

deviation of the zero of the sensor to temperature changes: virtually eliminates maintenance. It's available the **(L)** "display" option, in which the pressure is visualized on a display with 4 digits in the selected measurement unit. The **(SR)** "square root" is especially useful if the transmitter is connected to a pitot tube, as the output is directly proportional to the speed of airflow. The transmitters are ready to use and are supplied calibrated at 3 points by the manufacturer. Typical applications for HD404T series are clean room monitoring, filters' control, flow measures (matched with the Pitot tube), the air conditioning control and the ventilation one.



### TECHNICAL COMMON FEATURES @ 20°C and 24Vdc

Sensor	Piezoresistive
Measurement range	from 0...50 Pa (0...0,2" H <sub>2</sub> O) to 0...1000 Pa (0...4" H <sub>2</sub> O) relative and differential (look at the table downwards)
Signal output	0 ... 10 Vdc, R <sub>L</sub> > 10kΩ and 4...20 mA, R <sub>L</sub> < 500Ω
Precision	It depends on the model (look at the table)
Response time	1sec. (slow) or 4sec. (fast) selectable through wire bridge
Overpressure limit	25 kPa
Compatible means	Only air and no aggressive gas
Power Supply	24 Vac ±10% or 16...40Vdc
Absorption	< 1W
Fit on pressure	With Ø 5mm flexible cable
Electrical connections	Terminal board with screw, max 1,5mm <sup>2</sup> , PG9 conduit with input cable
Working conditions	-10 ... +60°C (-5...+50°C for models with auto-zero AZ), 0...95% RH
Storage temperature	-20 ... +70°C
Case sizes	80x84x44
Degree of electronic protection	IP67

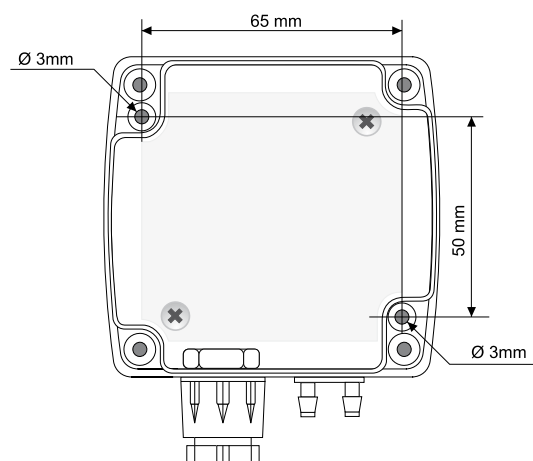
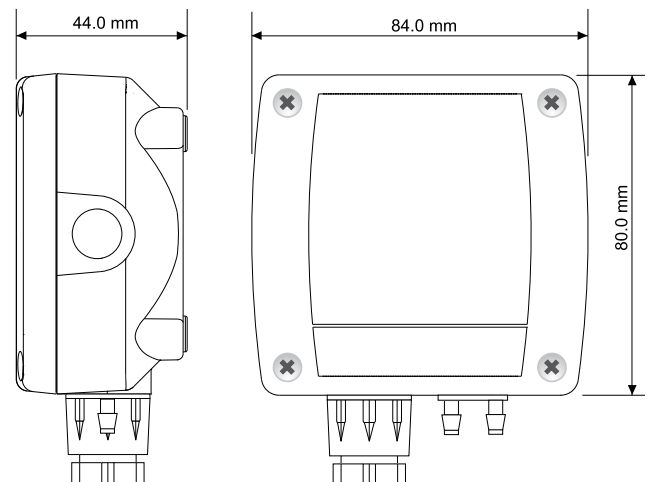
## HD 404T VERY LOW PRESSURE TRANSMITTER

The series of HD404T transmitters is able to measure relative pressures with reference to the atmosphere or differential in their range from 50 to 1000 Pa (0.2" H<sub>2</sub>O to 5" H<sub>2</sub>O). HD404T transmitters use a silicon "micro-machined" type sensor compensated in temperature that has an excellent linearity, repeatability and stability over time. The output signal from the sensor is amplified and converted into a standard analogical output in current (4-20mA) and in one in voltage (0-10V), which, then, can be transmitted over long distances with a high immunity to noise.

In each model it's possible to choose, via a dip switch, between two measurement ranges in order to select the optimum scale optimal for each application. Usually the low pressure transmitters are susceptible to the guidance by which they are mounted. In HD404T series there is available a special auto-zero circuit, which periodically equalize the differential pressure at the input sensor and corrects the offset; the transmitters, provided with this circuit, are insensitive to the mounting position. In addition, The circuit compensates autozero aging and the

### INSTALLATION

In all the models, the sensor and the electronic are contained in a sturdy plastic case with an IP67 protection degree. Opening the lid are available 3 mm diameter holes that let you set the base of the transmitter directly to a panel or a wall.



Pressure

## CODES FOR PURCHASE ORDER

HD404T 1P - G - AZ - L - SR

SR = with square root output  
(not available for type D versions)

L = with LCD display

AZ = with auto-zero circuit

D = differential pressure -f.s...+f.s.

G = relative pressure with reference to the atmosphere 0...+f.s.

### Nominal scale bottom (f.s.):

1P = 100Pa, 2P = 250Pa, 3P = 500Pa, 4P = 1000Pa

1M = 10mmH<sub>2</sub>O, 2M = 25mmH<sub>2</sub>O, 3M = 50mmH<sub>2</sub>O, 4M = 100mmH<sub>2</sub>O

1I = 0.4inchH<sub>2</sub>O, 2I = 0.8inchH<sub>2</sub>O, 3I = 2inchH<sub>2</sub>O, 4I = 4inchH<sub>2</sub>O

MODEL	RANGE	
	LOW	HIGH
	Pa	
HD404T1PG-AZ(-L-SR)	0...50 Pa	0...100 Pa
HD404T2PG-AZ(-L-SR)	0...100 Pa	0...250 Pa
HD404T3PG(-AZ-L-SR)	0...250 Pa	0...500 Pa
HD404T4PG(-AZ-L-SR)	0...500 Pa	0...1000 Pa
HD404T1PD-AZ(-L)	-50...+50 Pa	-100...+100 Pa
HD404T2PD-AZ(-L)	-100...+100 Pa	-250...+250 Pa
HD404T3PD(-AZ-L)	-250...+250 Pa	-500...+500 Pa
HD404T4PD(-AZ-L)	-500...+500 Pa	-1000...+1000 Pa
	mmH <sub>2</sub> O	
HD404T1MG-AZ(-L-SR)	0...5 mmH <sub>2</sub> O	0...10 mmH <sub>2</sub> O
HD404T2MG-AZ(-L-SR)	0...10 mmH <sub>2</sub> O	0...25 mmH <sub>2</sub> O
HD404T3MG(-AZ-L-SR)	0...25 mmH <sub>2</sub> O	0...50 mmH <sub>2</sub> O
HD404T4MG(-AZ-L-SR)	0...50 mmH <sub>2</sub> O	0...100 mmH <sub>2</sub> O
HD404T1MD-AZ(-L)	-5...+5 mmH <sub>2</sub> O	-10...+10 mmH <sub>2</sub> O
HD404T2MD-AZ(-L)	-10...+10 mmH <sub>2</sub> O	-25...+25 mmH <sub>2</sub> O
HD404T3MD(-AZ-L)	-25...+25 mmH <sub>2</sub> O	-50...+50 mmH <sub>2</sub> O
HD404T4MD(-AZ-L)	-50...+50 mmH <sub>2</sub> O	-100...+100 mmH <sub>2</sub> O
	inchH <sub>2</sub> O	
HD404T1IG-AZ(-L-SR)	0...0.2 inchH <sub>2</sub> O	0...0.4 inchH <sub>2</sub> O
HD404T2IG-AZ(-L-SR)	0...0.4 inchH <sub>2</sub> O	0...0.8 inchH <sub>2</sub> O
HD404T3IG(-AZ-L-SR)	0...1 inchH <sub>2</sub> O	0...2 inchH <sub>2</sub> O
HD404T4IG(-AZ-L-SR)	0...2 inchH <sub>2</sub> O	0...4 inchH <sub>2</sub> O
HD404T1ID-AZ(-L)	-0.2...0.2 inchH <sub>2</sub> O	-0.4...0.4 inchH <sub>2</sub> O
HD404T2ID-AZ(-L)	-0.4...0.4 inchH <sub>2</sub> O	-1...+1 inchH <sub>2</sub> O
HD404T3ID(-AZ-L)	-1...+1 inchH <sub>2</sub> O	-2...+2 inchH <sub>2</sub> O
HD404T4ID(-AZ-L)	-2...+2 inchH <sub>2</sub> O	-4...+4 inchH <sub>2</sub> O

## ACCESSORIES

Supplied:

- N°1 piece of Ø3.2/Ø6.4 silicone tube 2m long
- N°2 HD434T.5 plastic fittings.

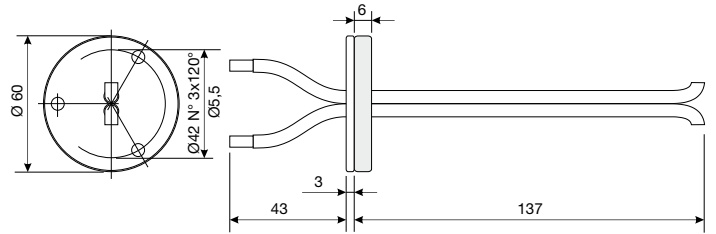
Under request:

**AP3719:** Flow offtake for square or cylindrical channel. Two pieces of Ø3.2/Ø6.4 tube 1m long.

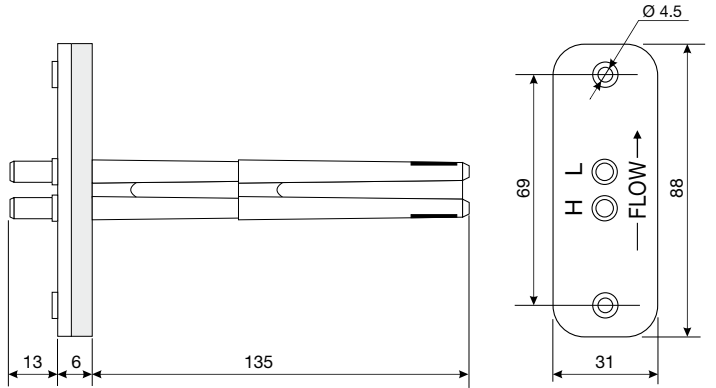
**AP3721:** Flow offtake for plastic material cylindrical channel. Two pieces of Ø3.2/Ø6.4 tube 1m long.

**Pitot Tube:** see list and dimensions on pag. 130

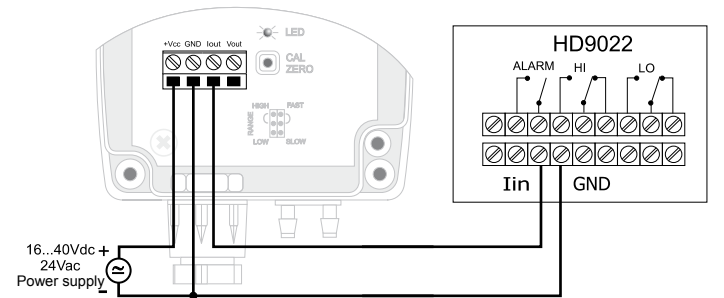
## AP3719 channel probe



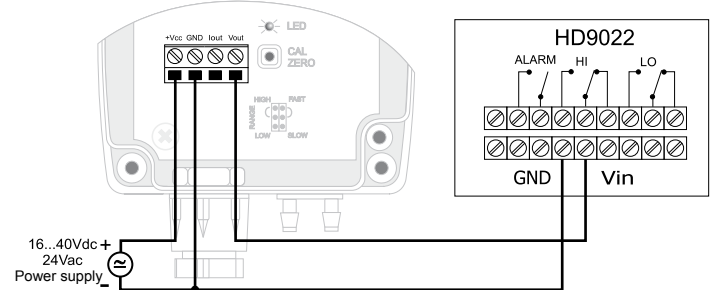
## AP3721 channel probe



## Examples of connection with HD9022 indicator regulator



## Current output 4...20mA



## Voltage output 0...10Vdc



HD404T3PD



T1-300

AP3719

HD434T.5

AP3721