



Gas / Air Mixer

AGU3.6...

Supplementary Data Sheet 7662

Gas / air mixing unit designed for use in connection with compact gas control loops VDU..., suited for gas-fired appliances of low capacity (wall-hung and floor-standing models) with modulating premix burners.

The AGU3.6... and this Data Sheet are intended for use by OEMs which integrate the gas / air mixer in their products!

Use

The gas / air mixer is employed to provide homogeneous mixing of gas and air. It is used on the pressure side in connection with compact gas control loops VDU...

Warning notes



To avoid injury to persons, damage to property or the environment, the following warning notes should be observed! Do not interfere with or modify the unit!

- After fall or shock, the gas / air mixer may not be put into operation because safety functions can be adversely affected, even if the unit does not exhibit any damage

Mounting notes

- Ensure that the relevant national safety regulations are complied with
- Mounting must be carried out by qualified staff

Installation notes

- Installation and maintenance work must be carried out by qualified staff

Norms and standards

CE conformity according to the directives of the European Union
- Directives for gas-fired appliances 90 / 396 EEC

Disposal notes



The gas / air mixer may not be disposed of together with household garbage. Local and currently valid legislation must be observed.

Mechanical design

- Very compact unit
- Connection matched to standard types of fans
- Amplified air signal for compact gas control loops VDU...
- Modulation range in connection with VDU...: 10...100 %

Type summary

Type code

A G U 3 . 6 4 5 A 0 x x

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Air pressure test point
0 None
1 Right
2 Left
3 Both

Series letter

Diameter of nozzle
42 Ø12 mm
45 Ø15 mm
48 Ø18 mm
51 Ø21 mm
54 Ø24 mm

Ordering

Gas / air mixer

refer to «Type code»

Accessories



Gasket

refer to «Dimensions»

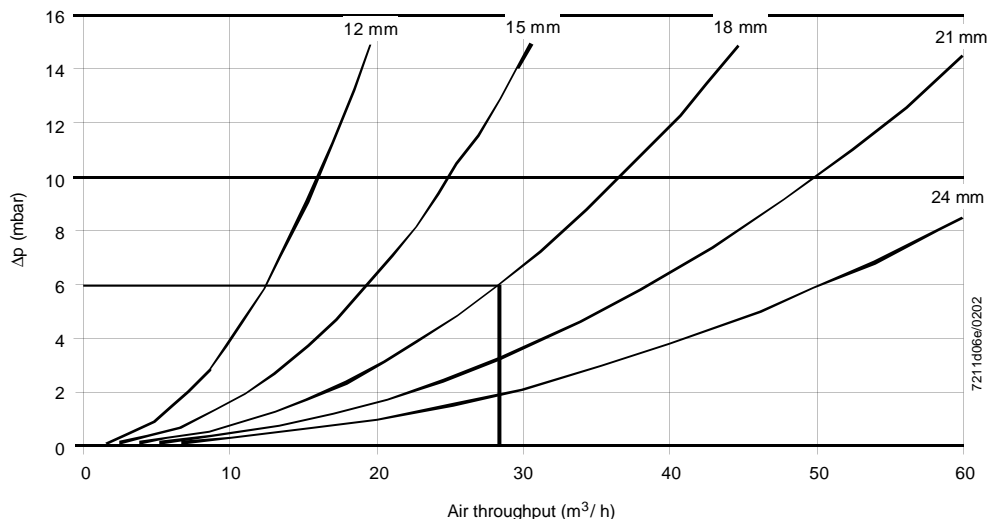
- Suited for use with gas
- DVGW approval

Technical data

General unit data	Suitable gases	gas families II / III to DVGW 6260 / I
	Connections	
	- Gas	- pipe thread ISO 228 – G ¾“B - threaded with gasket - optional use of gas nozzle - for size, refer to «Dimensions»
	- Air	- dimensions matched to the standard fans from EBM / MVL and FIME
	Mounting position	- optional - a minimum clearance to the burner is required, depending on the type of burner
	Materials	
	- Housing	GD-AISi12 (Leg. 230)
	- Nozzle and diffuser	GDZuAl4Cu1
	Weight	approx. 280 g

Operating range / sizing

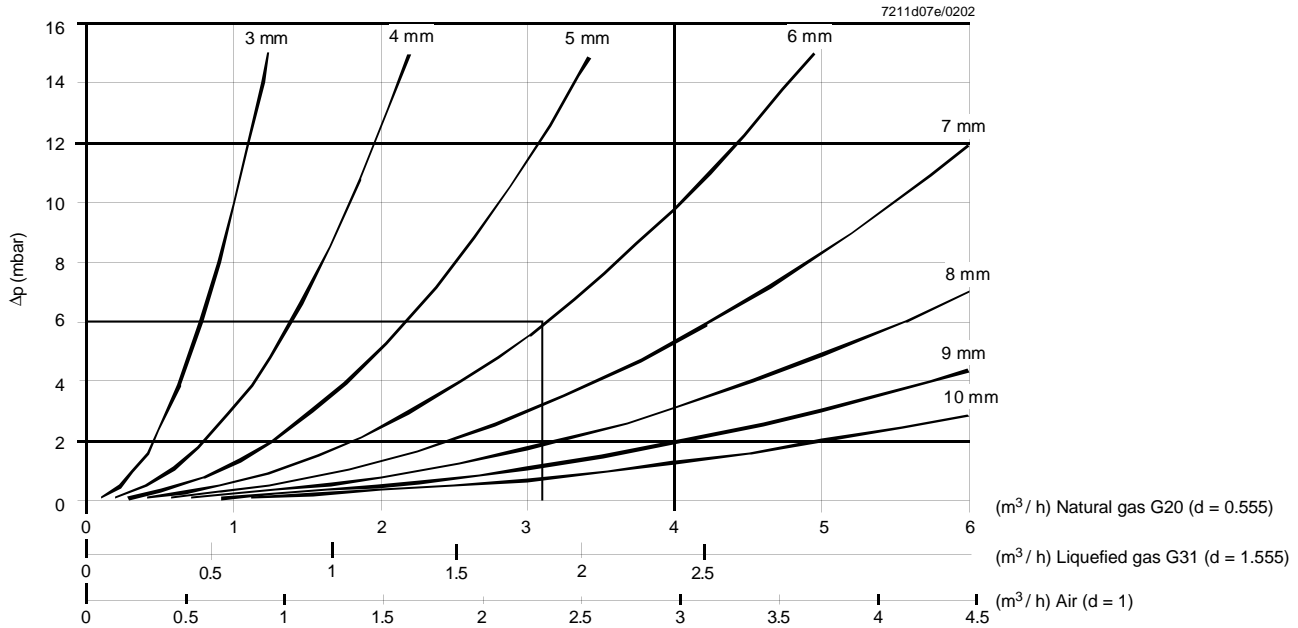
Air throughput at Venturi tube



Example: Δp across mixer = 6 mbar
 Dia. of Venturi tube = 18 mm
 $V_{Air\ d=1}$ = approx. 28 m³ / h

The graph shows the standard sizes.
 Intermediate sizes are available on request.
 Ensure that size matches the application.
 Fine-tuning of the volumetric flow is accomplished via the fan's speed.

Throughput at gas nozzle



Example: Δp across gas nozzle = 6 mbar
 Dia. of gas nozzle = 6 mm
 $V_{\text{Gas } d = 0.555}$ = approx. 3.1 m^3/h

Ensure that size matches the application.

Fine-tuning of the volumetric flow is accomplished via the «V» screw of the VDU...

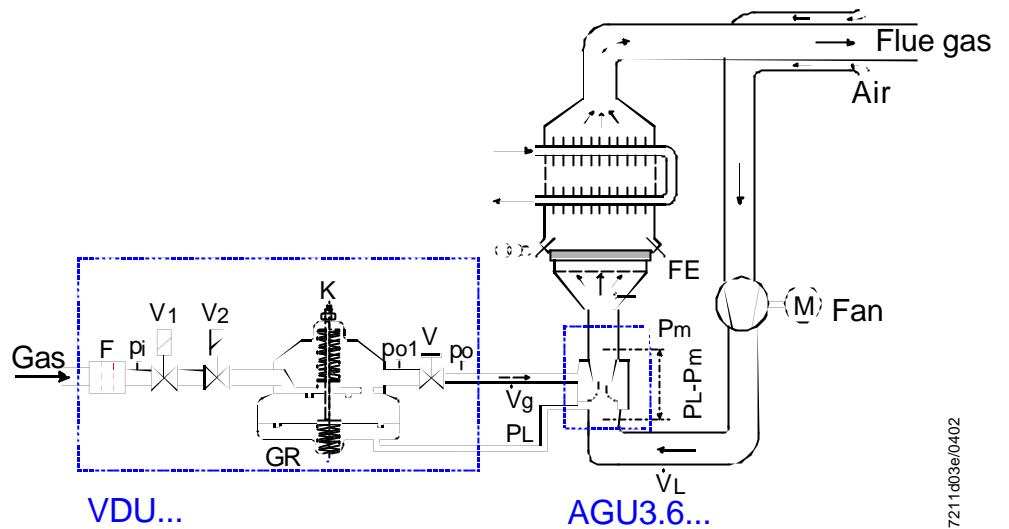
Environmental conditions

Transport	IEC 60 721-3-2
Climatic conditions	class 2K2
Mechanical conditions	class 2M2
Temperature range	-20...+80 °C
Humidity	< 95 % r.h.
Operation	IEC 60 721-3-2
Climatic conditions	class 3K5
Mechanical conditions	class 3M2
Temperature range	0...70 °C
Humidity	< 95 % r.h.



Condensation, formation of ice and ingress of water are not permitted!

Connection diagram



Legend

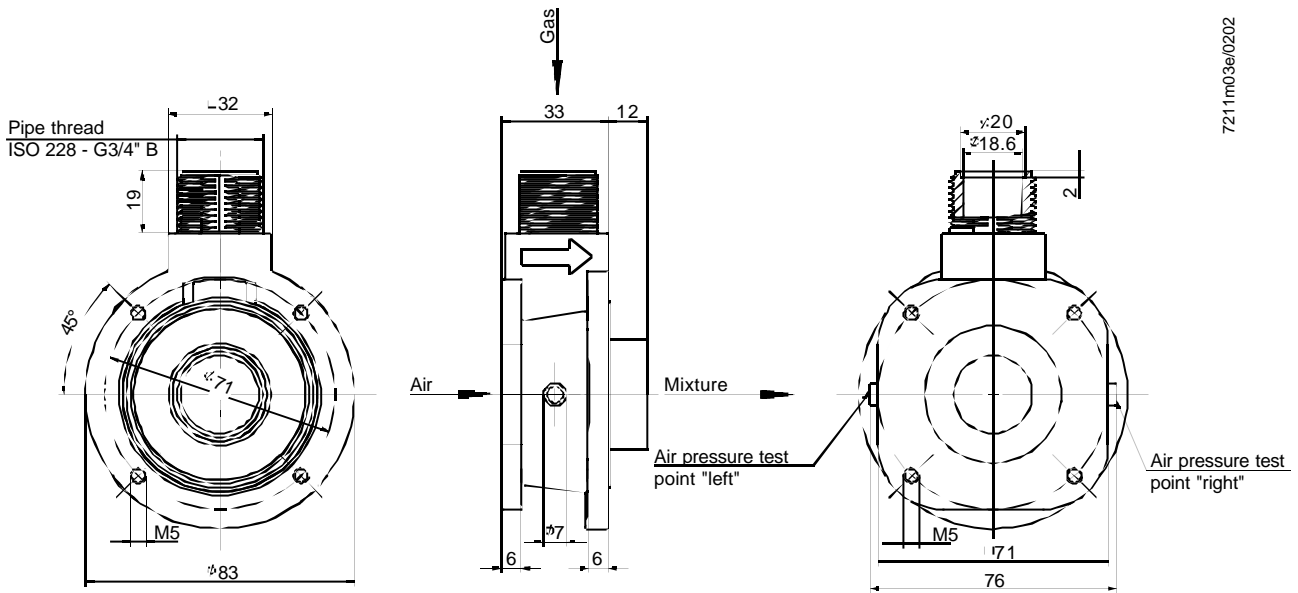
F	Filter
FE	Ionization probe
GR	Pneumatic air / gas ratio controller
K	Adjusting screw for parallel displacement of the air / gas pressure ratio characteristic
M	Fan motor
pi	Gas inlet pressure
pL	Air pressure (compensating variable)
pm	Pressure in the mixing chamber
po	Gas outlet pressure (on the burner side)
po1	Gas pressure upstream of the main gas line throttle
V1, V2	Magnetic valves
V	Throttle in the main gas line for the slope of the air / gas pressure ratio characteristic (0...1)
VDU...	Compact gas control loop
Vg	Volumetric gas flow
VL	Volumetric air flow

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Dimensions

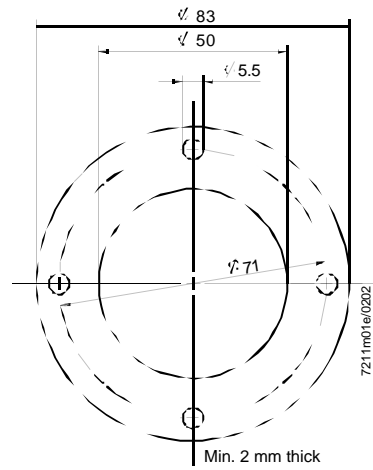
Dimensions in mm

AGU...



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Gasket



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