

## EXPLOSIVE ATMOSPHERES –

### Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases

#### INTERPRETATION SHEET 1

This interpretation sheet has been prepared by IEC technical committee 31: Equipment for explosive atmospheres.

The text of this interpretation sheet is based on the following documents:

ISH	Report on voting
31/809/ISH	31/817/RVD

Full information on the voting for the approval of this interpretation sheet can be found in the report on voting indicated in the above table.

There has been a request for formal interpretation of the drop test fail criterion in the performance standard IEC 60079-29-1 (2007), Subclause 5.4.14.

The fail criterion is:

“The apparatus shall be considered to have failed this test if there is a loss of function (e.g. alarm, pump function, controls, display) after the test”.

#### Question:

Is the interpretation of this text, that the loss of function, even in a short period during the interruption and until restart of the equipment will fail the test? Or is a permanent loss of function needed to fail the equipment, e.g. a broken display or a pump, which cannot restart?

Bouncing of a battery spring in the moment of impact can cause the drop out of power in battery supplied equipment, and make it shut down. Is this considered as sufficient to fail the test? Or would it be sufficient safe situation for the user if the equipment could restart and show the correct measurement?

#### Interpretation:

Any loss of function after the test including any change of state is considered a failure since there is continued dependency on the life safety device even under adverse affects such as an accidental drop of the device during use. Automatic or manual re-starting is not acceptable.