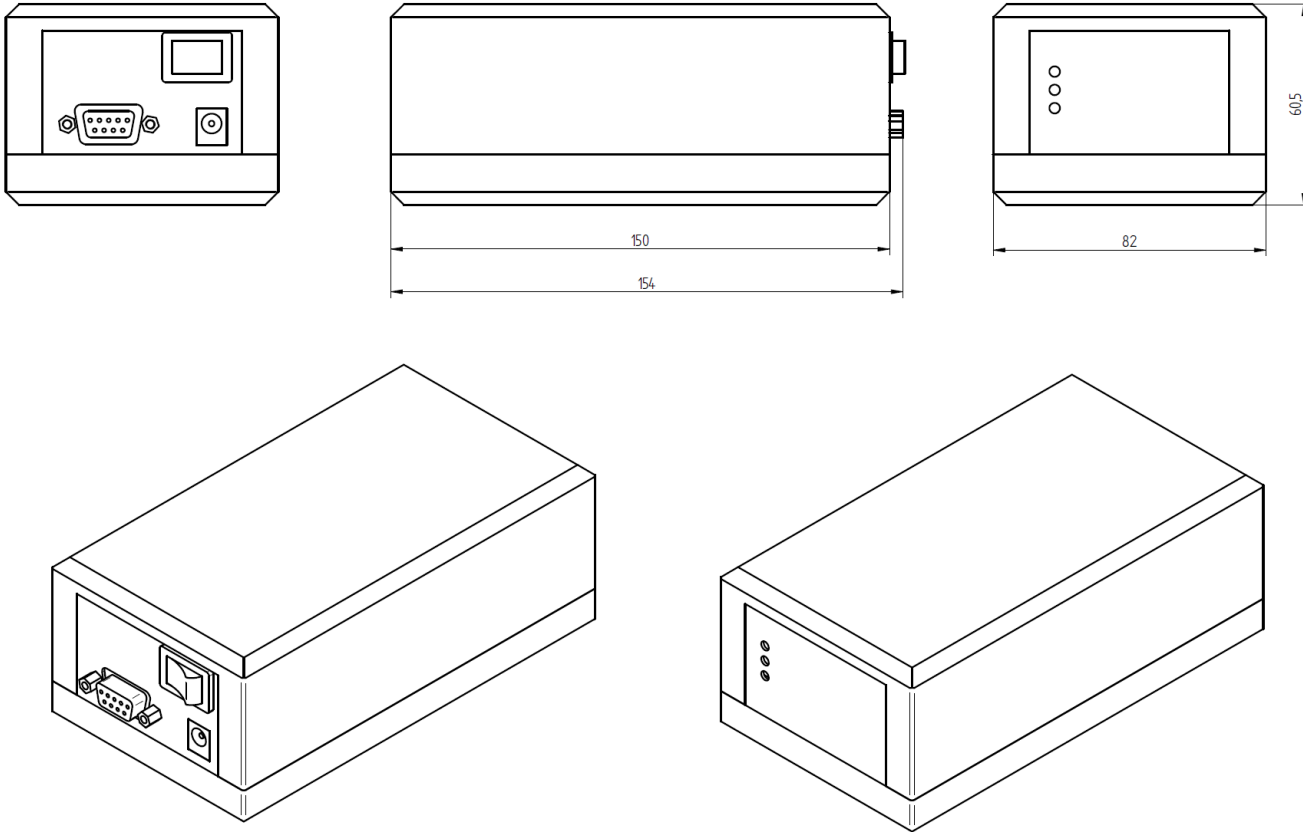
TEC Controller Code Description

STCC-04-P1-P2-P3-P4



STCC-04 – cooler controller series
S – Standard, T – Thermoelectric, C – Cooler, C – Controller, ver 04

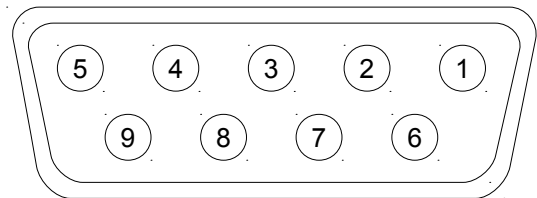
Physical Dimensions [mm]



Power Supply and Control Connector

Pin Number	Symbol	Function
1	TEC+	TEC supply output (+)
2	TEC-	TEC supply output (-)
3	GND	power ground
4	TH1	thermistor input (1)
5	TH2	thermistor input (2)
6	-V _{sup}	power supply output (-)
7	FAN+/GND	FAN (+)/power ground
8	N.C.	not connected
9	+V _{sup}	power supply output (+)

DB9 Connector Female



Recommended Accessories

AC Adaptor	LEMO-DB9	AMP2x4-DB9	DB9-DB9
Power Supply Adaptor	TEC and Supply Cable	TEC and Supply Cable	Supply Cable