ISO 16437:2012-07 (E)

Ships and marine technology - Lifesaving and fire protection - Atmospheric oil mist detectors for ships

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Requirements 3
4.1 General 3
4.2 Compliance 4
4.3 Detector calibration 4
4.4 Cleaning alarm 4
4.5 Indicating devices 4
4.6 Individual detector indicators 4
4.7 Connection of ancillary devices 5
4.8 Monitoring of detachable detectors 5
4.9 Manufacturer's adjustments 5
4.10 On-site adjustment of response behaviour 5
4.11 Response to slow increases of oil mist concentrations 5
4.12 Marking 6
4.13 Instruction manual 6
4.14 Data 7
4.15 Requirements for software-controlled detectors 7
4.16 Monitoring of memory contents -- optional function 8
4.17 Additional requirements for aspirating detectors 8

5 Test methods 10
5.1 General 10
5.2 Repeatability 13
5.3 Dry heat (operational) 13
5.4 Cold (operational) 14
5.5 Damp heat 15
5.6 Vibration, sinusoidal (operational) 16
5.7 High voltage 17
5.8 Variation of supply parameters 18
5.9 Electrical power supply failure 19
5.10 Insulation resistance 19
5.11 Electrostatic discharge immunity 20
5.12 Radiated radio frequency immunity 21
5.13 Conducted low frequency immunity 21
5.14 Conducted high frequency immunity 22
5.15 Burst/fast transient immunity 23
5.16 Surge immunity test 24
5.17 Additional tests for aspirating detectors 26

6 Installation 27

7 Test report 27

Annex A (normative) Calibration for master detector and/or functional test for product detector 28

Annex B (informative) Example of an alternative test method for the product detectors 34

Annex C (informative) Example of an oil mist generator 38

Annex D (informative) Location and installation of atmospheric detectors 40

Bibliography 44