

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 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 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!

GAS MIXER KM 1000/1500-FLOW



Type KM 1000-2 FLOW, KM 1500-3 FLOW

Gases Ar, CO₂, O₂

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

 $\begin{array}{cccc} \textbf{Output} & & \textbf{O}_2 & \text{max. 500 NI/min} \\ & & \textbf{CO}_2 & \text{max. 500 NI/min} \\ & & \textbf{Ar} & \text{max. 500 NI/min} \end{array}$

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 O₂

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 inches)

(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 2014/30/EU

- Low Voltage Directive 2014/35/EU Cleaned for Oxygen Service according to:

- EIGA IGC Doc 13/12/E: Oxygen Pipeline and Piping Systems

Flow (in NI/min) in relation to CO ₂ and 1 gas line												
		outlet pressure in barg										
		1	2	3	4	5	6	7	8	9		
	2	340	_	_	_	_	_	_	_	_		
	3	480	375	_	_	_	_	_	_	_		
min.	4	500	500	435	_	_	_	_	_	_		
inlet pressure	5	500	500	500	495	_	_	_	_	_		
in barg	6	500	500	500	500	500	_	_	_	_		
(max. 10 bar)	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 ₂ and 1 gas line													
		outlet pressure in barg											
		1	2	3	4	5	6	7	8	9			
	2	286	_	_	_	_	_	_	-	_			
	3	415	360	_	_	_	_	_	_	_			
min.	4	500	475	395	_	_	_	_	_	_			
inlet pressure	5	500	500	500	435	_	_	_	_	_			
in barg	6	500	500	500	500	450	_	_	_	_			
(max. 10 bar)	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 ₂ / 50% O ₂ and 2 gas lines												
		outlet pressure in barg										
		1	2	3	4	5	6	7	8	9		
	2	584	-	_	_	_	_	_	-	_		
	3	876	609	_	_	_	_	_	_	_		
min.	4	1 000	1 000	774	_	_	_	_	_	_		
inlet pressure	5	1 000	1 000	1 000	848	_	_	_	_	_		
in barg	6	1 000	1 000	1 000	1 000	970	_	_	_	_		
(max. 10 bar)	7	1 000	1 000	1 000	1 000	1 000	1 000	_	_	_		
,	8	1 000	1 000	1 000	1 000	1 000	1 000	1 000	_	_		
	9	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	_		
	10	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000		