



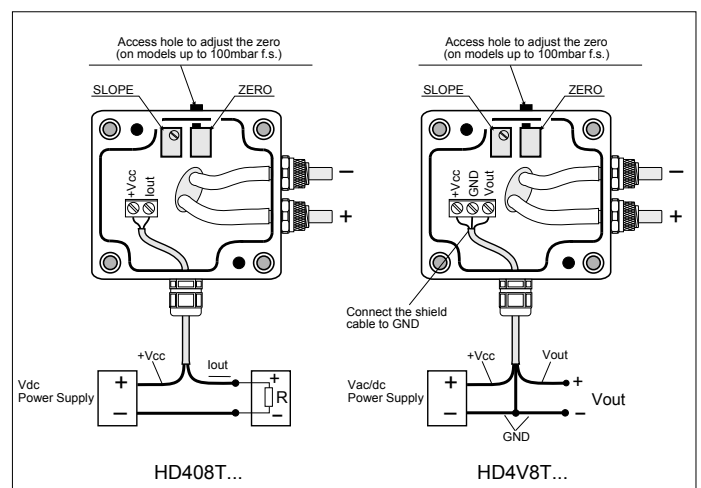
## RELATIVE OR DIFFERENTIAL ATMOSPHERIC PRESSURE TRANSMITTERS

### DESCRIPTION

The HD408T, HD4V8T are analog output relative or differential atmospheric pressure transmitters; they are used in all those applications where non corrosive air or gas need to be monitored, with pressure fields from 10 mbar to 2000 mbar. The piezoresistive sensor gives extremely precise and stable measurements of the applied differential pressure, with excellent repeatability, low hysteresis, and very good temperature stability.

The output signal of the sensor is conditioned to provide a voltage or a current output (model HD408T) or a voltage output (model HD4V8T) linearly proportional to the applied differential pressure.

The transmitters are ready to use as they have been factory calibrated. They are used to monitor clean room barometric pressure, to control filters, to measure flows (employment with the Pitot tube), for packing and packaging machines, and to control ventilation.



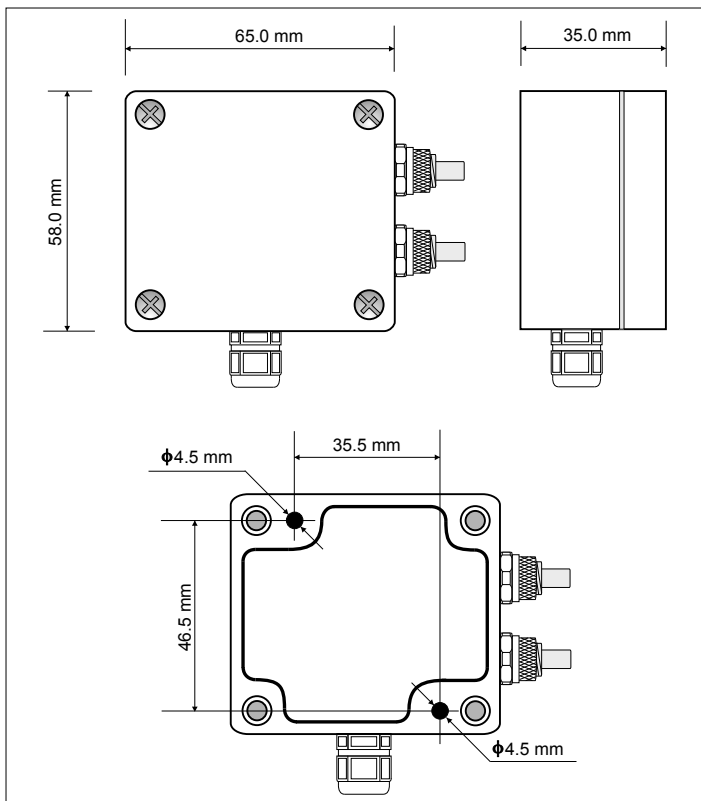
**TECHNICAL INFORMATION @ 20°C AND 24Vdc**

	HD408T	HD4V8T
Sensor	Piezoresistive	
Measurement range	10, 20, 50, 100, 200, 500, 1000, 2000 mbar ±10, ±20, ±50, ±100, ±200, ±500, ±1000, ±2000 mbar	
Output signal	4 ... 20 mA	0 ... 10 Vdc standard; 0 ... 5 Vdc, 1 ... 5 Vdc on request
Precision	±0.5 % F.S. @ 20°C	
Resolution	Infinite	
Temperature effects	< 1% F.S., zero; <1% F.S., span from -20°C to +60°C (from -4° to 140°F)	
Time stability	< 1 % F.S. over 6 months at 20°C	
Startup time	1 sec. at 99% of bottom scale reading	
Response time	< 10 m sec. until it reaches the stated precision by applying a pressure level	
Power	8 ... 30 Vdc	16 ... 40 Vdc or 24 Vac with output 0 ... 10 Vdc 10 ... 40 Vdc or 24 Vac with outputs 0 ... 5 Vdc, 1 ... 5 Vdc
Absorption	< 4 mA	20 mA @ 20°C, 24 Vdc
Load resistance	$R_{Lmax} = 727 \Omega$ a 24Vcc $R_{Lmax} = \frac{Vdc-8}{22 \text{ mA}}$	Minimum input resistance 10kΩ
Operating temperature	-20 ... +60°C	
Storage temperature	-20 ... +80°C	
Compatible elements	air and dry gases only	
Overpressure limit	350mbar for the models 10, 20, 50, 100 mbar 3X F.S. for all the other models	
Pressure connection	With Ø 5mm flexible tube	
Electric connection	Screw terminal box	
Case	MACROLON	
Case size	64x58x34	
Protection degree	IP67	

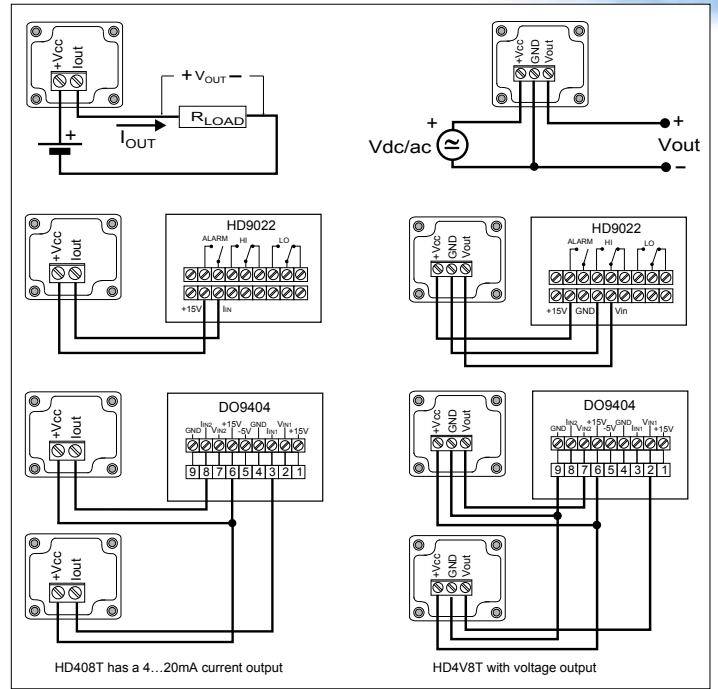
**INSTALLATION**

With all models the sensor and electronic parts are housed in a robust case in MACROLON with IP67 degree of protection. By opening the cover, the holes that allow fastening of the transmitter's base directly to a board or to a wall become available. HD408T, HD4V8T can be mounted in any position, the departure from zero due to the mounting position is at worst (10 mbar range) less than 1% F.S. and can be corrected with a special regulating potentiometer, that can be accessed from outside, for pressures up to 100mbar.

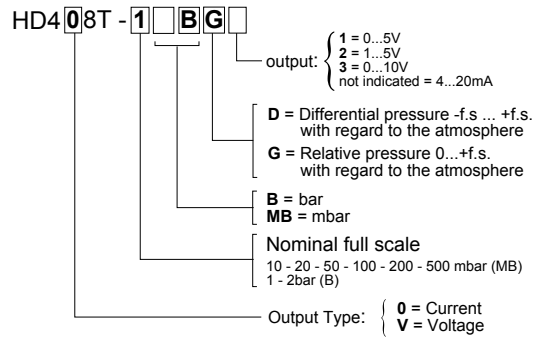
**MECHANICAL DIMENSIONS**



**Examples of connections with the HD9022 and DO9404 indicators/regulators**



**ORDER CODES**



Example: the order code reported in the example refers to a transmitter with 4...20mA output, bottom scale 1bar relative atmospheric pressure.

	RANGE	OUTPUT 4...20mA	OUTPUT 0...10Vdc	OUTPUT 0...5Vdc	OUTPUT 1...5Vdc
RELATIVE	0...10mbar	HD408T-10MBG	HD4V8T-10MBG3	HD4V8T-10MBG1	HD4V8T-10MBG2
	0...20mbar	HD408T-20MBG	HD4V8T-20MBG3	HD4V8T-20MBG1	HD4V8T-20MBG2
	0...50mbar	HD408T-50MBG	HD4V8T-50MBG3	HD4V8T-50MBG1	HD4V8T-50MBG2
	0...100mbar	HD408T-100MBG	HD4V8T-100MBG3	HD4V8T-100MBG1	HD4V8T-100MBG2
	0...200mbar	HD408T-200MBG	HD4V8T-200MBG3	HD4V8T-200MBG1	HD4V8T-200MBG2
	0...500mbar	HD408T-500MBG	HD4V8T-500MBG3	HD4V8T-500MBG1	HD4V8T-500MBG2
	0...1000mbar	HD408T-1BG	HD4V8T-1BG3	HD4V8T-1BG1	HD4V8T-1BG2
	0...2000mbar	HD408T-2BG	HD4V8T-2BG3	HD4V8T-2BG1	HD4V8T-2BG2
DIFFERENTIAL	-10...10mbar	HD408T-10MBD	HD4V8T-10MBD3	HD4V8T-10MBD1	HD4V8T-10MBD2
	-20...20mbar	HD408T-20MBD	HD4V8T-20MBD3	HD4V8T-20MBD1	HD4V8T-20MBD2
	-50...50mbar	HD408T-50MBD	HD4V8T-50MBD3	HD4V8T-50MBD1	HD4V8T-50MBD2
	-100...100mbar	HD408T-100MBD	HD4V8T-100MBD3	HD4V8T-100MBD1	HD4V8T-100MBD2
	-200...200mbar	HD408T-200MBD	HD4V8T-200MBD3	HD4V8T-200MBD1	HD4V8T-200MBD2
	-500...500mbar	HD408T-500MBD	HD4V8T-500MBD3	HD4V8T-500MBD1	HD4V8T-500MBD2
	-1000...1000mbar	HD408T-1BD	HD4V8T-1BD3	HD4V8T-1BD1	HD4V8T-1BD2
	-2000...2000mbar	HD408T-2BD	HD4V8T-2BD3	HD4V8T-2BD1	HD4V8T-2BD2