



Multi-Gas Mixer For ppm and % range levels



Functional Overview

- PLC industrial control unit
- 10" touchscreen
- Multi-component gas mixer
- Real-time composition analysis
- High accuracy
- Mixing from 100 ppm up to % level range
- Pre-programmed recipes
- Internal data logging
- GSM remote control module
- Alarm messages via SMS
- Auto certificate creation

Latest generation gas mixing system

This device is a high-quality gas mixer for stable and precise mixtures extending from the ppm range up to % level concentrations. A typical application is the production of an aluminum welding gas mixture with 500 ppm O₂ in argon. Other applications include mixing O₂, CO₂ and He at concentrations from a few percent up to 50% in argon. This mixer supports a wide range of gases in tailored compositions.

The gas mixer works with an electronic high-accuracy thermal mass flow controller that guarantees high reproducibility and very stable flow control.

The device can be equipped with a built-in analyzer using sensors for analysis of O₂, CO₂, and humidity. The sensors can measure values from the ppm range up to % levels.

The highly dynamic performance of the flow controller means that the gas flow can be accurately controlled between 600 l/h up to 80000 l/h and above in accordance with EN ISO 14175.

Depending on the installation, the mixer works with a buffer tank or by supplying a direct flow to the manufacturing process. In buffer tank mode, the mixer starts and stops at an adjustable, process-specific differential pressure.

Technical data

Measurement principle	Thermal mass flow controller
Flow range	600 l/h up to 80000 l/h and above
Reaction time	<1 s
Accuracy	Meets ISO 14175 requirements
Pressure	Min. 2 bar – max. 10 bar
Gases	Ar, O ₂ , CO ₂ , N ₂ , He, NO, N ₂ O H ₂ upon request. Mixing possible from 100 ppm to % level
Number of gas inputs	Up to six components possible

Electronic data output

Connections	RJ-45 Ethernet, USB
Communication	LAN, Wi-Fi, GSM
Alarm output	Free open I/O card, SMS

Housing

Dimensions* (L x W x H)	360 x 305 x 145 mm
Weight*	20 kg +
Protection	IP65
Temperature	0 – 50°C
Humidity (ambient)	0-95% none condensing
Grid voltage and frequency	100 – 240 VAC, 50 – 60 Hz

Approvals

Company certified to ISO 9001
 CE-marked according to:
 - ATEX 114 Directive 2014/34/EU
 Cleaned for oxygen service according to:
 - EIGA IGC Doc 13/12/E: Oxygen Pipelines and Piping systems
 EMC 2014/30/EU
 Low Voltage Directive 2014/35/EU
 Machinery Directive 2006/42/EU

*Housing size and weight may vary

Linde GmbH

Gases Division, Seitnerstrasse 70, 82049 Pullach, Germany
 Phone +49 89 7446-0, www.linde-gas.com