



## Electronic Multi-Channel Datalogger



measuring  
•  
monitoring  
•  
analysing

### ZLS-2



- Graphic LC-Display, backlight
- Input: mA + V or RTD + thermocouple
- 8 channel input
- 2 switching outputs
- Four presentation modes
- Interface RS 485, Modbus RTU, USP PC
- Sensor power supply
- Free scaling

Z2



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### Description

The KOBOLD-Logger model ZLS is designed to record and display current values as well as to present technological parameters in the form of graphs. The device is equipped with 8 temperature (Pt100, Pt500, Pt1000) or thermocouples or current/voltage (mA, V standard) inputs and one impulsive (digital) input for controlling the recording process. The device has the memory capacity of 8 MB which gives max. 3 000 000 data recordings altogether.

The internal analogue-digital converter has a 12 bit resolution, which provides high recording resolution results. Additionally, individual alphanumeric description (text) of each of the recorded channels is possible.

The menu assisted with full text description makes the unit configuration process quite easy. However, due to a significant number of configured parameters, it is advised to use the attached configuration software for PCs.

### Functions

- 1-, 4- or 8-channel input
- Input: TC+RTD or mA+V
- Data memory: 3 000 000 data recordings
- Digital input
- 2 switching output
- Interface: RS485, Modbus RTU
- USB host port for flash data storage

### Technical Details

Display: graphic LCD (128x64 points), with backlight

Measuring range:  $\pm 9999$  plus decimal point (current/voltage input)  
 $-100.0 \dots +600.0 \text{ } ^\circ\text{C}$   
 with  $0.1 \text{ } ^\circ\text{C}$  resolution (RTD input)  
 $-200.0 \dots +1820.0 \text{ } ^\circ\text{C}$   
 with  $0.1 \text{ } ^\circ\text{C}$  resolution (thermocouple input)

Measuring inputs: 1-, 4- or 8-channel  
 Pt 100, Pt 500, Pt 1000, thermocouples  
 (2- and 3-wire connection)  
 or 0(4) -20 mA, 0-5(10) V inputs  
 common earthing

Current input resistance:  $100 \ \Omega$

Memory capacity: 8 MB  
 (3 000 000 data recording)

Recording interval: 1 s ... 1 h

Additional inputs: 1x digital input  $24 \text{ V}_{\text{DC}}$

**Note:** Some USB pendrives are not supported by ZLS because of different controllers. Memory sticks approved by KOBOLD available on request.

Switching outputs: 2 elektronical N/C contacts  
 $24 \text{ V}_{\text{AC/DC}}$ , max. 200 mA  
 (only with 0(4) ... 20 mA version),  
 short-circuit proof

Power supply voltage:  $19-50 \text{ V}_{\text{DC}}$  /  $16-35 \text{ V}_{\text{AC}}$  or  
 $85-260 \text{ V}_{\text{AC/DC}}$

Power consumption: typical: 7 VA  
 max. 12 VA

Sensors supply:  $24 \text{ V}_{\text{DC}} \pm 5\%$  / 200 mA  
 (only with 0(4) ... 20 mA version),  
 not separated from measuring

Communication interface: RS485, galvanically separated  
 + USB PC

Transmission protocol: Modbus RTU

Transmission speed: 1200 - 115 200 bit/s

Working temperature:  $0 \dots +50 \text{ } ^\circ\text{C}$

Storage temperature:  $-10 \dots +70 \text{ } ^\circ\text{C}$

Humidity: up to 90% without condensation

Case dimensions: 96 x 96 x 100 mm (W x H x D)

Panel cut-out dimensions: 90.5 x 90.5 mm

Installation depth: min. 102 mm

Board thickness: max. 5 mm

Case: board

Case material: plastic

Protection: IP40 (front USB version) or  
 IP54 (when transparent door is installed, see accessory model ZLS-ZOK42)  
 IP20 rear side

Connection: screw terminal

Weight: approx. 400 g

**Order Details** (Example: **ZLS-21A 0 UW4 P**)

Canals	Input		Power supply	Additional input	Housing version/ protection
	0-5(10) V/ 0(4) - 20 mA	Thermocouple or Pt100, Pt500, Pt1000			
1	ZLS-21A..	ZLS-21P..	0 = 85-260 V <sub>AC/DC</sub> 3 = 19-50 V <sub>DC</sub>	UW4 = USB (front) and 1x digital	P = front IP40
4	ZLS-24A..	ZLS-24P..			
8	ZLS-28A..	ZLS-28P..			

**Software included**

- »Toolkit«, PC software for data logger easy configuring
- »Logy Soft«, PC software for moving, reporting, archiving and displaying recorded data.

**Accessories**

- Converter module USB-RS 485  
**Model: ZLS-Z USB RS4 A**
- Converter module RS 232 - RS 485  
**Model: ZLS-Z RS2 RS4**
- Transparent door with lock for DIN housing  
Protection IP54  
**Model: ZLS-Z DK42**

Following options are available on request:

- USB host port on rear side
- IP65 protection class
- Extended working temperature range from -20...+50 °C

**Dimensions** [mm]

