

gasQS™ flonic V2

Datasheet Zone 1



**Modbus
RTU**

Based on a microthermal CMOS sensor, in combination with a critical nozzle and two valves, heat conductivity, heat capacity and relative density of natural gas can be measured. From these quantities, the instrument correlates various measured quantities.

This stand-alone instrument requires no carrier gases, is robust, compact and inexpensive. An integrated control output allows an additional automatic check measurement to be set up. The system is a complete in-house development of Mems AG. Due to the complex knowledge of physics, individual components and their interaction, customer-specific applications can be flexibly implemented.



H₂

Ready for hydrogen



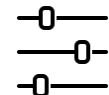
Fast measurements



Easy to integrate



Reliable



Customizable

Specifications

Measuring range:	Hs ¹ = 28.0 ... 50.0 MJ/m _n ³	
Accuracy:	Calorific value ¹ (Hs, n)	≤ ± 1 MJ/m _n ³
	Relative density ¹	≤ ± 0.005
	Wobbe index ¹ (Ws, n)	≤ ± 1 MJ/m _n ³
	Methane number AVL	± 3 absolute
Repeatability ² :	Calorific value ¹ (Hs, n)	± 0.5 MJ/m _n ³
	Relative density ¹	± 0.003
	Wobbe index ¹ (Ws, n)	± 0.5 MJ/m _n ³
	Methane number AVL	± 2 absolute
Measuring time:	≥ 30 seconds	
Measuring interval:	adjustable (≥ 30 seconds)	
Reaction time:	T90 within 3 measuring intervals	
Operating/storage temperature:	-10 ... +55 °C ³	
ATEX Certificate:	Ex II 2G Ex ib IIC T4 Gb (SEV 18 ATEX 0111 X)	

¹ Reference conditions 0 °C, 25 °C, 1013.25 mbar

² Statistical scattering value with 2 sigma of 48 measuring points

³ Media and ambient temperature

Media

Media:	dry, neutral gases (10- μ m-filtering)
Inlet pressure range:	4.5 bar to 6.0 bar absolute
Permissible overload / burst pressure:	9.0 bar absolute
Counterpressure on outlet side:	\leq 1.4 bar absolute
Gas consumption:	ca. 0.1 l _n /measuring interval

Electrical

Output signal:	Modbus-RTU (EIA-485 2-wire) ^{4 5}
Supply voltage (Power supply):	+10.5 to +36 V _{DC} (Mems AG MINI-PS-12-24DC/5-15DC/2-X)
Power requirement:	\leq 0.6 W

Mechanical

Gas connections:	G 1/8 internal threads
Dimensions (l x b x h):	213 x 80 x 137 mm
Weight:	2.0 kg
Degree of protection:	IP42

ⁱⁱ Icons by icons8.com

⁴ Factory settings Modbus: 19200 bps, even parity bit + 1 stop bit, Slave address: 0x01

⁵ Factory settings units and reference conditions: MJ/m_n³, kg/m_n³, 25 °C, 0 °C, 1013.25 mbar