



High-accuracy data acquisition + usability + connectivity = **dydaqlog**. Our **dydaqlog** datalogger unites the advantages of flexible adjustable sensor inputs, accurate and reliable data recording with simple, intuitive setup and operation, as well as seamless connectivity to industrial cloud solutions. The measured data are available anytime, anywhere in the Industrial Internet of Things IIoT.

Features

- Compact and robust aluminium enclosure - splash water protected
- 16 analog inputs, 24-bit resolution, max. 20 Hz sampling rate per channel
- All analog inputs can be configured independently
- Direct connection of thermocouples, PT50/100/500/1000, strain gauges
- WLAN/LAN interface for configuration and data transfer
- Powerful ARM[®] processor with integrated webserver
- Convenient web interface for configuration and data display

Analog Inputs

The **dydaqlog** datalogger provides 16 differential analog inputs with 24-bit resolution and up to 20 Hz sampling rate. Every channel can be configured for direct connection of thermocouples, RTDs or strain gauges in bridge circuit. External Sensors and I/O-Modules can be connected via MQTT protocol.

Processor and Firmware

Inside the **dydaqlog** datalogger a powerful ARM[®] processor handles the preparation and processing of the measured data. The measuring channels can be calculated online or monitored for threshold values (limits). Alarms trigger actions like switching digital outputs or sending e-mails. In addition to the internal storage, the

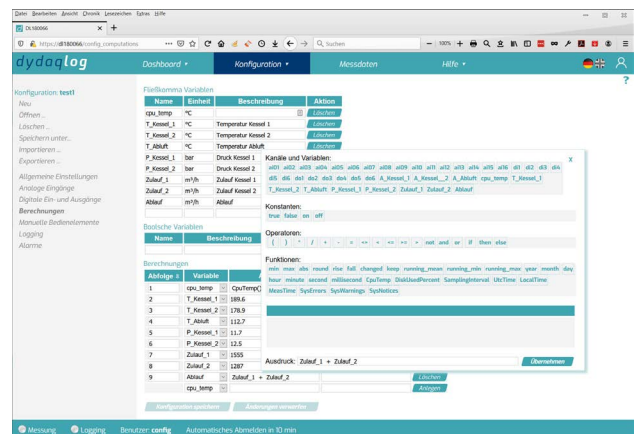
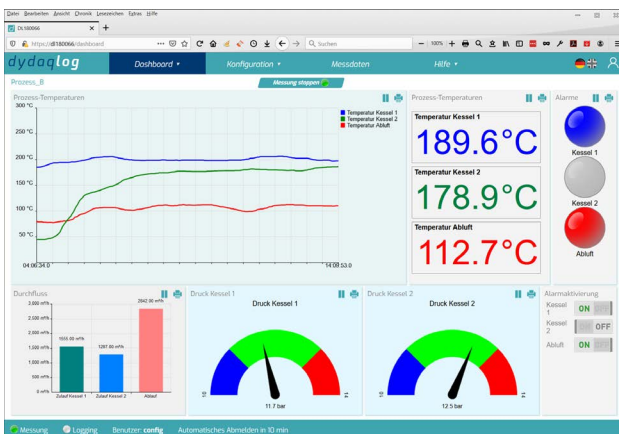
measurement data can also be transmitted directly to a higher-level server or into a data cloud.

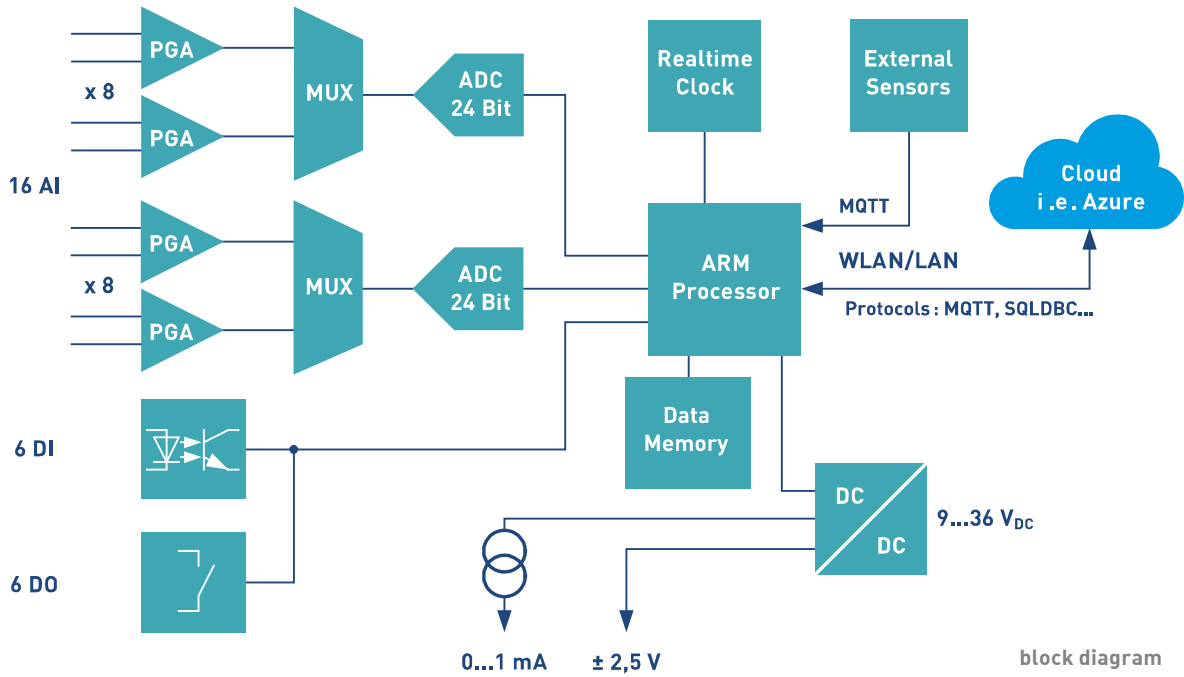
Connectivity

The communication with **dydaqlog** takes place via WLAN or LAN. For data transfer into a cloud the MQTT protocol is supported. For initial operation the datalogger starts as WLAN hotspot. After connecting with a notebook, smartphone or tablet the further configuration can be done via a web browser.

Webinterface / Mobile App

Each **dydaqlog** is not just a datalogger, it is a powerful web server at the same time. All functions can be set up and managed in a browser via the modern web interface. Measurement data can easily be represented online or offline.





block diagram

Specifications

• Analog Inputs

Channels	16 differential
A/D Converter	Sigma-Delta
Resolution	24-bit
Sampling Rate (max.) per Channel	20 Hz at reduced Channel Count 10 Hz at full Channel Count
Input Ranges	$\pm 10 / 5 / 3 / 1,6 \text{ V}$ $\pm 800 / 400 / 200 / 100 \text{ mV}$ $\pm 20 \text{ mA} / 0 \sim 20 \text{ mA}$
Input Resistor	1 M Ω
Input Coupling	DC
Sensor Connection	Thermocouples Type B, E, J, K, N, R, S, T PT50 / 100 / 500 / 1000 Resistors Resistive Bridge Transducer

• External Inputs

Connection of external Sensors and I/O-Modules via MQTT or Modbus

• Digital Inputs

Channels	6 opto coupled
Level	TTL, L: $\leq 0,8 \text{ V}$ / H: $\geq 2,4 \text{ V}$ (max. 24 V)

• Counter Inputs

Channels	6 (alternative usage of digital inputs)
Input Frequency max.	1 kHz

• Digital Outputs

Channels	6 elektronick Relays
Switching Power	40 V max. @ 1 A

• Processor

Type	ARM® Cortex-A53 Quad Core, 1,4 GHz
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• Data Memory

Type	MicroSD Card internal
Size	1 G Samples

• Host Interface

Type	LAN - 1 x Gigabit Ethernet (RJ45) WLAN - 802.11 b/g/n/ac (2,4 und 5 GHz)
Cellular radio 4G/LTE (optional)	Configuration and handling via webinterface, Transmission of Messages, E-Mails, Data transmission via MQTT, FTP

• General

Unit Power	10 ~ 36 V _{DC}
Operating Temperature	0 to +50 °C
Enclosure	Aluminium, all around IP65

Order Information

Part Number	Description
DL-V-004-A1	dydaqlog IIoT Datalogger with 16 analog in, 6 digital in, 6 digital out
Shipment	dydaqlog IIoT Datalogger WLAN antenna, Power Supply
DL-V-Z001-A1	Outdoor-Case (Polypropylen)
DL-V-Z003-A1	DIN-Rail Mounting Set
DL-V-S0-001	Software Extension Definition of own Sensor Types
DL-V-S0-002	Software Extension Data Import via MQTT
DL-V-S0-003	Software Extension local MQTT Broker
DL-V-S0-004	Software Extension Data Import via Modbus TCP