



Colibrick A/D Converter

External 24-bit USB A/D Converter



Colibrick A/D Converter

Colibrick is precise and stable high resolution external 24-bit A/D converter unit that converts signal from any detector with analog output to digital form. It contains up to four independent data-acquisition channels.

Advantages of the Colibrick converter:

- Continuous integration of input signal.
- Isolations prevent noise from the PC.
- Integration frequency up to 400 Hz enables Fast GC application.
- Comparing to U-PAD extended number of digital inputs and outputs.
- The states of digital inputs and outputs are indicated on the front panel.
- Excellent reliability and temperature stability.

Acquisition channels: The channels are completely independent, equipped with A/D converters using continuous integration and able to process both positive and negative voltages. Colibrick can simultaneously perform data acquisition from multiple detectors. Individual channels can be assigned to different chromatographs.

Digital inputs and outputs: The unit includes four digital inputs and eight digital outputs. The first four digital outputs are also equipped with relay contacts. Digital inputs and outputs are generally used to synchronize Start and Stop of the analysis with autosampler or chromatograph. However, Ellution Event table enables to use them to trigger various actions or to control additional devices.

Standalone A/D Converter: For applications other than Ellution, the Colibrick unit can be supplied as standalone hardware with a set of drivers for Windows OS.

Technical Data

Converter type:	24-bit integrating
Analog inputs:	differential
Number of channels:	1, 2 or 4 fully independent and isolated
Input impedance:	> 1 MOhm
Input range:	unipolar or bipolar, each channel independently switchable to 156, 1 250 or 12 123 mV
Sample rate:	6.3, 12.5, 25, 50, 100, 200, 400 samples per second for 50Hz mains frequency filter 7.5, 15, 30, 60, 120, 240, 480 samples per second for 60Hz mains frequency filter
Non-linearity:	< 0.003%
Temperature dependence:	< 10 ppm/°C
Digital inputs:	4 TTL (5 V)
Digital outputs:	8 TTL (5 V), maximum current load 20/10 mA (single output/all outputs), the first four outputs are also equipped with relays (100 V/0.5 A)
Dimensions:	105 x 124 x 22 mm (W x H x D)
Weight:	290 g
PC interface:	USB
Power supply:	from USB

Typical noise free resolution for various acquisition speeds and input ranges

	10 V	1 V	0.1 V
6.3 Hz	21 bit	21 bit	20 bit
25 Hz	21 bit	21 bit	20 bit
100 Hz	19 bit	19 bit	19 bit
200 Hz	16 bit	16 bit	16 bit
400 Hz	16 bit	16 bit	16 bit