Digitales Manometer
Gerätedokument
Einbau, Betrieb und Wartung

Digital Manometer
Equipment Logbook
Assembly, operation and maintenance

DIGITAL
MANOMETER

METASYS

General information · Use · Function · Technical data

EN

1. General information

> The installation must be carried out by qualified personnel only.
> When installing and operating the digital manometer, attention should be paid to the corresponding safety regulations.
> Only mount the digital manometer onto unpressurized systems.
> On pressure ranges ≥ 61 bar, the pressure connections may show residual hydraulic oil.

2. Use

The digital manometer is used to measure pressure as well as negative pressure. It is a compact, economical, digital measuring device based on a mask-programmed OKI microprocessor and is used to accurately determine the suction vacuum, air pressure and water pressure of dental units. It is characterized by high resolution and reproducibility with medium accuracy.

3. Function

1 Digital Manometer

The digital manometer measures and displays the pressure twice a second. The upper display shows the current pressure, the lower the maximum or minimum pressure since the last RESET.

1.1 Actual pressure value
1.2 Min./max. pressure value
1.3 ENTER, min./max.
1.4 SELECT
1.5 Pressure connection

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The digital manometer has two control buttons:

SELECT	> turn on the device > select functions and pressure units
ENTER	> to execute the selected function or unit > to switch between the max. and min. values

Function settings

RESET	Min.-/max.-value are set to the actual pressure
OFF	Turns off the device
MANO	Executes the following functions: **ZERO SET:** Sets a new pressure zero pont reference **ZERO RES:** Sets the pressure zero to factory setting

CONT on: Deactivates the automatic turn-off function	**or**	**CONT off:** Activates the automatic turnoff function (the manomter turns off 15 minutes after the last key operation)

...followed by the unit selection: bar, mbar, hPa, kPa, MPa, PSI, kp/cm^2

4. Technical Data

Pressure Ranges	-1 - 30 bar
Resolution	10 mbar
Overpressure	60 bar
Battery Life	1000 hours continous operation
Pressure Connection	7/16"-20 UNF
Dimensions (H x W x D)	59 x 95 x 32 mm
Weight Manometer | Adapter	100 g | 40 g

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5. Description of function

Turning on the digital manometer

> Press **SELECT** to turn on the manometer.

> The manometer first shows the full-scale pressure range (top display) and the software version (year/week).

> The manometer is then ready for use and shows the actual pressure (top display) and the last measured max. pressure value (bottom display).

Setting a new pressure unit (mbar)

> Shortly press **SELECT** to turn on the manometer

> Wait for the measuring mode (≈ 3 s)

> Press **SELECT** 3x: **MANO** appears

> Press **ENTER**: **ZERO SET** appears

> Press **SELECT**: **ZERO RES** appears

> Press **SELECT**: **CONT on** or **CONT off** appears

> Press **SELECT**: bar appears

> Press **SELECT**: mbar appears

> Press **ENTER**: The new pressure unit (mbar) is set, the manometer returns to the measuring mode

Display of the minimum value

If the device is in measuring mode (display: actual pressure and max. pressure value), press **ENTER** to display the min. pressure for 5 seconds.

Ranges / Calibration

The **ZERO**-function allows for any pressure value to be set as the new zero point reference.

The factory setting of the pressure zero point for the ranges ≤ 61 bar absolute is at vacuum (0 bar absolute). For relative pressure measurements, activate **ZERO SET** at ambient air pressure.

Devices with pressure ranges above 200 bar are calibrated at 1 bar abs for reference.

6. Installation

The digital manometer has a 7/16"-20 UNF male thread and is delivered complete with an O-ring seal swivel fitting which allows the digital manometer to be rotated 360°. Only minimal torque is needed to seal up to 700 bar. Connection on the pressure side is G1/4" male. The swivel adapter can be tightened with a max. torque of 50 Nm.

Battery

When opening the battery compartment and changing the battery (type CR 2430), make sure that the O-ring remains embedded in the cover.

7. Notes

> The functions and units can be selected by constantly pressing the **SELECT** button. To select the displayed function or unit, release the **SELECT** button and then press **ENTER**.

> If the desired function or unit is not selected within 5 seconds by pressing **ENTER**, the digital manometer returns to the measuring mode without changing any settings.

> Turning the manometer on and off does not influence any of the previous settings.

> **OFF** flashes when **CONT off** is activated.

> If the pressure cannot be displayed, **OFL** (overflow) or **UFL** (underflow) will be displayed instead.

> If the actual pressure exceeds the measuring range, the last valid pressure value starts flashing on the display (overload warning).

> Temperatures below 0 °C and above 50 °C may impair the readability of the display.

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