

Differential Pressure Transmitter LS02

LS02 has microprocessor-controlled pressure transducers which are suitable for detection of excess pressure, low pressure or differential pressure of non-aggressive gasses. Pressure measurement is carried out via a piezo-resistive pressure sensor. The sensor is available with two different basic pressure ranges. These ranges may be subdivided by means of the DIP switch. The temperature drift of the sensors is compensated individually. The wear-free measurement system allows for almost maintenance-free operation. The integrated electronic system provides a pressure proportional analogue voltage signal (0 ... 10 V) and a current signal of 0 ... 20 mA.

APPLICATIONS

Heating
Ventilation
Air condition
Clean room technology
Finishing pass measurement
Filter monitoring

HIGHLIGHTS

Supply influence < 0.05 %
Up to 80 % relative humidity
Temperature range 10 ... 50 °C
Approx. 0.1 kg of weight



Technical characteristics

Measuring range, relative	10 hPa, 7,5 hPa, 5 hPa, 2,5 hPa or 100 hPa, 75 hPa, 50 hPa, 25 hPa
Measuring principle	Piezo-resistive
Overload capacity	680 hPa
Medium	Non-aggressive gasses
Max. system pressure	680 hPa
Parts in contact with the medium	Ni, PU, Pyrex glas, Kovar, gold, aluminium, duraplast, Ultem plastic
Linearity	± 2 % from adjusted measurement range
Hysteresis	± 2 % from adjusted measurement range
Output signal	0... 10 V and 0 (4)... 20 mA, switchable via DIP-switch
Supply	14... 38 VDC or 14... 31 VAC
Power consumption	Approx. 20 mA (without load)
Polarity reversal protection	Yes
Supply influence	< 0,05 %
Load	Supply of 14 - 18 VDC 300 Ω Supply from 18 - 24 VDC 500 Ω



Technical characteristics

Position influence	Dependent from adjusted measurement range, max, 2%
Time constant	Approx. 10 ms, 0,5 sec, 2 sec. and 4 sec. delay, switchable via DIP-switch
Temperature drift	Zero point $\pm 0,12$ % of f.v./ K from adjusted measurement range Span $\pm 0,12$ % of f.v./ K from adjusted measurement range
Temperature range	Specified range + 10 °C to + 50 °C
Humidity	Up to 80 % relative humidity
Storage temperature	- 10... + 70 °C
Long-term stability	± 2 % from adjusted measurement range per year (typical)
Housing	86 x 56 x 40 mm (H x W x D)
Pressure connections	$\varnothing 6,6 \times 10$ mm (for flexible hoses $\varnothing 6$ mm)
Electrical connections	Screw-type terminals, diameter max. 1.5 mm
Screwed connection	M 12 x 1.5
Protection class	III
Protection type	IP54
Standards	EN 61000-6-1 EN 61000-6-2; EN 61000-6-3; EN 61000-6-4; EN 61010
Weight	Approx. 0.1 kg
Option: LCD	LC-display, 3 1/2-digits

