DataCapsule-*Evo*
Digital Recorder

Cat. No. 17308

NEW

General

The new DataCapsule-*Evo 17308*, powered by iWorx, is a new general purpose, 8-channel data acquisition system that provides high resolution and sensitivity over conventional recorders.
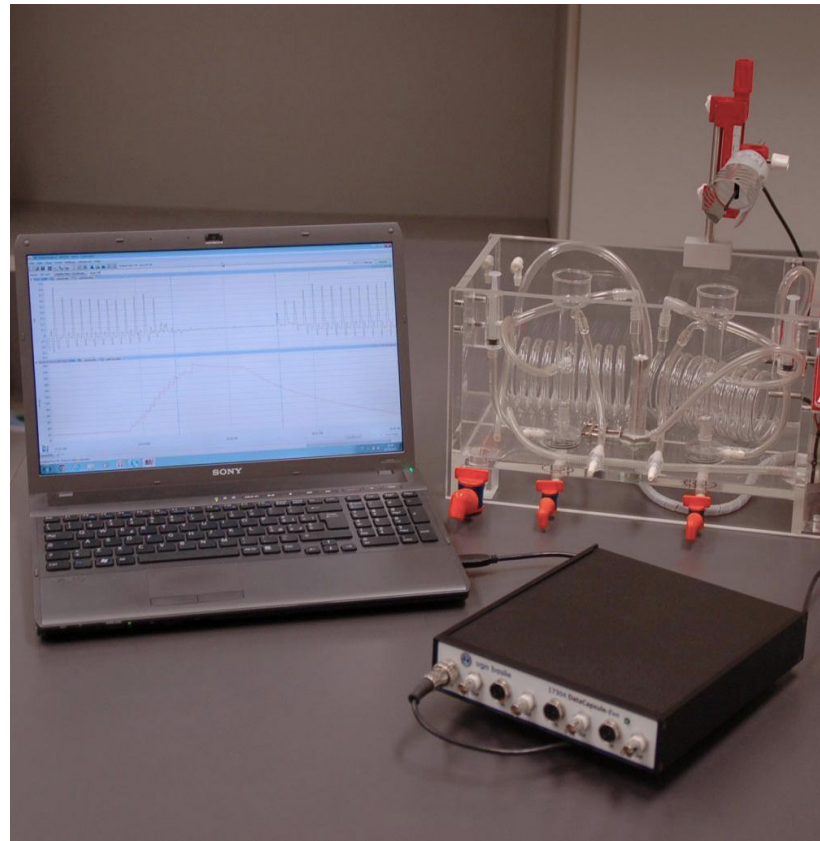
It is an advanced and feature-rich physiological data acquisition system; it comes standard with eight general purpose input channels, a low voltage and high voltage stimulator, eight digital inputs and outputs, a built-in barometric pressure sensor, and four iWire™ inputs.

The 17308 exhibits the high resolution, low noise, and flexibility required for a variety of research applications.

Set-up is plug-and play easy, with connection to PC or MAC computers via USB interface; incorporating innovative iWire serial interface technology and advanced LabScribe data acquisition and analysis software, the 17308 Recorder accommodates a wide range of sensors, transducers, and other devices.

The 17308 feature a high resolution, 16-bit ADC, with exceptionally low system noise ~ 1mV.

LabScribe4™ software is provided with the instrument, or can be downloaded from our web site.

LabScribe4™
Software on-board

100KHz Sampling Speed

4+4 CHANNEL DATA ACQUISITION SYSTEM

with iWire Interface (4 additional channels)

Main Features

- USB connection to PC and MAC
- Connectors for most transducers
- DIN & BNC inputs and BNC outputs

- Input trigger to start recording
- High resolution and sensitivity
- Dual Programmable stimulator iWire interface

Ugo Basile: more than 25,000 citations

Connections and Specifications

Four Channels are equipped with a BNC connector for single-ended transducers. Four channels are equipped with a transducer amplifier, to allow connection to virtually any physiological transducer via a DIN8 connector.

The Maximum sampling speed is 100k samples per second aggregate.

iWire Connectors accept up to four serial iWire interfaces including the iWire-B3G, iWire-BIO4, iWire-BIO8, and iWire-ECG12. The iWire-B3G interface can record up to four channels of data. Three of the channels are isolated biopotential amplifiers capable of recording ECGs, EMGs, EOGs, EGGs, and EEGs, while the fourth is a dedicated GSR amplifier (used with the C-ISO-GSR sensor). The iWire-BIO4 and iWire-BIO8 include four or eight biopotential amplifiers respectively.

EM1 and EM2 accept the Event Marker (EM-220).

Each channel of the 17308 is equipped with dual, low voltage, independently programmable 16-bit +/- 15V stimulators.

Parameters for the stimulators, such as pulse width, frequency & amplitude, may be changed on the fly, using controls located in the LabScribe software toolbar.

Standard protocols include Pulse, Train, Step, Triangle, Ramp, and Custom. Connected via BNC connectors.

Software and Data Management

The DataCapsule-*Evo* setup is plug-and-play easy with connection to PC or MAC computers via USB interface.

Recorded data are managed by the versatile **LabScribe4 Software**, featuring optimized scaling of displayed data: time base or y-axis scaling can also be zoomed in or out with a single click of the mouse.

Keyboard input from the user may be time locked to the data; annotations may be positioned in the data, just as you would write on chart paper!

Twenty-four off-line calculations are also supported, including Max-Min, Slope at a Point, and Mean.

Any view of the data can be exported to the disk as a text file or graphic.

This capability is ideal for post calculation in programs like Excel™ or MatLab™; data from any window in the program can always be printed.

DataCapsule-*Evo* Specifications

BNC Inputs (A1-A4)

Number of Inputs	4
Input Range	±10 VDC
Resolution	16 bit
Connectors	BNC Cable

DIN8 Transducer Inputs (A5-A8)

Number of Inputs	4
Input Range	±10 VDC
Resolution	16 bit
Isolation	No
Excitation	±5 VDC, 100 mA
Connectors	DIN8
Gain	Programmable with input resistor

High Voltage Stimulator Output

Connectors	HV Safety
Output Range	0-1mA
Compliance	100V
Max ON time	10ms

Low Voltage Stimulator Outputs (S1-and S2)

Resolution	16bit
Connectors	BNC
Output Range	±15 VDC at 35 mA
Modes	Pulse, Train, Constant, Step, Ramp, Triangle, Custom

Digital Inputs and Outputs

Input	8 independent lines, TTL input, 1 Mega Ohm input impedance, 5V maximum
Output	8 independent lines, TTL output level, 24 mA maximum load per line

A/D Converter

Sampling Speed	100KHz aggregate
Interface	USB 1.1, 2.0, full speed

Physical

Power	12VDC, 1.5A
Dimensions	23cm(W) x 15cm(D) x 6.5cm(H)
Shipping Dimensions	45 (D) x 34 x 26 (h) cm
Weight	2.0 Kg
Shipping Weight	4.0 Kg
Software	iWorx LabScribe4™
Warranty	The 17308 hardware is protected with a 24-month warranty

Ordering Information

17308   DataCapsule-*Evo* **Digital Recorder,** standard package, including LabScribe4™ Software

Transducers

The DataCapsule can be connected to a variety of transducers.

Among the ones offered by Ugo Basile:

7003-G	Isometric Force Transducer, type DY1
7004-G	Isometric Force Transducer, type DY2
7005-G	Isometric Force Transducer, type DY3
7010-G	High Sensitivity Transducer, type DY0
7006-G	Isotonic Transducer
17844-G	Pressure Transducer