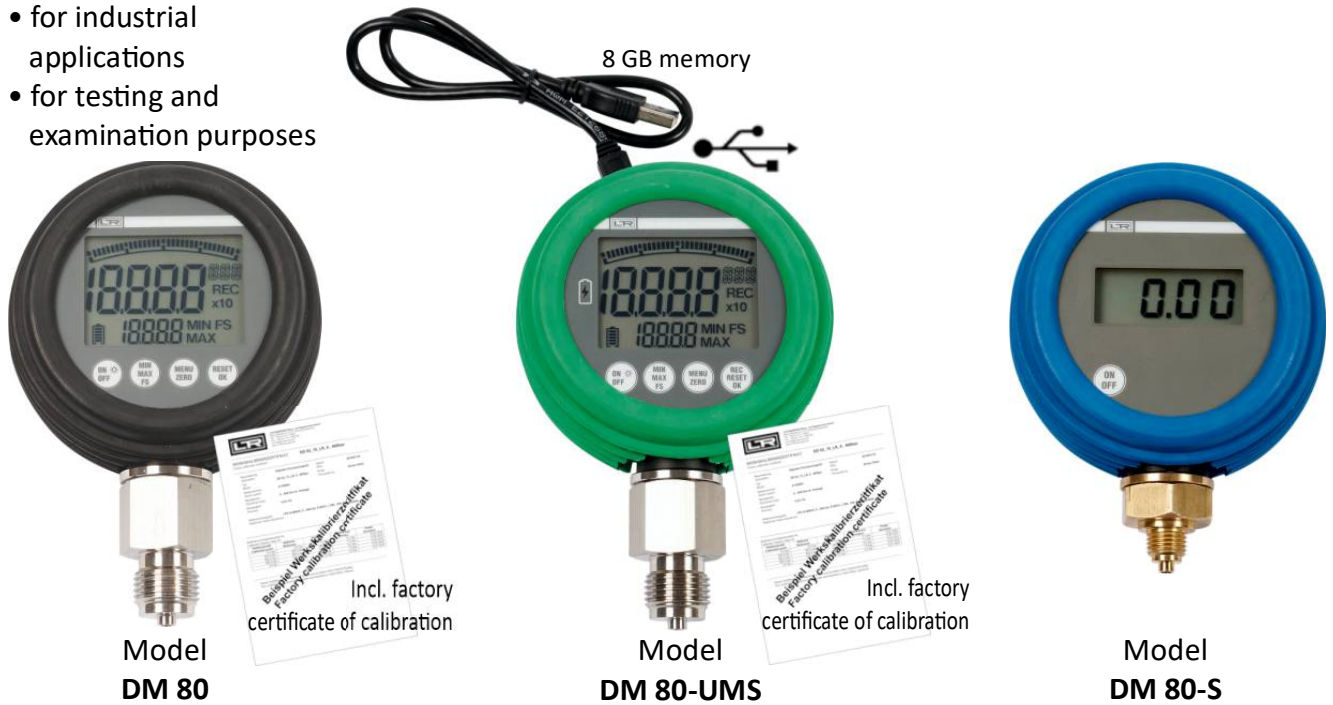


Digital Pressure Gauge Accuracy: $\pm 0.25\%$ BFSL

- for industrial applications
- for testing and examination purposes



The digital pressure gauges models **DM 80**, **DM 80-UMS** (and **DM 80-S**) are used for digital indication of measured pressure values, as well as for testing and diagnose purposes in stationary and mobile hydraulic applications.

	Model DM 80	Model DM 80-UMS	Model DM 80-S	
Interface:	---	USB	---	
Data storage (data transmission as CSV file):	---	8 GB	---	
Ambient temperature:	-10...+50°C	-10...+50°C	-10...+50°C	
Storage temperature:	-20...+60°C	-20...+60°C	-20...+60°C	
Medium temperature:	ranges -50...+50 mbar and -200...+200 mbar: range 0...4 bar absolute: all other pressure ranges:	-10...+50°C *) -20...+80°C -40...+125°C	--- --- -20...+120°C	
Maximal relative humidity:	85% r.h.	85% r.h.	85% r.h.	
Material pressure port:	ranges -50...+50 mbar and -200...+200 mbar: range 0...4 bar absolute: all other pressure ranges:	CuZn39Pb3 St.st. 1.4404 St.st. 1.4301	--- --- Brass	
Material membrane:	ranges from -50...+50 mbar to 0...4 bar abs. all other pressure ranges:	Ceramic St.st. 1.4548	--- St.st. 1.4548 Ceramic	
Material gasket:	ranges -50...+50 mbar and -200...+200 mbar: range 0...4 bar absolute: all other pressure ranges:	Epoxy EPDM welded **)	--- --- H-NBR	
Temperature compensated range:	0...50°C	0...50°C	+10...+40°C	
Error in temperature compensated range:	ranges -50...+50 mbar and -200...+200 mbar: range 0...4 bar absolute: all other pressure ranges:	$\leq \pm 0.03\%$ FS / °C $\leq 0.005\%$ FS / °C $\leq 0.035\%$ FS / °C	--- --- $\leq 0.02\%$ FS / °C	
Minimum load cycles:	ranges from -50...+50 mbar to 0...4 bar abs. all other pressure ranges:	10×10^6 100×10^6	--- 10×10^6	
Power supply:	2 x 1.5 VDC LR6-AA ***)	built-in Li-Ion battery	2 x 1.5 VDC LR6-AA ***)	
Max. battery life time:	1500 h mbar	10 h continuously ---	1500 h ---	
Pressure units:	ranges -50...+50 mbar and -200...+200 mbar: ranges from 0...4 bar abs. to 0...60 bar: ranges from 0...100 bar to 0...600 bar: ranges from 0...700 bar to 0...2500 bar:	bar, PSI, kPa, MPa, mbar bar, PSI, Kpa, MPa bar, PSI, MPa bar, PSI, MPa	bar, PSI, kPa, MPa bar, PSI, kPa, MPa bar, PSI, MPa bar, PSI, MPa	--- --- --- ---
Pressure port:	ranges -50...+50 mbar and -200...+200 mbar: all other pressure ranges:	1/4" BSP M acc. EN 837 *) 1/2" BSP M acc. EN 837	--- 1/2" BSP M acc. EN 837 1/4" BSP M acc. EN 837	
Indication:	LCD incl. bargraph	LCD incl. bargraph	LCD	
PEAK function:	Min. / Max.	Min. / Max.	---	
Weight:	approx. 400 g	approx. 410 g	approx. 390 g	
Case diameter:	with rubber protection cap: without rubber protection cap:	approx. 95-100 mm approx. 80 mm	approx. 95-100 mm approx. 80 mm	

*) For dry gaseous media only! **) no gasket, because of welded diaphragm membrane ***) NOT included in scope of standard delivery

DM 80
DM 80-UMS
DM 80-S

LR SMART TECH Digital Pressure Gauge $\pm 0.25\%$
DM 80 • DM 80-UMS • DM 80-S



How to order: Pressure ranges and Order-Codes

Model DM 80

Pressure conn.: 1/2" BSP M





Accuracy $\pm 0.25\%$ BFSL *)

incl. factory certificate of calibration



Gauge pressure ranges:	Order-Code:
0...10 bar	DM80-0010-0-G12
0...25 bar	DM80-0025-0-G12
0...40 bar	DM80-0040-0-G12
0...60 bar	DM80-0060-0-G12
0...100 bar	DM80-0100-0-G12
0...250 bar	DM80-0250-0-G12
0...400 bar	DM80-0400-0-G12
0...600 bar	DM80-0600-0-G12
0...700 bar	DM80-0700-0-G12
0...1000 bar	DM80-1000-0-G12
0...2500 bar	DM80-2500-0-G12
Compound pressure ranges:	Order-Code:
-50...+50 mbar (conn. 1/4" BSP)	DM80-8000-5-G14
-200...+200 mbar (conn. 1/4" BSP)	DM80-8002-0-G14
-1...+16 bar	DM80-9016-0-G12
-1...+25 bar	DM80-9025-0-G12
-1...+40 bar	DM80-9040-0-G12
-1...+60 bar	DM80-9060-0-G12
Absolute pressure ranges:	Order-Code:
0...4 bar absolute	DM80-0004-ABS-G12

To be ordered separately with each instrument DM 80:

Rubber protection cap, black	DM80-GSK-S
Accessories for DM 80:	Order-Code:
Rubber protective cap with hook for hanging 	DM80-GKS-S-HAKEN
Threaded adapter M16x2 female x 1/2" BSP female 	DM80-AD-M16-I-G12
Threaded adapter M16x2 male x 1/2" BSP female 	DM80-AD-M16-A-G12
Small transit case with custom foams 	DM80-KOFFER

*) $\pm 0.25\%$ BFSL (maximum non-linearity acc. to Best Fit Straight Line method) is equal to $\pm 0.5\%$ FS acc. to IEC 60770 (limit point adjustment (non-linearity, hysteresis and repeatability))

Model DM 80-S

Pressure conn.: 1/4" BSP M





Accuracy $\pm 0.5\%$ FS (nach IEC 60770)



Gauge pressure ranges:	Order Code:
0...60 bar	DM80-S-0060-0-G14
Compound pressure ranges:	Order Code:
-1...+3 bar	DM80-S-0003-0-G14
-1...+16 bar	DM80-S-9016-0-G14

Pressure unit BAR or PSI.

To be ordered separately with each instrument DM 80-S:

Rubber protection cap, blue	DM80-GSK-B
Accessories for DM 80-S	Order-Code:
Rubber protective cap with hook for hanging 	DM80-GKS-S-HAKEN
Factory certificate of calibration	DM80-S-WZERT
Threaded adapter M16x2 female x 1/4" BSP female 	DM80-AD-M16-I-G14
Threaded adapter M16x2 male x 1/4" BSP female 	DM80-AD-M16-A-G14
Small transit case with custom foams 	DM80-KOFFER

Model DM 80-UMS

Pressure conn.: 1/2" BSP M
 Accuracy $\pm 0.25\%$ BFSL *)
 incl. factory certificate of calibration



with USB interface and **8 GB** data memory
 (export as csv file, no special software needed)



Powered with built-in chargeable Li-Ion battery.

Gauge Pressure Ranges:	Order-Code:
0...25 bar	DM80-UMS-0025-0-G12
0...40 bar	DM80-UMS-0040-0-G12
0...60 bar	DM80-UMS-0060-0-G12
0...100 bar	DM80-UMS-0100-0-G12
0...250 bar	DM80-UMS-0250-0-G12
0...400 bar	DM80-UMS-0400-0-G12
0...600 bar	DM80-UMS-0600-0-G12
0...1000 bar	DM80-UMS-1000-0-G12
0...2500 bar (on request only)	DM80-UMS-2500-0-G12
Compound Pressure Ranges:	Order-Code:
-1...+16 bar	DM80-UMS-9016-0-G12

To be ordered separately with each instrument DM 80-UMS:


Rubber protection cap, green **DM80-UMS-GSK-G**

Accessories for DM 80-UMS:

Rubber protective cap with hook for hanging  **DM80-GKS-G-HAKEN**

Mains charger 110...230 VAC **DM80-UMS-LG**

Threaded adapter M16x2 female x 1/2" BSP female  **DM80-AD-M16-I-G12**

Threaded adapter M16x2 male x 1/2" BSP female  **DM80-AD-M16-A-G12**

Small transit case with custom foams  **DM80-KOFFER**

*) $\pm 0.25\%$ BFSL (maximum non-linearity acc. to Best Fit Straight Line method) is equal to $\pm 0.5\%$ FS acc. to IEC 60770 (limit point adjustment (non-linearity, hysteresis and repeatability))

The model **DM 80-UMS** is equipped with a 8 GB data memory and has a micro USB connector. The data transfer speed is according to the USB 2.0 standard. The **DM 80-UMS** is recognized by connected PC/Laptop as an external memory.

The built-in rechargeable lithium-ion battery enables autonomous continuous operation of approx. 10 hours. The charging time of an empty battery is about 3 hours.

The measurement value storage rate can be set: every 10 ms, / 100 ms / 1 sec / 10 sec.
 A data record can be also created by pushing the button „REC“.

Due to the extremely large storage capacity, the logging time is approximately as follows:

- with storage interval every 10 milliseconds: approx. 1 year
- with storage interval every 100 milliseconds: approx. 10.1 years
- with storage interval every 1 second: approx. 101.5 years
- with storage interval every 10 seconds: approx. 1015 years

The built-in data memory of the **DM 80-UMS** will be recognized by the computer as an external memory (like an USB drive). Enables extremely simple reading of the stored data (.csv file) without special software.

Scope of standard delivery of the digital pressure gauge and datalogger **DM 80-UMS:**

- Device **DM 80-UMS** (rubber protection cap, order-code **DM80-UMS-GSK-G** must be ordered separately!)
- USB- cable (Micro-USB to USB-A), PC connection to USB-A connector.
- Built-in chargeable Li-Ion battery (chargeable with standard 5 VDC output USB chargers)
- Factory certificate of calibration
- Operating manual

Recommended accessories:

- Green rubber protection cap order-code **DM80-UMS-GSK-G** (must be ordered with every **DM 80-UMS**!)
- Plug battery charger 110...240 VAC with USB-A connector: order-code **DM80-UMS-LG**

DM 80
DM 80-UMS
DM 80-S

LR SMART TECH Digital Pressure Gauge $\pm 0.25\%$
DM 80 • DM 80-UMS • DM 80-S



The digital pressure gauges **DM 80**, **DM 80-UMS** as well as model **DM 80-S** are ideal not only for measurement of process pressures (**DM 80-UMS** with datalogger), but also - in combination with our pressure test pumps - perfect for testing and diagnostic works:



with pneumatic pressure test pump
LR-Cal LPP 08



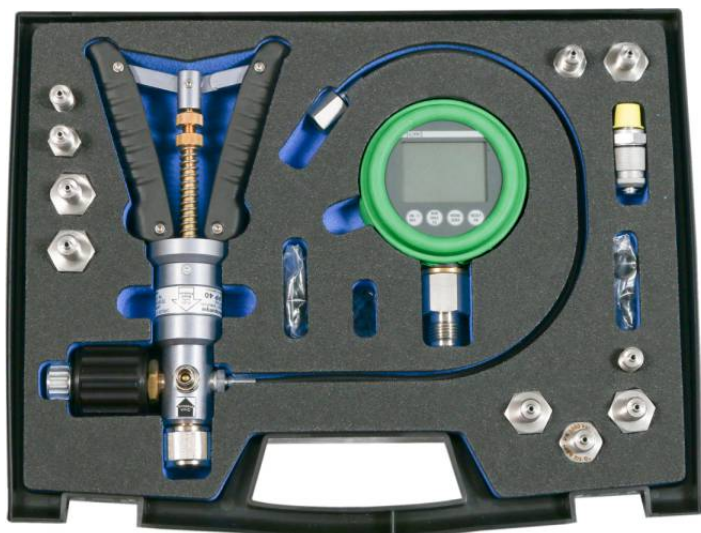
with pneumatic pressure test pump
LR-Cal LPP 40



with pneumatic pressure test pump
LR-Cal LPP 60-T



with hydraulic pressure test pump
LR-Cal LPP 700/1000



Diagnostic Case **TESTKIT-DM80-UMS-9016**
with pneumatic pressure test pump
LR-Cal LPP 40 and adapters