



## ProCeas<sup>®</sup> SO<sub>2</sub>/SO<sub>3</sub> Online Monitoring System

**Description** The ProCeas is a complete pre-calibrated multicomponent laser Infrared Spectrometer designed for online monitoring of SO<sub>2</sub> and SO<sub>3</sub> in industrial process. The ProCeas features the exclusive LPS Low Pressure Sampling System enabling efficient installation and reduced operating cost by eliminating the need for “heated” sampling system. It uses the patented OFCEAS IR laser technology for enhanced specificity, selectivity, accuracy and stability (no span or zero drift).



**Applications** The ProCeas SO<sub>2</sub>/SO<sub>3</sub> fulfils the requirements of large chemical manufacturing facilities. Highly durable to harsh process conditions, the ProCeas is a field proven, reliable, robust, cost-effective and user friendly solution for online process monitoring in industrial applications.

**AP2e** True innovation in online gas analysis, the patented OFCEAS and LPS technologies offer numerous advantages in terms of operation and performance. With the LaserCEM and ProCeas analysers, AP2e has established a strong position in a large field of application including the Oil & Gas, Pharmaceutical and Chemical industries, Power Generation and Waste-to Energy with references such as Veolia, Exxon, GDF Suez, Air liquide...

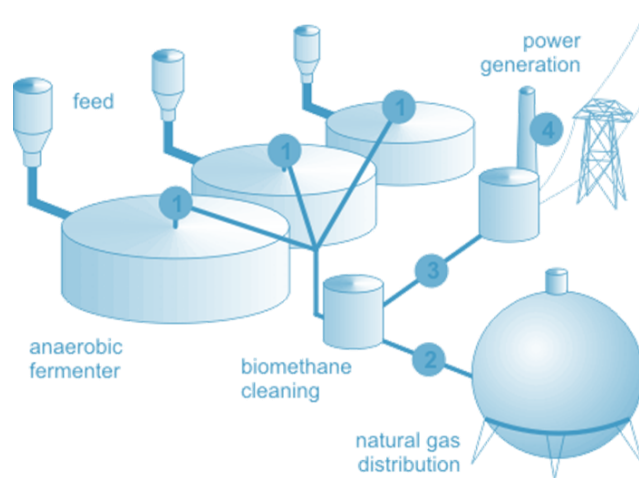
## ProCeas<sup>®</sup> Key Features

- **True Direct Extractive CEMS (No sample treatment)** - 100mbar sampling pressure removes any risk of chemical adsorption, desorption and condensation along the sample line.
- **Ease of integration** - The LaserCEM allows digital (Ethernet, RS485, RS232, ModBus) analogue and TDR IOs.
- **Field proven** - The ProCeas is free of optical moving part and was designed and built strictly for industrial and on-board mobile applications.
- **Interferences Free** - OFCEAS technology provides exceptional selectivity, enabling simultaneous monitoring of multicomponent without interferences, regardless of the gas matrix.
- **No Drift** - The zero is contained in the signal, enabling automated and intrinsic zero drift compensation.
- **Low maintenance** - The LPS system allows flow low rates within 3 and 9l/h without affecting the response time and reducing considerably dust and materials build-up.



# ProCeas® Multipoint Monitoring System

The **ProCeas** technology enables sampling solutions tailored to the needs of large scale manufacturing industries with **automated sampling sequences** and **multipoint monitoring** enabling fast, accurate and detailed analysis at various location with a single instrument.



## ProCeas® SO2/SO3 Specifications

	INTEGRATION
<b>Dimensions</b>	Standard 19" 4U rack unit - 550mm depth
<b>Weight</b>	20kg
<b>Flow</b>	3 to 9 lph
<b>Sample</b>	Temp 600C max. Pressure 1 atm. +/- 100mbar at the sampling point
<b>Sampling Line</b>	No heating required if: Ambient temp > 10C and H2O < 40% vol.  Heating required if: Ambient temp < 10C and H2O > 40% vol.
<b>Drift</b>	None
<b>Response time</b>	10s to 200 s depending on sample line
<b>Interface</b>	5.7" touch screen  Windows XP / WinProceas
<b>Output</b>	Ethernet / RS485 / RS232 / ModBus
<b>Options</b>	ATEX - Wall mount version
<b>Power supply</b>	110-240 VAC 50/60 Hz - 200W
<b>Operating conditions</b>	Temp 15-35C Pressure 86-108kPa Compressed air 1-6 bar (oil free)

GAS	RANGES	DETECTION LIMIT
SO2 / SO3	50 ppm min	2 ppb min
	10% max	100ppm max

Option: **CH4 and H2O** can be measured using the same diode.

SPECTRA (Examples) - 200 equidistant data points over 0,2 nm

