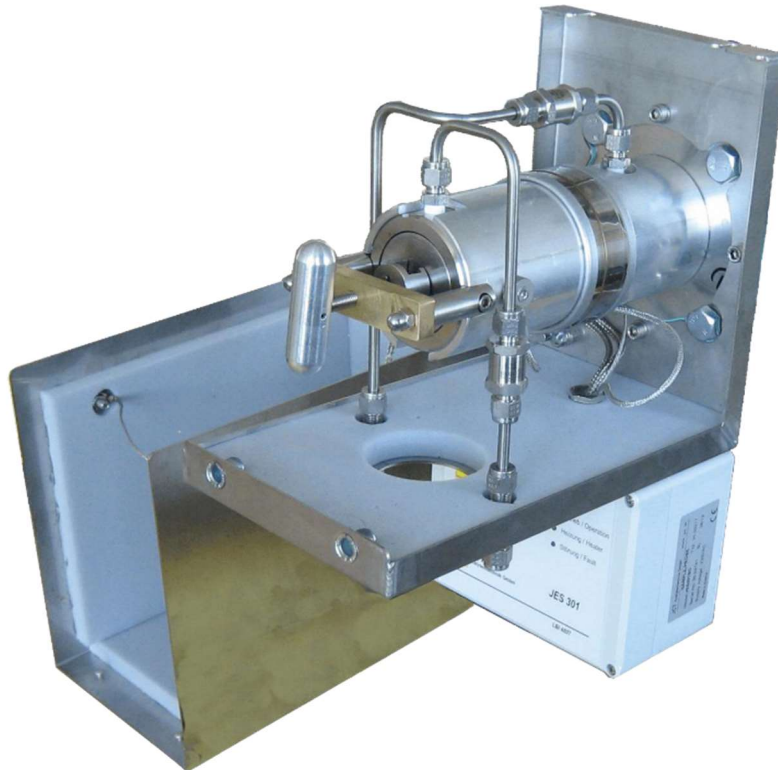


## **Tekran 3443 Dilution Probe**

Rev. 120221



The electrically heated Tekran 3443 dilution probe is used in conjunction with the Tekran 3400 HgCEM System, where the measuring of process gas requires dilution and transport of sample gas to the detection system. The Tekran 3443 probe and filter are specifically designed for dilution and then quantitative transport of flue gases to the 3400 HgCEM conditioner . The Tekran 3443 dilution probe enables the user to adapt the probe to a wide range of sampling applications.

The Tekran 3443 is designed for continuous use in extractive sampling systems even when the sample contains dust and aerosols. Water vapor and highly corrosive gases must be kept above their dew point to prevent corrosion and sample degradation prior to the analysis or sample conditioning. The 3443 can be delivered in several configurations to meet user specific requirements.

The Tekran 3443 incorporates a non-corrosive heated, replaceable Teflon filter element. The filter element is mounted in an electrically heated stainless-steel housing covered by a thermal isolated weather protection enclosure. The temperature regulation is done by a maintenance free, fully electronic temperature controller with under temperature alarm. The heated sample hose is directly connected with a moveable cable conduit on the probes housing. A universal mounting clamp is available to connect other types of heated sample hoses.

## Specifications:

### Operational Data

Filter element:	PTFE filter kit, (2 PTFE Filter element, 2 PTFE support disc, 1 PTFE support shell)
Filter surface:	170 cm <sup>2</sup>
Operating pressure:	Max. 200 kPa abs.
Flow rate:	Up to 600 NL/h, depends on application
Sample gas wetted parts:	SS316L, Teflon, Viton®
Temperature range:	5 - 200 °C
Factory defaults:	180 °C
Heat up time:	< 1 h
Ambient temp range:	-20 °C - +65 °C
Flow rate (back purging):	~ 90 Nm <sup>3</sup> /h @ 4 bar, 160 Nm <sup>3</sup> /h @ 7 bar
Air for back purge:	Instrument air according to ISO 8573-1 Class 1.2.1
Protection class:	Electronic - IP65, Probe - IP43
Area classification:	For use in safe, non-hazardous area only

### Dilution Unit:

Dilution ratio:	1:30 (should we say others are available?)
Supply pressure:	4.5 bar
Admissible back pressure:	< +50 mbara
Dilution gas:	Instrument air or inert gas (e.g. Grade 4.5 nitrogen)

### Air Accumulator:

Volume:	2 L
Operating pressure:	0.95 - 17 bar
Ambient temperature:	-10° to +100 °C
Material:	SS304
Supply connection:	1/2 G" female thread

### Construction:

Dimension:	390 x 530 x 300 mm W-H-D
Junction box:	120 x 160 x 100 mm H-W-D
Dead volume"	177 cm <sup>3</sup>
Mounting flange:	DN65, PN6, form A according to EN 1092-1; SS316
Mounting angle:	range 5° to 10° with respect to the horizontal, sloping down
Mounting position:	Torsion angle max. 10°
Weight:	Approx. 15.5 kg
Housing material, colour:	SS304, stainless steel, natural
Sample gas inlet:	G3/4" female thread
Sample & Dilution outlet:	3/8" NPT female thread
Calibration port:	6mm pipe
Dilution inlet:	6mm pipe
Purge gas wetted materials:	SS316L, FPM, glass

*Due to ongoing development, all listed specifications are subject to change.*