LR-Cal

Digital test pressure gauge
Accuracy ±0.25/±0.5% FS

LDM 70

Rel. 20260113

Digital Test Pressure Gauge LR-Cal LDM 70-E25: with stainless steel sensor
Digital Test Pressure Gauge LR-Cal LDM 70-K50: with ceramic sensor

- 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
- Ranges from 0/1.45 psi to 0/8,700 psi (0/100 mbar to 0/600 bar)
- MIN and MAX value storage

The display is continuously rotatable so that a clear readability is garanteed even in unusual installation positions. The LR-Cal LDM 70 can be operated menu-driven via three push-buttons. 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 calibrated, the LR-Cal LDM 70 can be set to factory default values via menu.

Technical Data	LR-Cal LDM 70-E25 with stainless steel sensor	LR-Cal LDM 70-K50 with ceramic sensor
Accuracy:	±0.25% FS *)	±0.5% FS *)
Measurement rate:	5 measurements per second	5 measurements per second
Long term stability:	≤±0.1% FS / year at reference conditions	
Temperature error (zero and span):	Error band / compensated range:	≤±0.2% FS / 10 K in compensated range 0...+85°C
Pressure range -1...0 bar	≤±0.75 % FS / -20...+85°C	
Pressure ranges ≤0,4 bar	≤±1% FS / 0...+70°C	
Pressure ranges ≥0,6 bar	≤±0.75% FS / -20...+85°C	
Permissible medium temperature:	-20...+85	-20...+85°C
Permissible ambient temperature:	-20...+70°C	-20...+70°C
Permissible storage temperature:	-30...+80°C	-30...+80°C
Vibration resistance:	5 g RMS (25...2000 Hz) acc. to EN 60068-2-6	5 g RMS (25...2000 Hz) acc. to EN 60068-2-6
Shock resistance:	100 g / 1 ms acc. to EN 60068-2-27	100 g / 1 ms acc. to EN 60068-2-27
Material pressure port / housing:	Stainless steel 1.4404	Stainless steel 1.4404
Material display housing:	PA 6.6, polycarbonate	PA 6.6, polycarbonate
Material gaskets (wetted parts)	FKM	FKM
Material membrane:	Stainless steel 1.4435	Ceramics Al2O2 96%
Wetted parts:	Pressure port, gaskets, membrane	
Display:	LC, visible area 40 x 30 mm	
Display - main display:	4.5 digits, 7 segments, digits height 11 mm	
Display indication range:	±19999	
Display - additional display:	6 digits, 14 segments, digits height 7.5 mm	
Electromagnetic compatibility:	Interference emission and immunity according to EN 61326	
Power supply:	3.6 V lithium battery; 2 pcs. (1/2 AA)	
Internal data storage (configurations):	EEPROM (non-volatile)	
Degree of protection:	IP 65	
Mounting position:	any	
Weight:	approx. 300 g	
Resolution A/D converter:	14 Bit	
Battery life time:	Standby mode: approx. 5 year	
Mechanical life time:	100 million load changes	
CE conformity:	EMC directive 2014/30/EU Ranges > 200 bar: pressure equipment directive (PED): 2014/68/EU (module A)	

***)** Accuracy according to IEC 60770

The Digital Test Pressure Gauges LR-Cal LDM 70-K50 are available as complete pressure calibration kits (case, with calibration testpump).

For a stationary use, as calibration pressure source we recommend our pressure comparison test pumps.

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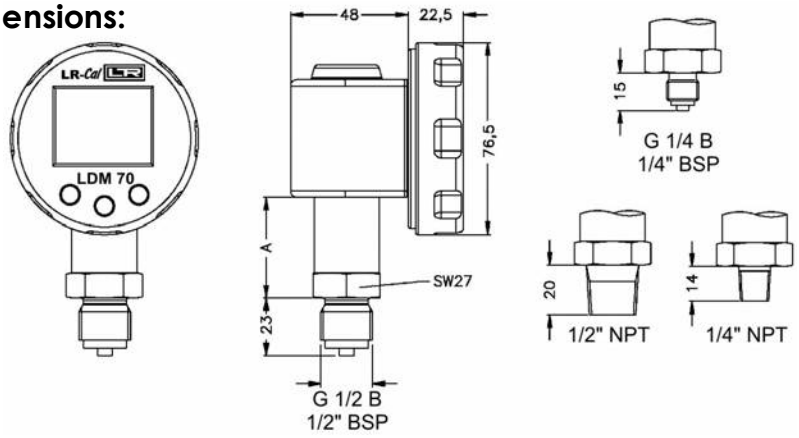
LR-Cal

Dimensions:



Dimension A:
pressure port 1/2" BSP: 62,5 mm
pressure port 1/4" BSP: 54,5 mm
pressure port 1/2" NPT: 60,5 mm
pressure port 1/4" NPT: 54,5 mm

	LR-Cal LDM 70-E25 with stainless steel sensor			LR-Cal LDM 70-K50 with ceramic sensor		
Accuracy:	±0.25% FS *)			±0.5% FS		
Pressure range **) [bar]	Overload [bar]	Burst press. [bar]	Order Code starts with...	Overload [bar]	Burst press. [bar]	Order Code starts with...
0...0.1	0.5	1.5	LDM70-E25-8100-0-	---	---	---
0...0.16	1	1.5	LDM70-E25-8160-0-	---	---	---
0...0.25	1	1.5	LDM70-E25-8250-0-	---	---	---
0...0.4	2	3	LDM70-E25-8400-0-	1	2	LDM70-K50-8400-0-
0...0.6	5	7.5	LDM70-E25-0000-6-	2	4	LDM70-K50-0000-6-
0...1	5	7.5	LDM70-E25-0001-0-	2	4	LDM70-K50-0001-0-
0...1.6	10	15	LDM70-E25-0001-6-	4	5	LDM70-K50-0001-6-
0...2.5	10	15	LDM70-E25-0002-5-	4	5	LDM70-K50-0002-5-
0...4	20	25	LDM70-E25-0004-0-	10	12	LDM70-K50-0004-0-
0...6	40	50	LDM70-E25-0006-0-	10	12	LDM70-K50-0006-0-
0...10	40	50	LDM70-E25-0010-0-	20	25	LDM70-K50-0010-0-
0...16	80	120	LDM70-E25-0016-0-	40	50	LDM70-K50-0016-0-
0...25	80	120	LDM70-E25-0025-0-	40	50	LDM70-K50-0025-0-
0...40	105	210	LDM70-E25-0040-0-	100	120	LDM70-K50-0040-0-
0...60	105	210	LDM70-E25-0060-0-	100	120	LDM70-K50-0060-0-
0...100	210	420	LDM70-E25-0100-0-	200	250	LDM70-K50-0100-0-
0...160	600	1000	LDM70-E25-0160-0-	400	500	LDM70-K50-0160-0-
0...250	1050	1250	LDM70-E25-0250-0-	400	500	LDM70-K50-0250-0-
0...400	1050	1250	LDM70-E25-0400-0-	600	650	LDM70-K50-0400-0-
0...600	1250	1250	LDM70-E25-0600-0-	800	880	LDM70-K50-0600-0-
-1...0	5	7.5	LDM70-E25-0000-0-	2	4	LDM70-K50-0000-0-
-1...+0.6	10	15	LDM70-E25-9000-6-	4	5	LDM70-K50-9000-6-
-1...+1.5	10	15	LDM70-E25-0001-5-	4	5	LDM70-K50-0001-5-
-1...+3	20	25	LDM70-E25-0003-0-	10	12	LDM70-K50-0003-0-
-1...+5	40	50	LDM70-E25-0005-0-	10	12	LDM70-K50-0005-0-
-1...+9	40	50	LDM70-E25-0009-0-	20	25	LDM70-K50-0009-0-
-1...+15	80	120	LDM70-E25-0015-0-	40	50	LDM70-K50-0015-0-
-1...+24	80	120	LDM70-E25-0024-0-	40	50	LDM70-K50-0024-0-
-1...+39	105	210	LDM70-E25-0039-0-	100	120	LDM70-K50-0039-0-

Process pressure port connection thread	Order Code ends with...
1/4" BSP male according to EN 837	-G14
1/2" BSP male according to EN 837	-G12
1/4" NPT male	-N14
1/2" NPT male	-N12

***)** Accuracy applies to ranges from 0...0.4 bar. Smaller ranges ±0.5% FS.

****)** Gauge pressure. For model LR-Cal LDM 70-E25 ranges from 0...0.4 bar are available for **absolute** pressure reading.
For model LR-Cal LDM 70-K50 ranges from 0...0.6 bar are available for **absolute** pressure reading.

Order Code for extra charge for absolute pressure measurement: LDM70-MP-ABS

Vacuum resistance: from measuring range 0...1 bar unrestricted vacuum resistant (for smaller ranges: on request).

OPTION: Factory calibration certificate, traceable, 11 points at increasing and decreasing pressure (range 0...600 bar with 5 points): LDM70-WZERT