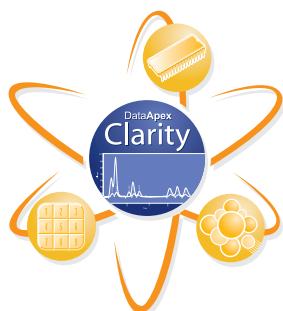


# U-PAD2



## An external 24-bit A/D converter for USB

U-PAD2 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 two independent data-acquisition channels.

### Advantages of the U-PAD2 converter:

- Continuous integration of input signal.
- The amount of data entering the computer is substantially smaller, since individual data items already represent partial integrals.
- Isolations prevent noise from the PC.
- Integration frequency up to 400 Hz enables Fast GC application.

**Acquisition channels:** The channels are completely independent, equipped with A/D converters using continuous integration and able to process both positive and negative voltages. U-PAD2 can simultaneously perform data acquisition from two detectors. Individual channels can be assigned to different chromatographs.

**Digital inputs and outputs:** The unit includes two digital inputs and two digital outputs. The 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, Clarity Event table enables to use them to trigger various actions or to control additional devices. The unit provides excellent reliability and temperature stability.

**Standalone A/D Converter:** For applications other than Clarity, the U-PAD2 unit can be supplied as standalone hardware with a set of drivers for Windows OS.



## Technical Data

<b>Converter type:</b>	24-bit integrating differential
<b>Analog inputs:</b>	2 fully independent, isolated from USB
<b>Number of channels:</b>	> 1 MOhm
<b>Input impedance:</b>	unipolar and bipolar, each channel independently 156.26, 1 250 or 12 123 mV
<b>Input range:</b>	6.25, 12.5, 25, 50, 100, 200, 400 samples per second for 50 Hz mains frequency filter
<b>Sample rate:</b>	7.5, 15, 30, 60, 120, 240, 480 samples per second for 60 Hz mains frequency filter
<b>Non-linearity:</b>	< 0.003 %
<b>Temperature dependence:</b>	< 10 ppm/°C
<b>Digital inputs:</b>	2 TTL (5 V)
<b>Digital outputs:</b>	2 TTL (5 V, maximum current load 20 mA), outputs are also equipped with control relays (100 V/0.5 A)
<b>Dimensions:</b>	100 x 55 x 16 mm (w x h x d)
<b>Weight:</b>	110 g
<b>PC interface:</b>	USB

### Typical noise free resolution for various acquisition speeds and input ranges

	12 123 mV	1 250 mV	156.26 mV
6.25 Hz	21 bit	21 bit	20 bit
25 Hz	21 bit	21 bit	20 bit
100 Hz	19 bit	19 bit	19 bit

## Specification

<b>Part No.:</b>	U22
<b>Warranty:</b>	3 years
<b>Related Products:</b>	Any Clarity online version (p/n C50 or C40) Terminal Board (p/n SV8 or SV9)

