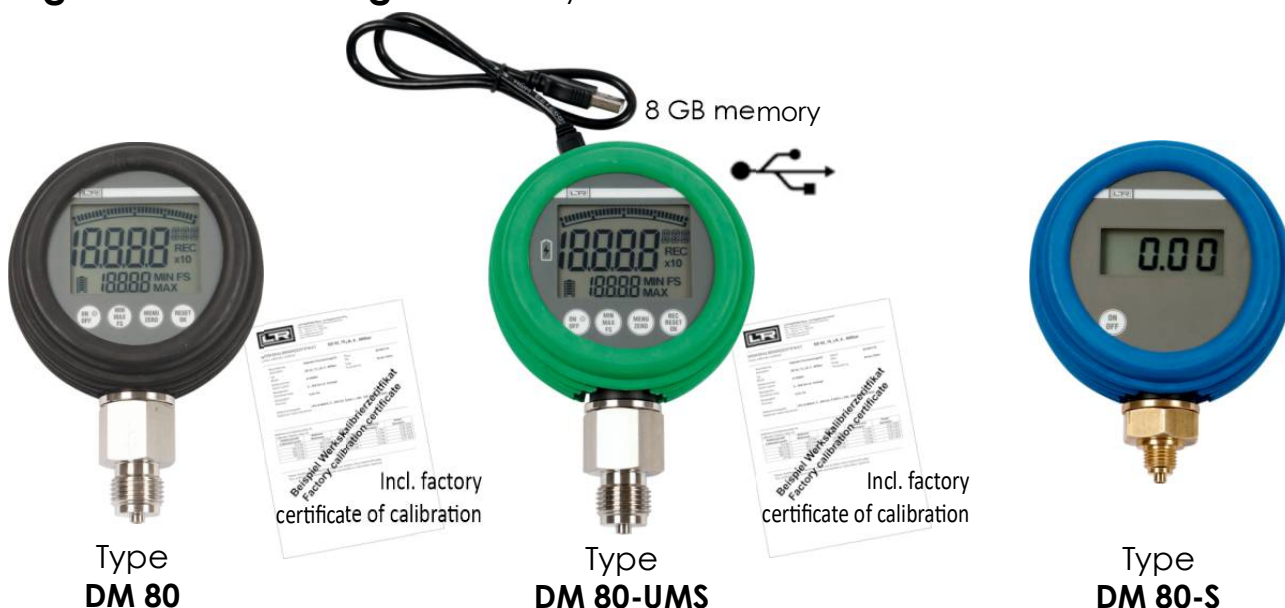


Digital Pressure Gauge Accuracy: $\pm 0.25\%$ BFSL



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	ranges -50...+50 and -200...+200 mbar:	-10...+50°C *)	---	---
temperature:	range 0...4 bar absolute:	-20...+80°C	---	---
	all other pressure ranges:	-40...+125°C	-40...+125°C	-20...+120°C
Maximal relative humidity:		85% r.h.	85% r.h.	85% r.h.
Material	ranges -50...+50 and -200...+200 mbar:	CuZn39Pb3	---	---
pressure port:	range 0...4 bar absolute:	St.st. 1.4404	---	---
	all other pressure ranges:	St.st. 1.4301	St.st. 1.4301	Brass
Material	ranges from -50...+50 mbar to 0...4 bar abs.	Ceramic	---	---
membrane:	all other pressure ranges:	St.st. 1.4548	St.st. 1.4548	Ceramic
Material	ranges -50...+50 and -200...+200 mbar:	Epoxy	---	---
gasket:	range 0...4 bar absolute:	EPDM	---	---
	all other pressure ranges:	welded **)	welded **)	H-NBR
Temperature compensated range:		0...50°C	0...50°C	+10...+40°C
Error in temperature	ranges -50...+50 and -200...+200 mbar:	$\leq \pm 0.03\%$ FS / °C	---	---
compensated	range 0...4 bar absolute:	$\leq 0.005\%$ FS / °C	---	---
range:	all other pressure ranges:	$\leq 0.035\%$ FS / °C	$\leq 0.035\%$ FS / °C	$\leq 0.02\%$ FS / °C
Minimum	ranges from -50...+50 mbar to 0...4 bar abs.:	10×10^6	---	---
load cycles:	all other pressure ranges:	100×10^6	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	10 h continuously	1500 h
	ranges -50...+50 and -200...+200 mbar:	mbar	---	---
Pressure units:	ranges from 0...4 bar abs. to 0...60 bar:	bar, PSI, kPa, MPa, mbar	bar, PSI, kPa, MPa	---
	ranges from 0...100 bar to 0...600 bar:	bar, PSI, kPa, MPa	bar, PSI, kPa, MPa	---
	ranges from 0...700 bar to 0...3.000 bar:	bar, PSI, MPa	bar, PSI, MPa	---
Pressure port:	ranges from -50...+50 mbar to 0...4 bar abs.:	1/4" BSP M acc. EN 837 *)	---	---
	all other pressure ranges:	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.	---
Case material:		Metal (die-cast zinc)	Metal (die-cast zinc)	Plastic
Protection degree:		IP 65	IP 65	IP 40
Weight:		approx. 600 g	approx. 610 g	approx. 390 g
Case	with rubber protection cap:	approx. 95-100 mm	approx. 95-100 mm	approx. 95-100 mm
diameter:	without rubber protection cap:	approx. 80 mm	approx. 80 mm	approx. 80 mm

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

How to order: Pressure ranges and Order-Codes

Type DM 80

Pressure conn.: 1/2" BSP M

Accuracy $\pm 0.25\%$ BFSL *)

Housing: metal

Protection: IP 65

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...1,000 bar	DM80-1000-0-G12
0...2,500 bar	DM80-2500-0-G12
0...3,000 bar	DM80-3000-0-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 (conn. 1/4" BSP)	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 *) M1 6x2 female x 1/2" BSP female	DM80-AD-M16-I-G12
Threaded adapter *) M1 6x2 male x 1/2" BSP female	DM80-AD-M16-A-G12
Small transit case with custom foams	DM80-KOFFER

*) max.700 bar

*) $\pm 0.25\%$ 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))

Type DM 80-S

Pressure conn.: 1/4" BSP M

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

Housing: plastic

Protection: IP 40



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 M1 6x2 female x 1/4" BSP female	DM80-AD-M16-I-G14
Threaded adapter M1 6x2 male x 1/4" BSP female	DM80-AD-M16-A-G14
Small transit case with custom foams	DM80-KOFFER

Type **DM 80-UMS**

Pressure conn.: 1/2" BSP M

Accuracy $\pm 0.25\%$ BFSL *)

Housing: metal

Protection: IP 65

Interface: USB-C

incl. factory certificate of calibration



with USB-C interface and **8 GB** data memory
(export as csv file, no special software needed,
the instrument is recognized like an USB
memory stick)



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:	Order-Code:
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 type DM 80-UMS is equipped with a 8 GB data memory and has an USB-C 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



LR-Cal



DRUCK & TEMPERATUR LEITENBERGER

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 pressure comparison test pump
LR-Cal LSP 100-H



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