



**Digital Reference Pressure Gauge DFP, ±0.1%
Scalable Indication in Tons, kg, Newton**

DFP

Digital Reference Pressure Indicator DFP
Scalable conversion to Force (to, kg, daN, KN)
Perfect for checking pressure gauges at hydraulic presses.

- **Accuracy: ±0.1% v.E., Pressure ranges up to 2000 bar**
- 1 year autonomy without recharging (battery operated)
- Pressure unit "bar", conversion to Force
- PEAK function (positive and negative)
- Digital Filter (programmable)
- Pressure connection: 1/2" BSP male
- Clear easy to read LCD display with large numbers



The **DFP** is a microprocessor based digital pressure gauge, made of particularly high long-term stable analogue section and a 16 bit A/D converter which ensure 65,000 internal divisions. These features, together with a 0.1% accuracy class, make it ideal as a reference instrument: in fact the **DFP** is proposed as a first line sample for Quality Insurance Laboratories.

The Digital Reference Pressure Gauge **DFP** has internal batteries with 1 year autonomy, also guaranteed by the Auto-PowerOff function, which activates if no measurement changes are detected in the previous 30 minutes (adjustable).

The user can define his own engineering unit for force. The **DFP** is supplied calibrated in "bar" pressure unit as a normal pressure gauge. It is up to the installer to set the full scale value in the force unit used (kg or ton) by using the following formular:

$$F[N] = P \cdot D^2 \cdot \pi / 40$$

P = Pressure in **bar**

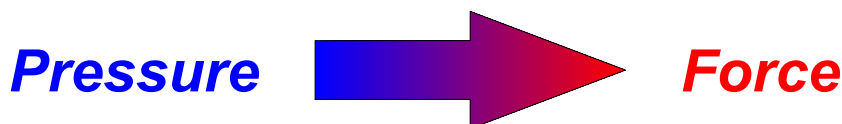
D = Diameter of cylinder in **mm**

$$F[kg] = F[N] / 9,80665$$

F = force

N = Newton

kg = Kilogramm



In order to increase the level of integration among components, a combined (traditional and SMT) technology has been used, that makes this reference gauge more resistant against mechanical stresses and vibrations and guarantees maximum reliability for the circuit.

As an option, the **DFP** is available with a RS232 interface. A connection cable and a simple software to read out the RS232 interface can be supplied on request.

A carrying case is included in standard supply.



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The Digital Reference Pressure Gauge **DFP** can be used with the portable calibration hand pumps TP1 and HTP1, as well as with the pressure comparators BT400...BT800.

Technical Data:

| | |
|--|---|
| Linearity and Hysteresis: | $\leq \pm 0.1\%$ v.E. |
| Reading per sec. (0 filter) | 10 (100 ms) |
| Temperatures: | Reference: +23°C, Ambient 0...+50°C, Storage -10...+60°C |
| Temperature Effect (1°C): | on Zero $\leq \pm 0.002\%$; on Sensitivity $\leq \pm 0.002\%$ |
| Programmable Functions: | Zero: 50%, digital Filter: 0...99% Display Resolution: 1, 2, 5 or 10 Digits Pressure Unit: bar, Force Units: kg, t, daN, KN (scalable) Baud Rate RS232-Interface (Option): 19200, 9600, 4800 Peak-Function: Positive (+) and Negative (-) |
| Display: | LCD, height 16 mm |
| Power Supply: | 4 Alkaline Batteries 1,5 V (size AA) |
| Mechanical Limit Values (referred to nominal pressure): | Service Pressure: 100% FS High Dynamik Pressure: 75% FS Permissible Pressure: max. 150% FS Breaking Pressure: >300% FS |
| Standard Process Coupling: | 1/2" BSP male |
| Recommended Gasket: | USIT A 63-18 |
| Tightening Torque: | 28 Nm (Tightening Wrench: 27 mm) |
| Housing: | Material: Aluminium, Dimensions: appr. 132 x 80 x 48 mm |
| Protection: | IP 40 |
| RS232-Interface (optional) | 9-pole D-SUB (female) |

Order-Code:

D F P - [] [] [] [] - [] [] [] [] [] []

| Range: | [] [] [] [] | [] [] [] [] | max. Resolution: |
|-----------------|-----------------|-----------------|------------------|
| 0-10 bar..... | 0 0 1 0 | R S 2 3 2 | 0.001 bar |
| 0-20 bar..... | 0 0 2 0 | | 0.002 bar |
| 0-50 bar..... | 0 0 5 0 | (f r e e) | 0.005 bar |
| 0-100 bar..... | 0 1 0 0 | | 0.01 bar |
| 0-250 bar..... | 0 2 5 0 | | 0.02 bar |
| 0-350 bar..... | 0 3 5 0 | | 0.05 bar |
| 0-500 bar..... | 0 5 0 0 | | 0.05 bar |
| 0-700 bar..... | 0 7 0 0 | | 0.05 bar |
| 0-1000 bar..... | 1 0 0 0 | | 0.1 bar |
| 0-1500 bar..... | 1 5 0 0 | | 0.2 bar |
| 0-2000 bar..... | 2 0 0 0 | | 0.5 bar |



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