

RTDx/TCx Inputs (x8) optically isolated

Ref: 5080-0608-1

**Arion-IO
Technical
specification**

Features



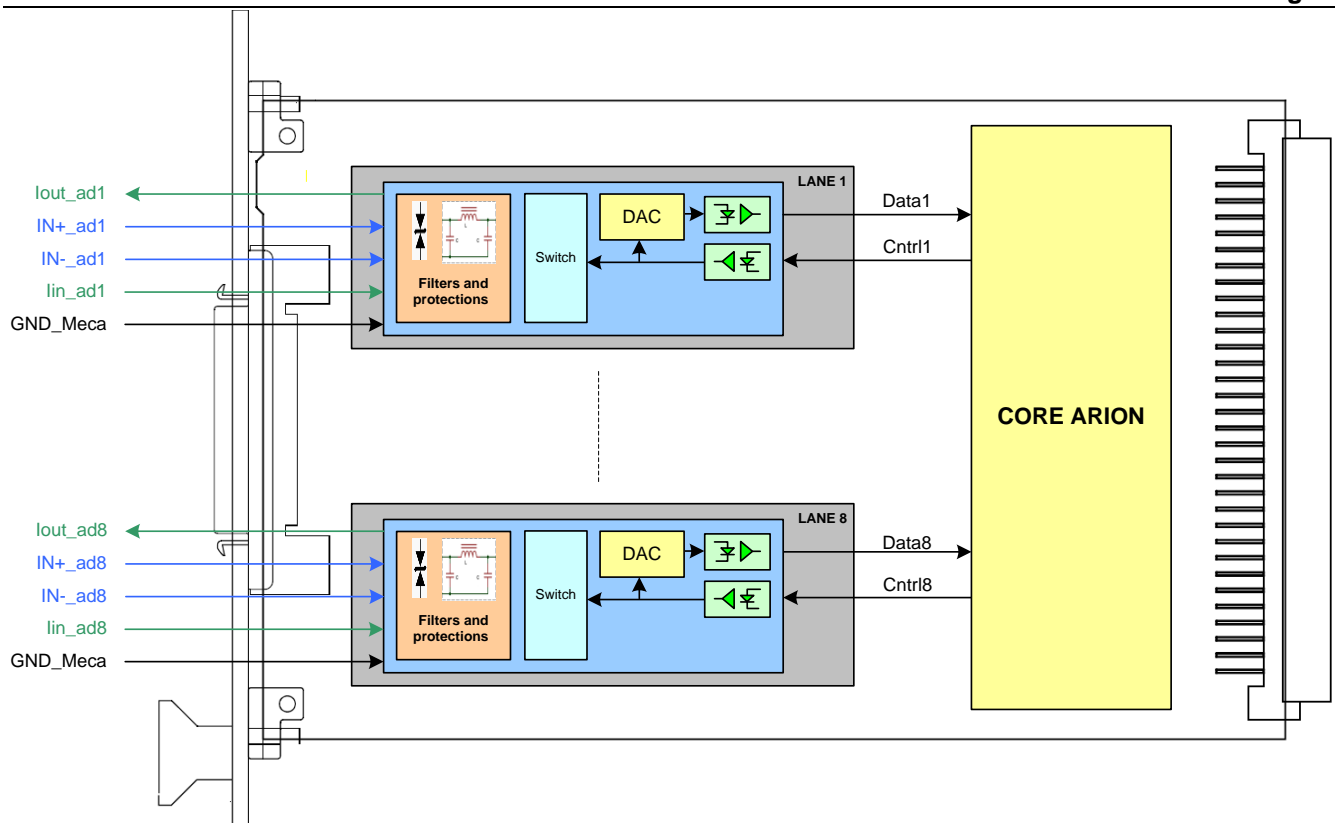
- 8 inputs for temperature sensor (separated in 8 lanes on the board)
 - RTD-100, RTD-1000 (DIN 43760)
 - TC-J, TC-K, TC-T
- Sensor pin-out configurable and automatically switched
 - 2 wires ($\pm 4^{\circ}\text{C}$ error max.)
 - 3 wires ($\pm 2^{\circ}\text{C}$ error max.)
 - 4 wires ($\pm 0.2^{\circ}\text{C}$ error max.)
- Maximum accuracy: $\pm 0.2^{\circ}\text{C}$ (for 4 wires RTD and TC sensors)
- Sample Rate: 200 ms
- RTD current: 210 μA and 420 μA
- Configurable cold-junction compensation for TC sensor ($\pm 0.5^{\circ}\text{C}$)
- Optically isolated: provides a direct connection to industrial equipments
- Common mode transient immunity of 100V/ μs
- All outputs are protected from transient voltage spikes, short-circuits and overvoltage



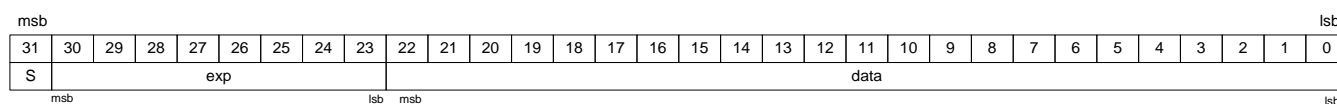
Physical and environmental condition

Dimensions:	3U format (length 160mm) x 3T
Temperature:	Industrial range temperature -40°C / $+85^{\circ}\text{C}$
Weight:	300g
Consumption:	700mA for analogical 5V line and 100mA for numerical 3.3V line

Block diagram



Data coding: 32 bits float data (IEEE754).



Arion operating modes

Regarding the data acquisition of Arion-IO boards, 2 operating modes are available.

These 2 modes can ONLY be used in 'Global Channel' ; See Configuration documentation for more information.

1. Cyclic mode: default mode

On cyclic trigger, the data are acquired from the inputs of the board.

Remark: The cyclic trigger is created by a configurable timer. This timer is set during the configuration step.

2. Up-Sampled mode: this mode works like cyclic mode but with N samples.

On cyclic trigger, a sub-cycle is defined to acquire N data samples from the inputs of the board.

Remark: The N number of samples has to be defined during the configuration step.

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