



Electro Optical Components, Inc.

5464 Skylane Boulevard, Suite D, Santa Rosa, CA 95403

Toll Free: 855-EOC-6300

www.eoc-inc.com | info@eoc-inc.com







SILAREX NDIR Quad Gas Sensors

The SILAREX product line of smartGAS stands for precision and maximum performance. These are NDIR multi-gas sensors that can measure up to three gases or up to three ranges at the same time. The cross-sensitivity corrections can be calculated directly in the sensor.

The SILAREX gas sensors enable parallel concentration measurement of up to three sample gases or measuring ranges with one compact sensor. They are ideal for applications such as emission measurement of multiple gases such as CO₂, CO and SO₂, measurement of TOC (Total Organic Carbon), and also for measuring CO₂, N₂O and CH₄ in wastewater treatment plants.

The advantages of SILAREX compared to measuring with three individual sensors are obvious: only one sensor needs to be calibrated and maintained. Different sample preparations, differing of accuracy or life cycles of the sensors do not have to be taken into account.

	SILAREX	SILAREX TOC	SILAREX TOC PLUS	SILAREX WR PLUS
				
Gases	Up to Three	One/Three Ranges Merged	One/Three Ranges Merged	One/Three Ranges Merged
Applications	Multi Gas Measurement with cross compensation for Industry, Research and Environment Control	High Range Water Quality Analytic TOC/COD	High Range and high accurate Water Quality Analytic TOC/COD	Customized Wide Range SILAREX for High Range and high accurate Analytic Applications. Three calibrated Ranges Merged on one signal.
Reference Channel	Yes	Yes	Yes	Yes
Linearity Error	≤±1% (FS)	≤±1% (FS) Each Range	≤±1% (FS) Each Range	≤±1% (FS) Each Range
Ranges	0...50 ppm up to 0..100Vol.%	0..100/0..1000/0..10000ppm	0..100/0..1000/0..10000ppm	Upon Request
T90 Time vs Noise	≤14sec ≤±0.1%[FS] ≤3sec ≤±1.0%[FS]	≤14sec ≤±0.1%[FS] ≤3sec ≤±1.0%[FS] [FS] related to active range	≤3sec Noise : ≤±0.075%[FS] [FS] to active measured range e.g. 100/1000/10000 Value 56 Range = 100	
Detection Limit	≤±0.05%[FS] of smallest range			
Cycle Time (readout)	Max. 2.5Hz		Max. 10Hz	
Power Supply	24VDC+10%		10...26VDC	
Pressure Compensated	Optional Internal			
Digital Interface	TTL 1wire/RS485		RS232/RS485	

Analog Interfaces	None	Option Internal		
Heat Stabalization	Internal Heat Controller ±1.0K or Optional high performance external Heat Controller ±0.5K			
Cuvette Material	AL(Standard) Stainless / Peek (Depends on gas type and application)			
Cuvette Length	Up to 300mm	Up to 300mm	Up to 300mm	Up to 300mm
Gas In/Outlet	3/5mm Rubber Tube Fitting (Standard) Optional : 4/6mm Rubber Tube/Quick Connector/PTFE/Stainless Steel			
Custom Software	No	No	Possible	
External Casing	AL Casing with thermal Insolation(Customized on Request)			
Standard Gasses	CO2 CO CH4 SO2 N2O NO Other gases request	CO2	Gas Type on request	
Additional Options	Interface Converter / Power Supplies / Cabling / Gas Pumps / Filter / Tubing / Integration / Customized Gases and Ranges / Calibration Service			