

GAS MIXER KM 1000-FLOW

Gas mixing systems for 2 or 3 defined gases, designed for a variety of industrial applications.

The KM-FLOW uses electronic mass flow controllers (MFC) instead of conventional proportional valves for mixing gases.

Combined with an analyser results a maximization of the quality accompanied by minimization of the gas consumption. This efficient workflow can be ideally realized with MFC.

Capacity range 10 up to 500 NI/min for each gas line. These mixers require a receiver with sufficient volume (min. 10 litres volume), which ensures a constant, accurate mixture when large or very small volumes are needed.

Benefits

- simple to operate via Touch-Screen
- freely programmable gas mixtures can be selected at the press of a button or by bar code scanner
- simplified analysis of results by digital data bus
- optimized gas consumption helps to reduce costs, cause user definable settings for each different product (only in combination with an analyser)
- low maintenance
- easy to read display
- data transfer via USB port
- administration of product names for individual positioning
- measured data storage
- user level with different access authorisation
- up to 3 mixers cascable. One unit with display and others as black-box realized

High Process Reliability

- data log
- permanent control of the O₂-concentration
- electronic control of the sample gas, alarm signals are given if the set limits are exceeded and a potential free contact operates to e.g. to shut down machinery to avoid quality problems



Picture shows the version with analyser

- lockable transparent door for protection of settings (option)
- independent of pressure fluctuations in the gas supply

Options

- software GASCONTROL CENTER for recording of results (see separate data sheet)
- integrated data logger
- measuring results data transfer via Ethernet
- bar code scanner for product names selection

Other models, options and accessories available on request.

Please identify the individual gases at the time of enquiring!

Type	KM 1000-FLOW
Gases	Ar, CO ₂ , O ₂ others gases and applications see data sheet KM17.1
Accuracy	±1.5% of current value plus ±0.3% of final value
Repeatability	±0.1% of final value by selection of suitable mixing range the accuracy corresponds to ISO 14175
Gas inlet pressures	max. 10 bar
Gas outlet pressure	min. 0.5 bar less than the inlet pressure
Output	O ₂ max. 500 NI/min CO ₂ max. 500 NI/min Ar max. 500 NI/min
Temperatures (gas/environment)	0 – 40 °C (+32 °F to +104 °F)
Gas connections	G 1/2 with cone seat, WITTFIX OD 10 mm
Alarm contacts	2 potential free contacts for min. and max. settings O ₂
Interfaces	USB by memory stick for product data RJ45 Ethernet FTP-Server for product data, flow values, software update
Housing	stainless steel, splash proof (with door)
Weight	approx. 35 kg
Dimensions (HxWxD)	approx. 325 x 480 x 500 mm (12.80 x 18.90 x 19.69 inch) (without connections and door)
Voltage	230 V AC, 110 V AC, 24 V DC
Power consumption	230 V AC / 1.0 A
Approvals	Company certified according to ISO 9001 CE-marked according to: - EMC 2004/108/EC - Low Voltage Directive 2006/95/EC

Mixtures (examples):

	2-gas mixture	Flow range [NI/min]	3-gas mixture	Flow range [NI/min]
Typical mix 1	Ar 82% + CO ₂ 18%	56 to 609	Ar 70% + CO ₂ 20% + O ₂ 10%	100 to 714
Typical mix 2	Ar 90% + CO ₂ 10%	100 to 555	Ar 70% + CO ₂ 28% + O ₂ 2%	500 to 714
min. possible admixture	Ar 2% + CO ₂ 98%	500 to 510	–	–
Worst case mix	Ar 98% + CO ₂ 2%	500 to 510	Ar 88% + CO ₂ 10% + O ₂ 2%	500 to 568
Best case mix	Ar 50% + CO ₂ 50%	20 to 1000	Ar 34% + CO ₂ 33% + O ₂ 33%	30 to 1470