

# DIGITAL TEST PRESSURE GAUGE

(Battery Operated, Accuracy 0.125% or 0.25% f.s.)

**Model : LDM 70**

## ◆ Features

- Battery Powered, Rugged, Rotatable Housing (DS 70 mm)
- 4.5-digit LC Display (digit Height 11 mm)
- 6-digit Additional Display to show the Selected Pressure Unit (Height 7.5 mm)
- Pressure unit Switchable (PSI-Bar-mBar-mWs-inHg-cmHg-mmHg-kPa-MPa)
- Easy Configuration via three Push Buttons
- Ingress Protection IP 65
- MIN and MAX Value Storage



The display is continuously rotatable so that a clear readability is guaranteed even in unusual installation positions. The LDM 70 can be operated menu-driven via three pushbuttons. Besides showing information about the nominal pressure range as well as minimal and maximal pressure of the process, several pressure units (PSI, bar, mbar, mWC, inHg, cmHg, mmHg, kPa, MPa) and the position of the decimal point can be set. The instruments zero and span can be recalibrated, the LDM 70 can be set to factory default values via menu.

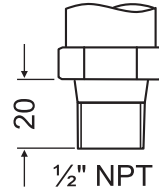
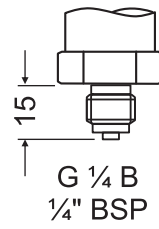
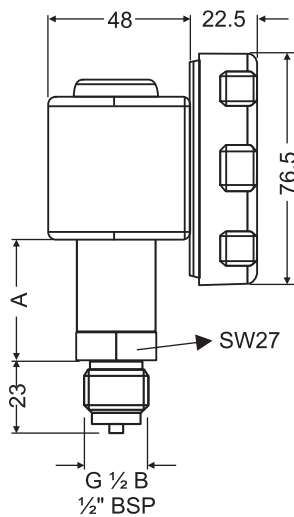
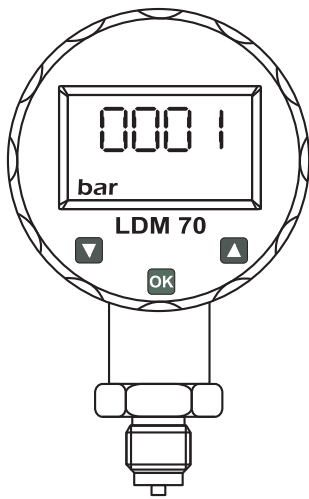
Technical Data:	Type LDM 70-E25	Type LDM 70-K50
Pressure Ranges: (see tab. on back page)	All Standard Ranges, Gauge Pressure, Absolute Pressure, Vacuum and Compound Ranges	All Standard Ranges 0/1.6 bar to 0/400 bar
Nominal Case Diameter:	DS 70 mm / 27.6 inches	
Accuracy (as per IEC 60770):	±0.125% f.s (ranges # 5.8 psi / 400 mbar: ±0.25% f.s.)	±0.25% f.s.
Measuring Rate:	5 per second	
Thermal Error (zero-point and Span within Temp. compensated range)	Tolerance Band: Ranges < 0.1 bar: <± 2.0% f.s.; average TC: ±0.3% f. s. / 10 K Ranges < 0.25 bar: <±1.5% f.s.; average TC: ±0.2% f.s. / 10 K Ranges < 0.4 bar: <1.0% f.s.; average TC: ±0.14% f.s. / 10 K Ranges <1.0 bar: <0.1% f.s.; average TC: ±0.1% f.s. / 10 K Ranges >1.0 bar: <±0.75% f.s.; average TC: ±0.07% f.s. / 10 K	<±0.2% f.s. / 10 K
Temp. Compensated Range:	Ranges <0.4 bar: 0...50°C; ranges >0,4 bar: 0...70°C	-25...+85°C
Permissible Temperatures:	Medium: -4/+185°F=-20/85°C; Ambient: -4/+158°F=-20/70°C; Storage: -22/+176°F=-30/80°C	
Material Display Housing:	PA 6.6 Polycarbonate	
Material Pressure Port:	Stainless Steel 1.4571 / 1.443	
Material Diaphragm:	Stainless Steel 1.4435	Ceramic Al <sub>2</sub> O <sub>3</sub> 96%
Material Seals:	Wetted Seals: FKM (optional: EPDM, NBR, others on request)	
Display:	LCD 1.57" x 1.18"= 40 x 30 mm; 4 1/2 digit 7-segment-main display, digit height 11 mm, Indication range ±19999; 6-digit 14-segment additional display, digit height 7.5 mm	
Electromagnetic Compatibility:	Emission and Immunity According to EN 61326	
Mechanical Stability:	Vibration: 5 g RMS (20...2000 Hz); shock: 100 g / 11 msec.	
Supply:	3.6 V lithium batteries, 2 pcs. (type 1/2 AA)	
Data Memory:	EEPROM (non-volatile)	
Ingress Protection:	IP 65	
Installation Position:	any (the LDM 70 is calibrated in vertical position with pressure port down. If this position is changed on Installation, there can be slight deviations in the zero-point for LDM-70-E25 ranges <1 bar	
Other Data:	weight 300 g; AD-converter solution: 10 Bit; mech. operational life: > 100 x 10 <sup>6</sup> pressure cycles; battery life: app.. 5 years in standby mode;	
Pressure Port:	1/2" BSP male, 1/4" BSP male, 1/2" NPT male, 1/4" NPT male	



Die Digital test pressure gauges **LDM 70** are available as Complete Pressure Calibration kits (case, with Calibration Hand Pump LPP 30). The calibration Hand Pump LPP 30 Generates Pressure up to 500 psi (35 bar), switchable to Vacuum Generation -28 in Hg.

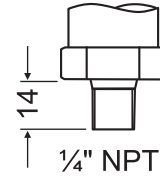
For higher Pressure Ranges, the Digital Test Pressure Gauges **LDM 70** can be supplied as Pressure Calibration Kit together with the Hydraulic Pressure Comparators **LSP Series**.

### Dimensions:



dimension "A" for  
type **LDM70-E25**: 35 mm

dimension "A" for  
type **LDM70-K50**: 41.5 mm



### Order-Codes and Pressure Ranges :

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Accuracy  $\pm 0.125$  f.s.     E 2 5  
Accuracy  $\pm 0.25$  f.s.       K 5 0

*)	Range 0....1.45 psi / 0....100 mbar	8	1	0	0	-	0													
*)	Range 0....2.32 psi / 0....160 mbar	8	1	6	0	-	0													
*)	Range 0....3.63 psi / 0....250 mbar	8	2	5	0	-	0													
*)	Range 0....5.80 psi / 0....400 mbar	8	4	0	0	-	0													
**)	Range 0....8.70 psi / 0....0.6 bar	0	0	0	0	-	6													
**)	Range 0....14.5 psi / 0....1 bar	0	0	0	1	-	0													
	Range 0....23.2 psi / 0....1.6 bar	0	0	0	1	-	6													
	Range 0....36.3 psi / 0....2.5 bar	0	0	0	2	-	5													
	Range 0....58.0 psi / 0....4 bar	0	0	0	4	-	0													
	Range 0....87.0 psi / 0....6 bar	0	0	0	6	-	0													
	Range 0....145.0 psi / 0....10 bar	0	0	1	0	-	0													
	Range 0....232.1 psi / 0....16 bar	0	0	1	6	-	0													
	Range 0....362.6 psi / 0....25 bar	0	0	2	5	-	0													
	Range 0....580.2 psi / 0....40 bar	0	0	4	0	-	0													
	Range 0....870.2 psi / 0....60 bar	0	0	6	0	-	0													
	Range 0....1450 psi / 0....100 bar	0	1	0	0	-	0													
	Range 0....2321 psi / 0....160 bar	0	1	6	0	-	0													
	Range 0....3626 psi / 0....250 bar	0	2	5	0	-	0													
	Range 0....5802 psi / 0....400 bar	0	4	0	0	-	0													
**)	Range 0....8702 psi / 0....600 bar	0	6	0	0	-	0													
**)	Range -30 / 0 inHg / -1/0 bar	0	0	0	0	-	0													
**)	Range -30 inHg / +8.7 psi / -1/+0.6 bar	9	0	0	0	-	6													
	Range -30 inHg / +22 psi / -1/+1.5 bar	0	0	0	1	-	5													
	Range -30 inHg / +43.5 psi / -1/+3 bar	0	0	0	3	-	0													
	Range -30 inHg / +72.5 psi / -1/+5 bar	0	0	0	5	-	0													
	Range -30 inHg / +130.5 psi / -1/+9 bar	0	0	0	9	-	0													
	Range -30 inHg / +217.6 psi / -1/+15 bar	0	0	1	5	-	0													
	Range -30 inHg / +348 psi / -1/+24 bar	0	0	2	4	-	0													
	Range -30 inHg / +565.6 psi / -1/+39 bar	0	0	3	9	-	0													

Oerm. Overpressure (bar), type LDM70-		Available as Absolute Range
-E25-	-K50-	
0,5	-	no
0,5	-	no
1	-	no
1	-	no
3	-	no
3	-	no
6	4	yes
6	4	yes
20	10	yes
20	10	yes
20	20	yes
60	40	yes
60	40	no
100	100	no
140	100	no
340	200	no
340	400	no
600	400	no
600	600	no
1000	-	no
1	-	no
3	-	no
6	4	no
20	4	no
20	10	no
20	20	no
60	40	no
60	40	no
100	100	no

Pressure Port Thread 1/2" BSP Male (Standard)	G	1	2
Pressure Port Thread 1/4" BSP Male	G	1	4
Pressure Port Thread 1/2" NPT Male	N	1	2
Pressure Port Thread 1/4" NPT Male	N	1	4

Order-Code for  
extra charge for  
Absolute version:  
**LDM70-MP-ABS**

\*) = only with accuracy  $\pm 0.5$  as type LDM-70-E25 available  
\*\*) = only with accuracy  $\pm 0.25$  as type LDM-70-E25 available



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# 73, Ramachandra Agrahara, Near T.R. Mills, Chamaraajpet, Bangalore - 560018, INDIA.

Phone : 080-26749750, 26759253, 26740681 E-mail : sales@htaipl.com Website : www.htaipl.com

