DIN ISO 14490-3:2017-09 (E)

Optics and photonics - Test methods for telescopic systems - Part 3: Test methods for telescopic sights (ISO 14490-3:2016)

Contents

Page

National foreword ... **4**

National Annex (informative) **Bibliography** ... **5**

Foreword ... **6**

1 Scope ... **7**

2 Normative references ... **7**

3 Terms and definitions ... **7**

4 Method of measurement of axial parallax ... **7**
4.1 Principle ... 7
4.2 Test arrangement ... 8
4.2.1 General ... 8
4.2.2 Collimator ... 8
4.2.3 Telescopic sight ... 8
4.2.4 Dioptric tester ... 8
4.3 Measurement procedure ... 9
4.4 Test report ... 9

5 Method of measurement of parallax ... **9**
5.1 Principle ... 9
5.2 Test arrangement ... 9
5.2.1 General ... 9
5.2.2 Collimator ... 10
5.2.3 Telescopic sight ... 10
5.2.4 Light stop ... 10
5.2.5 Auxiliary telescope ... 10
5.3 Measurement procedure ... 11
5.4 Test report ... 12

6 Method of measurement of eye relief range ... **12**
6.1 Principle ... 12
6.2 Test arrangement ... 12
6.2.1 General ... 12
6.2.2 Collimator ... 12
6.2.3 Telescopic sight ... 12
6.2.4 Measuring magnifier ... 12
6.3 Measurement procedure ... 13
6.4 Test report ... 14

7 Method of measurement of reticle tracking ... **14**
7.1 Principle ... 14
7.2 Test arrangement ... 14
7.2.1 General ... 14
7.2.2 Collimator ... 14
7.3 Test procedure ... 15
7.4 Test report ... 15

8 Method of measurement of line of sight shift due to zooming 15
8.1 Principle 15
8.2 Test arrangement 15
8.2.1 General 15
8.2.2 Test specimen mounting 17
8.2.3 Auxiliary telescope 17
8.3 Test procedure 17
8.3.1 Preparation of the test assembly 17
8.3.2 Determination of the measurement values 17
8.4 Precision of the measurement 18
8.5 Test report 18
9 Method of measurement of line of sight shift due to focusing 18
9.1 Principle 18
9.2 Test arrangement 18
9.2.1 General 18
9.2.2 Collimator 19
9.2.3 Telescopic sight 20
9.2.4 Auxiliary telescope 20
9.3 Test procedure 20
9.3.1 Preparation of the test assembly 20
9.3.2 Determination of the measurement values 20
9.4 Precision of the measurement 20
9.5 Test report 21
10 General test report 21