



## Air Supply Unit LV1

### Function:

The **LV1** air supply unit is used for continuously supplying all common oxygen probes with reference air.

A defined volume of filtered external air is pressed into the inside of the zirconium oxide pipe. The low gauge pressure largely prevents any penetration of the furnace atmosphere into the zirconium oxide pipe.

The volume of reference air selected should not be too great otherwise there will be an unnecessary cooling of the built-in thermoelement. As a rule, oxygen probes with through zirconium oxide pipes (**MESA oxygen probes**) require almost no reference air so that the temperature measurement error is negligible in these probes.

In addition to the reference air the **LV1** also offers an air output for the probe rinsing. This externally triggerable air output is used for rinsing out the space between the protective pipe and the zirconium oxide pipe.

This function is triggered automatically at certain times for a certain duration by state-of-the-art C-level controllers (**Carbomat-M**). The aim of this function is to remove soot particles and other contamination by burning off and rinsing out.

### Technical Data:

#### Pump:

Diaphragm pressure pump  
End pressure  $\pm 20\%$  — 2.8 (0.27) mWts (bar)  
Free yield — 168 l/h  
Built-in filter

#### Reference air:

Measuring range (adjustable with valve)  
1.6 l/h to 16 l/h  
Accuracy class  
2.5 VDI/VDE 3513, sht. 2  
Readoff length 100 mm

#### Rinsing air:

Measuring range (adjustable with valve)  
10 l/h to 100 l/h  
Accuracy class  
2.5 VDI/VDE 3513, sht. 2  
Readoff length 100 mm  
Built-in non-return valve

#### Measuring principle:

Floating body

#### Switch cabinet:

Wall housing, steel-plated  
RAL 7032 pebble grey  
Protection type IP 55  
Cable and hose glands PG 13.5

**Dimensions:**

W x H x D

380 x 300 x 210 mm

**Air connections:**

Hose nozzles for 4 mm I.D.

**Electr. data:**

Pump, solenoid valve — 230 V/50 Hz

**Power consumption:**

approx. 12 VA

**Ambient temperature:**

-10 to 50 degrees Celsius

**Accessories:**

Plastic hose:

Internal diameter: 4 mm

External diameter: 6 mm

All specifications subject to change without prior notice.