

Tekran 3342 Dilution Probe

Rev. 042114

The electrically heated Tekran 3342 dilution probe is used in conjunction with the Tekran 3300Xi HgCEM System, where the measuring of process gas requires dilution and transport of sample gas to the detection system. The Tekran 3342 probe and filter are specifically designed for transport of flue gases with minimal Hg loss due to transport inefficiencies. The Tekran 3342 dilution probe enables the user to adapt the probe to a wide range of sampling applications.



The Tekran 3342 sample contact points are all silco-coated for minimal Hg loss. The filter used with the Tekran 3342 is constructed of Titanium to resist mercury absorption. The probe is a low flow filtered separator with dilution of sample at the probe. It incorporates automated filter and stinger blowback along with through the probe multi-level calibration capabilities. All gasket materials used are Kalrez. The filter and stinger temperatures can be locally or remotely controlled. The eductor inlet pressure is monitored and used to control eductor pump flow. Pressures above and below the critical orifice are continuously monitored to automatic correct for changes in gas density. The entire assembly is temperature controlled within 1 °C. The Tekran 3342 unit also incorporates the ability to calibrate pre and post filter, to ensure filter integrity and troubleshooting information. The sample gas is carried via heated sample line to the Tekran 3300Xi Hg CEM system for further conditioning and final measurement.

Specifications:

Tekran 3342 Specifications	Description
Dilution rates of critical orifices a - g ³	a = 500 b = 200 c = 100 d = 50 e = 30* f = 20 g = 10 : 1
Sample flow rates with critical orifices a - g	a = 23.3, b = 45.0, c = 91.7 ,d = 183.3 ,e = 316.7*, f = 466.7, g = 916.7 l/m ¹
Dilution factor adaptability	Dilution gas pressure-adjustment -5% to +30% ²
Dilution gas flow rate with eductor version I or II	I: 8.0 – 10.0N L/m, optional for higher dilution rates II: 30.0-50.0 N L/m
Dilution gas pressure on inlet of pressure controller	min. 65 psig, max. 232 psig
Bypass eductor /B: gas pressure-gas flow rate-sample gas flow rate	approx. 29 psig - eductor gas approx. 5.0 L/m sample gas approx. 2.5 L/m
Process pressure	26.5 up to 59 ln Hg abs.
Process temperature bias	Operation independent from process temperature
Low or overpressure bias	No fault as long as the differential pressure ΔP at the dilution unit is >15" Hg g and test gas is given to the probe under process conditions
Atmospheric pressure bias	<1% with a variation of 1.5" Hg
Materials in contact with the sample gas	Hastelloy & Stainless with Silco coatings and Titanium
Weight	Approx. 66 lbs

*Standard, others to be indicated along with order, intermediate values possible. 1) approx. at 3 45 psig dilution gas behind pressure con-troller. 2) -5% not possible for orifice „g“. 3) With eductor version I. Further technical data see leaflet SP2000, 2-1.1a.