



# KELLER

## EXPLORER, THE AUTONOMOUS DATA COLLECTOR

## SERIES DC-22

### SUBMERSIBLE DEPTH/TEMPERATURE RECORDING WITH RS 232 LINK

The Explorer DC-22 is an autonomous battery powered instrument designed to record pressure/water depth and temperature over long periods. Two versions are offered:

**DC-22:** The sensor, electronics and battery are housed in a sealed stainless steel ( $\varnothing 22\text{mm}$ ) "cigar tube", for submersible deployment. For data read-out the DC-22 must be recovered from the measurement point. The O-ring sealed end cap is then removed to access the data port.

**DC-22 G:** Utilises a sealed sensor and electronics for submersible deployment. The sensor is connected by sealed cable to a battery housing ( $\varnothing 46\text{mm}$ ) which incorporates the data read-out port. This arrangement allows for easier data recovery from fixed installations. The sensor can be absolute or vented gauge, the cable carries the vent tube for gauge version sensors. Due to its larger size the battery life is significantly increased. However for space limited applications the DC-22G is also available with a smaller battery housing ( $\varnothing 22\text{mm}$ ).

The programming of the Explorer (date, starting and ending time of recordings, measuring cycle) and the read out of the stored values take place via a special data cable and the Software LOGGER 1, both included as standard.

The Explorer DC-22 incorporates an absolute pressure sensor. At low pressures, where the influence of ambient pressure deviations have to be considered, an Explorer DC-22 BARO (barometric) is placed at the surface. Both Explorers are calibrated against vacuum (abs.). The ambient pressure values of the DC-22 BARO are subsequently subtracted in the PC.

<b>EXPLORER DC-22 BARO</b>	0,8...1,1 bar (Temp. Range: -25...50°C Accuracy: 1 mbar typ. / 2 mbar max.)						
<b>EXPLORER DC-22</b>	PAA	0,8...2	0,8...3	0,8...6	0,8...11	bar	
	PA	1	5	10	20	50	100
<b>EXPLORER DC-22 G</b>	PAA	0,8...2	0,8...3	0,8...6	0,8...11	bar	
	PA / PR	1	5	10	20	50	100
	PAA: Absolute, Zero at Vacuum		PA: Sealed gauge, Zero at 1000 mbar abs.		PR: Referential Pressure		
Error Band (0...50°C)	0,1 %FS typ.		0,2 %FS max.				
(-30...80°C)	0,1 %FS typ.		0,3 %FS max.				
Stability	0,05 %FS typ.		0,1 %FS max.				
Resolution	12 bit / 0,03% FS						
Dimensions	DC-22: Length 260 mm, $\varnothing 22$ mm						
Measuring Cycle	Programmable, 1 second...255 hours max.						
Reading Capacity	32'000 readings						
Battery Life	DC-22: 10 million readings @ 1 reading/second						
	18 months @ 1 reading/minute						
	DC-22 G: $\varnothing 22$ mm: see DC-22						
	DC-22 G: $\varnothing 46$ mm: $\approx$ 2-3 times longer than DC-22						



DC-22



DC-22 G  
( $\varnothing 22$  mm)

DC-22 G  
( $\varnothing 46$  mm)



### LOGGER 3.1

The Logger-Software allows the read-out of the stored data from the Explorer. The data transfer takes place via the serial interface of the PC, on RS 232 link.

The Explorer is connected through the special cable K103 (supplied).

The LOGGER-software offers many further processing possibilities of the read-out data, and meets all the requirements of modern Windows software:

- Graphical Display
- Tabulated Display
- Export into other Windows Programs
- Storage into Files

