Isokinetic Heated Probe

Outstack heated Probe



Main Characteristics :

- **Compliant with international testing methods: EN13284-1, US EPA M5, ISO9096…**
- **Built-in AISI 316 stainless steel.**
- **Total insulation of heating element and thermocouple from stack gases.**
- **Interchangeable suction lines (stainless steel, glass, titanium and quartz).**
- **Heating up to 160°C**
- **Compatible with all instack and outstack accessories (filterholders, Pitots, impactors, cooling baths, dioxin kits….).**
- **Large choice of lengths**

Principle:

The moisture content in the sampled gases obliges to heat both the probe and the collection devices.
The material ensures resistance to temperature and corrosion caused by aggressive gases.
The materials used for the collection must be compatible with gas composition, to ensure the integrity of the compounds to determine.
To meet these requirements, suction tubes are interchangeable.

Complete Package

length	suction line material			
	Stainless steel	Titanium	Glass	Quartz
0,5 m	ES100-0100	ES100-0200	ES100-0300	ES100-0400
1 m	ES100-0101	ES100-0201	ES100-0301	ES100-0401
1,5 m	ES100-0102	ES100-0202	ES100-0302	ES100-0402
2 m	ES100-0103	ES100-0203	ES100-0303	ES100-0403
2,5 m	ES100-0104	ES100-0204	ES100-0304	ES100-0404
3 m	ES100-0105	ES100-0205	ES100-0305	ES100-0405
3,5 m	ES100-0106	ES100-0206	ES100-0306	ES100-0406

References are for 230V AC power supply. 110V AC power supplied probes, other lengths and accessories available on request.

Ready-to-use packages including:
- Probe body
- Suction tube, gooseneck and nozzles
- Elongation pitot tube and pitot tube termination
- Heated box
- Support for traps
- Flange

Filterholder not included.

tecora a division of CDL
Headquarters: Rue Anne Gacon-Village Entreprise St Henri Bât. n°23, 13016 Marseille
Office CDL – Tecora: 10 rue de la Prairie 91140 Villebon sur Yvette
Phone: +33 (0)1 81 87 08 84 - www.tecora.com



Probe body:

. Probe body in AISI 316
. The main body of the probe has a circular section with a diameter of 42 mm, available in different standard lengths. Inside the body, there is an electrically heated tube, which wire is not in contact with stack gases. An expansion cylinder absorbs dilation differences, allowing to realize probes up to 5 m length with no deformation.
. Max. operation temperature: 400°C
. Max. heating temperature: 160°C

length	Probe body	
	230V AC	110V AC
0,5 m	ES101-0000	ES101-0010
1 m	ES101-0001	ES101-0011
1,5 m	ES101-0002	ES101-0012
2 m	ES101-0003	ES101-0013
2,5 m	ES101-0004	ES101-0014
3 m	ES101-0005	ES101-0015
3,5 m	ES101-0006	ES101-0016

Sampling line

Sampling tubes exist in 4 materials to comply with all international standards:
- Stainless steel
- Titanium
- Glass
- Quartz

length	Stainless steel	Titanium	Glass	Quartz
	Suction tubes			
				
0,5 m	ES102-0100	ES102-0200	ES102-0300	ES102-0400
1 m	ES102-0101	ES102-0201	ES102-0301	ES102-0401
1,5 m	ES102-0102	ES102-0202	ES102-0302	ES102-0402
2 m	ES102-0103	ES102-0203	ES102-0303	ES102-0403
2,5 m	ES102-0104	ES102-0204	ES102-0304	ES102-0404
3 m	ES102-0105	ES102-0205	ES102-0305	ES102-0405
3,5 m	ES102-0106	ES102-0206	ES102-0306	ES102-0406
Curve and nozzles kit (4,5,6,7,8,10,12,14 mm)				
				
Curve	ES103-0100	ES103-0200	ES104-9300	ES104-9400
Nozzles kit	ES104-9100	ES104-9200		

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Pitot tube



Pitot extension tubes

The "S" Pitot tube with thermocouple for measuring the gas temperature can be easily clamped to the heated probe.



length	Pitot prolongation tube
0,5 m	ES107-0100
1 m	ES107-0101
1,5 m	ES107-0102
2 m	ES107-0103
2,5 m	ES107-0104
3 m	ES107-0105
3,5 m	ES107-0106

Pitot extremities

The final part of "S" Pitot tube is detachable to allow a replacement in case of damage or for determination of the calibration factor.
The final part of "S" Pitot tube is realized in three lengths:

Designation	reference	Use	
"S" Type Pitot Tube - Short	ES107-0000	sampling with out-stack filter assembly	
"S" Type Pitot Tube - Long	ES107-0001	sampling with in-stack filter assembly	
"S" Type Pitot Tube - XL	ES107-0002	sampling with impactors	



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Heated Box:



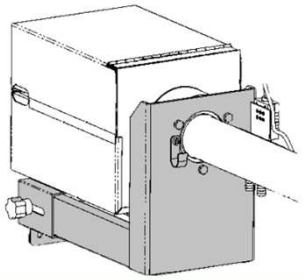
To sample according to outstack method, it is necessary to heat also the filterholder, to prevent condensation of water and volatile organic compounds.
The maximum heating temperature of the box is 160°C.

The box can receive different type of filterholders (47mm, 90mm, thimbles) for different applications (multi–derived line…).

Heated box			
Voltage	Power	Reference	
		Short box	Long Box
230V AC	200W	ES105-0000	ES105-0001
110V AC	400W	ES105-0010	ES105-0011

Cooling system support

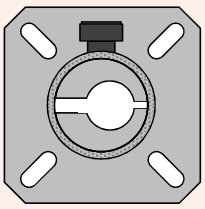
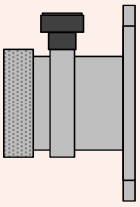
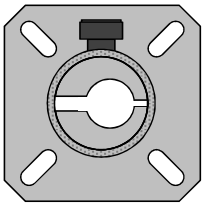
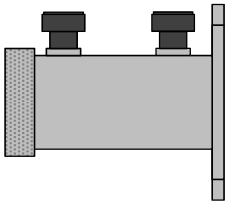
This support is necessary to attach dioxin kits or impingers bath to the heated probe body. It is installed bellow the heated box.



Reference	
For Short Box	ES401-0001
For Long Box	ES401-0002

Flange

. enables to fix the probe on most of stack
. easy rotation of probe into the flange
. realized in light alloy

Probe Length			Reference
0,5 m to 1.5m			ES108-0000
2m and above			ES108-0001

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