

Devices for determination of the SF₆ gas quality

For measurement of the volume percentage in air and nitrogen mixtures

3-027-R002

SF₆ Volume percentage measuring device

This device serves for measuring the gas purity necessary to maintain the dielectric property for arc quenching in circuit breakers. Thanks to the speed of sound measurement developed by DILO it provides results immediately. The microprocessor installed converts the values measured into the SF₆ volume percentage.

Easy rinsing after the measuring process - and the device can be used again for another gas compartment immediately.

The device can be deployed for measurements of pure SF₆ gas or SF₆ gas mixtures containing N₂ or CF₄.

In this case we kindly ask you to contact DILO.



- Easy handling
- Measurement independent of the air pressure and its position
- Response time about 1 minute
- Digital indication of the measuring values

3-027-R002

SF₆ Volume percentage measuring device

Technical data:

Dimensions (with handle): W 415 mm, H 155 mm, D 450 mm
Dimensions (transport case): W 535 mm, H 180 mm, D 470 mm
Weight: 10.5 kg
Weight with transport case: 14 kg
Measuring media: SF ₆ / N ₂ or SF ₆ / air-gas mixtures
Measuring principle: Velocity of sound
Measuring range: 0 - 100 volume-% SF ₆
Measuring accuracy: ± 0.5 volume-% for SF ₆ / N ₂ -gas mixture or SF ₆ / air-gas mixture
Operating pressure: input pressure of the device without pressure regulation p _a (absolute) = 1.7 to 10 bar (p _e [effective] = 10.2 to 130.5 psi). At a pressure of p _a (absolute) = 1.2 to 1.7 bar (p _e [effective] = 2.9 to 10.2 psi) the function is still guaranteed. However, the response time increases.
Measuring pressure: The measuring process is effected under atmospheric pressure.
Operating temperature: temperature compensation of -20 °C to +50 °C (-4 °F up to +122 °F) ambient temperature
Ambient moisture: up to 90 % relative moisture, non condensing during operation
Response time: Approx. 1 min. with a rinsed connecting hose. The response time as well as the rinsing of the connecting hose depend on the supply pressure. In the most unfavourable case at p _a (absolute) = 1.7 bar (p _e effective = 10.2 psi) the time to get an exact measurement is 5 min. if the rinsing valve is not operated.
Flow rate: max. 1.2 g / min. (0.04 oz / min) at 100 % SF ₆ gas and an operating pressure of p _a (absolute) = 10 bar (p _e [effective] = 130.5 psi)
Electrical connection: 220 V - 240 V / 50 - 60 Hz reversible to 110V - 127V / 50 - 60 Hz
Interface: RS232

Standard equipment:

Volume percentage measuring device with digital display
Measuring cell with electronic part
2 m long connecting hose with coupling DN8 and DN20
Housing with front and back covering with big handle for transportation and placing of the device
Mains plug with 2 m long connecting cable
Transport case
1 operating manual (multilingual) on CD-ROM

Optional accessories at an extra charge:

Data cable for RS232 interface and CD-ROM with computer indicating programme	6-1106-R001
Discharge gas collecting bag (for emission-free measurement)	B151R95
Additional operating manual on CD-ROM	6-0004-R213

Retrofit kit for discharge gas collecting bag is available upon request (only for devices with delivery date until mid of 2014).

Packing:

Packing for 3-027-R002	3-775-R009-C
------------------------	--------------