

# dydaqmeas<sup>®</sup>



“Data Aquisition - accurate,  
universal and web-based”

dydaqtec<sup>®</sup>  
MESSTECHNIK

# Data Acquisition - universal and web-based

Data acquisition - accurate, universal and web-based = **dydaqmeas**<sup>®</sup>.

Our **dydaqmeas** data acquisition system combines the advantages of flexible, adjustable measurement inputs, precise and fast data acquisition with comfortable, intuitive setup and operation via web interface and seamless connection to industrial cloud solutions. The measured data is available anytime and anywhere in the IIoT.

## Measurement Inputs

The **dydaqmeas** data acquisition system has 8 differential analogue inputs with 24-bit resolution and up to 200 kHz sampling rate. The inputs for measuring voltages, currents or the direct connection of IEPE sensors can be configured per channel. Two of the 6 digital inputs can be used as counter inputs and three more as a quadrature decoder input.

## CPU and Firmware

Inside the **dydaqmeas** data acquisition system, a powerful ARM<sup>®</sup> CPU edits and processes the measured data. For example the measurement channels can be saved, can be offset against each other online, subjected to a FFT calculation or monitored for threshold values. Alarms trigger actions such as switching digital outputs or sending e-mails.

## Connectivity

The **dydaqmeas** can communicate via WLAN or LAN. The MQTT protocol is supported for data transmission of individual values to a cloud. Larger amounts of data can be transferred, for example, via the FTP protocol. Optionally, data or messages can be sent via a cellular-interface.

## Webinterface / Mobile App

Each **dydaqmeas** data acquisition system is also a powerful edge computer with an integrated web server. All functions can be set up and managed via the modern web interface in a browser. The measured data can be displayed on individually designed dashboards in a web browser worldwide.



**dydaqmeas with 8 analogue inputs, digital I/O and a powerful ARM<sup>®</sup> CPU**





Comfortable and intuitive configuration of the measuring application in the web browser.

Design and assignment of different dashboards for any number of users - accessible from anywhere in the world.

## Features at a Glance

- **Intelligent, web-based data acquisition system**
- **8 analog inputs with 24-bit resolution**
- **max. 200 kHz sampling rate per channel (max. 800 kHz total sampling rate)**
- **All analog inputs can be configured independently from each other**
- **Direct connection of voltage, current and IEPE sensors**
- **WLAN/LAN interface for configuration and data transmission**
- **Powerful ARM® CPU with integrated web server**
- **Various mathematical functions for online processing of measured data**
- **Comfortable web interface for configuration and data display**

# Specifications

## Analog Inputs

Number	8 differential
A/D-Converter	Sigma-Delta
Resolution	24 Bit
Sampling rate (max.) per channel	200 kHz
Total sampling rate (max.)	800 kHz (may be reduced by complex online processing)
Input impedance	0,9 MΩ
Coupling	AC/DC per channel adjustable
Overvoltage protection	± 42 V
Input voltage range	± 10 / 1 V
Input current range	± 20 / 0-20 mA
Sensor supply	24 V switchable for each channel
Sensor connection	IEPE sensors switchable 4 mA current source
Galvanic isolation	Behind A/D converters between analog and digital part
Connection terminals	Phoenix terminal block (6-pin) + SMB socket

## Digital Inputs

Number	6
Level	TTL, L: , 0,8 V / H: . 2,4 V (max. 40 V)
Additional functions	2 digital inputs can be used as t counter inputs Measurement modes: frequency, period, pulse width Input Frequency: 1Hz-1MHz  3 digital inputs can be used as 1 quadrature encoder Operating mode: 4 times Input signal: max. 30,000 rpm with an encoder with 1000 in- crements

## Digital Outputs

Number	2 Electronic relays
Switching voltage	40 V max. @ 1 A

## CPU

Type	Quad-Core ARM-Cortex-A72 with 1,5 GHz frequency
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## Data Storage

Type	eMMC
Size	1 GSamples optional expandable

## Host-/Data-Interface

Type	WLAN, LAN optional GPRS, G4/LTE
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## General

Power supply	10 ~ 36 V <sub>DC</sub>
Operating temperature	0 to +40 °C
Housing	Aluminum
Dimensions (W x H x D)	182 x 95 x 146 mm

## Order Information

Article No.	Description
DM-V-002-A1	<b>dydaqmeas</b> data aquisition system with 8 analogue inputs, 6 digital inputs, 2 digital outputs
Scope of delivery	<b>dydaqmeas</b> data aquisition system, WLAN antenna, power supply
DL-V-Z001-A1	Outdoor-Case made of polyp- ropylene