

OXYDAN™ Ultra-Portable Dilution Probe System



Continuous Emission Monitoring (CEMS) made easy

Applications

- Scrubber SO₂/CO₂ monitoring
- DENOX NO_x, NH₃ monitoring
- GHG CO₂, CH₄ monitoring
- MARINE IMO-MARPOL
- Many others...

OXYDAN™
UP-CEMS

Features and benefits

- Continuous Emission Monitoring (CEMS).
- Calibration / verification from probe tip to data recording.
- Unheated sampling lines.
- Zero velocity filter.
- Filter cartridge w. orifice easily exchangeable for other dilution rates.
- No moving parts.
- Months of continuous operation without any filter replacement required or maintenance needed.

Overview

The OXYDAN® Ultra-Portable Dilution Probe Sampling System consisting of the OXYDAN DP 5.0 dilution probe, a dilution air generator, in a package that is compact, crushproof and travels anywhere.

The technique is based on extracting a small sample from the stack, removing particulates by a proprietary filter and then accurately dilute the sample with clean, dry zero air thus, reducing the dew point in order to prevent condensation of water vapor and acid mist in the sample lines. The diluted sample is conveyed via an unheated sample line to the sensors / analyzers.

The dilution probe system uses dry contamination-free air (“dilution air”) and an ejector (also referred to as a venturi pump) to extract a diluted exhaust gas sample from an exhaust stack or duct.

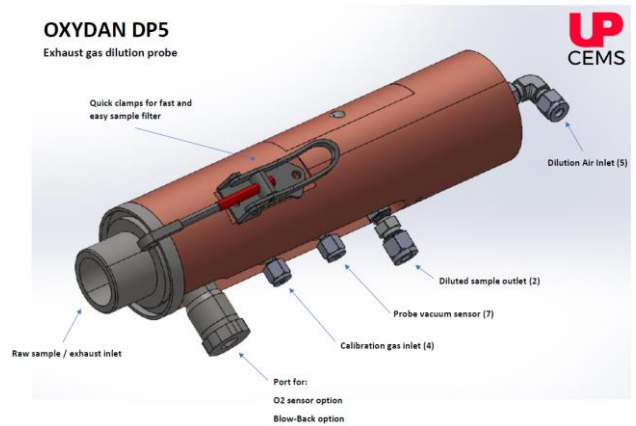
Setting up the OXYDAN UP-CEMS is a breeze. The components easily come together, saving you valuable time and effort.

Unlike traditional monitoring systems, the OXYDAN UP-CEMS remains unaffected by sampling line leaks.

...Overview

This reliability ensures consistent and accurate measurements, no matter the circumstances. Our system conveys diluted samples through an unheated sample line under controlled pressure, guaranteeing the integrity of your data. Once the system is assembled, conducting a bump test is a simple task. Just connect a test gas source with a flow-on-demand regulator, and you're ready to ensure your system's accuracy and performance.

Options



Specifications:

Model	OXYDAN UP-DPS 5.0					
Application	Continuous Emission Monitoring System					
Sampling Method	Dilution					
Dilution ranges *	Orifice size	Flow Nom.	3,7 bar	4,2 bar	5 bar	5,5 bar
	Sample	ml/min.	Dil. Rate	Dil. Rate	Dil. Rate	Dil. Rate
	8	50	304	318	377	413
	10	79	195	203	241	264
	12	113	135	141	168	183
	15	177	86	90	107	117
	17	227	67	70	83	91
	18	254	60	62	74	81
	20	314	48	50	60	66
	25	491	31	32	38	42
	30	707	21	22	26	29
<i>Dilution rates are approximated based on calculation</i>						
Sample gas temperature	Max. 500 °C (optional 1200°C)					
Probe temperature **	~200 °C					
Particulate filter	Zero velocity filter, pore diameter down to 1 µm					
Ambient temperature	Probe 0 to 90 °C					
Instrument air	Min. 6 bar noncondensing, oil free (consumption ~20 NLPM)					
System power supply	Voltage			Consumption		
	100 – 240V AC 50/60			350 W		
Materials	Probe: Stainless steel 316L **** / Case: High-density polymer					
Pneumatic connections	8 / 6 / 4 mm SS316 compression fittings					
Process connection	1 1/4" PIPE THREAD ISO228 / Flanges on request					
Probe size	~ 35 x Ø13 cm					
Case size	56 x 45.5 x 26.5 cm					
Weight ***	Probe 4 kg / Dilution air generator Peli Case 1560 ~20 kg					
Options	Quick Couplings – O2 sensor – Probe flanges - Modbus TCP communication – IoT G4/G5					
<small>* Dilution rates are nominal values, ** temperature controlled, *** With 1 ¼" process fitting, **** Optional Silcotek Coated</small>						
Subject to change without notice						