

Golay Detector Calibration Set GC-CS

The large experience in operating Golay Detectors proves it is necessary to obtain an instrument for calibrating and verifying the detector directly before use if the most accurate absolute measurements are required.



The Golay Detector operating principle is based on a physical process of heating the gas by radiation absorbed by a thin film. The efficiency of the process can vary according to the environment conditions (e.g. unstable temperature). It has an influence on the detector's response. Long term use of the device may make the films (in the receiving chamber) stretch; it also affects the parameters and measuring results. Summarizing the above, voltage-power curve measured by the manufacturer cannot be completely relied upon for determining the calibration coefficient.

The best possible solution is calibrating Golay Detector at the user's laboratory directly before the measurements. That is the purpose of the GC-CS Golay Detector calibration set.

The GC-CS Golay Detector calibration set is a suite of equipment for on-the-spot performance verification of detectors, evaluation of their stability and adjustment of calibration coefficients. The calibration set provides the environment for achieving maximum accuracy of absolute measurements with Golay Detector throughout its entire lifetime.

The key component of the set is a highly stable heat source reproducing radiation temperature of 100°C.

For quotation and delivery please fill in request form at our website.

Technical specification:

Temperature reproduced by the radiation source, °C	100
Radiation source's absolute confidence limits at 95% confidence, °C	±1
Temperature variability around set level, °C, no more than	±0.1
Radiation source temperature drift @ 15 minutes, °C, no more than	±0.1
Radiation source output aperture diameter, mm	60±2
Mains voltage, V	from 90 to 230
Mains frequency, Hz	50±0,5
Power demand, W, no more than	100
Ambient pressure range, mm Hg	760 ÷ 10 ⁻³
Operating and storage temperature, °C	15 ÷ 25
Humidity, %	40 ÷ 80
Radiation source dimensions, mm	260 x 180 x 120
Radiation source mass, kg	2,5