



GIOX TPROBE

Single and Double line

TPROBE is a new entry of **TCR TECORA G10X** line, dedicated to all professionals that need high performances during their sampling activities and full compliancy with all standards.

TPROBE is a sampling probe with temperature controlled heated body with a filter element made of sintered stainless steel, sintered ceramic or microfiber with porosity 1-5-10 micron. With **TPROBE** is possible to couple a heated main tube with adjustable temperature and with different lengths upon request.

At the input, on the stack side, a sintered filter can preserve the second filter (installed in the sampling/dilution chamber) from "coarse" particulate that could be clog up fastly.

Positioned at 90° from the main tube, another sampling tube can be installed and the out stack end of it, where is connected to a 25 mm membrane heated filter (quartz fiber, glass fiber, PTFE) that assure a high filtration level.

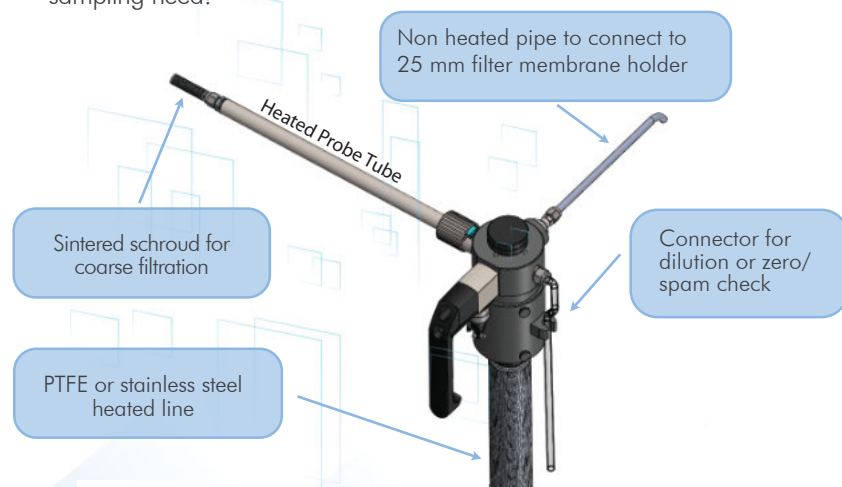
Anyway is still possible to install the second filter inside the heated chamber.

DILUTION

A stainless steel connector is available for zero/span input to be fully compliant to the most important standard related to on line analysers. This is very important to be able to check all system leakage.

Same port can be used to dilute the sample gas.

Fundamentally, **TPROBE** is the multi-role probe that can be used for any sampling need!



GIOX LINE
Professional Tools

Probe and Filterholder Autonomously Heatable

Compliant with standards:

Methods:

EN 15058:2017
EN 12619:2013
EN 14792:2017
EN 14789:2017
EN 14791:2017
EN 14790:2017

EN 13649:2015
EN 1911:2010
ISO 21877:2019
EN 13211:2003
CEN/TS 17286:2019
ISO 11338-1:2021

Main Features

- ▶ Single connector to supply all heating of the probe
- ▶ Digital temperature controllers for both tube and chamber, temp. Adjustment up to 180 °C;
- ▶ Self-heating version with 180 °C fixed set point is available;
- ▶ Special system to assure 100% cold points free. No condensation occur in all the probe parts;
- ▶ Removable cover allow a simple and fast heated line connection, protecting it from accidental PTFE tube bending or tear of it due to unintentional operations or weight of the heated line if not externally fixed;
- ▶ Thimble filter available in case of worst sampling situations;
- ▶ Available in stainless steel, Titanium, Hastelloy, Monel or PTFE;
- ▶ TPROBE can be coupled with our ROTATIVE PROBE as single heated filter to sample gases contemporarily to isokinetic sampling.

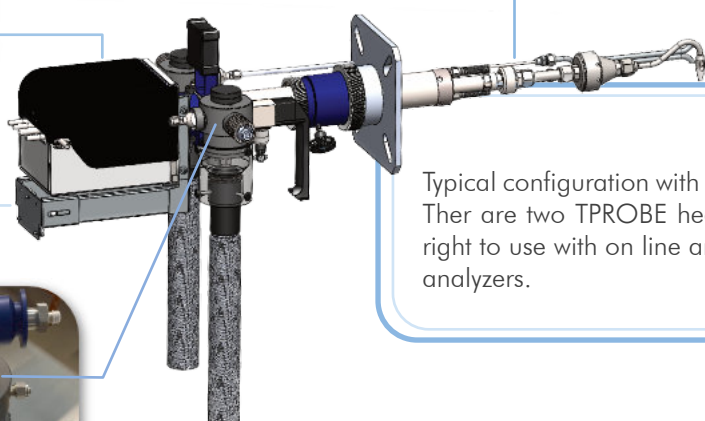
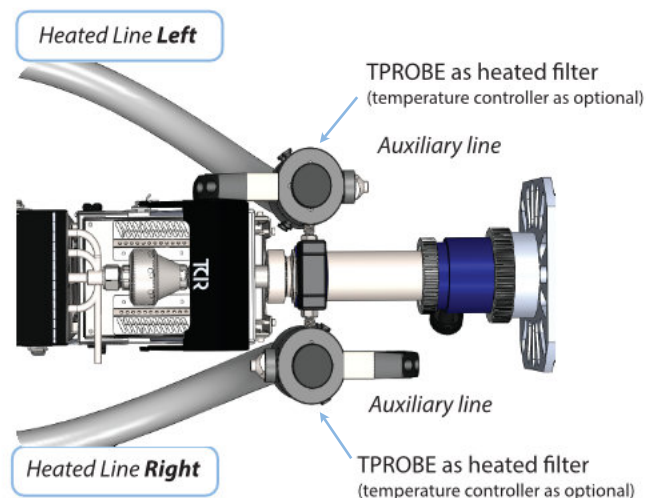




TPROBE as heated filter for ROTATIVE PROBE.

The system is composed by the three main components:

- 1 Heated probe
- 2 Heated box to fit the 47 or 90 mm filter holder for isokinetic sampling
- 3 Plate to support dioxin condenser or cooled bath for impingers



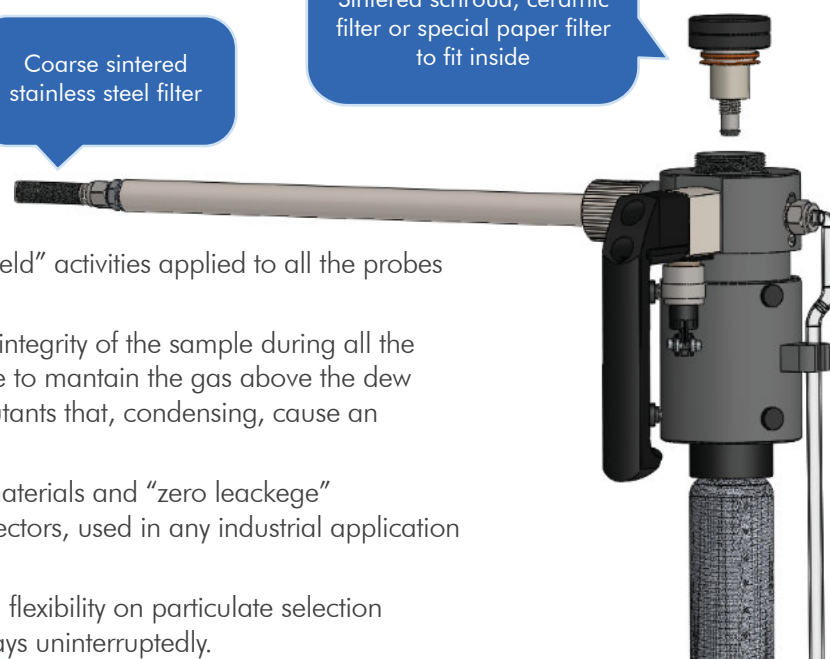
Example

Typical configuration with "in-stack" 47 mm membrane filter holder. There are two TPROBE heated filters body installed on the left and right to use with on line analyzer like FTIR, FID or multicomponents analyzers.



Coarse sintered stainless steel filter

Sintered schroud, ceramic filter or special paper filter to fit inside



Quality and Professionality

TPROBE is the results of years of tests and "in field" activities applied to all the probes TCR Tecora produced over the last 30 years.

The main objective of **TPROBE** is to assure the integrity of the sample during all the sample phases. Everybody know the importance to maintain the gas above the dew point during sampling to avoid any loss of pollutants that, condensing, cause an underestimation of the measured gas.

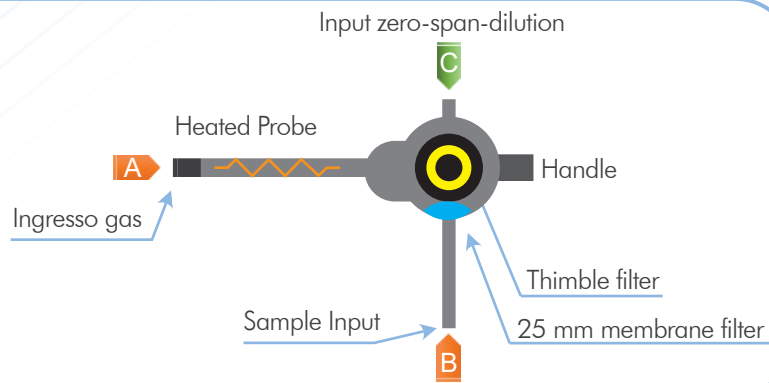
Another fundamental factor is the use of inert materials and "zero leakage" connections. We use only swagelok type connectors, used in any industrial application where a perfect sealing is mandatory.

Different filters can be installed: this means total flexibility on particulate selection dimensions and sampling time from hours to days uninterruptedly.

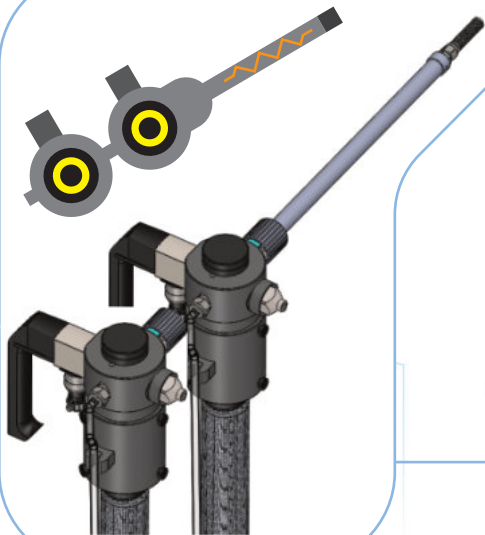
Last but not least, incredible simplicity on filter change: in less than one minute you are ready to restart the sampling!



BASIC Layout



Config 1



Double Independent Sampling Lines

In case of one stack flange availability is possible to couple two TPROBE in order to connect two analyzers with independent flow and filtration grade (depending of type of analyzer and pump installed).

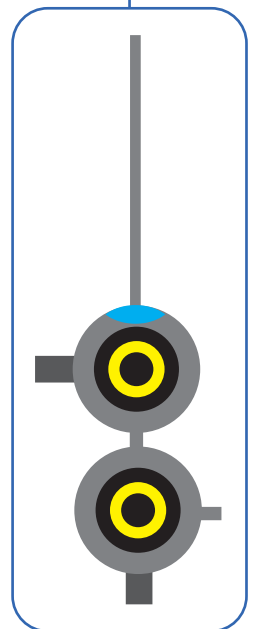
Config 1

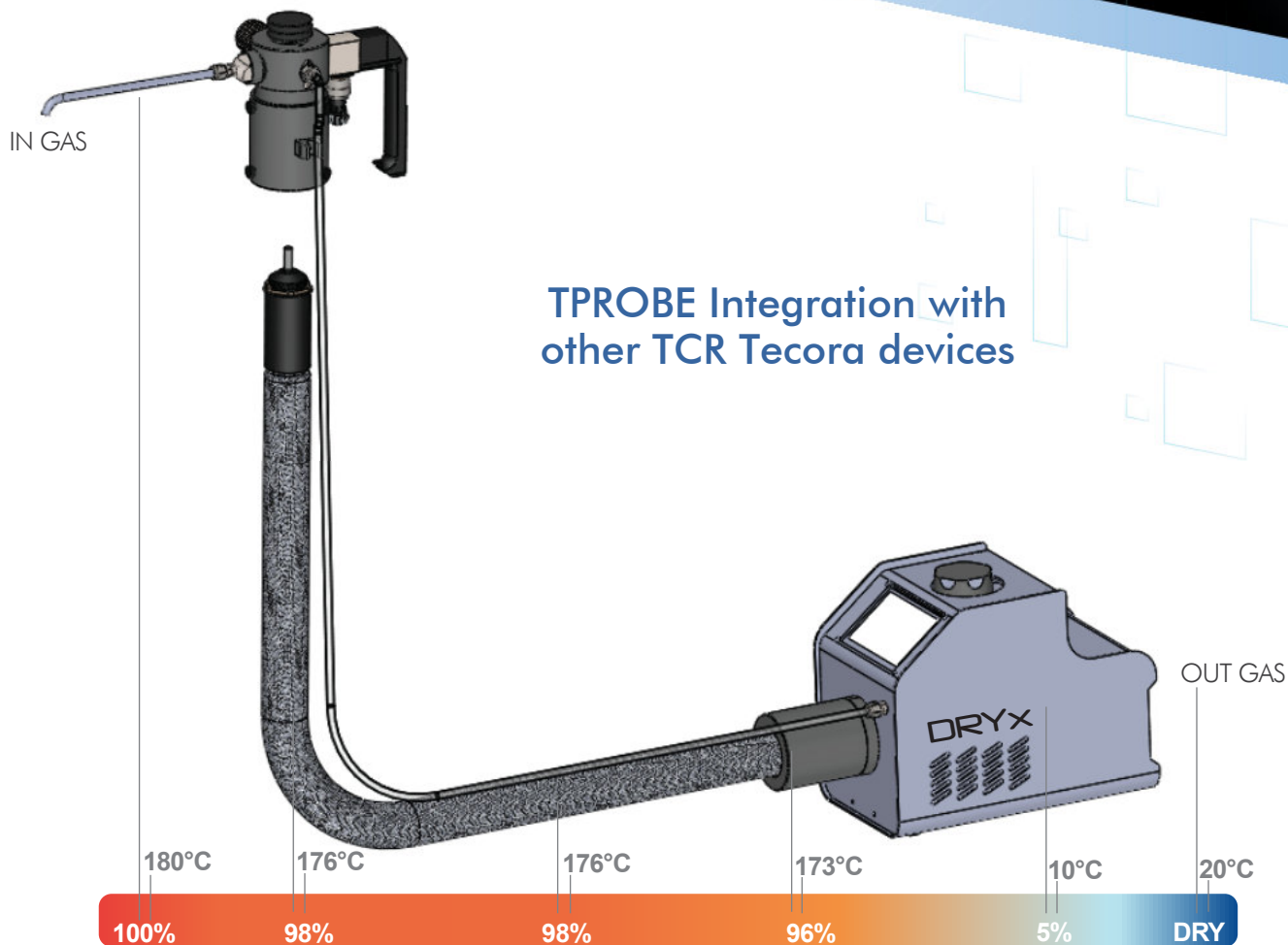
is related to heated chambers and heated tubes with dedicated heating while.

Config 2

is regarding cold tube and heated chambers.

Config 2





Application Standard with TCR TECORA Rotative Probe

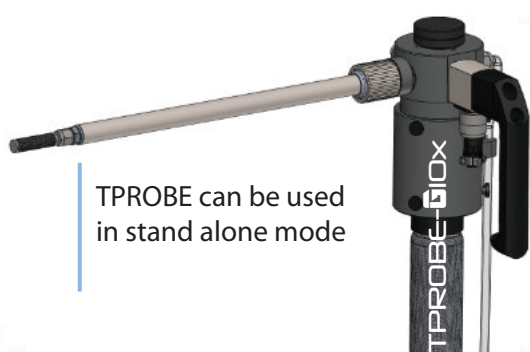
EN 13284-1:2017
EN ISO 16911-1:2013
EN 1948-1:2006
EN 14385:2004
EN 13211:2001
EN 14790:2017
EN 15058:2017
EN 14792:2017
EN 14789:2017
EN 14791:2017
EN 12619:2013

PM - Speed and Flow Rate
PM - Speed and Flow Rate
PCDD/F e PCBs
Metals - Mercury
Metals - Mercury
Water Vapor
Gas
Gas
Gas
Gas
TOC (FID)

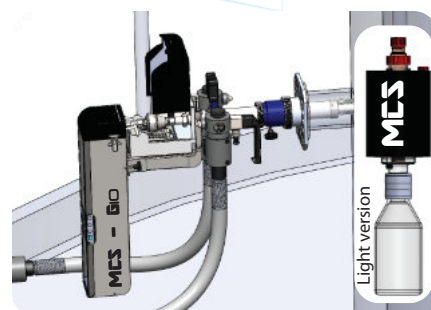


LINEA GIOx

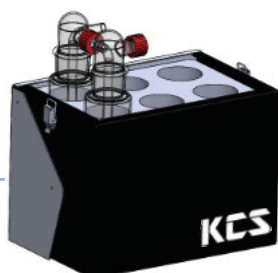
TPROBE Integration with other TCR Tecora devices



TPROBE can be used in stand alone mode

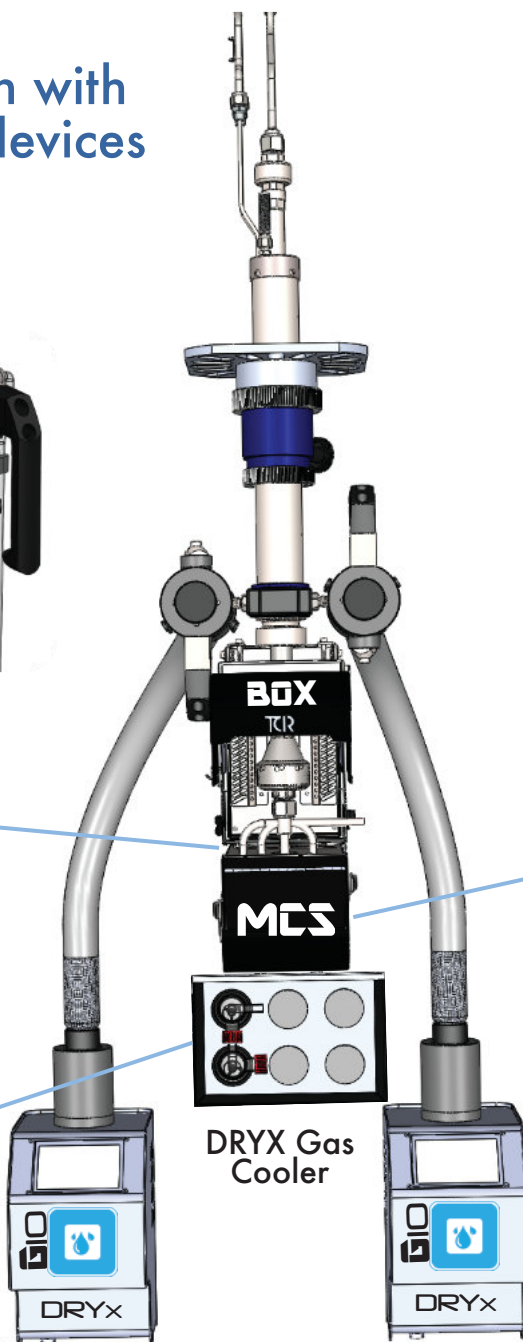


Sampling with derivative device



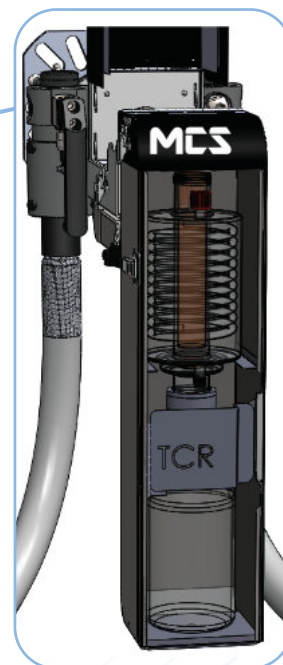
Impingers Bath

Installed on the probe or stand alone



DRYX Gas Cooler

to connect to on line analyzers



Dioxin condenser

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