

SyCTRL Temperature Output

SyCTRL TempOut board

- Multi temperature simulation channels
- Simulation of a finite number of temperatures
- Channel to channel isolation of 130 Vrms
- Physical separation to Product Under Test

Overview

The TempOut board is a multi channel isolated output board designed for temperature simulation of any resistor based sensor such as NTC, PT100, PT1000, ...

The board implements a configurable number of temperature output channels (up to 24 channels per board), each channel simulating a discrete number of temperature steps (the more channels, the less steps).

Any temperature curve can be approached based on discrete R-T lookup tables.

The TempOut board is mounted in any rear slot of any Chassis.

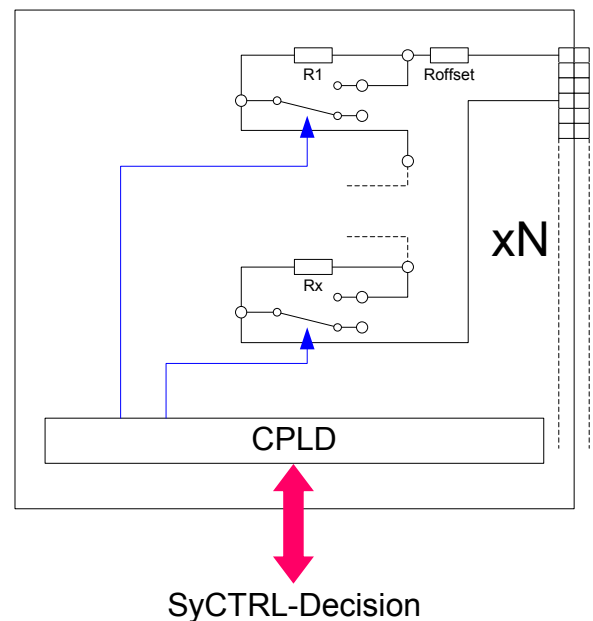
It is managed by a standard Decision board and can be mixed with any SyCTRL rear mounted slave board (analog / digital IO, LCL, RS485, HPC, ...).

Downtime optimization

The TempOut board embeds its own parameters, minimizing its downtime to the board replacement in case of failure.

Integrated Built-In self test

The TempOut board embeds its own built-in self test which gives a clear status of the relays health.



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Input characteristics

Number of channels	up to 24
Possible arrangements	from 2 up to 2 ²⁴
Circuit type	resistor
Accuracy	at least 1% (per resistor)
Maximum resistor power	0.5 W
Maximum relay current	1 A
Travel time	< 10 ms
Relay operation	> 100.000

Channel arrangement (examples)

# of simulated values (per channel)	Max # of channel per board
3	12 (without physical isolation) 8 (with physical isolation)
4	8 (without physical isolation) 6 (with physical isolation)
8	3 (with or without physical isolation)
24	1 (without physical isolation)
Decade box	Up to 6 decade

Power characteristics

Power consumption	7 W
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Physical separation

For each line (if configured)	> 10 MΩ when open
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Environmental

Operating environment

Temperature	10 to 40 °C
Humidity	40 to 85% noncondensing
Pressure	800 to 1050 mbar

Storage environment

Temperature	-10°C to 60 °C
Humidity	up to 90% noncondensing
Pressure	800 to 1050 mbar

Mechanical

Size

sc250	3HU x 4HP x 220mm (*)
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Weight

sc250	200 g
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Connector

sc250	1x D-Sub 50 female
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(*) 1 HU = 44.45 mm, 1 HP = 5.08 mm, FSR: Full Scale Range

