Датчики давления дифференциальные DELTA OHM серии HD402

Технические характеристики

Easy & quick control of relative or differential pressure

The presence of very pure air, i.e. with a very low content of microparticles of suspended dust, is in some fields mandatory. In the **industrial and scientific research** and **microelectronics industry** in general, in the field of bottling and food and moreover in the **pharmaceutical field**, **cleanrooms** are used to always ensure a controlled atmosphere.

Especially in these applications, a highly precise and reliable instruments are indispensable for the measurement of differential pressure.

The series of small and compact transmitters **HD402xT**... is suitable for measuring relative pressure with respect to atmosphere or differential pressure in the range from **as low as 0-50 Pa to 0-200 kPa** .

These transmitters use a s**ilicon piezoresistive sensor with high accuracy** and temperature compensation, which **has excellent linearity, repeatability and stability** over the time. Thanks to the particular sensor used, the transmitters are insensitive to orientation and position. Moreover, the **high stability** of the sensor over the time and in comparison to the changes in temperature allows the elimination of the operations of maintenance typically required to **compensate for the aging and the deviation of the sensor zero**.

Depending on the needs, the wide variety of the models offer an output signal of the sensor that is converted into a **digital RS485 Modbus–RTU output** (HD402ST), into a **voltage 0...10 V or active current 0...20 mA / 4...20 mA analog output** (HD402T) or into a **2-wire (current loop) 4...20 mA analog output** (HD402AT).

Series HD402T...L
HD402AT...L
HD402ST...L
PRESSURE TRANSMITTER

- Small and compact
- Modbus version
- 2-Wire version for quick and easy installation
- Excellent long- term stability
- IP65

Technical Specification

Output	**HD402T...**: Active analog 0…10 Vdc (R_{Lmin}= 10 kΩ) or 0…20 or 4…20 mA (R_{Lmax}= 500 Ω) **HD402AT...**: 2-wire (current loop) 4…20 mA (R_{Lmax} = (Vdc-12)/0,022) **HD402ST...**: Digital RS485 Modbus-RTU
Power Supply	**HD402T...**: 24 Vac ± 10% or 18…40 Vdc **HD402AT...** and **HD402ST...**: 12…30 Vdc
Absorbtion	**HD402T...** and **HD402AT...**: < 1 W @ 24 Vdc **HD402ST...**: < 100 mW @ 12 Vdc
Pressure connection	Ø 6.2 mm pressure inputs
Compatible media	Air and non-aggressive dry gases

Depending on the nominal full scale

HD402 [1] T [2] - [L] — option display

Output:
- [Blank] = voltage and active current analog output
- [A] = 2-wire (current loop) 4...20 mA output
- [S] = RS485 Modbus-RTU output

	Accuracy @ 25 °C	Measuring range	Resolution
HD402T/ST/AT **1**	± 1.5% f.s. nominal	± 50/100/250 Pa (also in mmH_2O, inchH_2O, mbar)	0.1 Pa (also in mmH_2O, inchH_2O, mbar)
HD402T/ST/AT **2**	± 0.75% f.s. nominal	± 250/500/1000 Pa (also in mmH_2O, inchH_2O, mbar)	1 Pa, (also in mmH_2O, inchH_2O, mbar)
HD402T/ST/AT **3**	± 1% f.s. nominal	± 2.5/5/10 kPa (also in mmHg, PSI, mbar)	0.01 kPa, (also in mmHg, PSI, mbar)
HD402T/ST/AT **4**		± 25/50/100 kPa, (also in mmHg, PSI, mbar)	0.1 kPa, (also in mmHg, PSI, mbar)
HD402T/ST/AT **5**		± 50/100/200 kPa (also in mmHg, PSI, mbar)	0.1 kPa, (also in mmHg, PSI, mbar)

Series HD402TR…L

LOW PRESSURE CONTROLLERS WITH ON/OFF RELAY SWITCH OUTPUT

Pa - kPa - mbar - mmH₂O - inchH₂O - mmHg - PSI

- Rugged **technopolymer case**
- **Relay output**
- **Configurable** from your PC
- Manual setting possible with push buttons
- Visible **(LED) alarm** and **audible alarm**
- Settable thresholds, hysteresis and delay
- **Auto-zeroing** feature in the low range model to ensure **highest precision** and excellent long term stability
- **Clear LCD display** with measured value
- **Wide selection in ranges**
- Selectable units of measurement
- **Excellent linearity,** repeatibility and stability
- Very low maintenance
- Factory calibrated

Operating condition	-10…+60 °C / 0…95% RH
Response time	0.5 seconds for the display updating
Storage temperature	-20…+70 °C
IP protection	IP65
Pressure connection	Ø 6.2 mm pressure inputs
Absorbtion	< 1 W @ 24 Vdc
Power supply	24 Vac ± 10% or 15…36 Vdc
Compatible Media	Air and non-aggressive dry gases

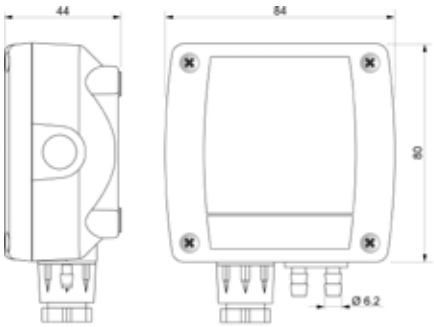
Technical specification

	Accuracy@25°C	Measuring range	Resolution
HD402TR1L	± 1.5% f.s. nominal	± 250 Pa, (also in mmH₂O, inchH₂O, mbar)	0.1 Pa, (also in mmH₂O, inchH₂O, mbar))
HD402TR2L	± 0.75% f.s. nominal	± 1000 Pa, (also in mmH₂O, inchH₂O mbar)	1 Pa, (also in mmH₂O, inchH₂O mbar)
HD402TR3L	± 1% f.s. nominal	± 10 kPa, (also in mmHg, PSI, mbar)	0.01 kPa, (also in mmHg, PSI, mbar)
HD402TR4L		± 100 kPa, (also in mmHg, PSI, mbar)	0.1 kPa, (also in mmHg, PSI, mbar)
HD402TR5L		± 200 kPa, (also in mmHg, PSI, mbar)	0.1 kPa, (also in mmHg, PSI, mbar)

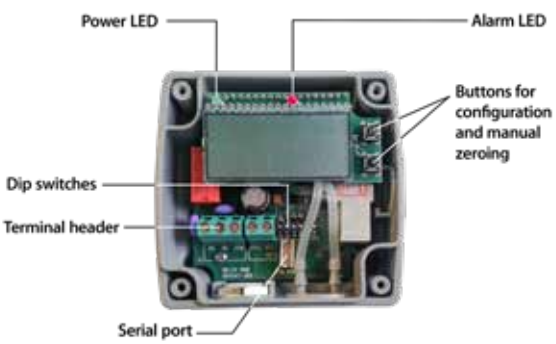
Applications

- Control of HVAC
- Control of filters
- Cleanrooms monitoring
- Pneumatic control
- Respirators
- Vaporizers

Dimensions



Internal view



Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
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Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
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Казахстан (772)734-952-31
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Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Единый адрес для всех регионов: dmh@nt-rt.ru || www.deltaohm.nt-rt.ru