

# PRESS RELEASE

## There's a name for hydrostatic level measurement: DCX

### ⇒ Data loggers for hydrostatic level measurements

#### Accurate level measurements – hydrostatically!

Keller AG für Druckmesstechnik offers probes to monitor groundwater levels and filling levels in tanks that can be used under a wide range of conditions. Depending on requirements, these probes provide fully autonomous operation or they can be used with an integrated data logger, mobile transfer, an ambient pressure-compensating capillary or a separate absolute pressure sensor; additional options include integrated temperature measurement, etc. Depending on the sounding tube, probe diameters of 16 mm and 18 mm are available.

Thanks to its diameter of only 16 mm, the DCX-16 can be used in locations where every millimeter counts (e.g. for sounding tubes with small diameters). The pressure sensor is welded into the logger housing. Type DCX-16, which is screwed in position and is fully watertight, operates as an autonomous battery-powered data collector with an absolute pressure sensor. In shallow water, a second logger (barometer) can be used for separate recording of the barometric pressure on the surface. The differential pressure and/or the filling level are then calculated in the PC by subtraction of the time-stamped measurement data from the individual loggers. Version DCX-16 SG/VG provides a cable connection, wherein barometric pressure is fed to the sensor as a reference, via a pressure-compensating capillary in the connecting cable. There is no need to remove these loggers from the sounding tube in order to read the data. The interface plug is secured on the sounding tube with a fixing device.

The fully-welded DCX-18 (diameter: 18 mm) is designed as an autonomous level logger for low-cost, long-term measurements of level and temperature, with rechargeable accumulator-type batteries. The microprocessor electronics compensate for linearity and temperature deviations by the pressure sensor, achieving a further increase in the accuracy of the pressure and temperature signals. Different operating modes, with an absolute pressure sensor or an overpressure sensor with a pressure-compensating capillary, can



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*DCX-Data Loggers*



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also be supplied for the DCX-18. The measurement data are stored in a nonvolatile memory. The batteries are fast-charged every time data are extracted via the charging/read-out plug (which is sealed with an O-ring).

Type DCX-22 AA level loggers (diameter: 22 mm) register and compensate for fluctuations in the local barometric pressure with a watertight air pressure sensor that is fitted on the top end of the sounding tube. These devices are resistant to conditions of use in a damp environment, and will not even be damaged by brief flooding. The efficient electronic equipment registers the signals from the high-precision pressure and temperature sensors, corrects linearity or temperature deviations according to a mathematical model, and then records the values to the internal memory. For standard operation, the built-in battery has a lifetime of 10 years.

Thanks to the user-friendly GUI provided with the instrument, The DCX can be adapted to the specific requirements for the measuring point so that only useful data are stored. The recording interval can be event-controlled. Installation data and comments on the measuring point can also be stored in the probe.

For sounding tube diameters of 2" or more, the data loggers can operate in conjunction with a screw-on remote mobile wireless data transmission unit. It is then easy to send the measured values to a central unit via email or SMS. Flexible, user-friendly software that is available free of charge – the DataManager – then performs the key functions of a monitoring, collecting, controlling and organizing unit in the central PC. The DataManager collects the measurement data, assigns them, visualizes them in graphic form, signals threshold value violations as appropriate, and finally stores the data in a MySQL database (for which no licensing costs are payable). Various export and internet functions enable third parties to access the measurement data for integration into their data recording systems. Virtually every aspect of configuration and monitoring of the DCX loggers with the ARC-1 unit can be handled via the DataManager software or via email.

*DCX-22 AA with  
air pressure sensor*

