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STCC-04 Series Thermoelectric Cooler Controllers

The family of modern STCC-04 controllers has been designed for temperature control and stabilization of IR detectors manufactured by VIGO System S.A. The following TE cooled detectors are included: PVI-2TE, PV-2TE, PC-2TE and PCI-2TE mounted on heatsinks DR-1(B) or DR-10(B). The STCC-04 family is characterized not only by a very good stabilization of the detector temperature, but also by high watt-hour efficiency, low noise level, small overall dimensions and small bulk. High temperature stability guarantees excellent performance of the detector independently of the ambient conditions.

The STCC-04 family includes models for constant or adjustable working temperature of the detector. Depending on model of the controller and detector, the temperature can be kept within the range 233 K (-40 °C) to 278 K (+5 °C).

An optional built-in secondary power supply provides all voltages needed for VPAC- or VPDC-series preamplifiers integrated in model DR-1 or DR-10 heatsinks with the detector. The particular parameters of the power supply are optimized for the selected model of the preamplifier resulting in the best working conditions of the whole set.

STCC-04 - PP - nT - type (model specification system)

STCC-04 Product identifier

Type of built-in power supply:

- 00** - no power supply
- PP 05** - power supply ± 5 V / ± 250 mA
- 12** - power supply ± 12 V / ± 120 mA
- 15** - power supply ± 15 V / ± 100 mA
- G1** - combined power supply (- 0.5 V, +4.5 V and +7 V) for VPAC-1000 preamplifier

- n 2** - two-stage cooler (standard)
- 3** - three stage cooler

Type of thermistor:

- T A** - TB06-22
- B** - BR14KA132J-A (only for certain types of IR detectors)

Programmed temperature of IR detector:

- type P5** - 278 K (+5 °C)
 - 30** - 243 K (-30 °C)
 - 35** - 238 K (-35 °C)
 - 40** - 233K (-40 °C)
 - RC** - precisely adjusted within the range 233 to 278 K (-40 to +5 °C)
 - R4** - switched within the range 233 to 243 K (-40 to -30 °C)
- Custom-set temperatures are also available.

