



*Highest stability and accuracy
thanks to mass flow technology*

Versions:

Ultra low differential pressure measuring instrument for not aggressive gases with mass flow sensor technology. 24 VDC power supply, with LCD display.

Ranges : -20...+20 Pa (bidirectional)
 -100...+100 Pa (bidirectional)

PascalVision 20: art no. 111 6844
PascalVision 100: art no. 111 6845

With analog output 0/2...10V or 0/4...20mA, freely scalable and adjustable with PascalTool WIN software.

PascalVision

DIFFERENTIAL PRESSURE MEASURING INSTRUMENT FOR CLEAN ROOMS, LAMINAR FLOWBOXES AND FILTER SYSTEMS

General information

The PascalVision is a high precision instrument for measuring, controlling and visualisation of pressure differences in low ranges, e.g. in clean rooms or laminar flow boxes. The measurement method is based on a mass flow measurement, which does not require any moving part (e.g. diaphragm) and achieves an outstanding accuracy, reproducibility, reliability, long-term stability and robustness. The small instrument dimensions and clean room compatibility make it perfectly fit inside and on walls and ceilings of clean room facilities.

The instruments are available in two versions. The PascalVision 20 with measurement range -20 to +20 Pa and PascalVision 100 with range -100 to +100 Pa.

A two line LCD-Display indicates the differential pressure value and is protected by a transparent housing.

The instrument outputs are a digital interface (RS 232) and an analog output (0...10V, 2...10V, 0...20mA or 4...20mA). The analog output can be configured and calibrated. Thus the measurement range can be adjusted to the signal range (e.g. 5...10 Pa = 4...20 mA) and also to any connected device.

The versatile and simple to use configuration software PascalTool-WIN (Windows 95, NT or higher) can be used to configure the environmental conditions and carry out the calibration.

Features

- 2-line LCD-Display, various units selectable (Pa, mbar, psi, m/s etc.)
- No mechanical parts (e.g. diaphragm) inside the sensor
- Very high accuracy $<\pm 0.25\%$ FS (full scale) or $<\pm 1.5\%$ m.V. (measured value)
- No drift <0.1 Pa/year
- No hysteresis
- Insensitive to vibrations
- Resistant to overpressure load up to 2 bar
- Clean room suitable design
- Square root function to measure airflow velocity
- Analog output signals can be configured and calibrated
- Easy calibration (Zero & Gain)
- Customer specific configuration possible
- Easy on site configuration by PascalTool-WIN software
- Easy hose length compensation by PascalTool-WIN software
- SWISS-MADE Quality

Applications

- Monitoring and control of mini environments and fan filter units (differential pressure and laminar air flow velocity)
- Differential pressure control between grey and clean room
- Monitoring of pressure variations caused by a leakage, defective fans or flaps etc.



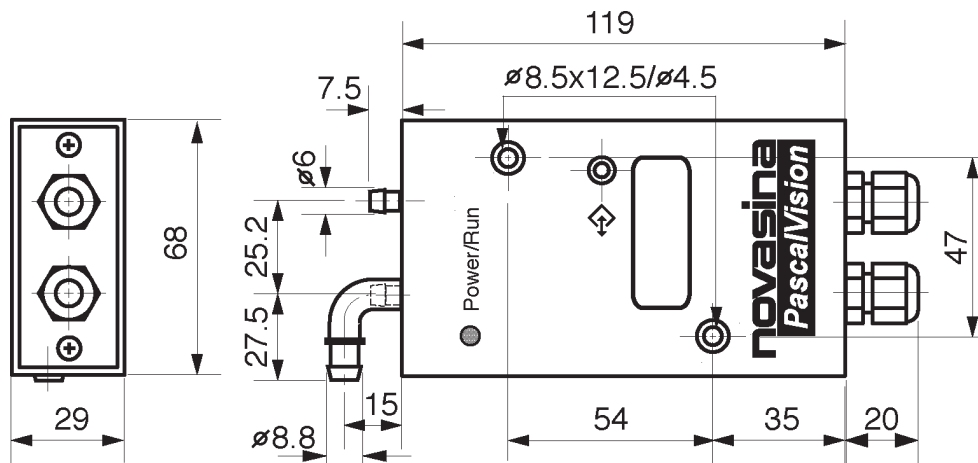
Configuration software
PascalTool-WIN

Technical data

Type	PascalVision 20	PascalVision 100
Article-No.	1116844	1116845
Measurement range	-20 ... +20 Pa	-100 ... +100 Pa
Max. resolution	0.016 Pa	0.07 Pa
Measurement interval	150 ms ... 1350 ms	150 ms ... 1350 ms
Time constant	10 ms	10 ms
Measurement accuracy (at 20°C/50%RH) (m.V. = of measured value)	< 4 Pa = ± 0.05 Pa >= 4 Pa = ±1,5% m.V.	< 17 Pa = ± 0.25 Pa >= 17 Pa = ±1,5% m.V.
Temperature effect	< 0.05% m.V./°C	< 0.05% m.V./°C
Atmospheric pressure effect (at 1013.25 hPa)	0.1% m.V./hPa	0.1% m.V./hPa
Hysteresis	0.00%	0.00%
Offset drift (at constant Temp. 20°C)	< 0.1 Pa/year	< 0.1 Pa/year
Max. permissible differential pressure	± 2 bar	± 2 bar
Max. permissible overpressure	2 bar	2 bar
Max. mass flow through the sensor	120 sccm (0.12 liter/min)	370 sccm (0.37 liter/min)
Operating temperature range	0 ... 50°C	0 ... 50°C
Analog output (configurable and calibratable)	0 ... 10 V, 2 ... 10 V (load to ground >10 kOhm) 0 ... 20 mA, 4 ... 20 mA (load <500 Ohm)	
Digital interface	RS 232 (ASCII-string or complex protocol)	
Power supply	10.5 ... 35 VDC	10.5 ... 35 VDC
Power consumption	max. 3 W	max. 3 W
Protection	IP 54 / EMC	IP 54 / EMC

Accessories

	Article-No.
External power supply 90 ... 260 VAC Euro-plug	1115966
External power supply 90 ... 260 VAC US-, Japan-plug	1115967
Connecting nozzle straight	1116332
Connecting nozzle 90°	1115968
Configuration program PascalTool-Palm	1115969
Configuration program PascalTool-Win	1116848
Development kit PSwitchDLL	1116376
Development kit PDatDLL	1117545
Programming cable to PC (DB 9)	1116849
Programming cable to Palm III and VII	1115970
Programming cable to Palm V, IBM WorkPad	1115971
Programming cable to Palm M100 and 105	1116307
Programming cable to Palm M125, 130, 5XX, 7XX	1117548
Customer specific configuration	1116074
Mobile dP calibrator CALIBOX 100 (0...100 Pa)	1120146



Technical data subject to changes without notice