

Digital Pressure Gauge

DM 80-S

Rel. 20220518



Described product

Manufacturer

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1. Safety

1.1 Safety notes and regulations

To ensure safe and reliable work with the digital pressure gauge and to protect the user from injuries, the following points are to be observed:



- **Read the operating instructions carefully.**



- The digital pressure gauge may only be operated and installed in systems by trained specialists who possess the necessary expertise and qualifications to perform these tasks, and who are familiar with the applicable standards, regulations and requirements of the field of application.
- The operating instructions are an integral part of the digital pressure gauge. Store the operating instructions in a safe location so that you can quickly find the desired information if necessary.
- The legal provisions and regulations as well as those of the system/vehicle manufacturer are generally to be observed.
- Prior to commissioning, perform a check to ensure that the digital pressure gauge is in faultless condition. Do NOT operate the digital pressure gauge if damaged. No technical modifications to the digital pressure gauge may be made.
- Protection class according to DIN 60529: The ambient conditions at the place of use must not exceed the requirements for the specified protection class (see Technical data).



- Do not subject the digital pressure gauge to any extreme temperatures, direct sunlight, extreme humidity or wet.
- Observe the measurement range limits and temperature ranges.
- Do not exceed the maximum measurement range limits and temperature ranges of the digital pressure gauge at any time.
- The maximum pressure/load range of the system or component with the lowest value is the decisive maximum value for the overall pressure/load range.
- Do not exceed the maximum pressure/load value of the smallest component of the system at any time.



- Always observe the nominal pressure specifications of the built-in measuring connections and lines as well as the specified safety factors.
- Repairs to the digital pressure gauge may only be performed by the manufacturer. Use only original spare parts and accessories.
- Non-specified use of the product or failure to observe the safety and operating notes may lead to severe malfunctions as well as personal injury and property damage.
- The discharge of media or hot liquids that are under pressure may cause injuries. Pressurised systems may burst and cause parts to be ejected.



- Wear personal protective equipment, such as protective goggles, gloves, safety shoes, etc. when working on pressurised systems and components.



1.2 Explanation of symbols

Warning notices and important information are marked in this document with symbols for better identification.

The notices begin with signal words that indicate the extent of the danger. You must absolutely comply with these notices and information and handle the device with care to prevent accidents and avoid personal injury and property damage.



DANGER

Notice indicating a dangerous situation which, if not avoided, will result in death or severe injury.



WARNING

Notice indicating a dangerous situation which, if not avoided, could result in death or severe injury.



CAUTION

Notice indicating a dangerous situation which, if not avoided, could result in minor to moderate injury.



Attention

Notice indicating a dangerous situation which, if not avoided, could result in property damage.



Note

Notice including useful tips, recommendations and information for efficient and trouble-free operation of the digital pressure gauge.

1.3 Intended use

The DM 80-S digital pressure gauge is used for the mobile and stationary measurement of pressures.



Warning

Danger from improper use.

Any improper use and failure to observe safety and operating notices can result in serious malfunctions as well as personal injury and property damage.

- Only use the DM 80-S digital pressure gauge as intended.
- All information in the operating instructions and safety data sheets must be strictly complied with.

1.4 Disclaimer

Failure to comply with the intended use will immediately void any warranty and guarantee claims against the manufacturer. No liability is accepted for damage or malfunctions caused by improper use, assembly errors or failure to observe the operating instructions.

1.5 Ambient conditions

The DM 80 UMS digital pressure gauge is only intended for use in commercial workshops.

The climatic requirements correspond to the conditions typically prevailing in Central Europe. Optimum function is ensured between -10 °C and +50 °C. The device must be stored within a temperature range of -20 °C to + 50 °C.

The DM 80-S digital pressure gauge must be secured against falling down.

2. Product description

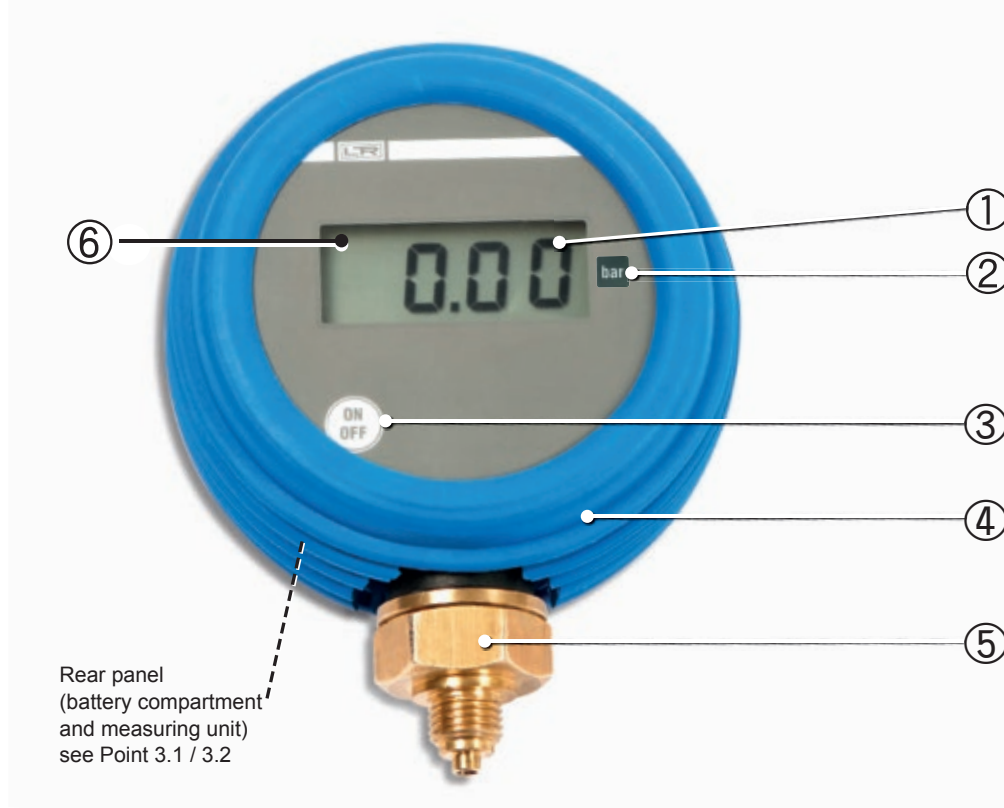
The DM 80-S is a digital pressure gauge with actual value display, MIN/MAX display and accuracy class 0.5 FSO and manually adjustable in the measuring units bar or PSI.

2.1 Device view, keys and functions

Display:

3½ digit display with backlight. Display of the measured values.

Pos.	Designation	Function
1	Actual value display	Displays the actual value. If the battery is too weak, the LOBAT indicator lights up
2	Sticker measurement unit	Bar/PSI
3	ON/OFF button	briefly key press: switching device on/off
4	Rubber protective cap	Protection against damage to the device
5	Pressure connection	G1/4"
6	LOBAT display	Appears when the battery is low



2.2 Delivery content

- 1 Pressure gauge
- 2 Sticker (1 x Bar / 1 x PSI)
- 4 Rubber protective cap, blue



If the device displays "OFL" (overflow), this means that the existing pressure is too high. The device switches off automatically after 5 minutes if there is a maximum pressure change of 2 % of the respective end value.

3. Prior to commissioning

Check scope of delivery.

To be able to start up the DM 80-S with the desired unit (bar/PSI), the unit must be opened and adjusted by hand.



The pressure gauge is set to bar at delivery.
If necessary, check switch position for measuring unit before use. (point 3.2)
The batteries are included in the delivery condition and are not in the instrument.
The batteries must be inserted before use.

3.1 Battery replacement

- Switch the device off and push the rubber cap towards the rear over the housing.
- Open the rear side of the device: Loosen and remove the 3 screws (hexagon socket 2.5 mm), lift the cover off.



- Replace the batteries. Pay attention to the polarity! Batteries 2 x 1.5 V (LR6 - AA).



The power supply cables are designed to be placed over the upper anchorage of the screw.

- Restore the original state. Then the corresponding unit label (bar/PSI) must be attached to the front side next to the digital display. These stickers are included in the delivery.

The DM 80-S is now completely ready for use.

3.2 Setting the measurement unit, attach stickers

- Open the back of the housing (see point 3.1)
- Set the measuring unit via the switch position



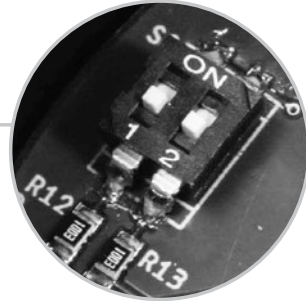
BAR:

Both switches (1 and 2)
in the upper position ON

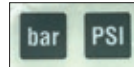


PSI:

Switch 1 to the lower position and
switch 2 in the upper position ON



- Attach correct sticker with measuring unit to display
- Close rear side of housing (see point 3.1)



3.3 Connect the digital pressure gauge



CAUTION

Risk of injury due to leaking liquids or gases.

The discharge of media or hot liquids that are under pressure may cause injuries.

Risk of injury due to ejected parts.

Pressurised systems may burst and cause parts to be ejected.

Do not exceed the maximum pressure/load value of the smallest component of the system at any time.

Never open pressurised fittings.

Wear personal protective equipment, such as protective goggles, gloves and safety shoes when working on pressurised systems.



Attention

Follow the instructions and specifications of the system manufacturer regarding the tightening torques for fittings, adapters, etc.

Install the pressure gauge at the measuring point of the system. To do so, loosen or open the fitting and install the pressure gauge. Tighten fittings to the specified torque. Do not exceed the maximum torque of the pressure gauge connection.

4. Handling instructions



The device must only be mounted and tightened on the pressure connection using a suitable open-end wrench.

Never screw into the pressure connection while holding on to the housing - **Caution:** Risk of breakage.

4.1 Care and storage

To enable effective working, we designed the digital pressure gauge to be low maintenance. Nevertheless, you should still observe a few notes. This helps to ensure trouble-free operation and to preserve the value of the technology.



Note:

Aggressive cleaning agents or solvents may damage the digital pressure gauge or individual components.

Do not use aggressive or abrasive cleaning agents, solvents or similar chemicals for cleaning.

- Keep dust and dirt away from the digital pressure gauge.
- Clean the digital pressure gauge with a soft, slightly moistened cloth.
- Pay attention to the self-discharging of the battery. (We recommend charging the battery every 8 weeks).
- Battery warranty 6 months / device warranty 12 months.
- Store your product in a dry, dust-protected environment. Avoid places with higher temperatures and moisture or places which can become wet, also for maintenance.
- Keep the original packaging to avoid damage during transportation.

4.2 Environmentally friendly disposal



Recycling according to WEEE (EU Directive 2002/96 EC)

You can optionally return the digital pressure gauge to us for disposal.

This digital pressure gauge or its components must not be disposed of as normal waste.

If you prefer not to return the digital pressure gauge to us for disposal, you are required to bring the device to a specialised centre for the separate collection and disposal of hazardous and special waste. The digital pressure gauge contains an electronic circuit board and a battery. These parts must be removed before the device is scrapped.

5. Technical data, specifications

Feature		Unit	Measurement range / description
Pressure range - versions		bar	0...+3 0...+4 0...+25 0...+60 -1...+3 -1...+16
Ambient temperature		°C	-10...+50
Storage temperature		°C	-20...+60
Media temperature		°C	-20...+120
Maximum relative humidity		% r.F	85
Standard pressure connection		-	brass
Materials	Membrane	-	Ceramics
	Seal	-	H-NBR
Compensated range		°C	+10...+40
Error in compensated range		% FS / °C	±0.02
Load cycles minimum		-	10 x 10 ⁶
Power supply		-	2 x 1,5 VDC LR6-AA
Max. battery life		h	1500
Display		bar/PSI	LCD
Pressure connection		-	1/4"
Weight		g	ca. 390
Diameter	with rubber cap	mm	ca. 95...100
	without rubber cap	mm	ca. 80

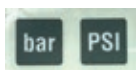
6. Accessories

Standard delivery content:

- Pressure gauge with rubber protective cap
1 blue rubber cap is included but must have been ordered separately.



- Sticker with measurement units (bar/PSI):



As option:

- Factory calibration certificate

- Thread adapter

① M 16x2 I x G1/4 I

② M 16x2 A x G1/4 I



- Rubber protective cap (not shown)
- blue, green, black, red, orange

LR-Cal



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