The heated probe are used for sampling dusts in emission, micro-pollutants, metals and acids to keep a high temperature on the filtering mean due to condensable substances in the gas sample.



X1 – PROBE is the only probe available on the market which include in the heated tube a sampling tube, a measure tube (Darcy) and a separate tube for gas sampling.



At the supplementary for gas sampling is possible to connect analyser of any manufacturer. By connecting a Mega System analyser with an Oxygen sensor (PARAMAGNETIC) and a Carbon Dioxide sensor (NDIR) is possible to calculate the density of the gaseous affluent in compliance with the actual regulation during the isokinetic sampling.

The probe can be used to sample on any duct thanks to its possibilities to separate the external box (X1 - BOX) from the heated tube and mount it tilted of 90° for sampling on horizontal duct.

At the external box (X1 -BOX) is possible to connect the tank to contain the impingers valid for metals/acids or the X1 - CONDENSER valid for sampling of micropollutants/IPA.

The temperature of the heated tube and the temperature of the external box can be regulated up to 200° and are controlled independently by the thermoregulator which is located under the external box



The particular resistance used to heat the tube and the external box are made of stainless steel armoured to guarantee an excellent functioning even with a high moisture in the stack.

The thermoregulator is provided with 2 input for auxiliary temperature sensors and an USB port for the data download. The DATA LOGGER function allow to register the temperatures data at programmable time interval.











The T1 sensor is suitable for the measurement of the temperature of the internal box filter while the T2 sensor is suitable for measuring the outlet temperature of the condenser for the micro-pollutants.



At request, alternatively at the thermoregulator, is possible to predispose the probe for the connection by a serial cable to the isokinetic sampler X1-APIS with the goal of regulate and register automatically all the temperature data from the instrument.

The device and the accessories to be insert in the heated probe are available in glass, quartz, titanium and stainless steel.

The heated probe is made of stainless steel to guarantee the necessary resistance to the temperature and corrosion caused by the aggressive gases in the duct but its particular design make itself practical, light and easy to transport.



The X1 PROBE are available in the following lengths: 500 mm - 1000 mm - 1500 mm - 2000 mm - 2500 mm.



## **Technical specification:**

Tube heating temperature

Range: 100 ÷ 200 °C

Box heating temperature

Range: 100 ÷ 200 °C

Type J thermocouple (T1)

Range: 100 ÷ 200 °C Resolution: 1 °C Precision: ± 2 °C

Type J thermocouple (T2)

Range: 0 ÷ 50 °C Resolution: 1 °C Precision: ± 2 °C

Interface for data download

USB (on Flash Drive)

Usage temperature

Max 350 °C

**Power supply** 

Main power [230Vac - 50Hz]



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