Autonomous Data Collector

100 % Waterproof

DCX-22 (SG/VG)

The DCX-22 is an autonomous, battery powered instrument made of stainless steel designed to record water depth (pressure) and temperature over long periods. Two versions are offered:

DCX-22 The sensor, electronics and battery are housed in a sealed stainless steel tube, for submersible deployment. For data read-out the DCX-22 must be recovered from the measurement point. The O-ring sealed end cap is then removed to access the data port.

The DCX-22 works with an absolute pressure sensor. In shallow water depths where the influence of barometric pressure changes should be considered, it is recommended that a second data collector DCX-22-(Baro) is placed at the surface, to record the barometric pressure. The PC then calculates the differential pressure resp. the water depth by subtracting the two measured values.

DCX-22SG/VG The sensor is connected by waterproof cable to a surface mounted housing with the data read-out port. This arrangement allows for easier data recovery from fixed installations. The DCX-22SG/VG does not have to be removed from the dip pipe for data read out. The DCX-22SG/VG is supplied with a 2" diameter fixing plate to enable mounting at the top of the dip pipe. The sensor can be sealed gauge SG, or vented gauge VG, the cable carries the vent tube for VG version sensors, vent port in the housing is protected by a breathable Gore-Tex® membrane.

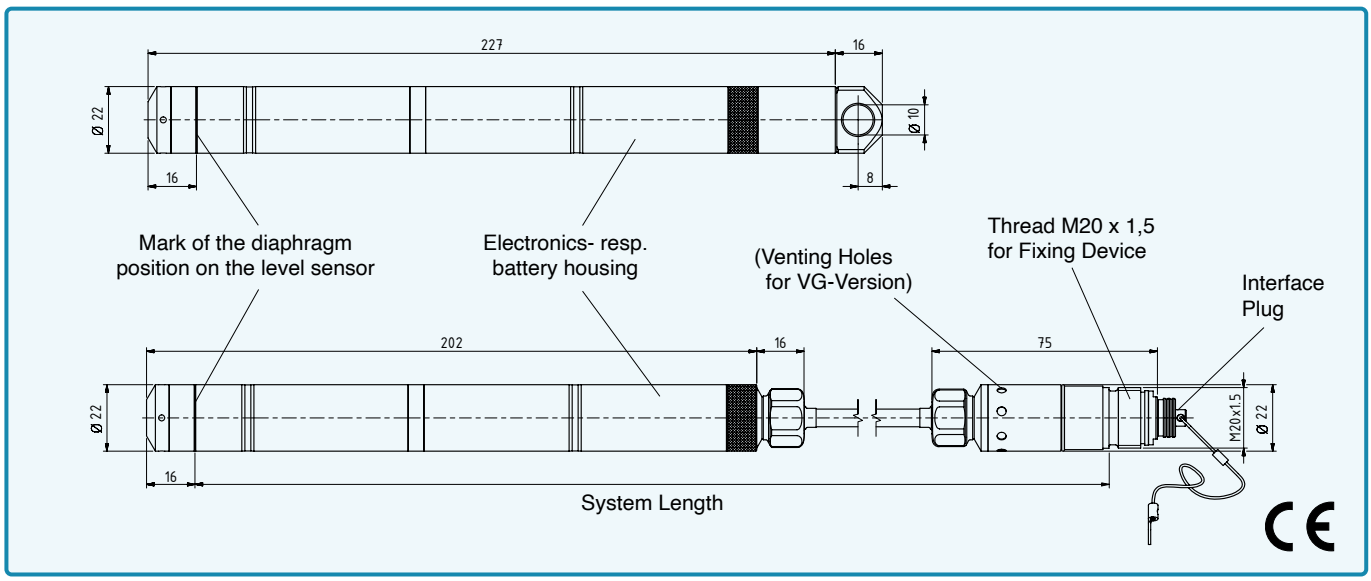
The electronics employ the latest microprocessor technology, which give high accuracy and resolution for the pressure and temperature signals from both the depth sensor and the barometric sensor. The measured values are mathematically compensated for all linearity and temperature errors of the pressure sensors. The use of a non-volatile memory ensures high data security.

The electronics housing is mounted at the top of the borehole to give easy access for data downloading. The level sensor (diameter 22 mm) is connected via a sealed cable to the bottom of the electronics housing. Installation is quick and simple, using fixing devices in various sizes, suitable for cap lock units of different manufacturers and for well access points starting from 1" (caps starting at 2" include a hole to lower a dip meter). Thus enabling measuring stations to be set up at considerably lower costs compared to conventional systems.

The modular design offers the user the two options for collecting the data. Standard design requires the user to visit the location, connect via data-cable and download data. The optional ARC1 unit allows the transmission of data, and instructions (re-programming) to the data-collector from/to a remote location. The data can be sent to any mobile phone as a short message (SMS).

Version DCX-22

Version DCX-22SG
DCX-22VG



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Subject to alterations
info@keller-druck.com

Specifications

Pressure Ranges	DCX-22-Baro	PAA	0,8…1,3 bar				
			10 mWC	20 mWC	50 mWC	100 mWC	
	DCX-22	PAA	0,8…2	0,8…3	0,8…6	0,8…11	bar abs.
	DCX-22SG	PAA	0,8…2	0,8…3	0,8…6	0,8…11	bar abs.
	DCX-22VG	PR	1	2	5	10	bar
Overpressure	2 x Pressure Range						

PAA: Absolute. Zero at vacuum PR: Vented Gauge. Zero at atmospheric pressure **(other ranges on request)**

Supply	Lithium-Battery 3,6 V (Type AA)
Battery Life *	10 years @ 1 measurement/hour
Output	RS485 digital
Electrical Connection	Fischer DEE 103A054
Pressure Sensor Specifications	
Linearity	typ. 0,02 %FS
Comp. Temperature Range	-10…40 °C (icing not permitted)
Error Band **	typ. 0,05 %FS *** max. 0,1 %FS
Resolution	max. 0,0025 %FS
Long Term Stability	typ. 0,5 mbar

Temperature Measurement	Accuracy typ. ±0,5 °C
Operating Temperature	-20…60 °C (icing not permitted)
Shortest Measuring Range	1x per second
Memory	114'000 measuring values @ storage interval ≤ 15 s, otherwise 56'000 measuring values (always with attributed time)
Material	Stainless steel 316L (DIN 1.4435) O-Ring: Viton®
Weight: Probe	≈ 355 g (without cable)
Tolerance System Length	± 2 cm
Options	Other pressure connections, other material: e.g. Hastelloy or titanium

* exterior influences could reduce battery life ** Linearity + Temperature Error *** optional max. 0,05 %FS

KOLIBRI Desktop

With the «KOLIBRI Desktop» Windows software, data recorded using KELLER instruments with a recording function can be read and visualised. This data can be exported in CSV, JSON, Excel or Word format, as an image, or in other formats for further processing or documentation. The data loggers are easy to configure, thanks to the intuitive software interface. And, the various recording functions provide an optimum level of adaptability to suit the measuring task at hand. Additionally, installation site information and other parameters necessary for water level calculations can be saved directly in the measuring device.

KOLIBRI Desktop is license-free and compatible with all products of the KOLIBRI Suite.

Configuration options

- Pressure and temperature channels, selectable
- Adjustable measurement interval (1s ... 99 Tage)
- Averaging with selectable number of measurements
- Recording modes
  - continuous interval measurement
  - event-controlled recording
    - recording starts when value is exceeded
    - recording starts when value is undercut
    - recording starts when value changes
    - → combination of continuous and event-controlled recording is possible
- Adjustment of pressure zero point
- Start measurements immediately or at a set time
- Water level calculation
- Data storage: linear or ring-type memory

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