

LCM025

CAPACITANCE MANOMETER

The LINXON LCM025 is a highly accurate temperature compensated manometers is designed for stable performance in harsh manufacturing tool environments. Advanced digital electronics improve gauge performance and offer easy handling features such as one push button zero function and setpoint adjustment. The corrosion resistant ultra pure ceramic sensor provides excellent zero stability with a long life expectancy of several million pressure cycles, including atmospheric bursts. A unique sensor shielding (patent pending) protects the gauge from process contamination. A robust mechanical design and digital electronics improve EMC compatibility, long term stability and temperature compensation. The LCM025 sets new standards for fast stability after power on and fast recovery from atmospheric pressure exposure.



ADVANTAGES

- Full scale (FS) ranges from 1 Torr ... 1000 Torr
- Fast stability after power on
- Fast recovery from atmospheric pressure
- Corrosion resistant ceramic sensor
- Excellent long term signal stability
- Temperature compensated
- Sensor double protected from contamination
- One push button zero function
- Wide range power supply
- RS232 interface

APPLICATIONS

- Semiconductor manufacturing equipment for Etch, CVD, PVD, ALD
- Data storage and display manufacturing equipment
- Industrial vacuum equipment
- General high accuracy pressure measurement

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ORDERING INFORMATION

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Full scale (FS)	1000 Torr	100 Torr	20 Torr	10 Torr	1 Torr
DN 16 ISO-KF	L11-000	L11-002	L11-003	L11-004	L11-006
8 VCR female	L11-010	L11-012	L11-013	L11-014	L11-016

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SPECIFICATIONS

Full scale (FS)	1000 ... 1 Torr
Accuracy ¹⁾	0.5 % of reading
Temperature effect on zero	
≥10 Torr (FS)	0.005 % FS / °C
1 Torr (FS)	0.015 % FS / °C
on span	0.01 % of reading / °C
Resolution	0.003 % FS
Gas type dependence	none
Response time ²⁾	30 ms
Admissible pressure (absolute)	
1000 Torr (FS)	4 bar
1 ... 100 Torr (FS)	2.6 bar
Bursting pressure (absolute)	5 bar
Admissible temperature	
Operation (ambient)	+5 ... +50 °C
Bakeout ³⁾	≤110 °C at the flange
Storage	-40 ... +65 °C
Relative humidity	≤80% at temperatures ≤+31 °C decreasing to 50% at +40 °C
Supply voltage	Class 2 / LPS
at the manometer	+14 ... +30 V (dc)
Ripple	≤1 V _{pp}
Current consumption (max. starting current)	<500 mA
Power consumption (depending on supply voltage)	≤1 W
Fuse to be connected	1 AT (slow), automatic reset (Polyfuse)
Output signal analog (measurement signal)	
Measurement range	0 ... +10 V
Voltage range	-5 ... +10.24 V
Voltage vs. pressure	linear
Output impedance	0 Ω (short-circuit proof)
Loaded impedance	>10 kΩ
Electrical connection	D-sub, 15-pin, male
Standards	
CE conformity	EN 61000-6-2, EN 61000-6-3, RoHS
Materials exposed to vacuum	ceramics (Al ₂ O ₃), stainless steel (AISI 316L),
Use	indoors only, altitude up to 2000 m NN
Pollution degree	2
Degree of protection	IP 30
Internal volume	≤5.1 cm ³
Weight	285 ... 342 g

¹⁾ Non-linearity, hysteresis, repeatability at 25°C ambient operating temperature without temperature effects after two hours operation

²⁾ Increase 10 ... 90% FS

³⁾ Non-operation

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DIMENSIONS

[mm]

