

gasQS™ static

Multicomponent Gas Mixtures

Screw in, connect, start measuring



Analog
4–20 mA

Thermal conductivity is precisely identified using a microthermal sensor. Thanks to its high sensitivity, the sensor is highly suitable for tracing changes in gas properties in case of gas mixtures with more than two components. Unlike the market standard, this robust, compact, and inexpensive device requires neither any re-adjustment nor reference gas.

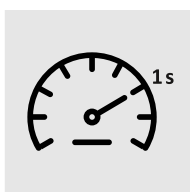
The two-wire connection allows easy integration into the control system without further knowledge of bus systems. The simple screw-in connection causes only minimal interference with the pipe system and does not require an exhaust pipe.



The instrument works pressure compensated and therefore, independent of the prevailing process pressure.



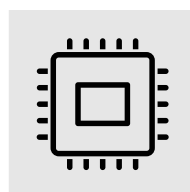
Very sensitive



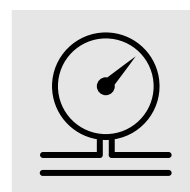
Fast measurement cycle



No complex bus integration



No moving parts



Pressure compensated

Measurement range

Output value std. ¹	Unit	Range ²	Accuracy ³	Repeatability ⁴	Sensitivity ⁵	
Relative Density	<i>d</i>	-	H-Gas or div. Syngase or LNG gaseous	±0.02 typ.	±0.002	±0.004
Higher Calorific Value	<i>H_s</i>	<i>MJ/m³</i>	From the liquid phase vaporised LNG (MZ >55)	±2	±0.2	±0.4
Methane number CAT	<i>MN</i>	-		±1	±1	±2

This table shows only a selection of possible output values.

¹ One output value per device, standard conditions 0 °C, 25 °C, 1013.25 mbar absolute, further reference conditions on request
² The specified accuracies apply to binary gas mixtures. For multi-component mixtures, the accuracy varies depending on the gas family or the bandwidth to be covered.
³ The measurement of several gas types with only one device is only possible to a limited extent.
⁴ Statistical scatter value with 2 sigma of 48 measuring points
⁵ Double value of repeatability

Specifications

Measuring time:	0.1 seconds
Measuring interval:	1 second
Response time:	T90 typically 2 seconds ⁶
Meas. range temp. compensated ⁷ :	-20 ... +80 °C
Operating-/storage temperature ⁷ :	-25 ... +85 °C
Ex device protection type:	Ex II 1G 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:	+12.0 ... +28.0 VDC
Maximum load:	$R \leq (V_s - 12 \text{ VDC})/0.02 \text{ A}$

Mechanical

Gas connection:	G 3/8 male thread
Dimensions (D x H) :	51 x 54 mm
Weight:	0.15 kg
Protection class:	IP54

Accessories (optional)

ATEX 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

⁶ Depending on distance between device and gas line

⁷ Medium and ambient temperature