

Digital reference pressure gauge and data logger

Model: LR-Cal LDM 80

Accuracy $\pm 0.2\%$ FS, optional $\pm 0.1\%$ FS

Pressure ranges from 0...100 mbar to 0...2000 bar

USB interface, optional WIRELESS data transmission

Optional with Pressure Switch Test function

Incl. measurement of medium temperature
and always visible analogue bargraph display

Chargeable battery, easy charging via USB

The digital reference pressure test gauge LR-Cal LDM 80 is featured with an outstanding longterm stability. It is perfect for reference pressure measurements, for testing and calibration purposes. Together with the portable pressure test pumps LR-Cal LPP 40, as well as LR-Cal LPP 700 or LR-Cal LPP 1000 it can be used mobile, on site. For higher pressure values we recommend our pressure comparison pumps LR-Cal LSP.

The LR-Cal LDM 80 is powered by a rechargeable li-ion battery and is fitted with an USB interface. In addition, the device is featured with a data logging function (max. 60,000 values) and it measures the temperature of the pressure medium. A transit case, an USB charger and a traceable factory certificate of calibration are included in standard delivery.

Optional, the LR-Cal LDM 80 is available with electrical connection for pressure switch tests or with WIRELESS transmission of data to PC/Laptop (instead of via USB interface).

Technical Data:

Internal resolution: 65,000 div.

Measurements per second (if filter is set to 0): 10 (100 ms).

Pressure measurement/indication: see table on page 2. Accuracy $\pm 0.2\%$ FS, optional $\pm 0.1\%$ FS (Code LDM80-KL01).

Filter: programmable digital filter for stabilisation of displayed values also at fluctuating pressures.

Temperature measurement/indication: Resolution 0.1°C; Accuracy $\pm 1^\circ\text{C}$ (range -10...+70°C, ambient temp. 0...50°C).

Reference temperature: +23°C.

Working temperature range: -10...+70°C.

Storage temperature range: -10...+80°C.

Temperature influence: $\leq \pm 0.002\%/1^\circ\text{C}$.

Display: LCD 13 mm; with programmable backlight (1...60 seconds, or off).

Programmable resolution: 1, 2, 5, 10.

Interface: USB 2.0 (virtual COM port on PC/Laptop, programmable baud rate 19200, 9600 or 4800)

Optional: WIRELESS, RF frequency 433 MHz, RF transmission 200 m in free air, max. 10 transmissions per second.

ZEROing: Via key press, up to 50% of FS.

Maximal-/Minimal values: PEAK function, aktive at positive and negative pressures, 10 measurements per second

Pressure units: selectable; bar, mbar, psi, MPa, kPa, kg/cm², mHg, mmHg, mmH₂O, mH₂O.

Temperature units: selectable; °C, °F.

Data logger: max. storing frequency: 1 value per second, capacity max. 60,000 measured values
(= 60,000 pressure values or 30,000 pressure values plus 30,000 temperature values)

Supply: rechargeable inside li-ion-battery 3.7 V size 14500, autonomy approx. 3 months (if backlight of display is switches off and without optional WIRELESS data transmission, charging time approx. 8 hours (via PC/Laptop or supplied USB charger).

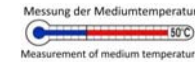
Pressure port: 1/2" BSP male, recommended gasket: USIT A 63-18. (Ranges >1000 bar: sealing cone TLDMM-DK).

Pressure limits: Static pressure up to 100% FS, max. permissible pressure up to 150% FS, breaking pressure >300% FS, at highly dynamic pressure max. 75% FS.

Pressure port mounting: Tightening wrench 27 mm, tightening torque 28 Nm.

Protection degree: IP 40

Materials: Indicator housing: black coated aluminium, pressure sensor and port: stainless steel.



LDM 80 Pressure Calibrator and Data logger

Accuracy $\pm 0.2\%$ FS, optional $\pm 0.1\%$ FS



Order-Codes and Pressure Ranges

Order-Code	Pressure Range	Display	Resolution
LDM80-8010	0...100 mbar	100.0 mbar	0.1 mbar
LDM80-8025	0...250 mbar	250.0 mbar	0.1 mbar
LDM80-8050	0...500 mbar	500.0 mbar	0.1 mbar
LDM80-0001	0...1 bar	1.000 bar	0.001 bar
LDM80-0002	0...2,5 bar	2.500 bar	0.001 bar
LDM80-0005	0...5 bar	5.000 bar	0.001 bar
LDM80-0010	0...10 bar	10.00 bar	0.01 bar
LDM80-0020	0...20 bar	20.00 bar	0.01 bar
LDM80-0050	0...50 bar	50.00 bar	0.01 bar
LDM80-0100	0...100 bar	100.0 bar	0.1 bar
LDM80-0250	0...250 bar	250.0 bar	0.1 bar
LDM80-0350	0...350 bar	350.0 bar	0.1 bar
LDM80-0500	0...500 bar	500.0 bar	0.1 bar
LDM80-0700	0...700 bar	700.0 bar	0.1 bar
LDM80-1000	0...1000 bar	1000 bar	1 bar
LDM80-1500	0...1500 bar	1500 bar	1 bar
LDM80-2000	0...2000 bar	2000 bar	1 bar
LDM80-1010	-1...+1 bar	1.000 bar	0.001 bar
LDM80-1025	-1...+2.5 bar	2.500 bar	0.001 bar
LDM80-1050	-1...+5 bar	5.000 bar	0.001 bar
LDM80-1020	-1...+20 bar	20.00 bar	0.01 bar
LDM80-8050-ABS	0...0.5 bar absolute	0.5000 bar	0.0001 bar
LDM80-0001-ABS	0...1 bar absolute	1.000 bar	0.001 bar
LDM80-0002-ABS	0...2.5 bar absolute	2.500 bar	0.001 bar
LDM80-0005-ABS	0...5 bar absolute	5.000 bar	0.001 bar
LDM80-0010-ABS	0...10 bar absolute	10.00 bar	0.01 bar

LDM80-DK Sealing cone 60° for the pressure port, recommended for pressure ranges > 1000 bar.

Scope of delivery: LR-Cal LDM 80 + USB battery charger + USB cable + case + calibration certificate + operating manual

Dimensions (images are showing version with WIRELESS option)



Option LDM80-ST

Pressure switch test, electr. male conn. 2-pin power jack 5x5 x 2.1 mm, at the bottom side of the housing.



Option LDM80-WF

WIRELESS data transmission (instead of via USB interface). 100 m in free air, frequency 433 MHz, max. 10 transmissions per second.

Option LDM80-KL01

Accuracy $\pm 0.1\%$ v.E. instead of 0.2% incl. factory certificate of calibration

Option PC-WIRELESS

WIRELESS receiver to be connected to PC or Laptop (USB). Up to 5 LR-Cal LDM 80 at one PC/Laptop.



PC/Laptop driver for USB (virtual COM port) are available for free download on our internet site www.lr-cal.net on the related product page.