

# SERIES DCX-25

Autonomous Downhole Data Collector



# AUTONOMOUS DATA COLLECTOR DCX-25

The DCX-25 is an autonomous battery powered instrument designed to record downhole pressure and temperature over long periods. Amongst other applications, it has been designed to be used by well service with no previous experience of electronic gauges.

The sensor, electronics and battery are housed in a sealed stainless steel tube, for submersible deployment. For data read-out the DCX-25 must be recovered from the measurement point. The O-ring sealed end cap is then removed to access the data port. The DCX-25 works with an absolute pressure sensor.

The KELLER data collector allows measuring stations to be set up at considerably lower costs compared to conventional systems, offering furthermore the following advantages:

- Autonomous: Battery life  $\geq 10$  years
- High data security due to the use of a non-volatile memory
- High measuring accuracy, resolution and robustness
- Combination of event-controlled recording and interval recording prevents unnecessary data being recorded (i.e. only measuring the level changes...)
- Simple and well structured configuration- and read-out PC-software
- Small level sensor diameter (25 mm)
- Thread M22 x 1

## Typical Applications

- Bottom Hole Pressure
- Reservoir and Well Testing
- Standard Build-Up Surveys
- Gradient Surveys
- Production Surveys
- Leak Detection
- Injection Pressure Monitoring
- Long Duration Data Recording



### Pressure Range

700 bar / 10 k PSI      1000 bar / 14.5 k PSI

### Max. Temperature

125 °C / 257 °F

### Compensated Temp. Range

20...125 °C / 32...257 °F (other ranges on request)

### Supply

Lithium-Battery 3,6 V (High Temperature Version)

### Battery Life

10 years @ 1 measurement/hour

### Output

RS 485 digital

### Electrical Connection

Binder Plug 702/712

### Total Error Band (20...125 °C)

max. 0,1 %FS

### Resolution

max. 0,0025 %FS

### Temperature Measurement

Accuracy typ. 2 Kelvin

### Shortest Measuring Cycle

1x per second

### Memory

57'000 measuring values with attributed time  
(depending on storing method)

### Material

Stainless steel 316L (DIN 1.4435), O-ring Viton®

### Pressure Connection

Thread M22 x 1



## HARDWARE / SOFTWARE

The configuration- and read-out software is delivered together with the interface cable (K-103A C). The software is compatible with Windows 2000/NT/XP/ME and 9X.

### Writer

The Writer enables the start and configuration of the DCX-data collector.

General functions:

- Online-display of measuring channels
- Status-indication and indication of battery condition
- 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
- Measuring interval for starting conditions selectable

Recording methods:

- Interval (1s...18h) and event-controlled recording
- Recording at pressure change
- Turn on/Turn off at pressure thresholds
- Averaging over selectable number of measurements

### Reader

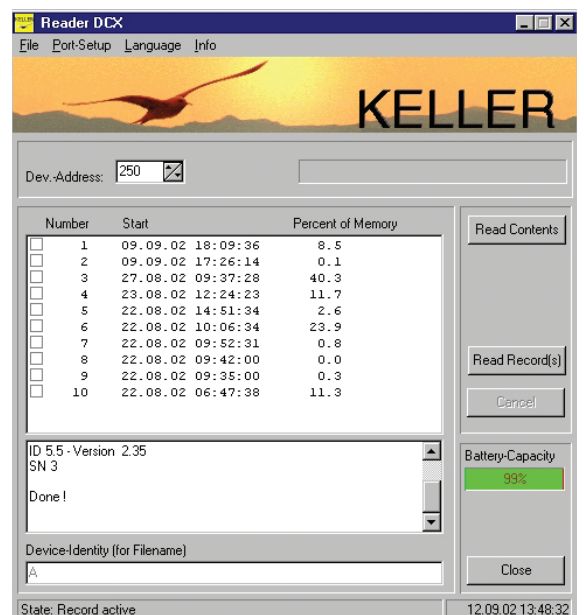
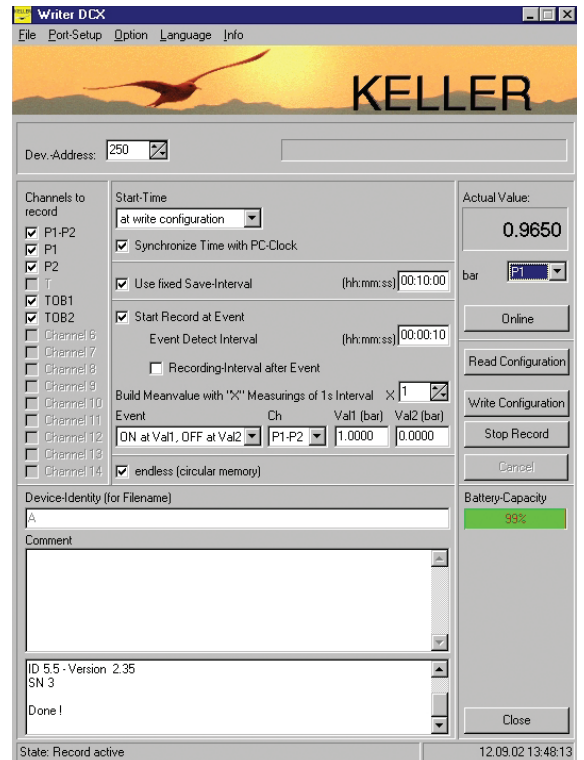
The Reader allows the data to be read out into a file and to be saved onto a Laptop or PC.

The data file, which can be imported by programs such as Excel, contains the following data recorder information:

Serial number, measuring range, sensor name, installation data, read-out data, units, measuring values with date and clock time,...

General functions:

- Status-indication and indication of battery condition
- Reading of the recordings' directory
- Read-out of the individual recordings



**\*\* NEW \*\* NEW \*\***

## Digital Manometer for Coolant Applications

The dV-2 Cool was designed for monitoring tasks at coolant filling stations. Vapour pressure/temperature graphs for 5 coolant liquids are saved in the unit and can be selected by pressing a button.

The LCD display switches from temperature to pressure at the touch of a button, with the display offering a choice of bar / °C or PSI / °F.

The high resolution display means that dV-2 Cool can also be used for measuring leaks in vacuums.



### SPECIFICATIONS

Pressure Ranges	-1...40 bar	-1...80 bar
Resolution	1 mbar	2 mbar
Overpressure	1,5 x pressure range	
Accuracy *	0,1 %FS	
Compensated Range	10...40 °C	
Storage- / Operating Temperature	-10...60 °C / 0...50 °C	
Display- / Measuring Interval	2 x per second	
Supply	3 V battery, type CR 2032	
Battery Life	approx. 2 months at continuous operation	
Pressure Connection	Cutting ring/clamping ring, Ø 6 mm (only up to 200 bar). Optional: other connections.	
Protection	IP 64	
Width x Height x Depth	68 x 70 x 35 mm	
Weight	≈ 90 g (with rubber protection ? 126 g)	
Optional Accessories	- Protective rubber covering - Front display with customer logo	

\* Includes linearity, repeatability, hysteresis, temperature error and resolution of the display. Does not include Zero stability.

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