ibaPADU-8-0





Software

In brief

- Parallel A/D converter with 8 analog and 8 digital output channels
- Every channel is galvanically isolated and has its own A/D converter with electrical isolation of 1.5 kV
- Acquisition cycle is 1 ms with a transmission of 64 analog and 64 digital signals per cycle.
- Up to 8 devices can be cascaded using fiber optic cables at the maximum distance of 6.561 feet between
- RJ11-jack to connect a notebook using ibaCom-PCMCIA-F card
- Robust metal housing, assembly on the mounting rail

Description

ibaPADU-8-0 belongs to the product family ibaPADU (Parallel Analog Digital Unit). This is a product family for measurement of analog and digital signals of any process. To be able to meet the measurement requirements of most diverse applications, there are different models available. ibaPADU-8-0 has 8 analog and 8 digital output channels. Every channel is galvanically isolated (digital potential isolation) and has its own A/D converter in order to record all channels simultaneously.

The main advantage is the fact that it may be installed wherever needed in the direct vicinity of the sensors. This allows to reduce the influence of electromagnetic interferences to a great extent.

Up to 8 devices can be connected to each other into one line by means of fiber optic cables. The possible distance between 2 adjacent devices may be up to 6.561 feet (2000 m). This guarantees secure data transfer. Synchronization of the data recording of all devices on the line is ensured within the accuracy of a millisecond.

The data acquisition cycle for all devices in one line is 1 ms. Up to 64 analog and 64 digital signals are transmitted per cycle.

A notebook with an integrated ibaCom-PCMCIA-F card can be connected to the RJ11-jack. All output data are available in parallel at the fiber optic output and at the RJ11-jack. Thus, it is possible to carry out measurements in parallel at the RJ11-jack without affecting the data transmission on the fiber optic cable.

For stationary measurement the device is connected by means of a fiber optic cable to an ibaFOB-card (-io/-4i) installed in the PC.

This intelligent interface provides the process image of the measurement data in a dual-port RAM. The software (e. g. ibaPDA) can read and process the data in its own scan cycle.

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Manufacturer	iba AG	
Description	ibaPADU-8-0	
Order number	10.120800	
Manufacturer iba AG Description ibaPADU-8-0 Order number 10.120800 Analoge outputs		
Quantity A/D-converter	1 per channel	
Resolution	14 bit	
Measuring range	±10 V, standard, safe status 0 V after 3 ms ±20 V, on request	
Output current	10 mA when 10 V	
Galvanic isolation	Channel-Channel and Channel-Housing, electrical isolation 1,5 kV	
Protection	Permanent short-circuit protection	
Digital outputs		
Quantity A/D-converter	8 per Channel	
Output level	Log0: 0 V, Load supply external DC 24 V (safe status Log "0" after 3 ms) Log1: 24 V	
Output current	Typical 100 mA when 24 V max. 1000 HZ switching frequency Max. 250 mA	
Galvanic isolation	Channel-Channel and Channel-Housing, electrical isolation 1,5 kV	
Protection	Permanent short-circuit protection	
Supply and interfaces		
Power supply	DC 24 V (±20 %), unstabilized	
Fiber optic-connector	ST-Lean	
Fiber optic-cable	62.5 μm/125 μm	
Notebook Interface	RJ11-Socket	
Power consumption	300 mA ±20 %, 10 mA/channel under load at the analog output	
Communication failure monitoring	20 ms	
Fiber optic-length Devive-Device	Max. 6.561 feet (2000 m) without repeater	
Application terms and environmental conditions		
Mounting	DIN-rail clip EN 60715	
Cooling	Self cooling	
Operating temperature	From 32 °F to 122 °F (from 0 °C to 50 °C)	
Storage and transport- temperature	From -13 °F to 158 °F (from -25 °C to 70 °C)	
Humidity class DIN 40040	F, no condensation	
Protection class	IP20	
Certifications/Standards	CE, DIN IEC 68-2-6, EN 55011 (class A), EN 61000-4-6 (class 3)	
Status displays	LEDs Green: Run, Orange: Link, Red: Error	
Dimensions (w x h x d)	2.13 inch x 7.64 inch x 6.1 inch (54 mm x 194 mm x 155 mm)	
Weight	1.05 kg (with box and documentation)	

iba Europe

Germany Fuerth Phone: +49 911 97282-27, sales@iba-ag.com

Germany Berlin Phone: +49 30 854073-41, ralph.maronde@iba-ag.com

Germany Kamen Phone: +49 2307 5501-68, ralf.surmann@iba-ag.com

Benelux BVBA (Belgium, Netherlands, Luxembourg, France, Great Britain, Spain) Phone: +32 9 226 2304, roeland.struye@iba-benelux.com

iba Asia

Phone: +49 911 969 4346, mario.gansen@iba-asia.com China Phone: +86 021 5840 2768,

julia.wang@iba-china.com Korea Phone: +82-51-329-7026~8, sh.lee@iba-korea.com

India Phone: +91-22-67230869, ajay.tambe@iba-india.com

iba North/South America

iba America, LLC (North America, US Territories, Caribbean, Bermuda) Phone: +1 770 886-2318 sb@iba-america.com

iba LAT S.A. (South America) Phone: +58 286 951 9666, eric.di.luzio@iba-ag.com



