



## DM-400

### Digital Manometer with integrated Bargraph Display



- Accuracy class 0.5%
- Operating ranges from 0 to 700 bar
- LCD display with 11 mm high digits
- Bargraph with drag indicator function
- Tara function
- Password protection
- MIN/MAX memory
- Optionally with backlight

#### Description:

Digital Manometer DM-400 from Profimess is the ideal solution for a local, power-independent display of process pressure in low as well as high pressure ranges. This new generation digital manometer features excellent basic characteristics such as accuracy, reliability and overload resistance. All models of DM-400 are equipped with a 11 mm high LCD display and an additional bargraph display with drag indicator function. The unit of measurement for the display of the measured pressure can be interchanged between „bar“, „PSI“ and „MPa“ and a MIN/MAX memory can retain the measured peak values even when the battery needs to be replaced.

The high-end version of DM-400 has additionally a second 4 1/2-digit display system that is intended for displaying MIN/MAX memory, Tara function and other parameters independent of the main display. Here, the additional features are the adjustable Tara function, backlit display that ensures optimum lighting for the housing even under unfavorable conditions of light and a 300° rotatable process connection. While the standard version of DM-400 has an optional ex factory automatic power off function, the advanced version enables the user to set this between 15 and 120 minutes. This facilitates longer life for the 2 AA battery cells powering the DM-400 and ultimately 4000 hours of operational time.

#### Range of application:

Today, in the industry, conventional Bourdon tube pressure gauges are increasingly replaced by digital manometers, since these devices are more accurate, long lasting and stable and possess additional characteristics that are impossible for mechanical manometers due to their design. Therefore, the user of a DM-400 has the advantage of accurate display of the measured value, peak value memory and a bargraph display including drag display function that allows instantaneous identification of the status at a measuring point.

Since „pressure“ is the most frequently measured physical factor, the DM-400 digital manometer has no limitations for its application. Typical areas of application are:

- Machine construction
- Plant manufacturing
- Apparatus engineering
- including
- Hydraulics
- Pneumatics
- Measuring equipment monitoring.

## Technical specifications:

<b>Accuracy:</b>	±0.5% of full scale value ±1 digit as per IEC 61298-2 including non-linearity, hysteresis, zero point and full scale value deviation
<b>Conversion rate:</b>	5 per sec
<b>Operating range as per EN:</b>	0-2 bar up to 0-700 bar, others on request
<b>Pressure type:</b>	positive and negative overpressure
<b>Overload limit:</b>	2x, max. 1000 bar
<b>Wetted parts:</b>	Operating ranges ≤ 50 bar stainless steel, Al203, NBR, ceramic sensor element Operating ranges ≥ 100 bar only stainless steel, sensor element thin-film technology
<b>Pressure connection:</b>	G1/4"-male or 1/4"-NPT-male, in advanced version DM-400.2 rotatable by 300° other thread systems on request
<b>Stability per year:</b>	≤ ±0.2% of full scale value in reference conditions
<b>Memory:</b>	MIN/MAX (non-volatile even on changing battery)

<b>Programmable parameters:</b>	Standard version DM-400.1: selectable units of measurement bar, PSI, Mpa (automatic turn-off time: without; optional: factory set point at 15, 30, 60 and 120 min.) Advanced version DM-400.2: selectable units of measurement bar, PSI, Mpa adjustable automatic cut off time 15, 30, 60 and 120 min. TARA ≤ ±20% adjustable full scale value in advanced version DM-400.2 only
<b>Backlight:</b>	
<b>Temperature compensated range:</b>	0°C to +60°C
<b>Temp. factor:</b>	≤ ±0.15% per 10K on zero point and range
<b>Storage temperature:</b>	-20°C to +70°C
<b>Measured material temp.:</b>	-30°C to +85°C (-30°C to +100°C in operating ranges ≥ 100 bar)
<b>Ambient temp.:</b>	-10°C to +60°C
<b>Housing:</b>	stainless steel, optionally protective cap black
<b>Weight:</b>	approx. 0.4 kg

## Ordering codes:

<b>Ordering number:</b>	<b>DM-400. 2. 1. E</b>
<b>DM-400 Digital Manometer with integrated Bargraph Display</b>	
<b>Available versions:</b>	
1 = Standard version with 4-digit display, MIN/MAX memory and bargraph	
2 = Advanced version with 4 1/2-digit display, additional display, backlight, rotatable process connection, MIN/MAX memory, bargraph and Tara function	
<b>Process connection:</b>	
1 = G1/4"-male (standard)	
2 = 1/4"-NPT-male	
<b>Operating range:</b>	
sensor element ceramic/NBR	
A = 0 to 2 bar rel.	
B = 0 to 5 bar rel.	
C = 0 to 10 bar rel.	
D = 0 to 20 bar rel.	
E = 0 to 50 bar rel.	
sensor element thin-film stainless steel	
F = 0 to 100 bar rel.	
G = 0 to 160 bar rel.	
H = 0 to 250 bar rel.	
I = 0 to 400 bar rel.	
J = 0 to 600 bar rel.	
K = 0 to 700 bar rel.	

## Electrical specifications:

<b>Display:</b>	Standard version DM-400.1: 7-segment LCD display, 11 mm high 9999 digit – bargraph display Advanced version DM-400.2: 7/14-segment LCD display, 11 mm high 19999 digit second display 19999 digit, 7mm high bargraph display
<b>Power supply:</b>	2 x 1.5 V AA type batteries
<b>Operation time:</b>	4000 h (AA 2000 mAh)
<b>Protection class:</b>	IP 65 as per EN 60529/IEC 529
<b>Approved rel. humidity:</b>	< 90% non-condensing
<b>Interference:</b>	as per EN 61326
<b>Anti-interference:</b>	as per EN 61326

