

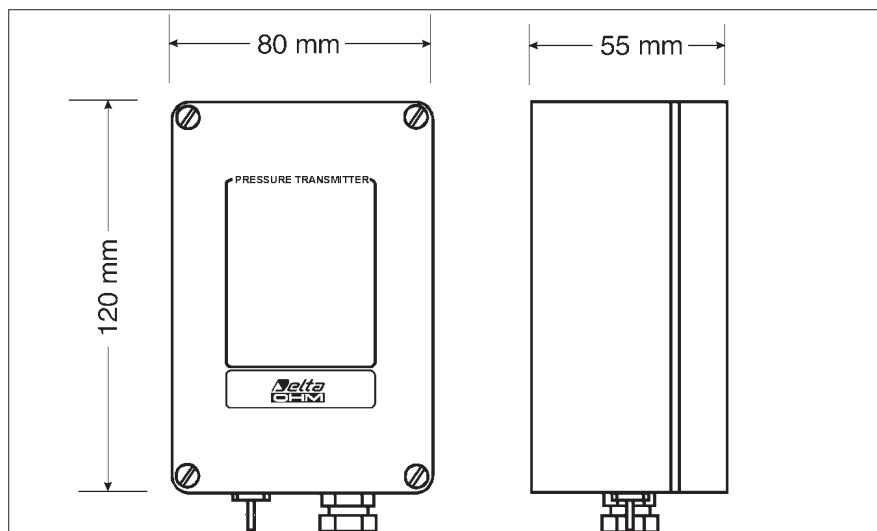
## HD9408T...BARO



### HD9408T...BARO... SERIES BAROMETRIC TRANSMITTERS

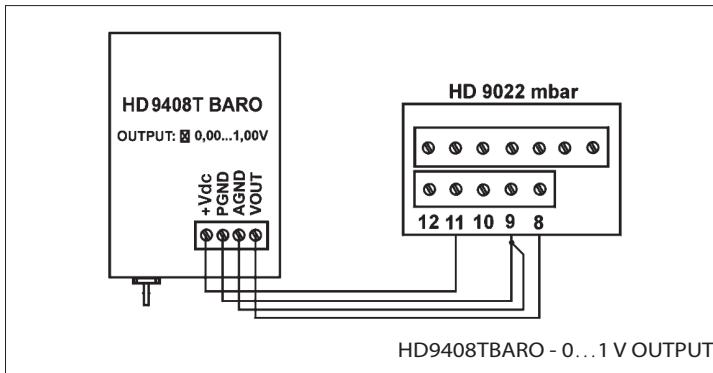
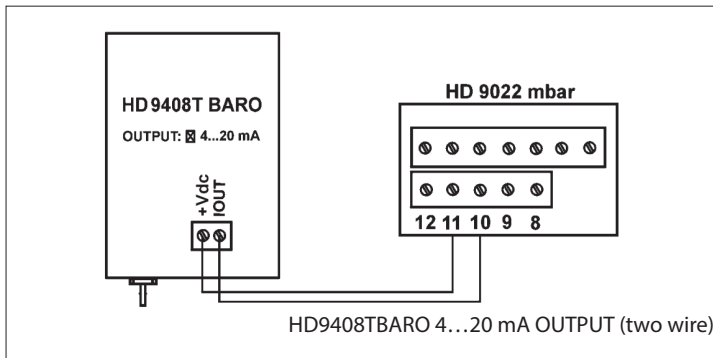
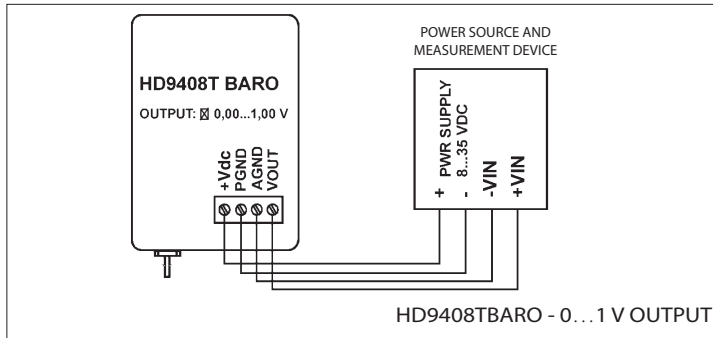
HD9408T...BARO and HD9408TR...BARO are analog output electronic barometers. They use a piezoresistive sensor element which gives **extremely accurate and stable measurement of the atmospheric pressure** and assures excellent repeatability, low hysteresis and very good temperature stability. The output signal of the sensor is conditioned to provide a voltage or a current output linearly proportional to the barometric pressure. The transmitters are ready to use as they have been calibrated at the factory. A zero adjustments potentiometer is available for offset to station elevation.

Technical specifications		
	HD9408TBARO	HD9408TRBARO
Sensor type	Piezoresistive diaphragm	
Measuring range	800...1100 mbar 600...1100 mbar on request	
Analog output	0...1 Vdc standard; 0...5 or 1...6 Vdc or 4...20 mA (two wires) on request	0...1 Vdc standard; 0...5, 1...5 V or 1...6 Vdc on request
Accuracy	± 0.5 mbar, @ 20°C	
Resolution	Infinite	
Thermal effects	< 1% F.S., zero; < 1% F.S., span over -20 to +60 °C (-4 to 140 °F)	± 0.8 mbar over -40 °C to +60 °C (-40 to 40 °F)
Long term stability	< 0.25 % F.S. over 6 months at 20 °C	< 0.2 % F.S. over 6 months at 20 °C
Turn on time	1 sec. to 99% of full scale reading	5 min @ 24 Vdc supply to 99% of full scale reading
Response time	< 200 msec. after pressure stabilization	
Supply Voltage	8...35 Vdc	12...35 Vdc
Supply current	< 4 mA	25 mA @ 20°C, 24 Vdc (warm-up 120 mA)
Operating Temperature	-30...+60 °C	-40...+60 °C
Media compatibility	Air and dry gases only	
Overload pressure	2 bar - 30 psi	



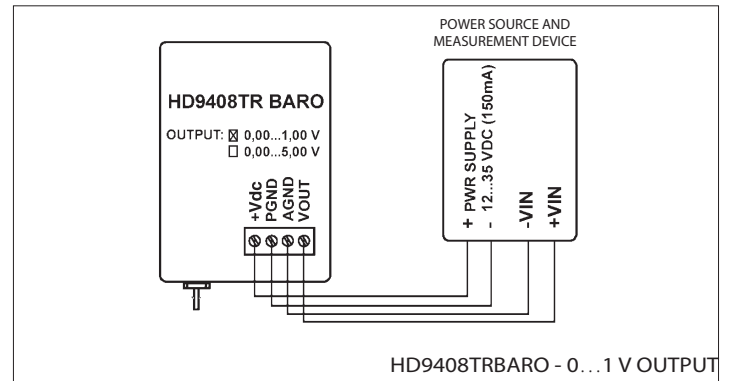
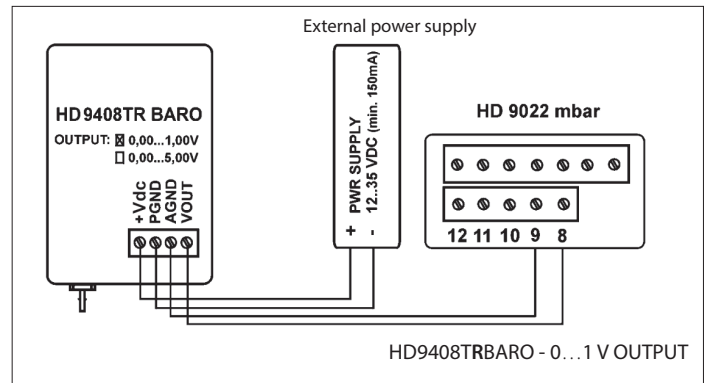
HD9408TBARO, HD9408TRBARO

**HD9408TBARO** requires a continuous dc power supply, its low power consumption (< 4 mA) makes it ideal for portable and remote battery or solar powered applications. It is available with different kinds of analog output: 0...1 Vdc, 0...5 Vdc (1...5 Vdc, 1...6 Vdc on request) or 4...20 mA (two wires).



**HD9408TRBARO** offers superior temperature performance: the internal circuitry allows the sensor to work at constant temperature so that it achieves accurate temperature compensation over the whole range from -40 °C to +60°C.

HD9408TRBARO requires a continuous dc power supply and a differential cabling connection to achieve best results. It is available with different output versions: 0...1 Vdc, 0...5 Vdc (1...5 Vdc, 1...6 Vdc on request).



HD9408TBARO and HD9408TRBARO are low cost and excellent performance solutions for meteorological applications, environmental monitoring systems, metrological and environmental data logging, altitude applications, barometric pressure compensation in the performance of internal combustion engine, cleanroom barometric pressure compensation, testing of vehicle emissions.

## HOUSING AND INSTALLATION

In all models, the sensor electronics are housed in a sturdy bend polycarbonate case with IP67 protection. Opening the lid, the holes for fixing the transmitter directly to a panel or a wall are available. The measurement accuracy is independent of the position of the transmitter. However, it is advisable to mount the transmitter so that the sensor is facing down to reduce dust and dirt on the filter. If the installation is in an open environment, it is recommended to use a special **static port to minimize errors** caused by the wind flow on the input pressure.



## STATIC PORT FOR BAROMETRIC MEASUREMENTS

The measurement of the barometric pressure in free field can give incorrect values of hundred pascal fluctuation and wind direction. The **static port for barometric measurements can minimize these errors** because, in addition to act as a filter (brake) against the dynamic pressure of the wind, the barometer can operate correctly even in the presence of snow or ice and comply with the recommendations of the WMO (World Meteorological Organization). The materials used for the construction of the static are UV resistant and can operate in temperatures between -40°C and +80°C.

### INSTALLATION AND CONNECTION

When purchasing an HD9408T... transmitter with optional static port (K at the end of the purchasing code), this is assembled directly in the factory. (weight of the static port = 200 g; 570 g equipped with the bracket).

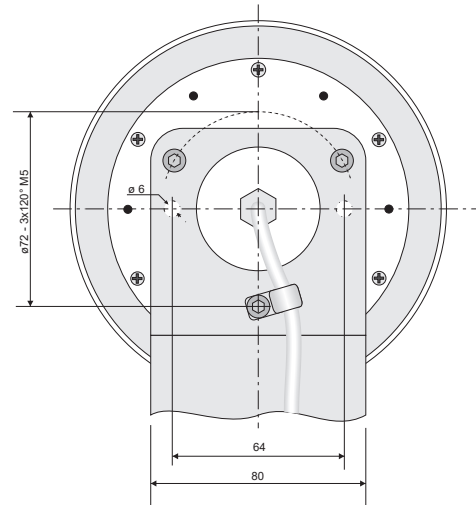
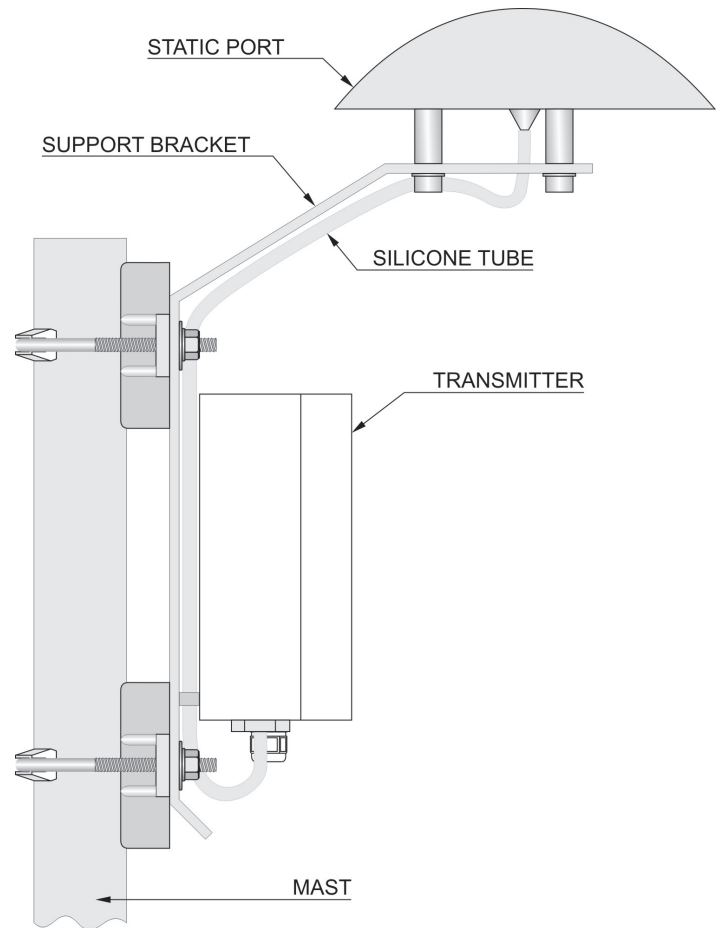
Also the connection of the static port to the barometer is made during the production.

The silicone tube is UV and climate changes resistant. It has an internal diameter of 3 mm and an outer diameter of 6 mm.

Maintenance or cleaning is minimal. The plastic parts are in ASA tecnopolymer. Clean using non aggressive detergents compatible with the material.

### TECHNICAL SPECIFICATIONS

According to recommendations of the WMO, the deviation allowed measurement of wind speed 20 m/s is equal to 0.3 mbar, corresponding to 300 Pascal. The static port for barometric measurements falls within that value.



## ORDERING CODES

HD9408T

BARO

**Static port**  
Blank = without (default)  
K = with static port and support bracket

**Measuring range**  
Blank = 800...1100 mbar (default)  
E = 600...1100 mbar

**Range analog output**  
Blank = 0...1 V (default)  
1 = 1...5 V  
5 = 0...5 V  
6 = 1...6 V  
10 = 0...10 V  
MA = 4...20 mA (not available for HD9408TRBARO)

**Heating**  
Blank = without heating (default)  
R = with heating

## WARRANTY

The manufacturer is required to respond to the “factory warranty” only in those cases provided by Legislative Decree 6 September 2005 - n. 206. Each instrument is sold after rigorous inspections; if any manufacturing defect is found, it is necessary to contact the distributor where the instrument was purchased from. During the warranty period (24 months from the date of invoice) any manufacturing defects found will be repaired free of charge. Misuse, wear, neglect, lack or inefficient maintenance as well as theft and damage during transport are excluded. Warranty does not apply if changes, tampering or unauthorized repairs are made on the product. Solutions, probes, electrodes and microphones are not guaranteed as the improper use, even for a few minutes, may cause irreparable damages. The manufacturer repairs the products that show defects of construction in accordance with the terms and conditions of warranty included in the manual of the product. For any dispute, the competent court is the Court of Padua. The Italian law and the “Convention on Contracts for the International Sales of Goods” apply

## TECHNICAL INFORMATION

The quality level of our instruments is the result of the continuous product development. This may lead to differences between the information reported in the manual and the instrument you have purchased. We reserves the right to change technical specifications and dimensions to fit the product requirements without prior notice.

## DISPOSAL INFORMATION



Electrical and electronic equipment marked with specific symbol in compliance with 2012/19/EU Directive must be disposed of separately from household waste. European users can hand them over to the dealer or to the manufacturer when purchasing a new electrical and electronic equipment, or to a WEEE collection point designated by local authorities. Illegal disposal is punished by law.

Disposing of electrical and electronic equipment separately from normal waste helps to preserve natural resources and allows materials to be recycled in an environmentally friendly way without risks to human health.

