

DILO Company, Inc.

3-033-R050 SF₆ Leak Detector



The DILO **3-033-R050** leak detector has been designed to not only identify SF₆ leaks, but also quantify the leak rate in parts per million by volume (PPM_v). Using an IR-based sensor, the detector represents a significant advancement over the traditional argon/radioactive based leak detection technologies.

The dual wavelength non-dispersive infrared spectrometer (NDIR) sensing algorithm ensures that this device will alert only when SF₆ is detected. It completely ignores any other gases or compounds that may be present during sampling. Most quantifying detectors can be damaged, or at a minimum, require excessive purging or flushing if they are subjected to high concentrations of SF₆.

With a non-coalescing sensor, the 3-033-R050 can withstand full emersion in 100% SF₆ without missing a beat. Further, by relying on an optical-based detection system, traditional consumables such as reference gases (i.e. argon) are not required.

A small pump within the unit constantly draws sample gas through the sensor to ensure a quick response, and an accurate reading. Both the handgun and console contain a liquid-crystal display, indicating the precise amount of SF₆ detected. Being able to quantify a given leak rate will help users better prioritize repairs and general maintenance.

- No radioactive source
- Low maintenance
- Calibration every 2 years (OEM/ISO)
- No consumables
- Highly sensitive (1 PPM_v)
- Response time of 1 second
- Unaffected by strong concentrations of SF₆
- Not sensitive to any other gases
- Unaffected by moisture

Technical Specifications

3-033-R050 SF₆ Leak Detector

Measurement:	Dual wave non-dispersive infrared spectrometer (NDIR)
Sensitivity:	1 PPM _v , 3.4 g/yr, 1x10 ⁻⁵ atm cc/sec Not sensitive to other gases Unaffected by moisture (0-100% humidity)
Response time:	1 second
Repeatability:	< 0.3%
Power:	Lithium-Ion rechargeable battery >8hrs of operation per charge Integrated charger (100-265VAC, 50/60Hz)
Alarm:	Audible (buzzer) and visual (LED)
Display range:	0-5000 PPM _v
Accuracy:	<2,000 PPM _v ± 5% of value >2,000 PPM _v ± 2% of range
Calibration:	Every 2 years*
Operating temp:	32°F to 113°F
Dimensions:	Console: 11.5"L x 7.75"W x 3.25"H Handgun: 8.25"L x 4.5"W x 3.5"H
Weight:	Console: 5.5 lbs. Handgun: 1 lb.