

LSP500

STANDARD PIRANI

The LINXON Standard Pirani Gauge LSP500 is the most recent Vacuum Gauge creation under the LINXON brand. LSP500 works according to the well-proven physical principle of Thermal conductivity (heat loss), which is the most widespread vacuum measuring principle in the world for decades. LINXON LSP500 is very well suited for all vacuum applications where there is a need for a reliable measurement in the range of 5×10^{-4} to 1000 mbar. With its well-engineered sensor technology, its stainless steel flange, its reliable electronic unit, enclosed in an appealing and compact aluminum housing, LSP500 is at home in countless vacuum applications. If it should ever be necessary to replace the sensor unit after many hours of work, the sensor unit can be easily replaced in the field. This underlines the customer-friendly and cost-effective use of the new LSP500.



ADVANTAGES

- Compact design, stainless steel measuring cell and aluminum housing
- Measurement independent of mounting orientation for maximum engineering design freedom
- Easy push button ATM and HV adjustment
- Logarithmic signal output for easiest integration
- Spare sensor head available for easiest exchange in the field
- CE - Declaration of Conformity (incl. RoHS) compliance

APPLICATIONS

- Fore vacuum pressure monitoring (e.g. between fore & high vacuum pump)
- Controlling high vacuum ionization gauges
- Battery drying processes
- Freeze-drying processes (Lyophilization)
- PVD coating of glass, optical layers, tools, packaging, decorative layer
- Furnace heat treatment
- Refrigeration & Airconditioning manufacturing processes (e.g. filling stations)
- Semiconductor processing equipment
- Analytical equipment integration (e.g. mass spectrometers/ scanning electron microscopes etc.)
- And many, many other general vacuum measurement applications more

LSP500

ORDERING INFORMATION

Type	LSP500 Tungsten
DN 16 ISO-KF	L21-000

Spare parts

Spare Sensor DN 16 ISO-KF	L21-001
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Accessories

Clamping ring DN 10-16 ISO-KF	211-001
Rapid fastening clamping ring DN 10-16 ISO-KF	211-005
Quick clamping ring DN 10-16 ISO-KF (all metal)	211-036
Centering ring DN 16 ISO-KF, Inox / FPM	211-066
Centering ring DN 16 ISO-KF, Inox / CR	211-673
Centering ring DN 16 ISO-KF, Al / FPM	211-059
Centering ring DN 16 ISO-KF, Al / CR	211-052
Power supply, PxG5xx, G-Cable FCC, 1.8m	350-050

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SPECIFICATIONS

Type	LSP500
Measuring principle	thermal conductance according to Pirani
Measurement range (air, O ₂ , CO, N ₂)	5 × 10 ⁻⁴ to 1000 mbar
Accuracy (N ₂)	
1 × 10 ⁻³ ... 100 mbar	±15% of reading
5 × 10 ⁻⁴ ... 1 × 10 ⁻³ mbar	±50% of reading
100 ... 1000 mbar	±50% of reading
Repeatability (air)	
1 × 10 ⁻³ ... 100 mbar	2% of reading
Output signal (measurement signal)	
Voltage range	0 ... +10.3 V
Measurement range	V +1.9 ... +10.0 V
Voltage vs. pressure	Logarithmic 1.286 V/decade
Error signal	0 ... +0.5 V(filament rupture)
Output impedance	2 × 4.7 Ω
Minimum loaded impedance	10 kΩ, short-circuit proof
Response time	80 ms
Gauge identification	27.0 kΩ, referenced to supply common
Adjustment	One tactile switch for ATM and HV adjustment
Supply voltage	
At gauge	+14 ... +30 V (dc)
Ripple	≤0.5 V _{pp}
Current consumption	<200 mA (max. starting current)
Power consumption	≤1 W
Electrical connection	FCC 68 / RJ45 appliance connector, 8 poles, male
Sensor cable	8 poles plus shielding
Cable length	≤100 m (8 × 0.14 mm ²)
Material filament	W
Material exposed to vacuum	glass, Ni, NiFe, DIN 1.4301 / 1.4305 / 1.4435
Internal volume	
DN 16 ISO-KF	1.5 (0.092) cm ³ (in. ³)
Admissible pressure	10 bar (absolute), limited to inert gases
Admissible temperature	
Operation	+5 ... +60 °C
Vacuum connection ¹⁾	80 °C
Storage	-20 ... +65 °C
Mounting orientation	any
Degree of protection	IP40
Weight	
DN 16 ISO-KF	80 g

¹⁾ In horizontal mounting orientation

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DIMENSIONS

[mm]

