

HP1 - VOCs Probe





HP1-1W/2W - TOC Probe

Description

The HP1 probe is the evolution of the previous MDG Probe, developed specifically to work in combination with FID instruments in compliance with EN 12619, dilution samplers or automatic measuring systems. The new HP1 is lighter, smaller and even more practical. The HP1 probe is available in four versions :

- HP1-1W with one outlet for the heated line
- HP1-1WT same as above but thermoregulated
- HP1-2W with two outlets for two heated lines.
- HP1-2WT same as above but thermoregulated

The 2W version allows to connect two analyzers or two sampling lines simultaneously.

The HP1 probe has built-in 220V self-regulating elements with a set-point of 180°C +/- 15° hysteresis while the thermoregulated version allows to connect a heated tube which temperatures can be set on the thermoregulation unit.

A led indicates when the temperature set-point is reached.

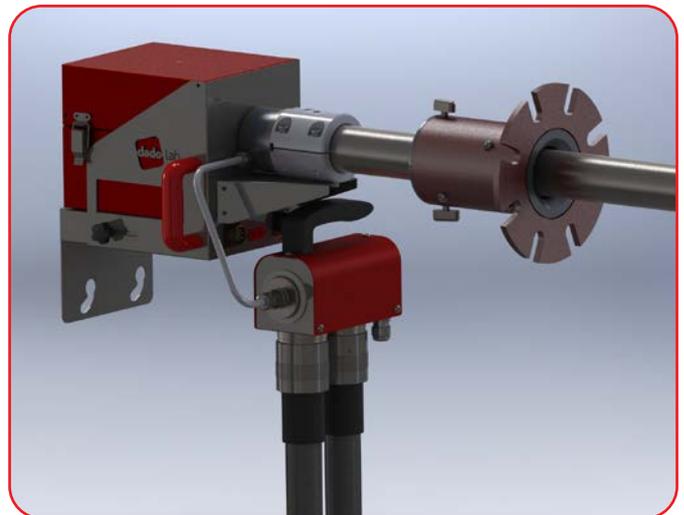


The connections are Swagelok realized in steel with a diameter of 6mm or 8 mm on request, specifically selected to resist to long and continuous heat stress.

To ease the protection filter replacement, the filtering element is placed inside a removable support designed to be quickly rchanged. Moreover, the small dead volume, decreases the time needed for the sample to reach the detector.

Also zeroing and calibration are now simple operations which can be done without disconnecting the analyzer, thanks to a separated line inlet, placed before the filter element, to which zero and span gas can be directly connected, as requested by the EN 12619 for automatic measuring systems but also for sampling systems since it can be used as a dilution probe just connecting the dilution line of the QB1-D sampler to this inlet connection.

To avoid cold spots between the filter housing and the heated line, a steel cylinder wrap and lock the heated line hose and teflon tube to the probe.



The HP1 filter housing can be also connected to the gas sampling line included in HP5 isokinetic heated probe to allow simultaneous sampling of PM and gas phase.

The HP1 is supplied in a practical transport case.

Technical Characteristics :

Sampling probe :	Stainless steel, lenght 30 cms or 70 cms with 6/8mm diam. (titanium probes are available as option)	
Filtering element :	High temperatures organic binders free microfiber filter	
Heating temperature :	Self-regulating at 180°	
Hysteresis :	+/- 15°	
Heated line connection :	Swagelok diam. 6 mm or 8 mm	
Operative conditions:	-20 ÷ 40°C - 95% rH	
Stock Conditions :	-10 ÷ 50°C - 95% rH	
Power supply :	220 Vac ±10% 50/60Hz	
Materials :	Stainless steel	
Weight :	2,3 kgs	
Dimensions :	1570 (+300) x 90 x 134m	

QB1-D The Dilution Sampler :

This is a special version of the QB1 V2x5DC. Same characteristics but realized to be used as a dilution sampler.

Instead of two separated sampling lines, one of them is used to send the dilution flow into the HP1 probe.

Sampled flow from stack emission is diluted 3 or 4 times and this allows to sample VOC avoiding the typical problems related to classic VOC sampling.

Since dilution raises dramatically the dew point of sampled flow, the problem of water condense into the line or in the adsorbing tube is no more an issue, also the temperature is lowered, reducing stripping effects on the tube.

The QB1-D with HP1 Probe is a practical and cost-saving solution.

No more need for multiple tubes in series used as water trap or breakthrough backup.

Since water and temperature are no more an issue, only one large or jumbo tube is enough.

Save time and materials in laboratory when extracting the VOC from the trap, especially if chemical extraction with solvents is used.

One tube to handle, one extraction, one sample means lower risk to lose compounds. All this lower the laboratory and analytical uncertainty.



101 101 3010 QB1-D Standard Supply :

- n° 2 10 l/min pumps 24Vdc
- n°2 dry gas meters
- protection filter
- built-in battery
- Test and Certification report
- Quick connector
- Power cord
- User Manuals

Models, accessories and spare parts



101 105 1001 **HP1-1W 1 way version including :**

- sampling tube L. 30cm (70cm on request)
- Self-regulating temperature
- Carrying case

101 105 1101 **HP1-1WT - Thermoregulated Version**

101 105 1002 **HP1-2W version**

same as HP1-1W but with two outlets for heated lines

101 105 1102 **HP1-2WT - Thermoregulated Version**

101 105 1003 **Titanium tube L. 30/70 cm**



101 105 1103 **Heated tube for HP1-xWT version L.=70cm**

101 104 1001 **2-ways thermoregulation unit**

required to set the operating temperature of the HP1-xWT version

101 105 1104 **Thermoregulation cable L = 5mts**

101 105 1105 **Thermoregulation cable L = 10mt**



101 105 1006 **Flange with fixing cone from 2" to 4"**

Used to fix the probe to the stack port with 2" port or 4" with flange

101 105 1106 **Flange for 4"stack ports (for heated tube)**



101 105 1006 **Organic-free protection filters - 10pcs**

High temperatures organic-free protection filters



Silica Gel/Charcoal Trap

101 101 4002 - 100 cc

101 101 4003 - 1 liter