

# 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. 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).



### **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: $U_{IH} = 2.532 \text{ V}$
Opto-isolated digital outputs	2 x 8 bit digital output ports (uni-directional), up to 1 kV isolated output high level: $U_{OH} = 10.545 \text{ V}$ 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
Power supply for outputs	external supply for opto-isolated outputs, min. 11,2 A
+5V supply	+5V supply of the board via Molex connector for connection with PC power supply (only for PCI Express boards)
Power consumption board	+5 V: 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 (B x H) ADQ-10-cPCl: 3 HE CompactPCl board
Connectors	ADQ-10-PCIe: 37-pin D-Sub female connector + Molex connector (+5V) ADQ-10-cPCI: 37-pin D-Sub female connector
Manufacturer warranty	36 months

# **Software Support**

A wide software support enables the simple integration of the boards in your preferred software environment.

Errors and technical modifications excepted.



# **Package content**



ADQ-10-cPCI (Art.-Nr. 107163) or 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

# Accessories (optional):

#### ADQ-CR-D25M-D25F-x

Shielded round cable from 25-pin D-Sub male connector to 25-pin D-Sub female connector, different length (length: 1.8 m, Art.-Nr. 111752)

#### ADQ-CR-D37M-D37F-x

Shielded round cable from 37-pin D-Sub male connector to 37-pin D-Sub female connector, different length (length: 1.8 m, Art.-Nr. 111753)

#### ADQ-TB-D25M-HUT

25-pin connector block for mounting on DIN rail, 25-pin D-Sub male connector to clamps of type "Phoenix" (Art.-Nr. 111749)

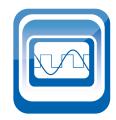
#### ADQ-TB-D37M-HUT

37-pin connector block for mounting on DIN rail, 37-pin D-Sub male connector to clamps of type "Phoenix" (Art.-Nr. 111750)











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