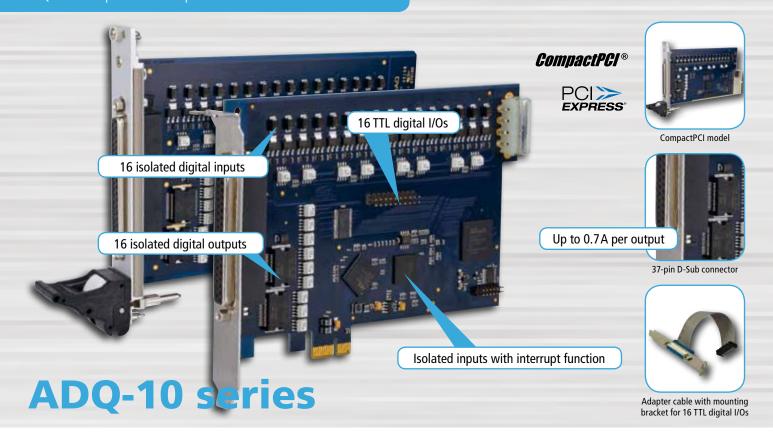


Your partner for measurement and automation



Attractive Bundle Offerings



# Digital I/O board with 16 isolated digital inputs, 16 isolated digital outputs and 16 TTL digital I/Os

## Perfectly for automation

The **ALLDAQ ADQ-10** is a digital I/O board for use in **industrial automation and control environments**. Alternatively models for CompactPCI and standard PCI Express bus are provided. The board offers 16 opto-isolated digital inputs and 16 opto-isolated digital outputs with an isolation voltage of up to 1 kV. Via an adapter cable with mounting bracket further 16 TTL digital I/Os can be used.

The **16 opto-isolated inputs** are assembled with over-voltage protection diodes protecting from input voltages > 45 V. All inputs can be monitored on bit change or bit match and can be used to generate an interrupt event.

The source drivers of the 16 opto-isolated outputs can drive up the 0.7 A per channel in continuous operation. To increase the output current connecting the outputs in parallel is possible. Commonly the outputs can drive up to 11.2 A. This implies that no external drivers are necessary for many applications. The output voltage range is 10.5..45 V to control programmable logic controllers (PLC) according to IEC 61131. The output buffers come with a thermal overload protection, current limitation, short-circuit protection and an under-voltage monitoring. For powering the outputs an external power supply with sufficient power is required (not included).

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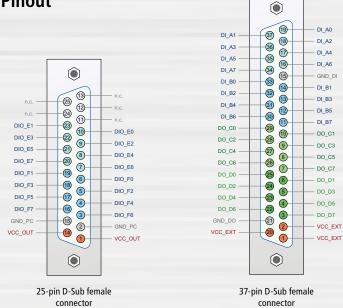




# **Technical Data**

Element	Specification
PC interface (depends on model)	CompactPCI bus (32 bit, 33 MHz) Rev. 2.2, PCI Express x1 Rev. 1.0
Opto-isolated digital inputs	2 x 8 bit digital input ports (uni-directional), up to 1 kV isolated input high level: $U_{IH} = 2.532 V$
Opto-isolated digital outputs	2 x 8 bit digital output ports (uni-directional), up to 1 kV isolated output high level: $U_{OH} = 10.545$ V according to IEC 61131 max. 0.7 A per channel with current limitation per channel, overload protection per port depending on junction and case temperature
TTL digital I/Os	2 x 8 bit TTL I/Os (bi-directional), direction configurable per port, $I_0 = 10 \text{ mA/channel}$
External power supply for opto- isolated outputs	VCC_EXT: typ. 24V (Pins 1, 2, 20); Current on full load: $I_0 = 16 \times 0.7A = 11.2A$
+5V supply	+5V supply for the board via Molex connector for connection with PC power supply (only for PCI Express boards)
Power consumption board	+5V: typ. 300 mA (without ext. load)
Environment	Temperature operation: 070 °C Humidity operation: 20%55% (not condensing) Temperature storage: -40100 °C Humidity storage: 5%90% (not condensing)
Certifications	EMC Directive 2004/108/EG, Emission EN 55022, Noise immunity EN 50082-2, RoHS
Dimensions (without mounting bracket and connector)	ADQ-10-PCle: 158 mm x 111,15 mm (W x H) ADQ-10-cPCl: 3 HE CompactPCl board
Connectors	ADQ-10-PCle: 37-pin D-Sub female connector + Molex connector (+5V) ADQ-10-cPCl: 37-pin D-Sub female connector
Manufacturer warranty	36 months

#### Pinout



#### **Software Support**

- Driver for Windows XP/Vista/7/8 •
- Linux on request
- Programming support with examples for C++, • C#, Visual Basic and Pascal included
- LabVIEW driver (coming soon) •

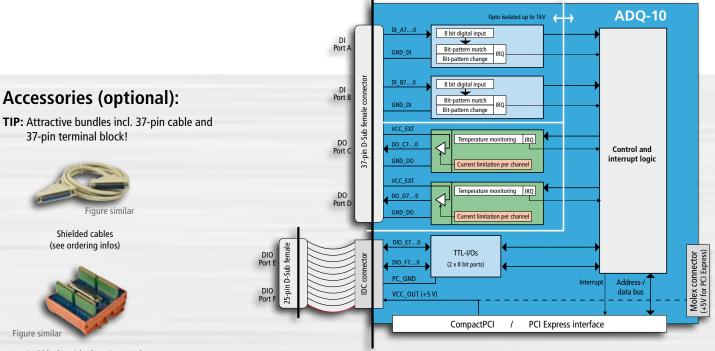
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	-Manager – Your ALLDAQ hardware at a glance.

ADQ driver system, the functionality of the installed ALLDAQ hardware with export possibility for archiving and support as well as access to pinouts and help files.

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#### **Block Diagram**



Terminal blocks with Phoenix type clamps (see ordering infos)

# **Package Content**



ADQ-10-cPCI (Art.-Nr. 107163) oder ADQ-10-PCIe (Art.-Nr. 107162)



25-pin D-Sub male connector (Art.-Nr. 112353) 37-pin D-Sub male connector (Art.-Nr. 112354)



Adapter cable with mounting bracket from 20-pin IDC connector to 25-pin D-Sub female connector ADQ-AP-D25F-CPCI (Art.-Nr. 111755) or ADQ-AP-D25F-PCIe (Art.-Nr. 111756)



Documentation and driver software on data storage medium included or by download under: www.alldaq.com/downloads.

alldaq.com

## **Ordering Infos**

Name	Art. No.	Description	
Bundles			
ADQ-10-cPCI-Bundle	113059	cPCI bundle: ADQ-10-cPCI (107163) incl. cable (111753) and 37-pin terminal block (111750)	
ADQ-10-PCIe-Bundle	112875	PCIe bundle: ADQ-10-PCIe (107162) incl. cable (111753) and 37-pin terminal block (111750)	
Models			
ADQ-10-cPCI	107163	cPCI digital I/O board, 16 isolated DI, 16 isolated DO, 16 TTL DIOs	
ADQ-10-PCle	107162	PCIe digital I/O board, 16 isolated DI, 16 isolated DO, 16 TTL DIOs	
Accessories			
ADQ-CR-D25M-D25F-1,8m	111752	Cable shielded from 25-pin D-Sub male connector to 25-pin D-Sub-D female connector, 1.8 m	
ADQ-CR-D37M-D37F-2m	111753	Cable shielded from 37-pin D-Sub male connector to 37-pin D-Sub female connector, length: 2 m	
ADQ-TB-D25M-HUT	111749	Terminal block for DIN rail mounting with 25-pin D-Sub male connector to Phoenix type clamps	
ADQ-TB-D37M-HUT	111750	Terminal block for DIN rail mounting with 37-pin D-Sub male connector to Phoenix type clamps	

Do you need an individual offer? Contact our sales under: +49 (0)89-894 222-74 or by email: sales@alldaq.com. © by ALLDAQ a division of ALLNET GmbH Computersysteme. Errors and changes reserved.

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