

## Arinc 429 ER (x8) optically isolated

Ref: 5059-0608-1-ER

Arion-IO  
Technical  
specification

### Features



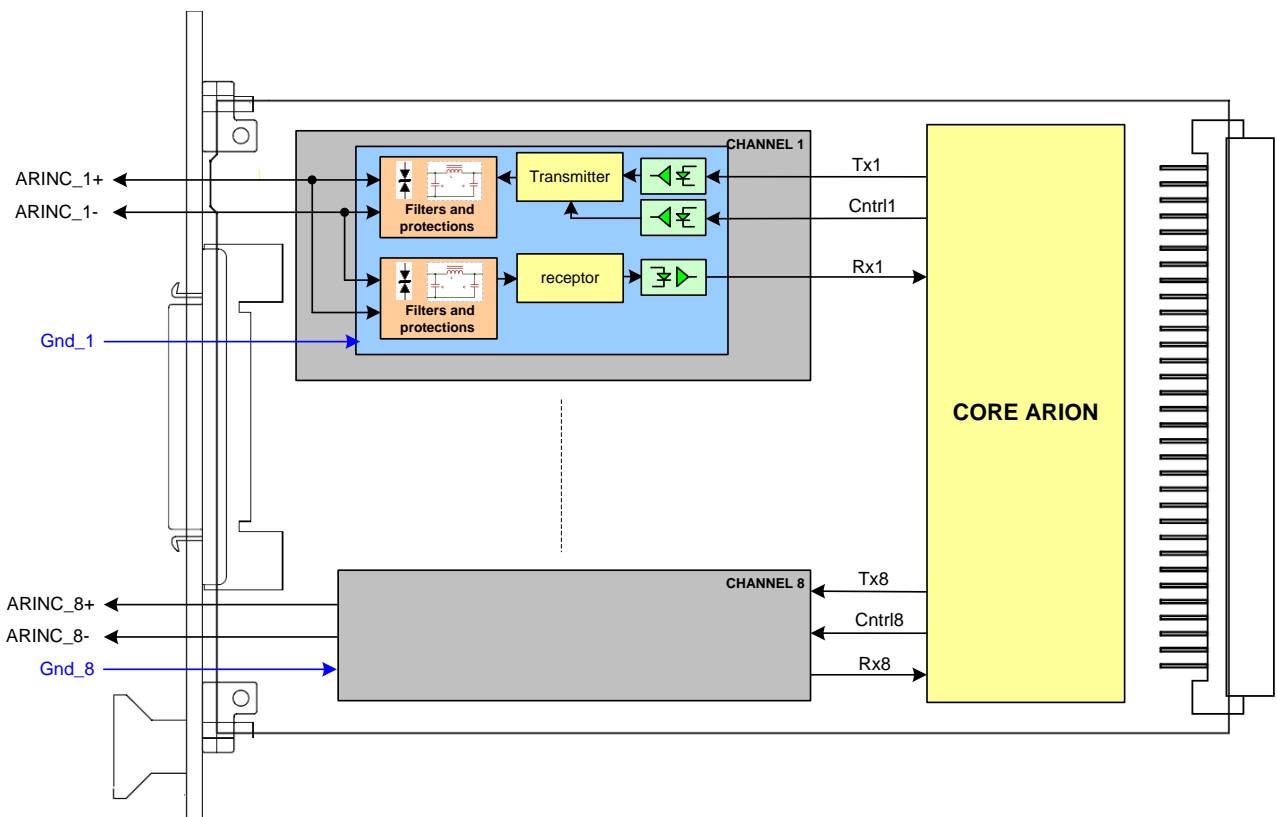
- 8 individual channels with 2 speed modes:
  - High Speed: 100KHz
  - Low Speed: 12KHz to 14.5KHz
- Input voltage:  $\pm 40V$  max,  $I_{max} : 20\mu A$
- Output voltage:  $\pm 5V$  max,  $I_{max} : 60mA$
- Optically isolated: provides a direct connection to industrial sensors and actuators
- Common mode transient immunity of  $100V/\mu s$
- All inputs are protected from transient voltage spikes, short-circuits and overvoltage
- Input filters eliminate glitches and remove noise



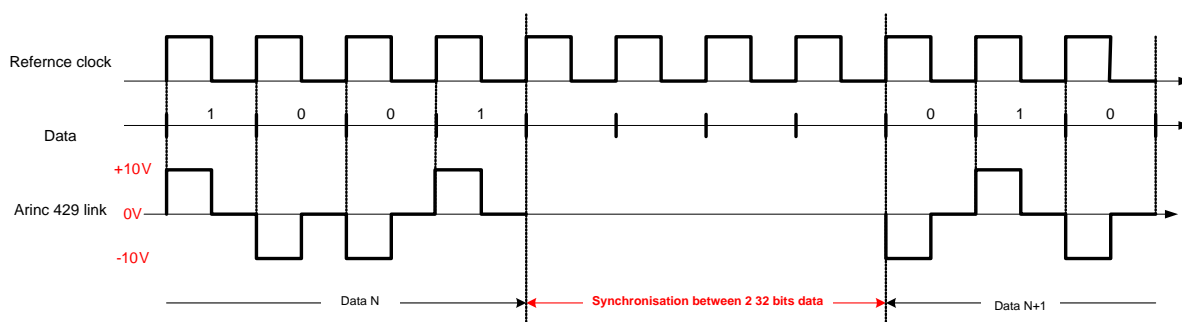
### Physical and environmental condition

Dimensions: 3U format (length 160mm) x 3T  
 Temperature: Industrial range temperature  $-40^{\circ}C / +85^{\circ}C$   
 Weight: 300g  
 Consumption: 800mA for analogical 5V line and 2A for numerical 3.3V line

### Block diagram



This board realizes the transmission of data according to the Arinc 429 protocol (NZ bipolar):



The data is encoded on 23 bits + 1 bit of parity (can be set as odd or even parity bit. See Configuration documentation for more information).

**Data coding:**

msb																																lsb
31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
P																	data															label
																	lsb															lsb

**Arion operating modes**

Regarding the data of Arion-IO boards, the following operating modes are available :

*These modes can be used in 'Global Channel' or 'Channel List' ; See Configuration documentation for more information.*

**1. Input mode:** *Two modes can be used*

- When the input buffer is full, data acquired are sent to the system.
- When a time-out appends, the input buffer is sent to the system.

**2. Output mode:**

The data are set to the outputs of the board when the user writes data.