

## gasQS™ static – Biogas

Reliable measurement of biomethane and biogas -  
Screw in, connect, start measuring

The gasQS™ static uses an integrated microthermal sensor to measure the thermal conductivity of gas mixtures precisely and continuously. In typical biogas applications – methane in carbon dioxide – it enables accurate determination of the mixing ratio.

Unlike conventional systems, the device is compact, robust, and maintenance-free – requiring no calibration with reference gases and containing no moving parts.

Its pressure-compensated measurement, direct screw-in installation, and simple two-wire connection without gateways allow for quick integration into existing systems – with no complex modifications or bus topology knowledge needed.

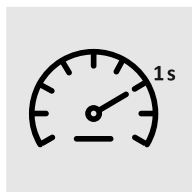
The gasQS static – the smart solution for precise, maintenance-free, and long-term stable biogas measurement.



Analog  
4–20 mA



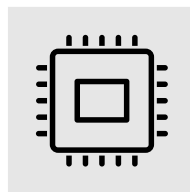
Very sensitive



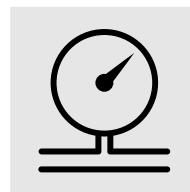
Fast measurement cycles



No complex bus integration



No moving parts



Pressure compensated

### Measurement range

Output value std. <sup>1</sup>		Range [mol%]	Accuracy <sup>2</sup>	Repeatability <sup>3</sup>
<b>Biomethan</b>				
Percentage of gas	CH <sub>4</sub> in CO <sub>2</sub>	92 – 100	±0.2%	±0.01%
<b>Biogas</b>				
Percentage of gas	CH <sub>4</sub> in CO <sub>2</sub>	40 – 70	±0.2%	±0.01%
<b>Offgas</b>				
Percentage of gas	CH <sub>4</sub> in CO <sub>2</sub>	0 – 8	±0.2%	±0.01%

<sup>1</sup> One output value per device, standard conditions 0 °C, 25 °C, 1013.25 mbar absolute, further reference conditions on request

<sup>2</sup> %-values refer to the measured value

<sup>3</sup> Statistical scatter value with 2 sigma of moving average with 8 values

## Specifications

Measuring time:	0.1 seconds
Measuring interval:	1 second
Response time:	T90 typically 2 seconds <sup>4</sup>
Meas. range temp. compensated <sup>5</sup> :	-20 ... +65 °C
Operating/storage temperature:	-25 ... +80 °C
Maximum installation height:	3,760 meters above sea level
Ex device protection type and certificate number:	Ⓔ II 1 G Ex ia IIC T4 Ga IECEX SEV 22.0008X SEV 15 ATEX 0191 X

## Media

Media:	dry, neutral gases (10 µm filtering)
Load limit supply line:	+30 bar gauge
Supply line pressure range:	standard: -0.5 ... +9.0 bar gauge extended: -0.5 ... +15.0 bar gauge (on request)

## Electrical

Connector:	M12-B, male, 5-pole
Output signal:	Analog 4 – 20mA
Supply voltage:	+16.0 ... +28.0 VDC
Maximum load:	$R < (V_s - 16 \text{ VDC})/0.02 \text{ A}$

## Mechanical

Gas connection:	G 3/8 male thread
Dimensions (Diameter x Height) :	51 x 54 mm
Weight:	0.40 kg
Protection class:	IP54

## Accessories (optional)

EX Package	1x SMART transmitter power supply unit 1x 10 m cable PVC assembled, shielded, RAL 5015 blue
Tee piece	Fitting optimised for fast measurements, G1/4 – G3/8 – G1/4

<sup>4</sup> Depending on distance between device and gas line

<sup>5</sup> Medium and ambient temperature