

# GAS MIXER KM 1000/1500-FLOW MAP



Gas mixing systems for 2 or 3 defined gases, designed for packaging using a protective atmosphere in the food industry.

Applicable for all types of packaging machines; whether vacuum, thermoforming, pillow bags or manually-sealed compartments.

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 packaging quality accompanied by minimization of the gas consumption. This efficient workflow can be ideally realized with MFC.



Capacity range 25 up to 500 NI/min for each gas line. 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 gas quantity 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 cascadable. One unit with display and others as black-box realized

## High Process Reliability

- data log
- permanent control of the O<sub>2</sub>-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. auto-stop your machine to avoid quality problems
- lockable transparent door for protection of settings (option)
- independent of pressure fluctuations in the gas supply

Picture shows the version with analyser

- independent of packing speeds
- independent of package sizes

## Maximum Hygiene

- splash-proof, robust stainless steel housing
- smooth and easy to clean surface

## 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!**

# GAS MIXER KM 1000/1500-FLOW MAP



<b>Type</b>	KM 1000-2 FLOW MAP, KM 1500-3 FLOW MAP
<b>Gases</b>	N <sub>2</sub> , CO <sub>2</sub> , O <sub>2</sub> others gases and applications see data sheet KM17.2
<b>Accuracy</b>	±1.5% of current value plus ±0.3% of final value
<b>Repeatability</b>	±0.1% of final value
<b>Gas inlet pressures</b>	max. 10 bar
<b>Gas outlet pressure</b>	min. 0.5 bar less than the inlet pressure
<b>Output</b>	O <sub>2</sub> max. 500 NI/min CO <sub>2</sub> max. 500 NI/min N <sub>2</sub> max. 500 NI/min
<b>Temperatures (gas/environment)</b>	0 – 40 °C (+32 °F to +104 °F)
<b>Gas connections</b>	G 1/2 with cone seat, WITTFIX OD 10 mm
<b>Alarm contacts</b>	2 potential free contacts for min. and max. settings O <sub>2</sub>
<b>Interfaces</b>	USB by memory stick for product data RJ45 Ethernet FTP-Server for product data, flow values, software update
<b>Housing</b>	stainless steel, splash proof (with door)
<b>Weight</b>	approx. 35 kg
<b>Dimensions (HxWxD)</b>	approx. 325 x 480 x 500 mm (12.80 x 18.90 x 19.69 inches) (without connections and door)
<b>Voltage</b>	230 V AC, 110 V AC, 24 V DC
<b>Power consumption</b>	230 V AC / 1.0 A
<b>Approvals</b>	Company certified according to ISO 9001 and DIN EN ISO 22000 CE-marked according to: - EMC 2014/30/EU - Low Voltage Directive 2014/35/EU for food-grade gases according to: - Regulation (EC) No 1935/2004 Designed for Oxygen Service in accordance with EIGA 13/20 and CGA G-4.4: Oxygen Pipeline and Piping Systems Cleaned for Oxygen Service in accordance with EIGA 33/18 and CGA G-4.1: Cleaning of Equipment for Oxygen Servicestems

		Flow (in NI/min) in relation to CO <sub>2</sub> and 1 gas line								
		outlet pressure in barg								
		1	2	3	4	5	6	7	8	9
min. inlet pressure in barg (max. 10 bar)	2	340	–	–	–	–	–	–	–	–
	3	480	375	–	–	–	–	–	–	–
	4	500	500	435	–	–	–	–	–	–
	5	500	500	500	495	–	–	–	–	–
	6	500	500	500	500	500	–	–	–	–
	7	500	500	500	500	500	500	–	–	–
	8	500	500	500	500	500	500	500	–	–
	9	500	500	500	500	500	500	500	500	–
	10	500	500	500	500	500	500	500	500	500

		Flow (in NI/min) in relation to O <sub>2</sub> and 1 gas line								
		outlet pressure in barg								
		1	2	3	4	5	6	7	8	9
min. inlet pressure in barg (max. 10 bar)	2	286	–	–	–	–	–	–	–	–
	3	415	360	–	–	–	–	–	–	–
	4	500	475	395	–	–	–	–	–	–
	5	500	500	500	435	–	–	–	–	–
	6	500	500	500	500	450	–	–	–	–
	7	500	500	500	500	500	495	–	–	–
	8	500	500	500	500	500	500	500	–	–
	9	500	500	500	500	500	500	500	500	–
	10	500	500	500	500	500	500	500	500	500

		Flow (in NI/min) in relation to 50% CO <sub>2</sub> / 50% O <sub>2</sub> and 2 gas lines								
		outlet pressure in barg								
		1	2	3	4	5	6	7	8	9
min. inlet pressure in barg (max. 10 bar)	2	584	–	–	–	–	–	–	–	–
	3	876	609	–	–	–	–	–	–	–
	4	1000	1000	774	–	–	–	–	–	–
	5	1000	1000	1000	848	–	–	–	–	–
	6	1000	1000	1000	1000	970	–	–	–	–
	7	1000	1000	1000	1000	1000	1000	–	–	–
	8	1000	1000	1000	1000	1000	1000	1000	–	–
	9	1000	1000	1000	1000	1000	1000	1000	1000	–
	10	1000	1000	1000	1000	1000	1000	1000	1000	1000

KM17.1 - H01/2F - subject to change