

Detector inspection and operating instructions:

All detectors in operation must be inspected regularly and it is always necessary to prepare a written protocol about the detector inspection. The frequency of inspections is governed by the relevant regulations. Unless stated otherwise, it is recommended to do the inspection with the use of the calibration gases at least once a year (at higher detector load twice a year), the inspection of proper operation can be done every one to two months of its operation. If the system is shut down for a long time, it is necessary to do an inspection before its re-commissioning.

The inspection consists of two parts:

1. Visual inspection of the detector condition

An inspection of the mechanical fastening, fixing of the wires to the terminal, the purity of the sensing element (not to be corroded, dusty, wet, greasy or otherwise polluted).

2. Entire system response to the presence of gas

- The system must be put into operation at least 10 minutes before the start of the inspection of proper operation (in case of prolonged standstill the period shall be reasonably extended)
- Check the state of each LED of the detector - red and yellow light is off, green light is on or flashing.

a) inspection with the use of the calibration gas (see below):

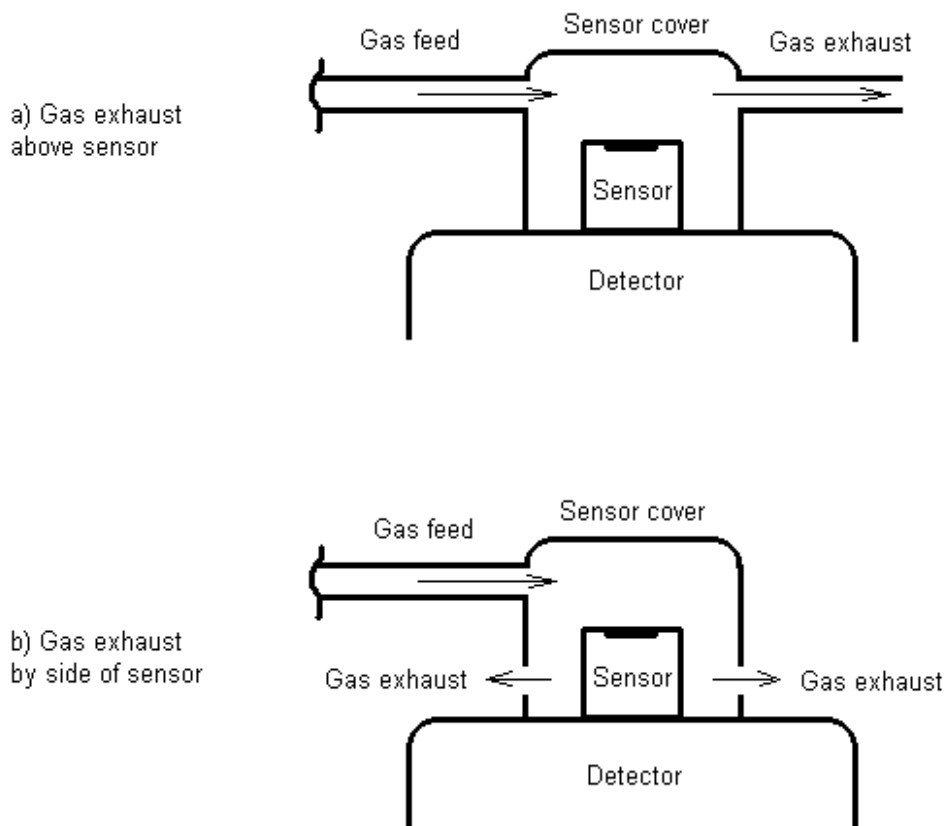
- Using the appropriate calibration gas mixture of lower concentration, check whether the first stage of the detector switches on (yellow or red light is on) and whether a corresponding signal connected to the first stage switches on. If a gas corresponding to the lower limit of detection is not available, it is necessary to prepare it from the available higher concentration (JTO calibration kit contains only gases for inspection of stage II concentration). Dilution of e.g. 1:1 may be done by using larger plastic syringe etc.
- Similarly try using a calibration gas of higher concentration and see if the second stage of the detection system switches on. At the same time it must be checked if the memory function of the second stage is operating properly (if installed).

b) inspection of proper operation:

- mixture of gas and air are introduced to the sensor must first yellow light or red light detector of First Instance (by type) and immediately after the red light has come on the second stage. At the same time react respective display elements, respectively. circuit or solenoid automatic boiler room,
 - after approx 1 min try, if memory state second-degree turn off the unblocking key (if this is enabled).
 - for function control can be used the supplied test ampoule.
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Note: When checking detector calibration gases is necessary to comply with the following conditions:

- a) The detector must not be in direct strong stream of gas in order to avoid its cooling. If the cylinder control meter is set optimum flow rate in the range of 0.3 to 0.7 l / min. This corresponds to a "slight" breeze that comes from the valve.
- b) The sensor can be for example. placed in an airtight bag that fill the calibration gas. The second option is to direct the gas flow around the sensor. In this case, the flow rate must be controllable and sensor must be blown so that the gas does not pass directly over the sensing element, but the gas is received into the sensor by diffusion. For this purpose we recommend to deploy sensor suitable plastic attachment (see Fig.).



Attachment to prevent direct gas pressure to the sensing element. Its implementation is arbitrary, but must provide sufficient tightness in the gas feed line to avoid dilution of the calibration mixture. Flue gas can concentrate in the attachment and exhaust to one hole or to the side of the sensor several holes.

- c) Sometimes the inspection stage 2 may be that the detector does not respond to the calibration gas. Error often not caused by a defect in the detector or the wrong setting, but usually that the detector is set exactly on the boundary decision. We therefore recommend ordering calibration gas or while stirring to prepare a gas having a concentration slightly higher than the guarded boundaries (eg. Gas with 22% of the threshold detector 20% LEL).