

## Electronic Multi-Channel Datalogger for Current or Temperature Inputs



measuring  
•  
monitoring  
•  
analyzing

ZLS



- Graphic LCD Display, Backlight
- Input: 4...20 mA, Pt 100, Pt 500, Pt 1000
- 8 Channel Input
- 2 Switching Outputs
- Four Presentation Modes
- Interface RS 485, Modbus RTU
- Sensor Power Supply
- Fully Scalable



Order from: **C A Briggs Company**  
622 Mary Street; Suite 101; Warminster, PA 18974  
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KOBOLD Instruments, Inc.  
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Pittsburgh, PA 15205

## Description

The KOBOLD model ZLS is designed to record and display current values and technological parameters in the form of graphs. The device is equipped with 8 temperature (Pt100, Pt500, Pt1000) or current (4-20 mA standard) inputs and one digital input for controlling the recording process. It has a 2 MB memory, provides a maximum of 500,000 data recordings. The internal analog-digital converter has a 12 bit resolution, which provides high recording resolutions. Additionally, individual alphanumeric description (text) of each of the recorded channels is possible. The menu with full text description makes the unit easy to configure. However, due to a significant number of configured parameters, it is advisable to use the attached configuration software for PCs.



## Functions

- 1, 4 or 8 Channel Input
- Input: 4-20 mA or Resistance
- Data Memory: 500,000 Data Recordings
- Digital Input
- 2 Switching Outputs
- Interface: RS485, Modbus RTU
- USB Host Port for Flash Data Storage (Optional)

## Technical Details

**Display:** Graphic LCD (128x64 Points), with Backlight

**Measuring Range:** ±9999 plus Decimal Point (Current Input)  
-148...1,112 °F (Temperature Input)

**Measuring Inputs:** 1, 4, or 8 Channel  
Pt 100, Pt 500, Pt 1000 (2- and 3-wire Connection) or 4 -20 mA Inputs, Common Grounding

### Current Input

**Resistance:** 100 Ω

**Memory Capacity:** 2 MB (500,000 Data Recordings)  
8 MB (2,000,000 Data Recordings, ZLS-..UW4P)

**Recording Interval:** 1 s... 1 h

**Additional Inputs:** 1x Digital Input 24 V<sub>DC</sub> (Optional: USB)

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

**Switching Outputs:** 2 Electronic N/C Contacts  
24 V<sub>AC/DC</sub>, Max. 200 mA, Short-circuit Proof

**Supply Voltage:** 19-50 V<sub>DC</sub> / 16-35 V<sub>AC</sub> or 85-260 V<sub>AC/DC</sub>

**Power Consumption:** Typical: 7 VA  
Max. 12 VA

**Sensor Supply:** 24 V<sub>DC</sub> ±5% / 200 mA, (Not Separated from Measuring)

### Communication

**Interface:** RS485, Galvanically Separated

**Transmission Protocol:** Modbus RTU

**Transmission Speed:** 1,200 - 115, 200 bit/s

**Working Temperature:** 32...140 °F

**Storage Temperature:** 14...158 °F

**Humidity:** Up to 90% without Condensation

**Case Dimensions:** 3.8" x 3.8" x 4.25" (W x H x D)

### Panel Cut-out

**Dimensions:** 3.53" x 3.53"

**Installation Depth:** Minimum of approx. 4.0"

**Board Thickness:** Max. 0.20"

**Case:** Board

**Case Material:** Plastic

**Protection:** Front Side IP 40, IP 65 (Optional)  
IP 20 (with USB Connection)  
IP 42 (USB when Door is Installed, see Accessory Model ZLS - ZDK42)  
IP 20 Rear Side

**Connection:** Screw Terminal

**Weight:** Approx. 0.88 lbs



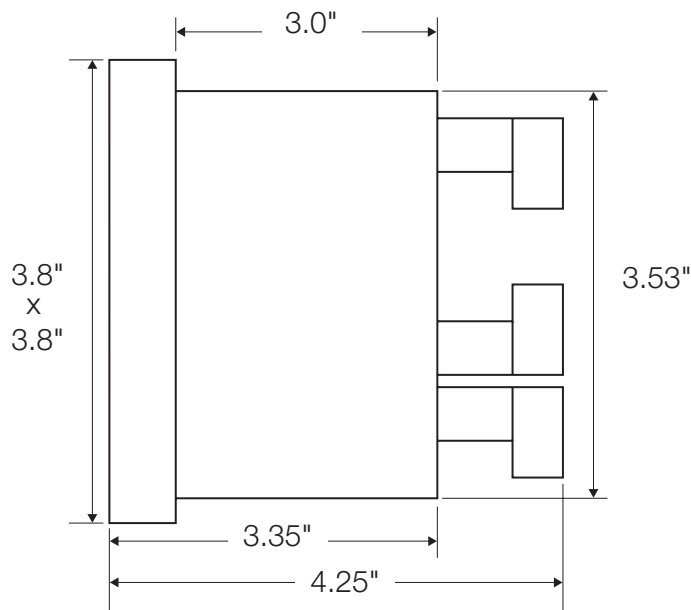
**Order Details** (Example: **ZLS-1 1 A 10 DW4 P**)

| Model           | Number of Channels  | Input Signal                                    | Power Supply   | Additional Input Signal      | Housing Version/Protection           |
|-----------------|---|---|--|------------------------------|--------------------------------------|
| ZLS-1..         | ..1.. = 1 Channel<br>..4.. = 4 Channels<br>..8.. = 8 Channels | ..A.. = 4-20 mA<br>..P.. = Pt100, Pt500, Pt1000 | ..10.. = 85-260 V <sub>AC</sub> /DC<br>..13.. = 19-50 V <sub>DC</sub><br>16-35 V <sub>AC</sub> | ..DW4.. = 1x Digital         | ..P = Front IP40<br>..G = Front IP65 |
|                 |   |   |  | ..UW4.. = 1x Digital and USB | ..P = Front IP20                     |
| Accessories     |   |   |  |                              |                                      |
| ZLS-Z USB RS4 A | Converter Module USB-RS 485                                   |   |  |                              |                                      |
| ZLS-Z RS2 RS4   | Converter Module RS 232 - RS 485                              |   |  |                              |                                      |
| ZLS-Z DK 42     | Transparent Door with Lock for DIN Housing (Protection IP 42) |   |  |                              |                                      |

**Software Included**

- **Toolkit:** PC software for data logger, easy configuring
- **Loggy Soft:** PC software for moving, reporting, archiving and displaying recorded data

**Dimensions**



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