ISO 17386:2023-05 (E)

Intelligent transport systems - Manoeuvring aids for low-speed operation (MALSO) - Performance requirements and test procedures

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Classification 4

5 Functional and performance requirements 4
5.1 System activation 4
5.1.1 Systems with manual activation 4
5.1.2 Systems with automatic activation 5
5.2 Driver interface and information strategy 5
5.2.1 General information presentation 5
5.2.2 Audible information 5
5.2.3 Visual information 6
5.2.4 Combination of visual and audible information 7
5.2.5 Duration of signalling 7
5.3 Dynamic performance of object detection 7
5.3.1 Relative velocity of objects 7
5.3.2 Start-up detection delay 7
5.3.3 Detection latency 8
5.4 Monitoring range coverage 8
5.4.1 Sections of the monitoring range 8
5.4.2 Horizontal areas of relevance 8
5.4.3 Rear horizontal area 9
5.4.4 Front horizontal area 10
5.4.5 Corner horizontal areas 12
5.4.6 Minimum coverage ratios 13
5.4.7 Vertical areas of relevance 13
5.5 Self-test capabilities and failure indication 14
5.6 Operation with trailers 14
5.6.1 Trailer hitch handling 14
5.6.2 System operation with trailer 15

6 Requirements and tests components 15

7 Operational test of obstacle detection 15
7.1 Test object 15
7.1.1 Standard test object definition 15
7.1.2 Ultrasonic-based systems 15
7.1.3 Radar-based systems 16
7.2 General ambient conditions 16
7.3 Test procedure 16
7.3.1 Test setup 16
7.3.2 Test 1 -- Coverage of horizontal areas of relevance 17
7.3.3 Test 2 -- Coverage of vertical areas of relevance 17
Annex A (informative) Test methods 18

Bibliography 21