LP 1000

LP 1000 Series

Low Pressure Sensors

- Ranges from 0.25 mbar to 2.5 mbar
- Gauge or differential formats
- ±0.5% accuracy
- Uni or bi-directional operation
- Current or voltage outputs
- Compact, lightweight construction

The LP 1000 series of gauge and differential pressure sensors are specifically designed for use in clean room, HVAC control and similar applications where the accurate monitoring of very low pressures is required.

Pressure ranges are available from 0.25mbar to 2.5mbar with a high overpressure capability of 250mbar. The housing is constructed from lightweight alochromed aluminium and is dustproof and waterproof to IP64. Removal of the electronics cover provides access to zero and span adjustment, allowing minor offsets due to mounting position effect to be corrected, and also response time adjustment.

The pressure sensing principle is variable inductance, providing maximum sensitivity for the measurement of very small pressure changes with minimal hysteresis and excellent repeatability. An innovative design allows the use of diaphragms over low displacements well within elastic and fatigue limits, allowing for millions of pressure cycles with no zero drift and excellent resistance to shock and vibration.

LP 1000 Series

Low Pressure Sensors

STANDARD SPECIFICATIONS

Pressure Measurement

Operating Pressure Ranges
0.25, 0.5, 1.0, 1.25, 2.0 and 2.5 mbar, uni or bi-directional, vented gauge or differential.

Zero and span adjustment
Site adjustable potentiometer trim:
Zero: ±0.3 mbar Span: ±5% F.S.

Overpressure
250 mbar maximum for all ranges.

Line Pressure (Differential format only).
Vacuum to 2 bar.

Pressure Media
Gases and liquids compatible with alodyned aluminium, beryllium-copper and brass.

Output Signal (Uni-directional)
LPM: 0 - 2.5Vd.c. (3-wire)
0 - 5Vd.c. (3-wire)
1 - 6Vd.c. (3-wire)
0 - 10Vd.c. (3-wire)
LPX: 4 - 20mA (2-wire)

Output Signal (Bi-directional)
LPM: 2.5Vd.c. ±2.5Vd.c. (3-wire)
5Vd.c. ±5V.d.c. (3-wire)
LPX: 12mA ±8mA (2-wire)

Supply Voltage
10 - 30Vd.c. (min 15Vd.c. for 0 - 10Vd.c. output).

Load Impedance
LPM 1000:5kΩ minimum
LPX 1000: Rc <(Vs - 10)/20kΩ.

Performance Specification

Accuracy
Combined Non-linearity, Hysteresis and Repeatability:
±0.5% of calibrated range (maximum).

Operating Temperature Range
0°C to 50°C.

Temperature Effects
Over the range of 0°C to 50°C:
Pressure ranges up to 1.25 mbar: ±0.02 mbar
Pressure ranges above 2 mbar: ±0.04 mbar

Long Term Stability
At standard reference conditions the calibration will not change by more than ±1% of calibrated range, averaged over 1 year.

Mounting Position Effect
No effect on span. Possible zero shift, up to a maximum of 0.2 mbar/90° change in orientation, correctable by potentiometer adjustment.
Note: The LP 1000 is factory adjusted with diaphragm oriented in the vertical plane.

Supply Sensitivity
0.05%F.S./volt maximum.

Insulation Resistance
100 MΩ at 50Vd.c.

Humidity
0 - 100% RH, non-condensing.

Physical Specification

Pressure Connections
10/32 UNF Female, M5 Female or 4mm ID tube connector.

Electrical Connection
DIN 43650A Plug with free mating socket supplied as standard.

Housing Material
Alochromed Aluminium.

Environmental Protection
Sealed to IP64.

CE Conformity
CE marked for EMC and EMI compliance.

Weight
450g nominal (600g differential version)

RELATED PRODUCTS

Druck manufacture a comprehensive range of pressure transducers and transmitters, indicators, controllers, calibrators and deadweight testers. The range of portable calibrators also covers temperature and electrical parameters. *Please refer to Druck.*

CALIBRATION STANDARDS

Instruments manufactured by Druck Limited are calibrated against precision pressure calibration equipment which is traceable to International Standards.

ORDERING INFORMATION

(1) Select model number:

Code	Model
LPM	Voltage Output
LPX	Current Output

Code	Base Model
10	

Code	Mechanical Configuration
0	Vented Gauge (single port)
1	Differential (two ports)

Code	Pressure Connection
0	10 - 32 UNF Female
1	M5 Female
2	4mm ID tube conn

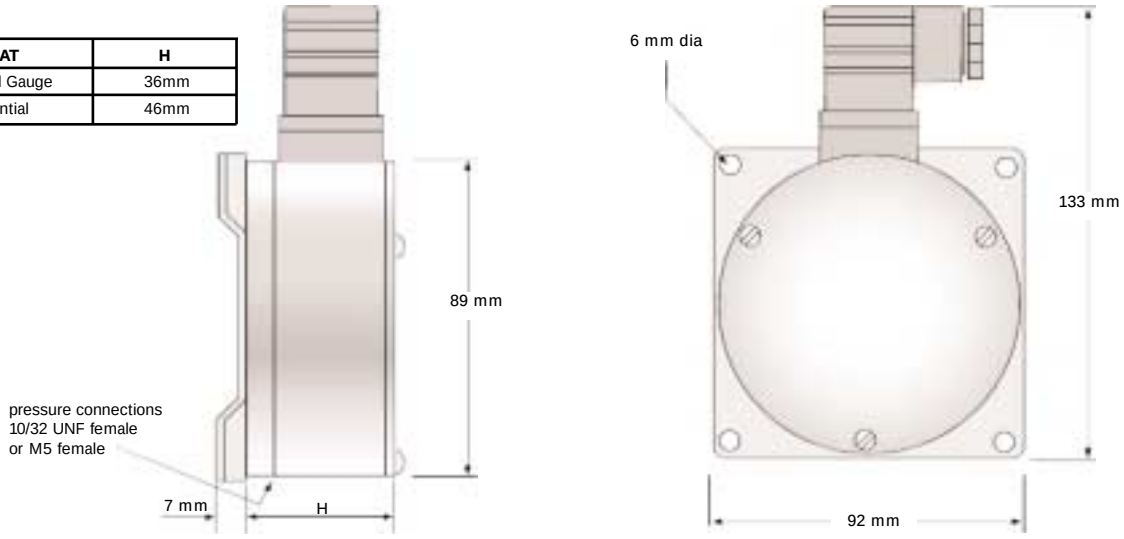
LPM	10	0	0	Typical Model Number

(2) State minimum and maximum pressure and corresponding output signal.

Continuing development sometimes necessitates specification changes without notice.

INSTALLATION DRAWINGS - Dimensions mm

FORMAT	H
Vented Gauge	36mm
Differential	46mm



Druck Limited
Fir Tree Lane, Groby
Leicester, LE6 0FH, England

Tel: +44 (0) 116 231 7100
Fax: +44 (0) 116 231 7103
E-Mail: sales@druck.com
Internet: www.druck.com

UKAS CALIBRATION
0221

Agent:

SUNSTAR 商斯达实业集团是集研发、生产、工程、销售、代理经销 、技术咨询、信息服务等为一体的高科技企业，是专业高科技电子产品生产厂家，是具有 10 多年历史的专业电子元器件供应商，是中国最早和最大的仓储式连锁规模经营大型综合电子零部件代理分销商之一,是一家专业代理和分銷世界各大品牌 IC 芯片和電子元器件的连锁经营綜合性国际公司,专业经营进口、国产名厂名牌电子元件，型号、种类齐全。在香港、北京、深圳、上海、西安、成都等全国主要电子市场设有直属分公司和产品展示展销窗口门市部专卖店及代理分销商,已在全国范围内建成强大统一的供货和代理分销网络。 我们专业代理经销、开发生产电子元器件、集成电路、传感器、微波光电元器件、工控机/DOC/DOM 电子盘、专用电路、单片机开发、MCU/DSP/ARM/FPGA 软件硬件、二极管、三极管、模块等，是您可靠的一站式现货配套供应商、方案提供商、部件功能模块开发配套商。商斯达实业公司拥有庞大的资料库，有数位毕业于著名高校——有中国电子工业摇篮之称的西安电子科技大学（西军电）并长期从事国防尖端科技研究的高级工程师为您精挑细选、量身订做各种高科技电子元器件，并解决各种技术问题。

更多产品请看本公司产品专用销售网站:

商斯达中国传感器科技信息网：http://www.sensor-ic.com/

商斯达工控安防网：http://www.pc-ps.net/

商斯达电子元器件网：http://www.sunstare.com/

商斯达微波光电产品网:HTTP://www.rfoe.net/

商斯达消费电子产品网://www.icasic.com/

商斯达实业科技产品网://www.sunstars.cn/

传感器销售热线:

地址：深圳市福田区福华路福庆街鸿图大厦 1602 室

电话：0755-83370250 83376489 83376549 83607652 83370251 82500323

传真：0755-83376182 （0）13902971329 MSN: SUNS8888@hotmail.com

邮编：518033 E-mail:szss20@163.com QQ: 195847376

深圳赛格展销部：深圳华强北路赛格电子市场 2583 号 电话：0755-83665529 25059422

技术支持: 0755-83394033 13501568376

欢迎索取免费详细资料、设计指南和光盘 ；产品凡多，未能尽录，欢迎来电查询。

北京分公司：北京海淀区知春路 132 号中发电子大厦 3097 号

TEL：010-81159046 82615020 13501189838 FAX：010-62543996

上海分公司：上海市北京东路 668 号上海赛格电子市场 2B35 号

TEL：021-28311762 56703037 13701955389 FAX：021-56703037

西安分公司：西安高新开发区 20 所(中国电子科技集团导航技术研究所)

西安劳动南路 88 号电子商城二楼 D23 号

TEL：029-81022619 13072977981 FAX:029-88789382