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The FLOWevo is a high-performance NDIR gas sensor product line specifically designed for the analysis of gases in process analysis. The sensors are "ready to use", low-maintenance and have low detection limits. They are highly selective against interfering gases and have flexible interfaces.

In addition, they are temperature and drift compensated and have a compact design.

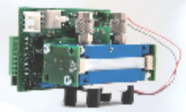
The FLOWevo product line from smartGAS is characterized by measuring accuracy, compact design and easy handling.

The sensors can detect a wide range of measurable gases and are particularly useful where extreme precision and reliability are required. They are ideal for various applications, including process metrology, high voltage technology with SF_6, emission measurement, pest control, biogas analysis, and fruit storage & ripening gas control, CO_2 capturing ... and much much more

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 CO_2, CO and SO_2, measurement of TOC (Total Organic Carbon), and also for measuring CO_2, N_2O and CH_4 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.

	FLOW^{EVO}	FLOW^{EVO} PLUS	FLOW^{EVO} PRO	SILAREX	SILAREX TOC	SILAREX TOC PLUS	SILAREX WR PLUS
Technologie	NDIR Dual Detector	NDIR Dual Detector	NDIR Dual Detector	NDIR Quad Detector	NDIR Quad Detector	NDIR Quad Detector	NDIR Quad Detector
Measured Gases	One	One	One/Selectable	Up to Three	One/Three Ranges merged	One/Three Ranges merged	One/Three Ranges merged
Applications / Use-case	Standard Gas measurement in Industrie, Research and Environment Control 	High Performance Analytic Applications. Very low Nose and LDL Low Tgo time and high output frequency 	Universal usage for control Applications 	Multi Gas Measurement with cross compensation for Industrie, 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			
Internal Cross-Compensation	-/-			yes	-/-		
Linearity Error	≤±1%(FS)		≤±3%(FS)	≤±1%(FS)	≤±1%(FS) each Range		
Ranges	0...50 ppm up to 0..100Vol.%				0..100/0..1000/0..10000ppm		On Request
T90 Time versus Noise absolut (156mm Cuvette length)	≤14sec ≤±0.1%(FS) ≤3sec ≤±1.0%(FS)	≤3sec ≤±0.075%FS	≤14sec ≤±0.1%(FS) ≤3sec ≤±1.0%(FS)		≤14secNoise : ≤±0.1%(FS) ≤3sec Noise : ≤±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 LDL (3 σ)	≤±0.6%(FS)	≤±0.05%(FS)	≤±0.05%(FS) of smallest Range			≤±0.05%(FS) of smallest Range	
Cycle Time (read out)	Max 2.5Hz	Max. 10Hz	Max 2.5Hz	Max 2.5Hz	Max 2.5Hz	Max. 10Hz	
Power Supply	3.3..6VDC	10..26VDC	3.3..6VDC	24VDC+10%	24VDC+10%	10..26VDC	
Pressure Compensated	Optional with external Controller	Optional internal	Optional with external Controller	Optional internal	Optional internal	Optional internal	
Digital Interfaces	TTL 1 wire	RS232/RS485	TTL 1 wire	TTL 1 wire/RS485	TTL 1 wire/RS485	RS232/RS485	
Analog Interfaces	Optional with external Controller	Optional internal 4(0) .. 20mA 0(0.4) .. 2VDC 0(1) .. 5VDC 0(2) .. 10VDC 4(0) .. 20mA (3kV/rms)	Optional with external Controller	none	none	Optional internal 4(0) .. 20mA 0(0.4) .. 2VDC 0(1) .. 5VDC 0(2) .. 10VDC 4(0) .. 20mA (3kV/rms)	
Active controlled Heated (Stability include thermal insulation)	Optional with external Heat Controller ±1.0K	Internal high performance Heat Controller ±0.5K	Optional with external Heat Controller ±1.0K	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						
Gas In/Outlet	3/5mm Rubber Tube Fitting (Standard) Optional : 4/6mm Rubber Tube/Quick Connector/PTFE/Stainless Steel						
Customized Software Interface	Not possible	Possible	Not possible			Possible	
Optional Casing	AL Casing with thermal Insolation(Customized on Request)						
Optional Accessories	External Interface Pressure Compensation RS232/RS485 Analog Interface 4(0) .. 20mA 0(0.4) .. 2VDC 0(1) .. 5VDC 0(2) .. 10VDC		External Interface Pressure Compensation RS232/RS485 Analog Interface 4(0) .. 20mA 0(0.4) .. 2VDC 0(1) .. 5VDC 0(2) .. 10VDC				
	External Heat Controller ±1.0K		External Heat Controller ±1.0K	High Performance external Heat Controller ±0.5K			
Standard Gas List	CO_2 CO CH_4 C_2H_4 SO_2 N_2O CH_3Br SO_2F_2 SF_6 NH_3 CnHm Other gases request		Up to 20 Freone Up to 20 CnHm	CO_2 CO CH_4 SO_2 N_2O NO Other gases request	CO_2		Gas Type on request
Other Accessories and Options	Interface Converter / Power Supplies / Cabling / Gas Pumps / Filter / Tubing / Integration / Customized Gases and Ranges / Calibration Service						

All values are typical and may vary, please refer to the related data sheet

smartGAS.