

ISO 26142:2010-06 (E)

Hydrogen detection apparatus - Stationary applications

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	General requirements	4
4.1	Construction	4
4.1.1	General	4
4.1.2	Enclosure	4
4.1.3	Measuring range	4
4.1.4	Alarm system	4
4.1.5	Indicators	5
4.1.6	Adjustments	5
4.1.7	Software-controlled hydrogen detection apparatus	6
4.1.8	Reliability	7
4.2	Labelling and marking	8
4.3	Instruction manual	8
4.4	Vibration	9
5	Performance requirements	9
6	Tests	9
6.1	General requirements for tests	9
6.1.1	Number of samples	9
6.1.2	Sequence of tests	9
6.1.3	Preparation of the hydrogen detection apparatus before testing	10
6.2	Test equipment	10
6.3	Normal test conditions	10
6.3.1	Temperature	10
6.3.2	Pressure	10
6.3.3	Humidity	10
6.3.4	Voltage	10
6.3.5	Orientation	10
6.4	Test methods	11
6.4.1	General	11
6.4.2	Standard response test	11
6.4.3	Measuring range and calibration	11
6.4.4	Stability	12
6.4.5	Alarm set point(s)	13
6.4.6	Temperature	13
6.4.7	Pressure	14
6.4.8	Humidity	14
6.4.9	Vibration	14
6.4.10	Orientation	15
6.4.11	Flow rate for aspirated apparatus	16
6.4.12	Air velocity	16
6.4.13	Time of response and time of recovery	17

6.4.14	Selectivity	17
6.4.15	Poisoning	17
6.4.16	Operation above the measuring range	18
6.4.17	Power supply variations	18
6.4.18	Power supply interruptions, voltage transients and step changes of voltage	19
6.4.19	Warm-up time after restart	19
6.4.20	Electromagnetic immunity	19
6.4.21	Field calibration kit	20
Annex A (informative) Chamber test method		21
Annex B (informative) Flow-through test method		24
Bibliography		27