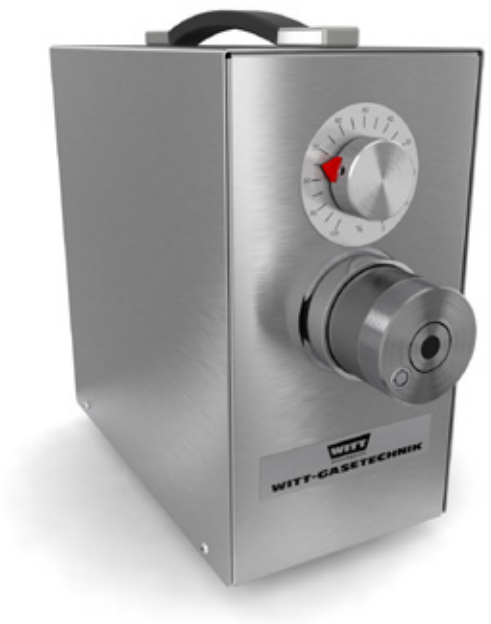
GAS MIXER



Application:
- Welding & Cutting

KM 10-2 FLEX

Made in Germany

Product of WITT
www.wittgas.com

GAS
let's Be One

GAS MIXER
KM 10-2 FLEX

ViVANGAS
Control and Safety
Solution - Engineering- Equipment

Gas mixing systems for 2 defined gases, designed for variable processes with a mixing range from 5-92%. See other ranges on overleaf.
Specially designed for applications with only low gas consumption. Ideally suitable as a portable desktop unit, e.g. for laboratory applications. Using a new mixing technology, no receiver is required.
Capacity range up to approx. 28 Nl/min.
For the exact pressure and flow capacity ratios, please see the technical data.

Benefits

- high mixing accuracy
- avoids the need to stock multiple pre-mixes (cost saving)
- does not require receiver (cost and space saving)
- inlet gas filters protect the device against impurities
- pneumatic operating principle, no electrical connections required
- mixed gas production from 1 l/min to the max. flow
- robust, compact design
- minimal maintenance required

Easy operation

- a mixing valve with a control knob and %-scale provides infinitely variable mixture settings

High process reliability

- independent of pressure fluctuations in the gas supply
- independent of withdrawal fluctuations (in permitted range)
- fail safe design (unit shuts down on failure of either gas supply)
- lockable to prevent tampering

Options

- alarm module NXT+: integrated inlet pressure monitoring with digital display for pressure (with analog pressure transmitters) plus optical alarm, adjustable alarm limits, obligation of acknowledgement, protection of alarms, interfaces for controlling external alarms etc.

Other models, options and accessories available upon request.
Please identify the individual gases at the time of enquiring!

Flow KM 2-10 FLEX (in Nl/min) in relation to N_2 — min. mixed gas production 1 l/min

min. inlet pressure in barg (max. 10 bar) \ outlet pressure in barg	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
3.0	6.7	5.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.0	9.4	9.3	8.5	5.8	-	-	-	-	-	-	-	-	-	-	-	-
5.0	12.6	12.6	12.4	12.3	11.1	8.1	-	-	-	-	-	-	-	-	-	-
6.0	15.4	15.2	15.2	15.2	14.7	14.4	13.3	8.6	-	-	-	-	-	-	-	-
7.0	18.6	18.5	18.4	18.3	18.2	18.1	17.8	17.0	14.8	9.4	-	-	-	-	-	-
8.0	21.5	21.3	21.2	21.1	20.9	20.9	20.8	20.7	20.4	18.8	16.6	10.3	-	-	-	-
9.0	24.9	24.8	24.7	24.6	24.5	24.5	24.4	24.3	24.2	24.1	22.3	20.9	17.6	10.5	-	-
10.0	28.2	28.0	27.9	27.8	27.7	27.6	27.4	27.3	27.2	27.1	27.0	26.9	25.6	23.2	19.9	12.4

GAS
let's Be safe

GAS MIXER
KM 10-2 FLEX

ViVANGAS
Control and Safety
Solution - Engineering- Equipment

Type	KM 2-10 FLEX
Gases	all technical gases (excluding toxic or corrosive gases, also no mixtures of fuel gases with air, O_2 or N_2O)
Mixing range	5-92% according to gas combination (see table) by selection of suitable mixing range the accuracy corresponds to ISO 14175
Pressure settings	see table on the front page
Inlet pressure differential between the gases	max. 3 bar
Mixture output (N2)	see table on the front page (other gases on request)
Setting accuracy	
Mixing range1: <5%	±0.5 % absolute
Mixing range 5:2 bis 20%	±10 % of the nominal value
Mixing range 3: >20%	±2 % absolute
Temperature (gas/environment)	-25 °C to +50 °C (-13 °F to +122 °F)
Gas connections **fuel gas connection**	G 1/4 RH with cone, hose nipple 6 mm G 3/8 LH with cone, soldering nipple for pipe OD 10 mm
Housing	stainless steel
Weight	approx. 10 kg
Dimensions (HxWxD)	approx. 316 x 158 x 370 mm (12.4 x 6.2 x 14.6 inches) without connections
Approvals	Company certified according to ISO 9001 CE-marked according to: - ATEX 95 Directive 94/9/EC (without plastic handle)

Note: The determined data of mixture output are only in relation to N2!
The use of other required gases results in a difference to the mixture output, which is compensated by the correction factor F_{MIX} :

F_{MIX} for concentrations (example):

	GAS 1	GAS 2	F_{MIX}
mixture	CO_2	Ar	
admix proportion in Vol.%	18	82	0.8812
admix proportion in Vol.%	4	96	0.8336
admix proportion in Vol.%	25	75	0.905
mixture	CO_2	N_2	
admix proportion in Vol.%	30	70	1.048
admix proportion in Vol.%	5	95	1.008
admix proportion in Vol.%	80	20	1.128
mixture	He	Ar	
admix proportion in Vol.%	20	80	0.866
admix proportion in Vol.%	60	40	0.958
mixture	He	N_2	
admix proportion in Vol.%	10	90	1.005
mixture	O_2	Ar	
admix proportion in Vol.%	4	96	0.8224
admix proportion in Vol.%	10	90	0.826
mixture	O_2	N_2	
admix proportion in Vol.%	4	96	0.9952
admix proportion in Vol.%	25	75	0.97
mixture	O_2	CO_2	
admix proportion in Vol.%	50	50	1.02
admix proportion in Vol.%	85	15	0.922

Possible admix range	
Mix	Range
CO_2 in Ar	%92-5 CO_2
CO_2 in N_2	%92-5 CO_2
CO_2 in Air	%92-5 CO_2
O_2 in CO_2	%85-5 O_2
O_2 in Ar	%92-5 O_2
O_2 in He	%88-5 O_2
O_2 in N_2	%87-5 O_2
He in Ar	%92-5 He
He in N_2	%87-5 He
N_2 in Ar	%92-5 N_2
H_2 in N_2	%95-5 H_2
H_2 in Ar	%95-8 H_2

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

ViVANGAS

Level 28-01, Integra Tower, The Intermark
348 Jalan Tun Razak, 50400 Kuala Lumpur.

Phone: +603-2775 9754-6
Fax: +603-2182 9797

letstalk@ViVANGAS.com
www.ViVANGAS.com