

HIGHLY PRECISE DIGITAL MANOMETER

LEX 1

PRECISION: 0,01 %FS *

PROVISIONAL

LEX 1 is a micro-processor controlled, accurate and versatile digital pressure measuring instrument with integrated Max./Min.-function for calibration and testing purposes.

The pressure is measured twice per second and displayed. The top display indicates the actual pressure, the bottom display shows the Max.- or Min.-pressure since the last RESET.

LEX 1 has two operating keys. The left key is to turn the instrument on, to select the functions and the pressure units. The right key executes the selected function resp. unit or serves to display the Max.- and Min.-value.



The instrument has the following functions:

RESET: With the RESET-function, the Max.- and Min.-value is set to the actual pressure value.

ZERO: The ZERO-function allows to set any value as a new Zero reference. Barometric pressure variations can thus be compensated.

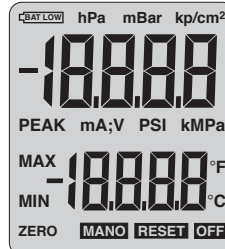
The factory setting of the Zero for the ranges -1...2 bar or -1...20 bar is at 0 bar absolute. For sealed gauge pressure measurements, activate "ZERO SET" at ambient pressure. Instruments with ranges ≥ 200 bar are calibrated in a sealed gauge mode with ambient pressure as a Zero reference.

CONT: The instrument turns off 15 Min. after the last key function. Activating CONT (Continuous) deactivates this automatic turn-off.

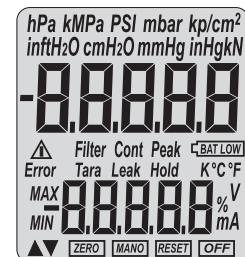
UNITS: All standard instruments are calibrated in bar. The pressure can be indicated in different units.

Optional Accessories:

Carrying bag, protective rubber covering



Display 4 1/2 Digit LEX 1
Resolution max. 20'000 points



Display 5 Digit LEX 1
Resolution up to 100'000 points

SPECIFICATIONS

Pressure Ranges, Resolution, Overpressure:	Range	Resolution	Overpressure
	-1...2 bar	0,1 mbar	10 bar
	-1...20 bar	1 mbar	60 bar
	0...200 bar	10 mbar	400 bar
	0...400 bar	50 mbar	700 bar
	0...1000 bar	100 mbar	1000 bar

Number of Digits	4 1/2 Digit / as of Nov. 2004: 5 Digit
Accuracy (10...30 °C) ¹⁾ *	0,05 %FS
Precision *	0,01 %FS
Storage- / Operating Temperature	-10...60 °C / 0...50 °C
Compensated Temperature Range	0...50 °C
Supply	3 V battery, type CR 2430
Battery Life	2000 hours continuous operation
Pressure Connection	G1/4"
Protection	IP65
Diameter x Height x Depth	76 x 118 x 42 mm
Weight	≈ 210 g

¹⁾ Including linearity, repeatability and hysteresis.



* Accuracy and Precision

"Accuracy" is an absolute term, "Precision" a relative term. Dead weight testers are primary standards for pressure, where the pressure is defined by the primary values of mass, length and time. Highest class primary standards in national laboratories indicate the uncertainty of their pressure references with 70 to 90 ppm or close to 0,01%.

Commercial dead weight testers as used in our facilities to calibrate the transmitters and manometers indicate an uncertainty or accuracy of 0,025 %. Below these levels, KELLER use the expression "Precision" as the ability of a pressure transmitter or manometer to be at each pressure point within 0.01 %FS relative to these commercial standards.

The manometer's full-scale output can be set up to match any standard of your choice by correcting the gain with a calibration software.