**Gas Mixer**: **iMix**one

**Compact gas mixer with integrated high-pressure regulators and diffusion mixing system.**

Gas mixer iMix*one* for the production of mixtures of two gases

Highlights

• **Straightforward use due to two integrated high-pressure regulators and high-pressure hose**

• Optimal factory calibration according to customer‘s requirement(within the permissible range)

• Infinitely variable up to 30 l/min (related to Nitrogen)

• **High accuracy, according to ISO 14175**

• No accidental mixture changes

• Protection against overpressure due to two relief valves

• Mixture production stops automatically when gas supply is interrupted

• **Does not depend on gas withdrawal variations**

• **Does not depend on input pressure differences due to integrated constant pressure regulation**

• Selector switch for selecting up to 3 pre-set mixing ratios

• Gas inlet filters protect the device against contamination

• Sturdy and compact design, low maintenance

• No power supply required

• Optimised for one welding machine

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Technical Data:** | | | | | |
| **Carrier Gas:** | Argon (Ar) | | Nitrogen(N2) | |
| **Additive Gas:** | Carbon dioxide (CO2)  Helium (He)  Nitrogen (N2) | | Carbon Dioxide (CO2)  Helium (He) | |
| **Mixing Range:** | One to three pre-set gas mixtures:  Example 2/8 18 Vol % Carbon Dioxide (CO2) in Argon (Ar) | | | |
| **Inlet Pressure:** | Min 0.5 MPa (5bar)  Max 20 /30 MPa (200/300 bar) | | | |
| **Outlet Pressure:** | Max 0.45 MPa (4.5 bar) | | | |
| **Mixed Gas Capacity:** | 1.0 MPa (10 Bar) | | | |
| **Mixing Precision:** | ± 0,5 % abs: 1-5 Vol. % additive gas ± 10 % of nominal value: >5-20 Vol. % additive gas ± 2 % abs: > 20 Vol. % additive gas | | | |
| **Temperature:** | -10 to + 50°C | | | |
| **Connection**  **Inlet**  **Outlet** | Carrier gas: Flange connection DIN 477-1 / -5 with hose 1000 mm Additive gas: Flange connection DIN 477-1 / -5  G 1/4 M, EN560  variable area flowmeter (optional) | | | |
| **Material:** | Housing: aluminium, anodisd: in built parts: Brass , stainless steel, elastomer | | | |
| **Measure & Weight**  **Without connection:** | Height  215mm | Width  150mm | Depth  125mm | Weight  Approx. 5kg |

Further gas mixer versions for the production of gas mixtures of two gases are available on request

Type: **iMix***one*

Maintenance:

Gas mixers are to be tested for leaks at least once a month.

Gas mixers are only to be opened and repaired by the manufacturer.

The flow values set at the flow-scale of the iMixone relate to the flow rates of Nitrogen.

The correct values of the selected gas mixtures are to be calculated by a correction   
factor.

The following table shows the correction factors as an example for 3 different gas mixtures.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Application table | | |  | Application example | |
| Gas mixture CO2/Ar | | |  | Gas mixture setting: | |
| Vol.% CO2 | Vol.% Ar | Conversion factor |  | Gas mixture: | 18 % CO2 in Ar |
| 18 | 82 | 0,8812 |  | Conversion factor: | 0,8812 |
| 8 | 92 | 0,8472 |  | Consumption: | 18 Nl/min |
| 2 | 98 | 0,8268 |  | Flow regulator: | 18 x 0,8812 = 15,9 Nl/min |

Certification/ Technical Standards/ Rules

TRBS German Technical rules for operation safety, DVS German Association for Welding, Cutting and Allied Processes,   
DGUV German Employer´s liability insurance association rules and regulations.

Standards/ Approvals

Company certified according to   
ISO 9001:2015 and ISO 14001:2015,   
CE-marking according to: Pressure Equipment Directive 2014/68/EU

(Subject to change without notice)