Datasheet HT01

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Fields of application:

- Clean room technology
- Finishing pass measurement
- Filter monitor
- Heating
- Ventilation
- Air conditioning

The microprocessor-controlled pressure transducers of the HT01 type series 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 integratred electronic system provides a pressure-proportional analogue voltage signal (0 ... 10 V) and a current signal of 0 ... 20 mA.
This signal may be switched to 4 ... 20 mA.
For strongly varying pressures a dampening function is included.
This function may be switched from approx. 10 ms (retardation) to 2 sec. or 4 sec. by means of the DIP switch.
An LC display is optionally available and may be retrofitted by means of patch system.

Technical data:

Measuring range, relative	10 hPa, 7,5 hPa, 5 hPa, 2,5 hPa oder 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	ca. 20 mA (without load)
Polarity reversal protection	yes
Supply influence	< 0,05 %
Load	Supply of 18 VDC 300Ω Supply from 18 VDC 500Ω
Position influence	Dependent from adjusted mesurement range, max, 2%
Time constant	Approx. 10 ms, 0,5 sec, 2 sec. und 4 sec. delay, switchable via DIP-switch
Temperature drift	Zero point ± 0,12 % of f.v. / K from adjusted measurement range Span ± 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	Ø 6,6 x 10 mm (for flexible hoses Ø 6 mm)
Electrical connections	Screw-type terminals, diameter max. 1,5 mm²
Impact stability	10 g
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	ca. 0,1 kg
Option (retrofittable):	LC-display, 3 1/2-digits