

Gas Carburetor RMG 985



General Description

985.00

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Application

- Fuel gas / air mixture for gas engines (e.g. λ -control, electronic spark control, combustion chamber temperature control)
- A gas carburetor for gas engines operated with more than one type of fuel gas (e.g. sewage gas, natural gas reserve mode)
- Mixing of gases in general (e.g. increasing the thermal value of a low-caloric gas, such as gas from waste tips)

Characteristics

- Simple construction
- Carburation with no delay (Venturi principle)
- Adjustable mixing ratio using fuel gas mixing gap
- Fine adjustment of the mixing ratio
- Mixing gap can be adjusted using a stepping motor
- Linear characteristic line
- Turbulent mixture (homogenisation)

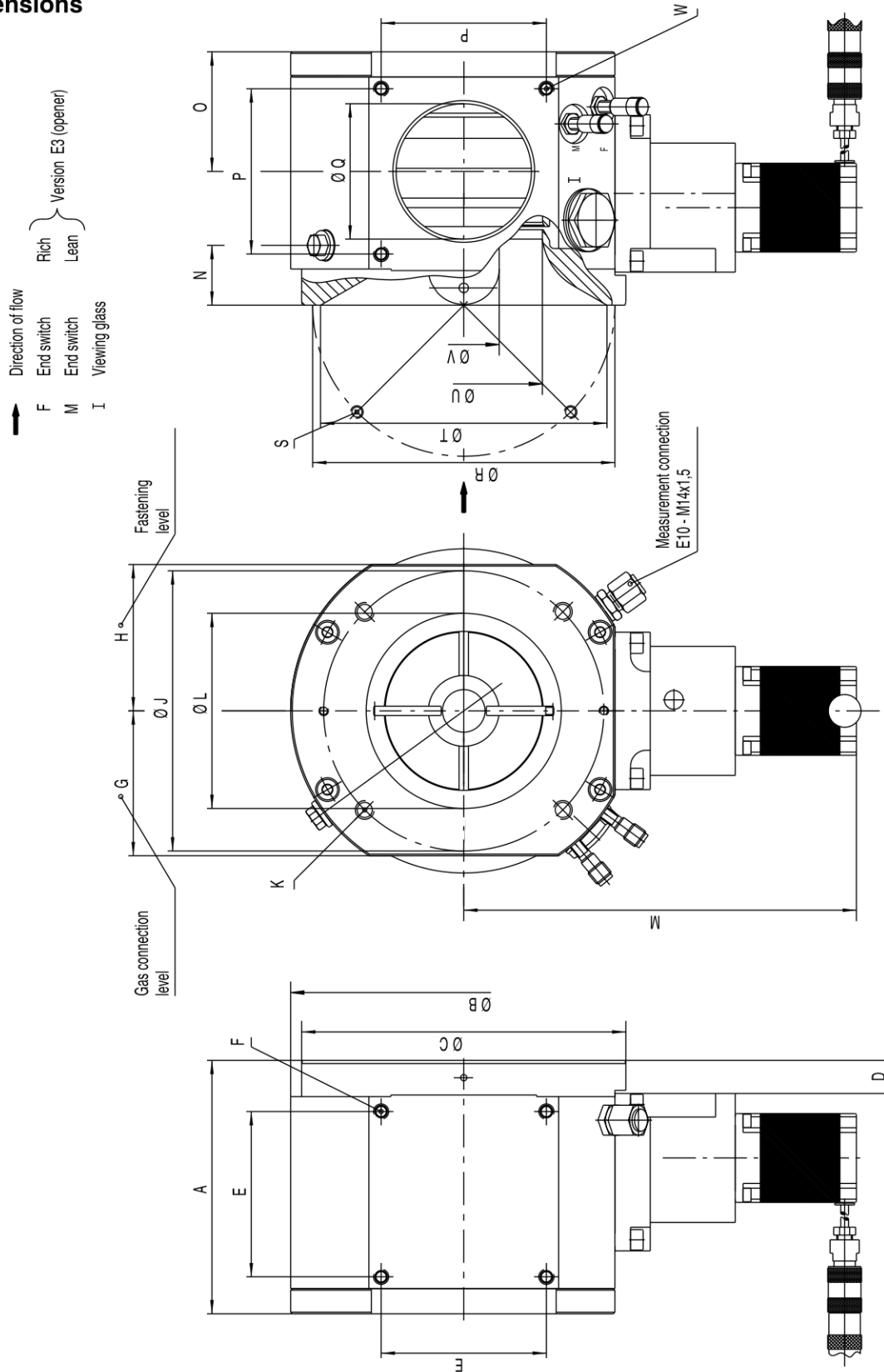
1. Technical specifications

Maximum compression stress	pmax 0.1 bar
Gas mixing ratio $q_{nair} / q_{nfuelgas}$	3.5 : 1 to 25 : 1
max. performance ratio q_{nmin} / q_{nmax}	approx. 25 : 1
Material	Casing: Aluminium alloy Internal components: Aluminium alloy / steel
Temperature range	up to +80 °C



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2. Dimensions



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All dimensions in mm

Device type	A	Ø B	Ø C	D	E	F	G	H
RMG 985- 140/65	130	160	140	21	76	M8-12 deep	66	66
RMG 985- 200/100	161	220	206	21	105	M10-15 deep	92	93

Device type	Ø J	K	Ø L	M	N	O	P	Ø Q
RMG 985-140/65	133,6	M8-12 deep	81,5	227/259	55	45,5	76	57
RMG 985- 200/100	178	M12-16 deep	124	250/282	38	76	105	86

Device type	Ø R	S	Ø T	Ø U	Ø V	W	
RMG 985-140/65	-	-	130	65	Zeppelin	M8-12 deep	
RMG 985- 200/100	192	M8-18 deep	182	100	as desired	M8-12 deep	



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3. Structure and function

The gas carburetor is based on the Venturi principle. The incoming gases (1) and (2) are maintained at the same level of pressure by means of preceding gas pressure control systems. The incoming gases accelerate as a result of the Venturi principle.

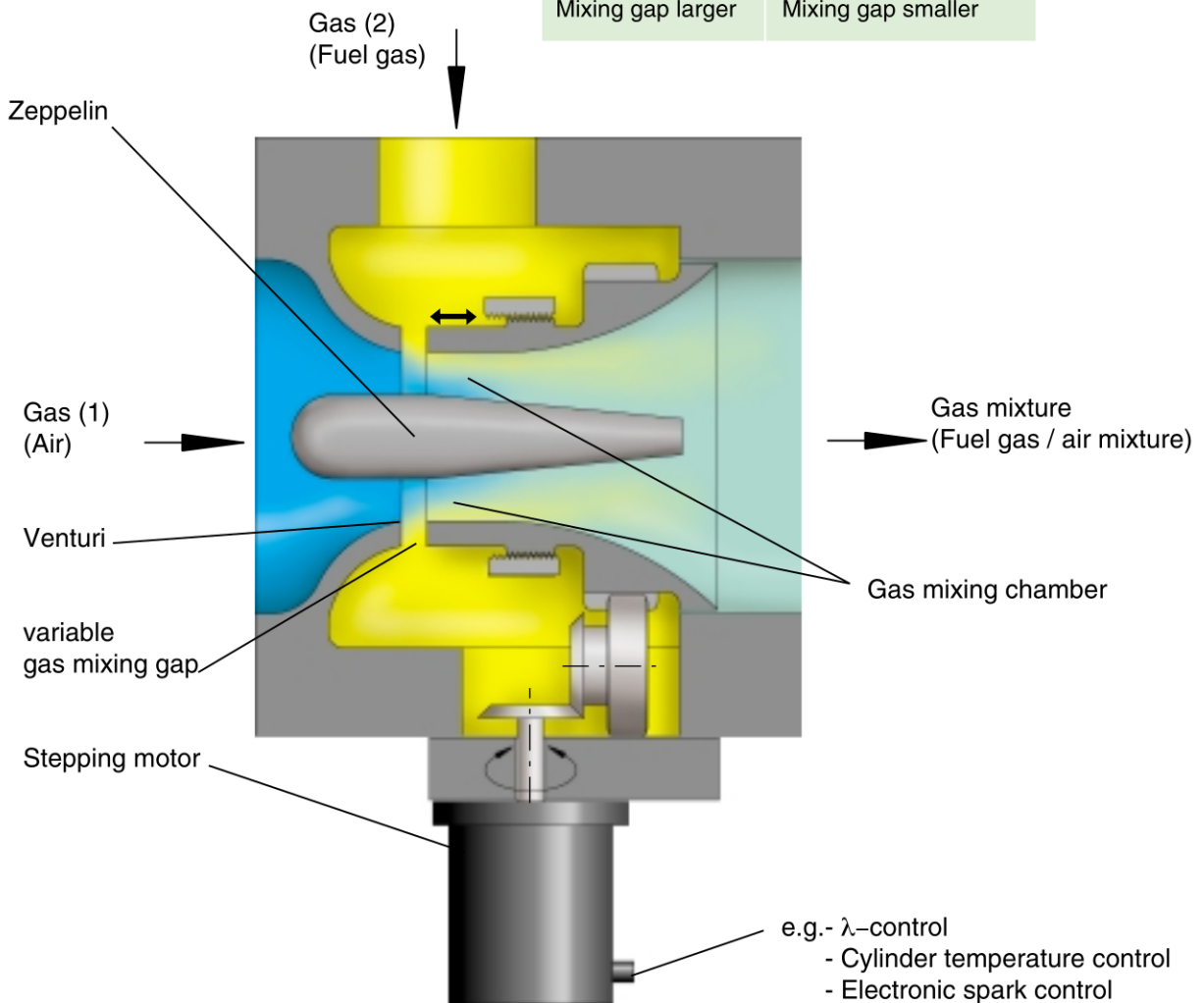
The resulting pressure drop produces a pressure difference at the gas mixing gap. Gas (2) is mixed with gas (1) in the gas mixing chamber in the appropriate ratios (Venturi effect) in accordance with the setting of the gas mixing gap.

In order to ensure that the Venturi effect is optimised, the zepelin is arranged at the maximum flowing-through for gases (1) and (2). The flow edges on the zepelin on the output side ensure turbulent mixing of the two types of gas (homogenisation).

To enable fine adjustment of the gas mixing ratio (e.g. for a λ -control), the gas mixing column has a motor-powered adjustment system controlled by electronic control circuits which adjust to the operational requirements.

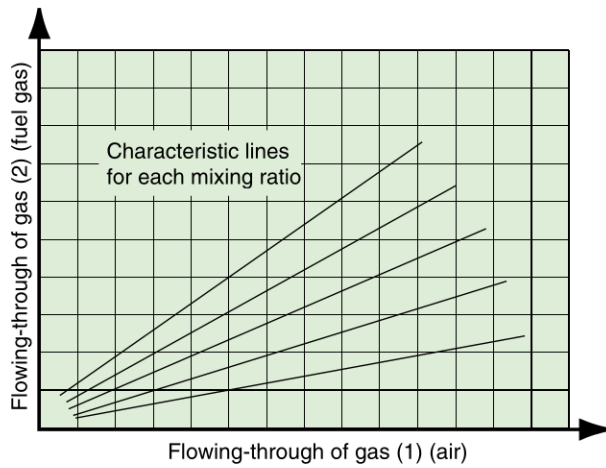
Fuel gas / air mixture

too lean	too rich
Mixing gap larger	Mixing gap smaller



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Figure: Mixing ratio



4. Device name (example)

RMG 985 - 140 / 65 - 38

Device type

Device size (see table on page 5)

Venturi \varnothing

Zeppelin \varnothing as required



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