KELLER

Autonomous Data Collector

Stretto Line – Ø 16 mm

DCX-16 (SG/VG)

The DCX-16 is an autonomous, battery powered instrument. It features a stainless steel 16 mm in diameter housing designed to record water depth (pressure) and temperature over long periods in applications where a more compact size is an advantage.

The electronics employ the latest microprocessor technology which give high accuracy and resolution for the pressure and temperature signals.
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.

Three DCX-16 versions are available:

Versior

DCX-16

The sensor, electronics and battery are housed in a sealed stainless steel tube, for submersible deployment. For data read-out the DCX-16 must be recovered from the measurement point. The end cap is then removed to access the data port.
The DCX-16 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 logger (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.

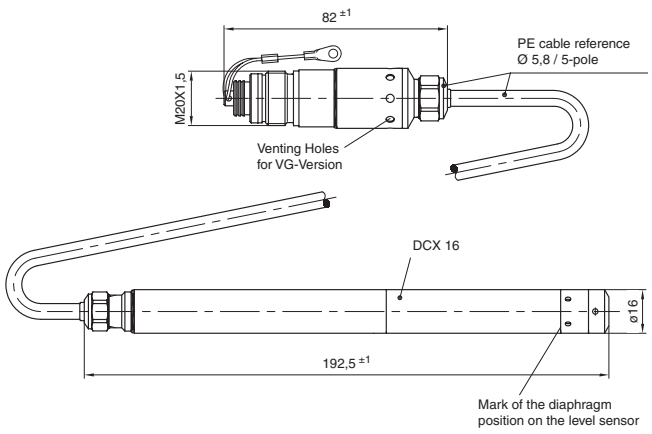
DCX-16 SG/VG

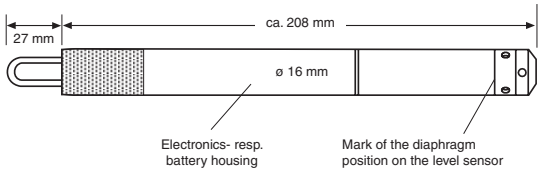
The interface housing is mounted at the top of the borehole to give easy access for data downloading, it is connected via a sealed cable to the electronics housing, which includes the electronic circuit and battery. Installation is quick and simple, using fixing devices in various sizes, suitable for 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.

Version DCX-16 SG
DCX-16 VG

The logger can be sealed gauge (SG) or vented gauge (VG), the cable carries the vent tube for VG version sensors. The vent port in the housing is protected by a breathable Gore-Tex® membrane.

The modular design allows the user to install the DCX-16 SG/VG with different fixing-plates or to connect it to the GSM-1 module.
The optional GSM-1 unit allows the transmission of data, from the data-collector to a remote location or the data can be sent to any mobile phone as a short message (SMS).





CE

Subject to alterations 10/06

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Specifications

Pressure Ranges			10 mWC	20 mWC	50 mWC	100 mWC	
	DCX-16	PAA	0,8…2	0,8…3	0,8…6	0,8…11	bar abs.
	DCX-16 SG	PAA	0,8…2	0,8…3	0,8…6	0,8…11	bar abs.
	DCX-16 VG	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 AAA)
Battery Life *	4 years @ 1 measurement/hour
Output	RS 485 digital
Electrical Connection	Fischer DEE 103A054

Pressure Sensor Specifications

Linearity	typ. 0,02 %FS	
Comp. Temperature Range	-10…40 °C	
Error Band **	typ. 0,05 %FS ***	max. 0,1 %FS
Resolution	max. 0,0025 %FS	
Long Term Stability	typ. 0,5 mbar	

Temperature Compensation	-10…40 °C (others on request)
Temperature Measurement	Accuracy typ. ±0,5 °C
Shortest Measuring Range	1x per second
Memory	57'000 measuring values @ storage interval ≤ 15 s, otherwise 28'000 measuring values (always with attributed time)
Material	Stainless steel AISI 316L O-Ring: Viton®
Probe Weight	≈ 150 g (without cable)
Tolerance System Length	± 2 cm
Options	Other pressure connections

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

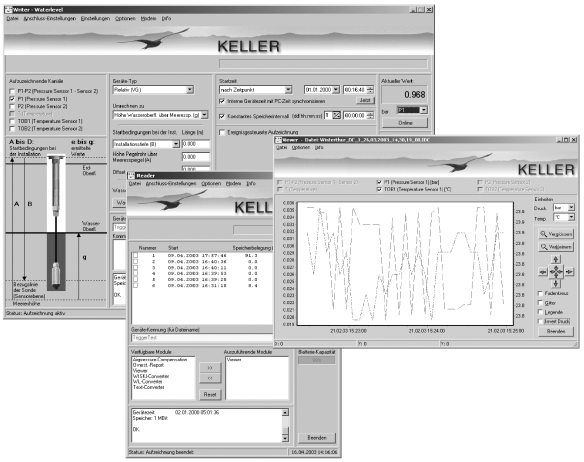
LOGGER 4.x

The Logger 4.x-Software is delivered along with the interface cable K103A (RS232) or K104A (USB). The software is compatible with Windows (≥ Windows 95) and allows to configure and read out our KELLER data loggers (DCX and Leo Record).

The measuring values may be graphically displayed, exported, air pressure compensated or converted into other units.
The Online-function shows the actual values of the instrument. The Logger includes the Reader and Writer.

Writer

The Writer enables the configuration and start of the Logger.



General functions:
– Online display of measuring channels
– Record status indication
– Editing of installation data
– Ring buffer or normal
– Readjustment of the zero

Recording parameter:
– Pressure- and temperature channels selectable

Start methods:
– Time start
– When exceeding or dropping below a certain pressure (or temperature)
– Measuring interval for starting conditions selectable

Recording methods:
– Interval (1s…99 days) and event-controlled recording
– Recording at pressure change
– Turn on or turn off at pressure threshold
– Averaging over selectable number of measurements
– Combination of fixed interval and event recording possible

Reader

The Reader allows the data to be read out into a file. The measured data, which can be converted (exported) into various format, also contains the following information:
Serial number, measuring range, sensor name, installation data, read-out data, units, measuring values with date and clock time, read-out date…

General functions:
– Reading of the recordings' directory with starting time and storage size in %
– Read-out of the individual recordings
– Graphical display of the dat
– Record status indication
– Conversion of the data into a text file for Excel import
– Miscellaneous calculations possible

Special calculations or an export of the data into customer specific databases are possible (only on request).

Logger 4.x also includes the WindowsCE-software for PDA's.

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