Fixed Gas Detector Fault Finding Guide

Vendor neutral fault finding guide for field technicians

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Before you start

- Permit, isolation and control room informed.
- Put the loop in manual or inhibit trips as authorised.
- Use certified test equipment in hazardous areas.
- Record as found readings before changing anything.

Quick checks

- Test gas correct and in date?
- Inhibit status known?
- Sensor within service life?
- Environment: dust, water, steam?

Symptoms, causes and fixes

Symptom	Likely causes	Checks and fixes
Fails bump test (low)	Poisoned catalytic sensor, blocked sinter, aged sensor	Clean or replace; calibrate
False alarms	Cross sensitive gases, humidity, steam, RF	Check process; relocate; filter
Negative or drifting zero	Calibrated in contaminated air, sensor ageing	Zero with zero gas; replace sensor
IR optics fault	Dirty windows, condensation	Clean optics; fit weather guard
No signal at DCS	Loop fault, inhibit left on	Check loop and inhibit status
Slow response	Blocked guard or sinter, long sampling line	Clean; check flow

Reminders

- Methane LEL 4.4 % vol (IEC 60079-20-1).
- Catalytic sensors need oxygen and can be poisoned by silicones.
- IR detectors do not detect hydrogen.