

ibaPADU-C-8AI




In brief

- Network independent battery powered data logger with integrated lithium ion battery
- 8 analog inputs, 16 bit resolution
- 8 digital inputs
- Synchronous data recording of all channels
- Creation of binary files in iba format or csv files
- Sampling rate from 1 sample/min. to 1000 samples/s
- External trigger
- Integrated 4 or 32 GB data storage
- USB interface
- Battery run-time up to 24 h during normal operation
- Rugged design, easy mounting

Properties

ibaPADU-C-8AI is intended for off-line data recording of process data. With the internal lithium ion battery the device can be powered for about 24 h independent of the power network. Once the ibaPADU-C-8AI is connected to the mains power grid, the internal battery will be charged automatically, and thereby provides by-pass protection during unexpected power failure.

The device is easy to handle, and it can be easily configured by a textfile stored on the internal memory. The data recording can be started and stopped manually by key-stroke or triggered by external signal.

Device versions

The device is available in two versions with different memory space

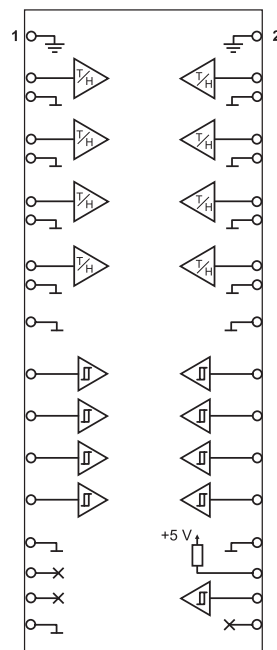
- ibaPADU-C-8AI-Z1 with 4 GB
- ibaPADU-C-8AI-Z2 with 32 GB

The 4 GB memory, for example, offers sufficient space for measurements over 1000 days at 1 s acquisition time or 1 day at 1 ms.

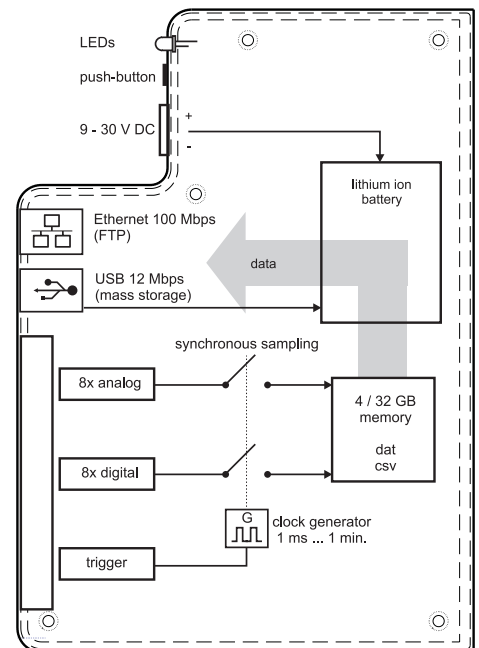
The sampling rate can flexibly be adjusted for long term data logging (sampling rate 1 sample/min.) as well as for fast measurement (sampling rate 1000 samples/s).

In order to retrieve the recorded measurement data the device should be connected to a computer via USB interface. The computer recognizes the devices per plug and play like a mass storage device. In addition, it is possible to retrieve the data using a network connectivity via FTP.

Connection diagram



Schematic design



Application fields

- Temporary data logging, e. g. during commissioning and trouble shooting
- Flight recorder

Short description			
Name	ibaPADU-C-8AI-Z1 (4 GB memory)		ibaPADU-C-8AI-Z2 (32 GB memory)
Order number	10.130000		10.130001
Description	Network independent data logger with 8 analog and 8 digital inputs		
Analog inputs			
Number	8		
Design	Single-ended, R/C filter 8 kHz, no galvanic isolation		
Resolution	16 bit		
Input level	-10 V to +10 V		
Input impedance	680 kΩ (580 kΩ when device is switched off)		
Sampling rate	Adjustable up to 1 kHz		
Accuracy	< 0.1 % of total measured range		
Digital inputs			
Number	8		
Design	Single-ended, no galvanic isolation		
Input level	0 V to +30 V		
Signal level log. 0	< 0,9 V		
Signal level log. 1	> 2,2 V		
Sampling rate	Linked with analog sampling		
Interface			
USB	USB 2.0 Full Speed (12 Mbit/s)		
Ethernet	10/100BASE-T		
Supply, interfaces, data base, operating and indicating elements			
Trigger input	External contact (NOC) or voltage level (like signal input level)		
Power supply	DC input 9 V to 30 V, USB		
Internal battery	Capacity 7.5 Ah at 3.6 V, rechargeable, battery run time about 24 h during normal operation		
Power consumption	Max. 6 W, depending on parameter settings and mode of operation		
Data base	4 GByte	32 GByte	
Indicators	4 LEDs for device status		
Connection signal input	36-pin multi-pin connector, plug with clamping technique, included in delivery Cable inflexible/flexible (0.2 mm² to 1.5 mm²) Flexible with cable end sleeve with plastic sleeve (0.25 mm² to 1.5 mm²) Flexible with cable end sleeve without plastic sleeve (0.25 mm² to 0.75 mm²)		
Operating and environmental conditions			
Operating temperature	32 °F to 122 °F (0 °C to 50 °C)		
Storage and transport temperature	-4 °F to 149 °F (-20 °C to 65 °C)		
Installation altitude	Up to 6562 ft (2000 m)		
Humidity class (DIN 40040)	F, no condensation		
Protection class (DIN EN 60529)	IP20		
CE conformity	CE, EMC: DIN IEC 61326-1: 2006-10 FCC part 15 class A		
Dimensions and weight			
Dimensions (width x height x depth)	1.61 in x 7.40 in x 5.43 in (41 mm x 188 mm x 138 mm)		
Weight (incl. box and documentation)	approx. 2.4 lbs (ca. 1.1 kg)		


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Measurement and Automation Systems
