

Portable vacuum pump

For preparing the filling of SF₆ gas compartments

Model GVP-10

WIKA data sheet SP 63.12

Applications

Evacuation of air or nitrogen for preparing the filling of SF₆ gas compartments

Special features

- Suction capacity up to 10 m³/h
- Final pressure ≤ 0.02 mbar abs. achievable
- Low weight and compact design
- Built-in oil back flow prevention and oil mist return
- Precision vacuum measuring instrument (optional)



Portable vacuum pump, model GVP-10

Description

Portable service equipment series

The model GVP-10 vacuum pump is a module of the portable service equipment series.

Modules of the instrument series:

- Portable vacuum pump, model GVP-10
- Portable SF₆ filter unit, model GPF-10
- Portable SF₆ vacuum compressor, model GVC-10
- Portable SF₆ transfer unit, model GTU-10
- Portable SF₆ gas cylinder scale, model GWS-10

High suction capacity

The GVP-10 is used to prepare the filling of SF₆ gas compartments. A low final pressure following evacuation guarantees low percentages of humidity and air in the SF₆ gas compartment. This creates ideal conditions for a long-term high-quality SF₆ filling. Thus the operational safety of the plants is ensured.

High-quality pump

The GVP-10 operates on the oil-lubricated rotary vane principle. During pump standstill, a non-return valve prevents oil from the pump from entering the SF₆ gas compartment. The oil mist occurring during long-time operation condenses at the outlet and is led back into the pump.

User-friendly

The product design combines easy operation with high suction capacity. The GVP-10 is a lightweight and can be transported and stored in a space-saving manner.

The vacuum pump can be securely separated from the gas compartment by means of the fitted ball cock. For determining the residual pressure, a digital precision vacuum measuring instrument can be used (see accessories). The inlet is designed with an DN 8 valve for the connection of hoses.

Specifications

Principle of operation

Rotary vane pump

Suction capacity

9.0 m³/h (5.3 cfm) (50 Hz)
10.8 m³/h (6.4 cfm) (60 Hz)

Inlet pressure

≤ atmospheric pressure

Final pressure at inlet

≤ 2 x 10⁻² mbar abs. (15 microns)
At 20 °C (68 °F) and gas ballast valve closed.

Connections

1 inlet with self-sealing DN 8 valve

Filling capacity oil

0.5 litres

Motor specifications

Power: 0.37 kW
Speed: 2,800 rpm (50 Hz), 3,300 rpm (60 Hz)

Power supply

| Selectable versions | |
|---------------------|---------------------------|
| Standard | AC 230 V, 50/60 Hz, ±10 % |
| Option | AC 115 V, 60 Hz, ±10 % |

Permissible ambient temperature

Storage: 0 ... 70 °C (32 ... 158 °F)
Operation: 5 ... 40 °C (41 ... 104 °F)

Permissible humidity

≤ 90 % r. h. (non-condensing)

Ingress protection

IP 20 (per EN 60529)

Dimensions

L x W x H: 360 x 220 x 415 mm / 14.2 x 8.7 x 16.4"

Weight

approx. 13 kg (28.7 lb)

CE conformity

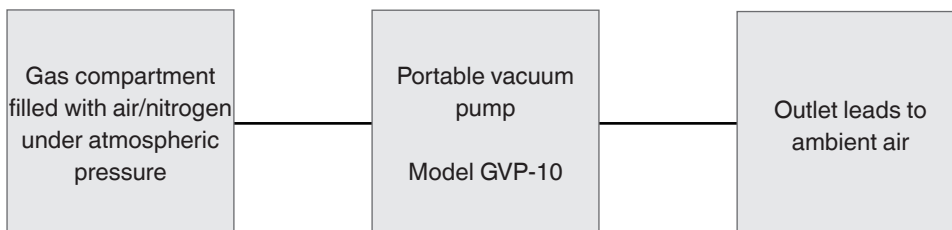
EMC directive

2004/108/EC, EN 61326 emission (group 1, class B) and interference immunity (industrial application)

Machinery directive

2006/42/EC

Schematic system structure



Accessories

| Designation | Order no. |
|--|------------|
| Digital precision vacuum measuring instrument | 14117031 |
| Measuring range: 0 ... 24 mbar | |
| Selectable units: mbar, Pascal, Mikron, Torr, mTorr, psi, inHg | |
| Connecting hose with self-closing valves, DN 8 | |
| Stainless steel, length 3 m (9.8 ft) | 14064922 |
| Stainless steel, length 6 m (19.7 ft) | 14064923 |
| Stainless steel, length 12 m (39.4 ft) | 14064924 |
| Rubber, length 3 m (9.8 ft) | 14064928 |
| Rubber, length 6 m (19.7 ft) | 14064929 |
| Rubber, length 12 m (39.4 ft) | 14064931 |
| Connections to SF₆ gas compartments | |
| DN 6 / DN 8 | on request |
| DN 7 / DN 8 | on request |
| DN 12 / DN 8 | on request |
| Stainless steel, DN 20 / DN 8 | 14067160 |
| Stäubli® / DN 8 | on request |
| Magrini® / DN 8 | on request |
| Asea® / DN 8 | on request |
| Malmkvist® / DN 8 | on request |
| Siemens® / DN 8 | on request |
| Consumables | |
| Vacuum oil, 0.5 L | 14116914 |
| Oil drain screw with sealing ring | 14115220 |
| Gas ballast valve | 14115225 |
| Sealing set | 14115229 |
| Pump mechanism (complete) | 14115227 |

Ordering information

Model / Power supply / Accessories

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