

### Digital Reference Pressure Indicator Type TLDMM (electronic Pressure Calibrator)

- **Accuracy:  $\pm 0.05\%$  v.E., Ranges up to 2000 bar available**
- 1 year autonomy without recharging (battery operated)
- Pressure units "bar", "mbar", "psi", "MPa", "kPa" switchable
- PEAK function (positive and negative)
- Digital Filter (programmable)
- Pressure connection: 1/2" BSP male
- Clear easy to read LCD display with large numbers
- Including S.I.T. Calibration Certificate (similar to DKD cert.)



The **TLDMM** is a microprocessor based digital pressure gauge, made of particularly high long-term stable analogue section and an 16 bit A/D converter which ensure 65,000 internal divisions. These features, together with a 0.05% accuracy class, make it ideal as a laboratory instrument: in fact the **TLDMM** is proposed as a first line sample for Calibration Laboratories and is provided with a S.I.T. calibration certificate, traceable to international standard.

The pressure calibrator **TLDMM** has internal batteries with 1 year autonomy, also guaranteed by the Auto-PowerOff function, which activates if no measurements changes are detected in the previous 30 minutes.

The user can select different engineering units (bar, mbar, psi, MPa, KPa), resolution and digital filter, suitable for measurements to be performed. 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. The display also shows an analogue indication bar for pressure, that is still on, even in the programming menu.

A carrying case and a S.I.T. calibration certificate (similar to DKD certification) are included in standard supply.

As an option, the **TLDMM** is available with a RS232 interface. A connection cable and a simple Software to read out the RS232 interface can be supplied on request. Furthermore, a build-in version for panel mounting and a version with mains power supply are available.



Image 1



Image 2

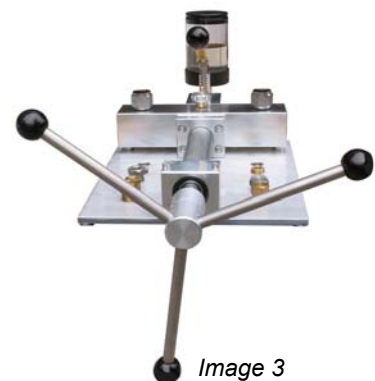


Image 3

The **TLDMM** can be used with portable or stationary calibration pressure sources like LSP spindle pumps and portable calibration pump **LPP 30** (pneumatic) and / or **LPP 700 - LPP 1000** (hydraulic).

Image 1: Hydraulic Calibration Handpump **LPP 700**

Image 2: calibration kit **LPP-KIT-PD-20** with **LPP 30**

Image 3: pressure comparison pump **LSP**



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### Technical Data:

<b>Linearity and Hysteresis:</b>	$\leq \pm 0.05\%$ FS
<b>Readings per sec. (0 filter)</b>	10 (100 ms)
<b>Temperatures:</b>	Reference: +23°C, Ambient 0...+50°C, Storage -10...+60°C
<b>Temperature Effect (1°C):</b>	on Zero $\leq \pm 0.002\%$ ; on Sensitivity $\leq \pm 0.002\%$
<b>Programmable Functions:</b>	Zero: 50%, digital Filter: 0...99% Display Resolution: 1, 2, 5 or 10 Digits Pressure Units: bar, mbar, MPa, kPa, psi Baudrate RS232 (Option): 19200, 9600, 4800 Peak-Function: Positive (+) and Negative (-)
<b>Display:</b>	LCD, height 16 mm
<b>Power Supply:</b>	4 Alkaline Batteries 1,5 V (size AA)
<b>Mechanical Limit Values (referred to nominal pressure):</b>	Service Pressure: 100% FS; High Dynamic Pressure: 75% FS Permissible Pressure: max. 150% FS; Breaking Pressure: >300% FS
<b>Standard Process Coupling:</b>	1/2 BSP male
<b>Recommended Gasket:</b>	USIT A 63-18
<b>Tightening Torque:</b>	28 Nm (Tightening Wrench: 27 mm)
<b>Housing:</b>	Material: Aluminium, Dimensions: appr. 132 x 80 x 48 mm
<b>Protection:</b>	IP 40
<b>RS232-Interface (optional)</b>	9-pole D-SUB (female)

### Order Code:

**T L D M M** - [ ] [ ] [ ] [ ] - [ ] [ ] [ ] [ ] [ ] [ ]

Range:									max. Resolution	
0-14.5 psi / 0-1 bar	0	0	0	1	R	S	2	3	2	0.0001 bar
0-36 psi / 0-2.5 bar	0	0	0	2						0.0005 bar
0-72.5 psi / 0-5 bar	0	0	0	5	(space/empty)					0.0005 bar
0-145 psi / 0-10 bar	0	0	1	0						0.001 bar
0-290 psi / 0-20 bar	0	0	2	0						0.002 bar
0-725 psi / 0-50 bar	0	0	5	0						0.005 bar
0-1450 psi / 0-100 bar	0	1	0	0						0.01 bar
0-3626 psi / 0-250 bar	0	2	5	0						0.02 bar
0-5076 psi / 0-350 bar	0	3	5	0						0.05 bar
0-7252 psi / 0-500 bar	0	5	0	0						0.05 bar
0-10153 psi / 0-700 bar	0	7	0	0						0.05 bar
0-14503 psi / 0-1000 bar	1	0	0	0						0.1 bar
0-21756 psi / 0-1500 bar	1	5	0	0						0.2 bar
0-29007 psi / 0-2000 bar	2	0	0	0						0.5 bar
-30 inHg/+14.5 psi/-1/+1 bar	1	0	1	0						0.0001 bar
-30 inHg/+35 psi / -1/+2,5 bar	1	0	2	5						0.0005 bar
-30 inHG/+72.5 psi / -1/+5 bar	1	0	5	0						0.0005 bar
-30 in Hg/+290 psi / -1/+20 bar	1	0	2	0						0.02 bar

**Recommended Accessory:** Usage of TLDMM with **LPP 30**: volume reducer, order-code **VRS-G12**.

**Option:** build-in version for panel mounting 83 x 83 mm, back conn.: add **EBA** to the order-code of the instrument

**Option:** mains power supply 230 VAC (instead of batteries): add **SNT** to the order-code of the instrument



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