

Product Datasheet - Technical Specifications



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dydaqlog[®]

THE IIoT DATA LOGGER



„We make data acquisition easy.“

High-accuracy data acquisition + usability + connectivity = **dydaqlog**.

Our **dydaqlog** data logger 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.

Analog Inputs

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

Processor and Firmware

Inside the **dydaqlog** data logger a powerful ARM® processor handles the preparation and processing of 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 initial operation the data logger starts as WLAN hotspot. After connecting with a notebook, smartphone or tablet the further configuration can be done via a web browser. For data transfer into a cloud the MQTT protocol is supported. An optional LTE module allows data, messages and alarms to be transmitted via mobile communications.

Webinterface / Mobile App

Each **dydaqlog** is not just a data logger, 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 off-line. A convenient editor allows the design of meaningful and elegant reports.



dydaqlog with 16 analog inputs, digital I/O and powerful ARM® processor





Convenient and intuitive configuration of data acquisition application in web-browser

Numerous dashboards for online display of measurement data all over the world

Features at a glance

- 16 analog inputs (8 inputs using 4 wire measurement)
- 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
- Versatile mathematical functions for online processing of measured data
- Flexible monitoring functions with automatic alarms via e-mail or SMS
- Convenient web interface for configuration and data display

Spezifikationen

Analog Inputs

Channels	16 differential (8 channels using 4 wire measurement)
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
Voltage Input Ranges	$\pm 10 / 5 / 3 / 1,6$ V $\pm 800 / 400 / 200 / 100$ mV
Current Input Ranges	± 20 mA / 0 ~ 20 mA
Input Impedance	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 Transducers

External Inputs

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

Digital Inputs

Channels	6 opto coupled
Level	TTL, L: < 0,8 V / H: > 2,4 V (max.)

Counter Inputs

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

Digital Outputs

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

Data Memory

Type	MicroSD Card internal
Size	1 G Samples

Processor

Type	ARM® Cortex-A53 Quad Core, 1,4 GHz
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Host Interface

Type	LAN - 1 x Gigabit Ethernet (RJ45) WLAN - 802.11 b/g/n/ac (2,4 and 5 GHz)
Cellular Radio 4G/LTE (optional)	Configuration and operation via web interface, 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
Dimensions (W x H x D)	211 x 70 x 208,5 mm
Weight	1,7 kg

Order Information

Part Number	Description
DL-V-004-A1	dydaqlog IIoT Data Logger with 16 analog Inputs, 6 digital Inputs, 6 digital Outputs
Shipment	dydaqlog IIoT Data Logger WLAN-Antenna, Power Supply

Software extensions

DL-V-MO-001	Mobile radio extension 4G/LTE
DL-V-Z001-A1	Outdoor case (Polypropylen)
DL-V-Z003-A1	DIN-Rail mounting set
DL-V-EKI-1221	Data import and export via Modbus RTU

Software extensions

DL-V-SO-001	Definition of own sensor types
DL-V-SO-002	Data import via MQTT
DL-V-SO-003	Local MQTT broker
DL-V-SO-005	data import via Modbus TCP
DL-V-SO-011	data export via Modbus TCP
DL-V-SO-007	Process visualisation
DL-V-SO-010	Process control
DL-V-SO-008/9	Connection with data clouds
DL-V-SO-012	Report generation