

# Pressure Reference Type D

## USER MANUAL

**Digital Manometer with Max.-/Min.-Display.**  
**Accuracy: 0.1% FS typ.**

The Reference Type D has two operating keys.  
The left key (SELECT) serves to select the functions and the pressure units.  
The right key (ENTER) activates the selected function or pressure unit.  
The right key is also used to switch between the MAX.- and MIN.-value.



### Turn-on:

Pressing the SELECT key turns the instrument on.  
The instrument subsequently displays the software version (year/week), the full-scale pressure range, the actual pressure (top display) and the last measured MAX.-value (bottom display).

### The instrument has the following functions:

<b>RESET:</b>	Max.-/Min.-value are set to the actual pressure
<b>OFF:</b>	Turns off the instrument
<b>MANO:</b>	Releases the following functions:
<b>ZERO SET:</b>	Sets a new Zero reference
<b>ZERO rES:</b>	Sets the Zero to factory setting
<b>CONT on:</b>	Deactivates the automatic turn-off function
<b>CONT off:</b>	Activates the automatic turn-off function (the instrument turns off 15 minutes after the last key function)

followed by the unit selection: **bar, mbar/hPa, kPa, MPa, PSI, kg/cm<sup>2</sup>**

### Example: Setting a new pressure unit (mbar/hPa):

- > Turn on the instrument by shortly pressing the SELECT-key.
- > Wait for the instrument's measuring mode (approx. 3 seconds).
- > Press the SELECT-key 3 times: **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/hPa** appears.
- > Press ENTER: The new pressure unit is set.

The instrument returns to the measuring mode.

### Display of the minimum pressure value:

When in the measuring mode (Display: Actual Pressure and Max.- value), you may display the Min.-value for 5 seconds by shortly pressing the ENTER-key.

### Notes:

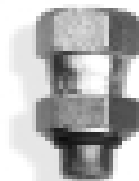
- 1) The functions and units can also be called up by keeping the SELECT-key depressed.  
Releasing the key enables the displayed function or unit to be activated with the ENTER-key.
- 2) If the selected function or unit is not activated within 5 seconds with the ENTER-key,  
Reference Type D returns to the measuring mode without changing any settings.
- 3) Turning Reference Type D on and off does not influence any of the previous settings.
- 4) If the **CONT on** function is activated, it is indicated with a flashing sign on the display.
- 5) If a pressure can not be represented on the display, **OFL** (overflow) or **UFL** (underflow)  
appears on the display.
- 6) If the actual pressure goes beyond the measuring range, the last valid pressure value starts  
flashing on the display.

### Installation:

The Reference Type D has 7/16" UNF male thread and is delivered complete with an O-ring seal swivel fitting which allows to be rotated through 360°. Only minimal tightness is needed to seal up to 700 bar. Process pressure connection is G 1/4" male.



Zwivel



process connection G1/4

### Battery Change / Battery Life:

When the battery starts weakening, a low battery warning (BAT LOW) will appear in the upper left corner of the display.

Battery change: Open the battery compartment and change the battery (type CR 2430). The battery life is 1400 hours in normal measuring mode.

### Ranges / Calibration:

The factory setting of the Zero for the ranges -1...3 bar or -1...30 bar is at 0 bar absolute. For sealed gauge pressure measurements, activate "ZERO SET" at ambient pressure. Instruments with the ranges 0...300 bar or 0...700 bar are calibrated in a sealed gauge mode with 1 bar absolute pressure as a Zero reference.

## Type D

Digital precision reference test gauge  
 Pressure medium fluids and gas media  
 Pressure connection G1/4", male  
 Display multi-purpose LCD, 30 x 30 mm  
 Function keys  
 'SELECT' (On / Off, function, units)  
 'ENTER' (confirm, min / max)  
 Casing 70 x 100 x 30 mm (d x h x w)  
 Protection class IP65  
 Weight approx. 130 g  
 Power supply 3 V battery  
 1400 h service life continuous operation, LOW-BAT-display, AUTO-Off  
 Switchable pressure units  
 bar, mbar/hPa, PSI, kPa, MPa, kg/cm<sup>2</sup>  
 Accuracy                    +/-0.10 % FS +/-1 digit

	Measuring range	Resolution
Model A	-1.....3 bar	0.001 bar
Model B	-1.....(30)40 bar	0.01 bar
Model C	0...(300)350 bar	0.1 bar
Model D	0.....700 bar	0.2 bar
Model E	0.....1000 bar	0.2 bar

**Option**                    EEx ia IIC T5/T6 - 01ATEX6001X