

Gas Flow Meter MQMe with electronic counter and output signal

DUNGS®
Combustion Controls

GAS FLOW METER MQMe

**Manufacturer / Owner
of EU-Type Examination Certificate**
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Technical description

The MQMe Quantometer is a turbine wheel gas meter that registers the operating volume using a 9-digit electronic counter.

The MQMe is a volume flow meter. The flow of the measured gas causes the turbine wheel to rotate.

The CPU receives the HF signal to calculate the gas flow and gas volume under operating conditions. If installed, the integrated volume corrector calculates the gas flow and volume under standard conditions (acc. AGA NX-9). Calculation can be based on fixed factors for temperature and pressure or on optionally installed sensors measuring actual values.

Threaded connection

Rp 1 & Rp 1 ½, acc. ISO 7/1, max. operating pressure 4 bar

Flanged connection

DN 25 to DN 150, acc. DIN EN 1092-1, max. operating pressure 16 bar.

Application

The MQMe is for operational gas-volume measurement and is suitable for gases of families 1, 2, 3 and other neutral gaseous media. MQMe is not an official calibrated counter. It is used for internal controlling processes, most suitable for industrial thermoprocessing facilities.

Approvals

EU type testing certificate as per:

- EU-Pressure Equipment Directive

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Specification	
Meter size	G 10 to G 1000
Flow rates	16 to 1600 m³/h
Normal sizes	Rp 1 to Rp 1 ½ & DN 50 to DN 150
Max. operating pressure	Threaded version: 4 bar Flanged version: 16 bar
Measuring ratio	Rp 1 to DN 50 (G 40): 1:10 DN 50 (G 65) to DN 150: 1:20
Ambient temperature	-20 °C to + 55 °C
Degree of protection	IP 65
Materials	- Housing - Display Unit - Turbine wheel
Installation position	Horizontal, vertical
Connections	Pressure: 1 x NPT ¼ Temperature: 1 x G ¼ (suitable thermowell available as accessory)
Recommended straight piping in nominal size of meter	inlet ≥ 3 x DN outlet ≥ 2 x DN
ATEX-Rating	⊕ II 1 G Ex ia IIC T4 Ga Directive 2014/34/EU
Communication	Analog output 4...20 mA (external power supply required)
Special features	Display unit rotatable (180°) Maintenance free based on permanent lubrication of ball bearings

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Following basis versions are available:

Article designation	Order No.	Size (inlet/outlet)	G-Type	Max. operation pressure	Measurement range min. $\dot{V}_b$ [m³/h]	Measurement range max. $\dot{V}_b$ [m³/h]	Pulse generator
MQMe Rp 1 (1.6-16)	292764	Rp 1	10	4 bar	1.6	16	HF (located at display unit)
MQMe Rp 1 (2.5-25)	292765	Rp 1	16	4 bar	2.5	25	
MQMe Rp 1 (4.0-40)	292766	Rp 1	25	4 bar	4.0	40	
MQMe Rp 1 (6.5-65)	292767	Rp 1	40	4 bar	6.5	65	
MQMe Rp 1½ (6.5-65)	292768	Rp 1 ½	40	4 bar	6.5	65	
MQMe DN 25 (1.6-16)	292769	DN 25	10	16 bar	1.6	16	
MQMe DN 25 (2.5-25)	292770	DN 25	16	16 bar	2.5	25	
MQMe DN 25 (4.0-40)	292771	DN 25	25	16 bar	4.0	40	
MQMe DN 25 (6.5-65)	292772	DN 25	40	16 bar	6.5	65	
MQMe DN 50 (6.5-65)	292773	DN 50	40	16 bar	6.5	65	
MQMe DN 50 (5.0-100)	292774	DN 50	65	16 bar	5.0	100	
MQMe DN 80 (8.0-160)	292775	DN 80	100	16 bar	8.0	160	
MQMe DN 80 (12.5-250)	292776	DN 80	160	16 bar	12.5	250	
MQMe DN 80 (20-400)	292777	DN 80	250	16 bar	20.0	400	
MQMe DN 100 (12.5-250)	292778	DN 100	160	16 bar	12.5	250	
MQMe DN 100 (20-400)	292779	DN 100	250	16 bar	20.0	400	
MQMe DN 100 (32-650)	292780	DN 100	400	16 bar	32.0	650	
MQMe DN 150 (32-650)	292781	DN 150	400	16 bar	32.0	650	
MQMe DN 150 (50-1000)	292782	DN 150	650	16 bar	50.0	1000	
MQMe DN 150 (80-1600)	292783	DN 150	1000	16 bar	80.0	1600	

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Following options are available*

Option	Additional feature	Explanation
Option 1	HF 1 pulse generator located at turbine wheel	Higher frequency of measuring, allows the determination of the actual gas flow in high resolution.
Option 2	Oil pump	For additional, manual lubrication at biogas applications
Option 3	3.1 approval material batch	Confirms the technically specified parameters for the specific batch.
Option 4	Volume corrector	Integrated with fixed values for P&T
Option 5	Volume corrector	Integrated with sensors for P&T and thermowell
Option 6	RS 485 or M-Bus interface	

* Oil pump not available with Volume corrector.

Accessories

Article designation	Order no.	Explanation	Suitable for
Thermowell MQM/MQMe (small)	300005	for mounting of temperature sensor	Rp 1 to DN 50
Thermowell MQM/MQMe (medium)	300267	for mounting of temperature sensor	DN 80, DN 100
Thermowell MQM/MQMe (large)	300268	for mounting of temperature sensor	DN 150

Technical Information based on:
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Head Offices and Factory

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