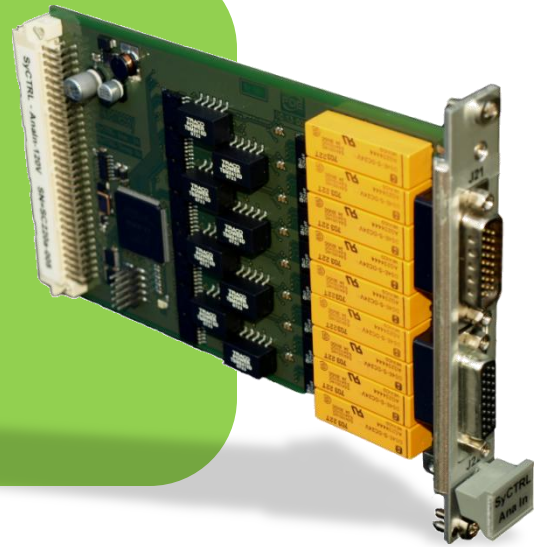


# SyCTRL Temperature Input

## SyCTRL TempIn board

- 8 temperature measurement inputs
- Input range up to 1 M $\Omega$
- Accuracy better or equal to 5% of full range
- Physical separation to Product Under Test



## Overview

The TempIn board is a 8-channel isolated input board designed for temperature acquisition of any resistor based sensor such as NTC, PT100, PT1000, ...

The resistance of the sensor is acquired by the board and then forwarded to the Decision board which converts this value to the corresponding physical value. Any scaling lookup table can be defined in regards with the input range of the board.

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

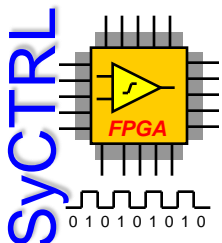
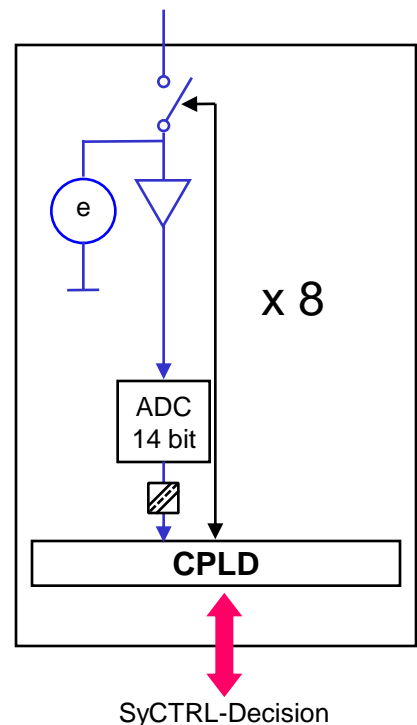
It is managed by a standard Decision board and can be mixed with any SyCTRL rear mounted slave board (analog / digital IO, LCL, RS485, HPC, ...).

## Downtime optimization

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

## Integrated Built-In self test

The TempIn board embeds its own built-in self test which gives a clear status of the acquisition lines and of the relay health.



Clemessy Switzerland AG  
Gueterstrasse 86b  
CH-4053 BASEL  
Tel : +41 (0)61 205 31 50



# SyCTRL Temperature Input

## Input characteristics

Number of channels	8
Measurement type	On 10 k $\Omega$ Wheatstone bridge
Input range	200 $\Omega$ .. 1 M $\Omega$
ADC resolution	13 bits + 1 sign bit
Type of ADC	Serial
Scan rate	40 kS/s for all channels
Simultaneous sampling	On all channels
Accuracy	2% of FSR (*) up to 600k $\Omega$ 5% of FSR (*) above 600 k $\Omega$
Measurement current	< 1 mA
Channel-to-channel isolation	130 Vrms
Signal transfer	Differential DC coupled
Zero reference	Isolated per channel
Fault voltage emission	$\pm$ 15V
Fault voltage tolerance	$\pm$ 18V
Filtering characteristics	Low pass Fc<2.5 MHz

## Power characteristics

Power consumption	11 W
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## Physical separation

For each line	> 10 M $\Omega$ when open
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## Environmental

### Operating environment

Temperature	10 to 40 °C
Humidity	40 to 90% 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

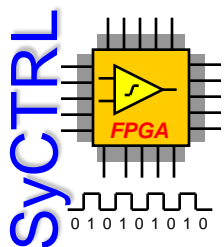
sc240	3HU x 4HP x 220mm (*)
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### Weight

sc240	280 g
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### Connector

sc240	1x D-Sub 26 male
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(\*) 1 HU = 44.45 mm, 1 HP = 5.08 mm, FSR: Full Scale Range

