



HD9408PS 50 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. With the static port for barometric measurements, HD9408PS 50 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

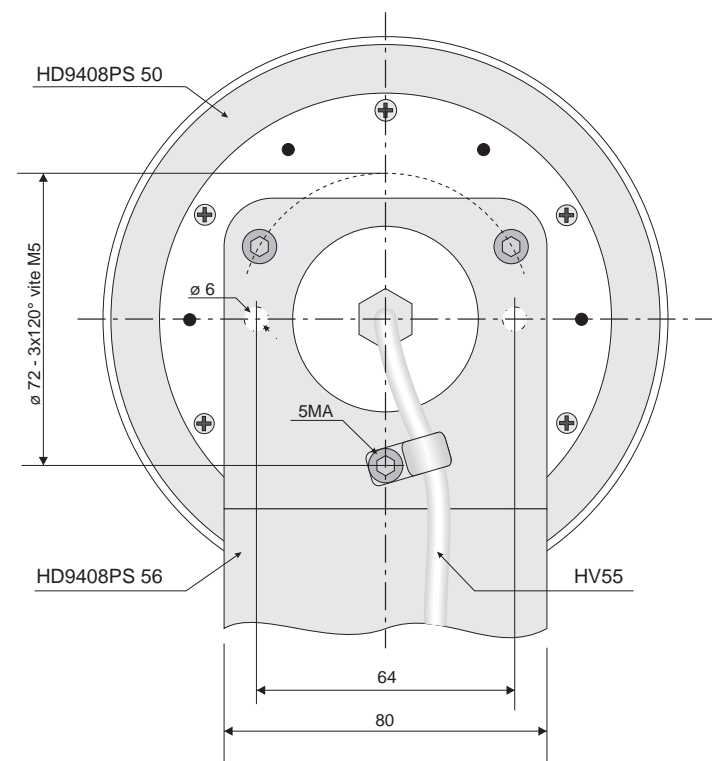
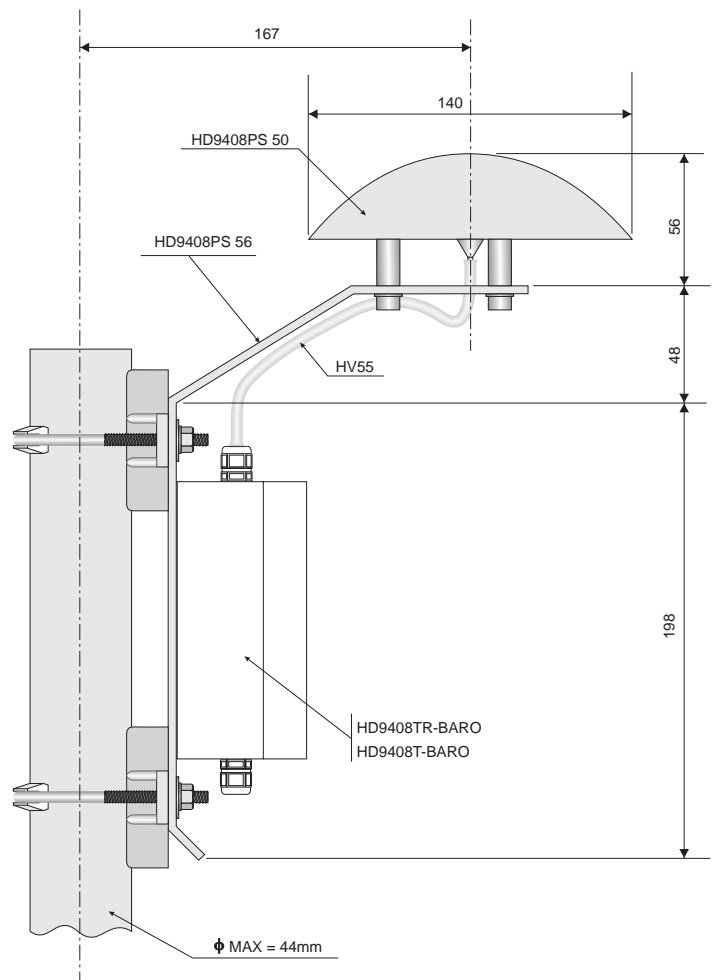
Installation is simple: it must be installed away from buildings, trees or any other source which can disrupt the flow of wind. To install the bracket is available HD9408PS 56 and three stainless steel screws M5x16 Acc. The connection of the static to the barometer, for example, HD9408T or HD9408TR, is made with a special tube HV55 (internal diameter of 3mm, 6mm outer diameter) and UV resistant to climate changes. Maintenance or cleaning is minimal. The plastic parts are manufactured by BASF LURAN S777K. Clean using non aggressive detergents compatible with the material.

TECHNICAL SPECIFICATIONS

According to recommendations of the WMO, the deviation allowed measurement of wind speed 20meters/second is equal to 0.3mbar, corresponding to 300 Pascal. The HD9408PS 50 static port for barometric measurements falls within that value. The following tables show the values obtained from the tests performed in the wind tunnel.

ORDERING CODE

HD9408PS 50K: Kit consists of by static port, pole mounting bracket and HV55 tube
HD9408PS 50: Static port for barometric measurements equipped with the HV55 tube
HD9408PS 56: Mounting bracket for static port, barometer fastening, pole anchor
HV55: UV- and temperature-resistant silicone tube, inside Ø : 3mm, outside Ø : 6mm, L=400mm

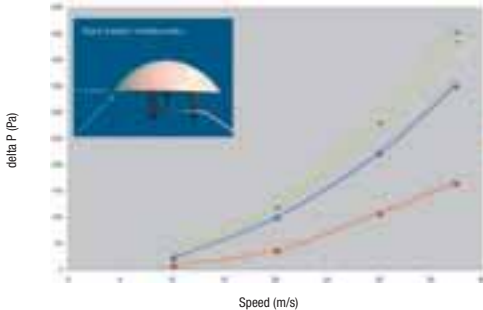


Error due to the dynamic pressure	Lower than 0.3mbar @20°C
Working temperature	-40°C... +80°C
Connection pipe (for a tube with inside Ø : 3mm, outside Ø : 6mm)	Ø 3.4 mm
Weight of the static port.	200 gr
Weight of the static port equipped with the bracket	570 gr

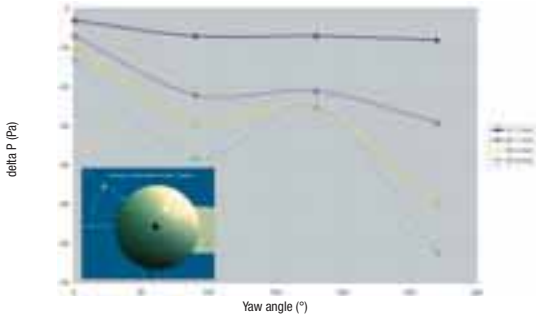
TESTS MADE IN THE WIND TUNNEL



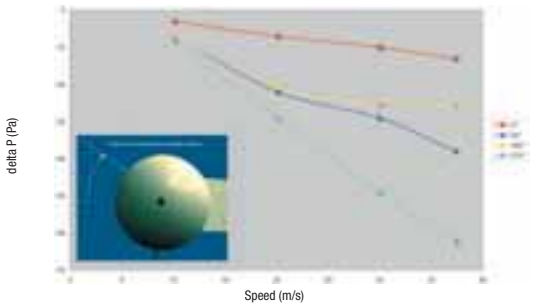
Static port put in front of the wind tunnel



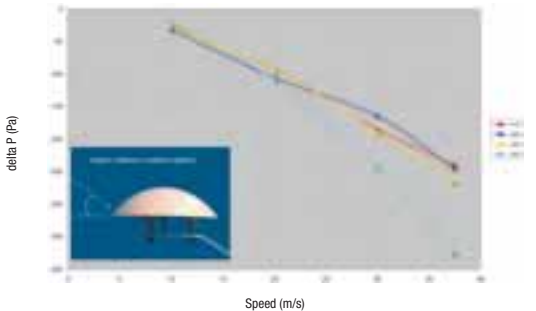
ΔP as a function of speed (yaw angle $\beta = 0^\circ$)



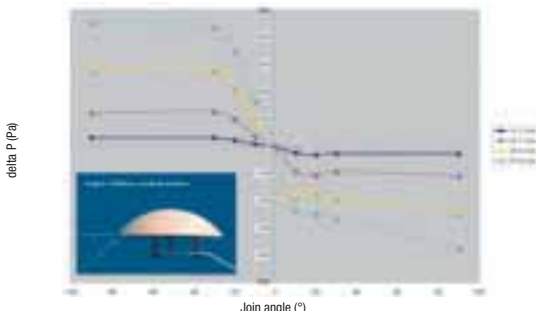
ΔP as a function of yaw angle (join angle $\alpha = 0^\circ$)



ΔP as a function of speed (join angle $\alpha = 0^\circ$)



ΔP as a function of speed (yaw angle $\beta = 0^\circ$)



ΔP as a function join angle (yaw angle $\beta = 0^\circ$)



HD 4V8T Baro BAROMETRIC TRANSMITTER

Barometric transmitter to wall mount for indoor use, with 0...1 Vdc analog output. Measuring range 600...1100mbar. Power supply 10...40 Vdc. Working temperature -30°C... 60°C. Suitable for installation in the housings for weather stations HD32.35, HD32.35FP, HD32.36 and HD32.36FP.

Technical specifications

Type of sensor	Piezoresistive
Measuring range	600÷1100 mbar
Analog output	0÷1Vdc
Accuracy	±0.5 mbar, @ 20°C
Resolution	Infinite
Temperature drift	<1% F.S., zero; <1% F.S., span from -20°C to +60°C (-4°F to 140°F)
Long term stability	<0.25% F.S. at 6 months at 20°C
Settling Time	1 sec. At 99% of the measure
Response time	<200ms after pressure stabilization
Power Supply	10÷40 Vdc
Current Supply	< 4 mA
Working temperature	-30 ... +60°C
Compatibility	Dry air and gases, non-corrosive
Overpressure	2 bar – 30 psi
Dimensions	65mm x 58mm x 35mm

