

GAS MIXER



Application:
- Medical Applications

MED-MG

for synthetic air

Made in Germany

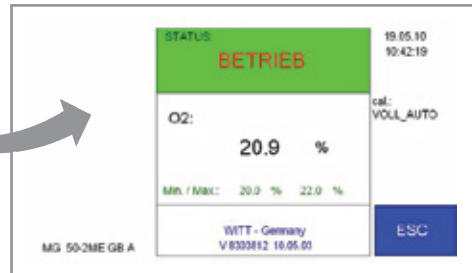
Product of



MED-MG 50-2ME GB A
MED-MG 100-2ME GB A
MED-MG 200-2ME GB A
MED-MG 500-2ME GB A

Stationary gas mixing system specifically for the generation of synthetic medicinal air
(according to EN ISO 7396-1).

Medical device class IIb, CE marked according to Directive 93/42/EEC.



Capacity range from 0 to approx. 675 Nm³/h.
For the exact pressure and flow capacity ratios, please
see the technical data overleaf.

Easy operation

- simple to operate via touch-screen
- pre-set gas blend (adjustable inside gas mixer)
- gas mixture withdrawal possible from zero to the maximum flow capacity

Options

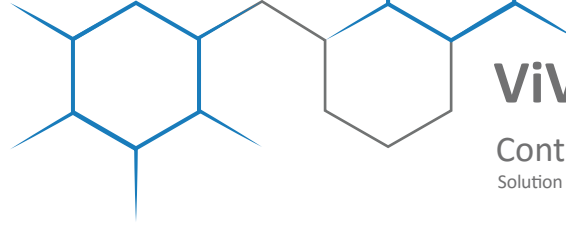
- additional heater for low ambient temperatures
- fully automatic calibration
- moisture analyser

Note:

System only works with appropriate buffer tank:

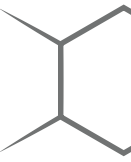
Type	MED-Receiver	Order-No.
MED-MG 2-50ME GB A	≥ 100 l	515-605
MED-MG 2-100ME GB A	≥ 250 l	516-606
MED-MG 2-200ME GB A	≥ 500 l	513-607
MED-MG 2-500ME GB A	≥ 2000 l	on request

GAS MIXER MED-MG for synthetic air



ViVANGAS

Control and Safety
Solution - Engineering- Equipment



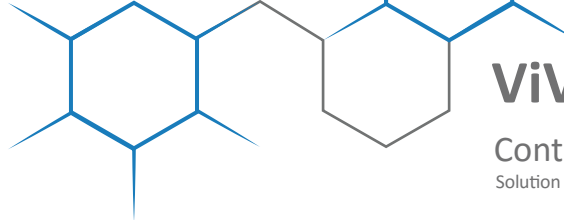
High process reliability

- highest integrity to supply safety by independent construction of all relevant safety components
- 2 independent integrated Oxygen Analysers for permanent control and documentation of the gas mixtures
- self monitoring of analysers additional monitoring via alarm module
- monitoring of the gas supply with pressure transmitter
- too low inlet pressures triggers an optical alarm and shut down the system
- lockable transparent door and back panel for protection of settings
- independent of pressure fluctuations in the gas supply
- intermittent gas mixture withdrawal possible
- USB connection for file transfer
- Ethernet connection for network integration
- triggering for solenoid valves provided by customer

Type	MED-MG 50/100/200/500 -2 ME GB A
Gases	Nitrogen and Oxygen
Mixing range	20.9% Oxygen (adjustable)
Pressure settings	see tables recommended settings for standard connections at flow velocity of ≤ 25 [m/s]
Inlet pressure differential between the gases	max. 3 bar
Mixture output (air)	see tables
Temperature (gas)	0 °C to 45 °C (32 °F to 113 °F)
Temperature (environment)	5 °C to 45 °C (41 °F to 113 °F)
Temperature differential of inlet gases	max. 15 °C (59 °F)
Max. humidity	$\leq 50\%$ at 40 °C (at 104 °F) $\leq 90\%$ at 20 °C (at 68 °F)
System accuracy	$\pm 0.8\%$ abs. (according to DIN EN ISO 7396-1/2013)
Analysing principle	paramagnetic sensor, measuring range 0 – 30% O ₂ , long lifetime
Alarm signals	min. / max. threshold value with 2 floating contacts
Logging	analogue outlet 4-20 mA or 0-10 V



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Interface	USB port, Ethernet for data storage and evaluation of measuring data on external medium
Housing	steel, coated, IP55
Weight	approx. 132 kg (MED-MG 50), approx. 135 kg (MED-MG 100), approx. 145 kg (MED-MG 200), approx. 260 kg (MED-MG 500)
Dimensions (HxWxD)	approx. 1730 x 650 x 640 mm (68.11 x 25.59 x 25.20 inches) (without connections)
Noise level	≤ 70 dBA
Voltage	230 V AC, 110 V AC or 24 V DC
Power consumption	230 V AC, 0.6 A
Approvals	Certified Full Quality Assurance System according to Directive 93/42/EEC on Medical Devices, Annex II excluding Section 4 CE-marked according to: - PED 97/23/EC - Medical Devices Directive 93/42/EEC

Gas connections

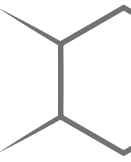
inlets

O₂
N₂

MED-MG 50	MED-MG 100	MED-MG 200	MED-MG 500
G 1 M, WITTFIX for pipe OD 22 mm			
G 1 M, WITTFIX for pipe OD 22 mm			flange DN 32 / PN 40
G 1 M, WITTFIX for pipe OD 22 mm			flange DN 50 / PN 40

outlet





Flow MED-MG 50 (in Nm³/h) in relation to air

min. receiver pressure in barg
(max. receiver pressure 0.5 bar higher)

	2.5	3.5	4.5	5.5	6.5	7.5	8.5
4	-	-	-	-	-	-	-
5	19	-	-	-	-	≤ 25 [m/s]	-
6	27	22	-	-	-	-	-
7	33	30	23	-	-	-	-
8	41	38	32	26	-	-	-
9	46	45	41	35	27	-	-
10	51	50	49	45	38	28	-
11	57	57	57	57	55	52	46
12	62	62	62	62	61	59	55
13	67	67	67	67	67	65	62

min. inlet pressure in barg (max. 20 bar)

Flow MED-MG 100 (in Nm³/h) in relation to air

min. receiver pressure in barg
(max. receiver pressure 0.5 bar higher)

	2.5	3.5	4.5	5.5	6.5	7.5	8.5
4	-	-	-	-	-	-	-
5	39	-	-	-	-	≤ 25 [m/s]	-
6	56	48	-	-	-	-	-
7	68	63	52	-	-	-	-
8	81	75	69	59	-	-	-
9	90	88	82	74	60	-	-
10	103	101	99	93	82	68	-
11	115	114	113	108	100	91	72
12	126	125	123	120	115	104	92
13	138	137	136	134	131	125	113

min. inlet pressure in barg (max. 20 bar)

Flow MED-MG 200 (in Nm³/h) in relation to air

min. receiver pressure in barg
(max. receiver pressure 0.5 bar higher)

	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5
4	-	-	-	-	-	-	-	-
5	73	-	-	-	-	≤ 25 [m/s]	-	-
6	100	84	-	-	-	-	-	-
7	120	107	89	-	-	-	-	-
8	140	129	115	93	-	-	-	-
9	162	154	142	125	102	-	-	-
10	182	176	165	152	132	105	-	-
11	205	200	191	180	164	144	115	-
12	223	218	211	201	185	170	147	99
13	244	239	234	224	212	198	181	120

min. inlet pressure in barg (max. 20 bar)

Flow MED-MG 500 (in Nm³/h) in relation to air

min. receiver pressure in barg
(max. receiver pressure 0.5 bar higher)

	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5
4	-	-	-	-	-	-	-	-
5	240	-	-	-	-	≤ 25 [m/s]	-	-
6	310	220	-	-	-	-	-	-
7	370	360	260	-	-	-	-	-
8	420	420	380	290	-	-	-	-
9	450	450	450	425	360	-	-	-
10	515	515	495	490	440	380	-	-
11	565	565	565	545	530	435	410	-
12	620	620	620	590	565	557	462	433
13	675	675	675	661	643	618	524	490

min. inlet pressure in barg (max. 20 bar)





Gas control equipment

- Gas mixing systems
- Gas metering systems
- Gas analysers
- Leak detection systems
- Gas pressure vessels
- Engineering of customised systems

Gas safety equipment

- Flashback arrestors
- Non-return valves
- Quick COUPLINGS
- Safety valves
- Stainless steel devices
- Gas filters
- Pressure regulators
- Lance holders
- Ball valves
- Automatic hose reels
- Test equipment
- Accessories
- Customised safety devices

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