DIN EN ISO 15995:2024-12 (E)

Gas cylinders - Specifications and testing of LPG cylinder valves - Manually operated (ISO 15995:2021 + Amd.1:2024) (includes Amendment :2024)

Contents

Page

European foreword ... **4**

A1 European foreword to Amendment 1 A1 ... **5**

Foreword ... **6**

A1 Foreword to Amendment 1 A1 ... **7**

Introduction ... **8**

1 Scope ... **9**

2 Normative references ... **9**

3 Terms and definitions ... **9**

4 Design and specification ... **12**
4.1 General ... 12
4.2 Materials ... 13
4.2.1 General ... 13
4.2.2 Operating temperatures ... 13
4.2.3 Copper alloys ... 13
4.2.4 Non-metallic materials ... 13
A1 4.2.5 Adhesives A1 ... 13
4.3 Essential components ... 14
4.3.1 Valve operating mechanism ... 14
4.3.2 Valve body ... 14
4.3.3 Valve stem ... 14
4.3.4 Valve outlet ... 14
4.3.5 Excess flow valve ... 15
4.4 Optional components ... 15
4.4.1 General ... 15
4.4.2 Pressure relief valve ... 15
4.4.3 Eduction tube ... 15
4.4.4 Fixed liquid level gauge ... 15
4.4.5 Excess flow valve ... 16
4.4.6 Non-return valve ... 16
4.4.7 Liquid level indicator ... 16
4.4.8 Sealing cap and sealing plug ... 16
4.4.9 Sediment tube ... 16
4.5 Leak tightness ... 16
4.6 Operating torque ... 17
4.7 Closing torque ... 17
4.8 Opening torque ... 17

5 Valve type test ... **17**
5.1 General ... 17
5.2 Test samples ... 20
5.3 Test procedure and test requirements ... 20
5.4 Inspection ... 21
5.5 Hydraulic pressure test ... 21
5.5.1 Procedure ... 21
5.5.2 Requirement ... 21
5.6 External and internal leak tightness tests ... 21
5.6.1 Procedure ... 21

5.6.2 Requirement 22
5.7 Valve stem test 22
5.7.1 Procedure 22
5.7.2 Requirement 23
5.8 Hand wheel fire exposure test 23
5.8.1 Procedure 23
5.8.2 Requirement 23
5.9 Impact test 23
5.9.1 General 23
5.9.2 Procedure 24
5.9.3 Requirement 26
5.10 Excessive closing torque test 26
5.10.1 Procedure 26
5.10.2 Requirement 26
5.11 Excessive opening torque test 26
5.11.1 Procedure 26
5.11.2 Requirement 26
5.12 Endurance test 27
5.12.1 Procedure 27
5.12.2 Requirement 27
5.13 Examination of dismantled valves 27
5.13.1 Procedure 27
5.13.2 Requirement 28
5.14 Excess flow valve test 28
5.14.1 General 28
5.14.2 Excess flow valve test with air 28
5.14.3 Excess flow valve test with water 28
5.14.4 Excess flow strength test 29
5.15 Non-return valve test 29
5.15.1 Procedure 29
5.15.2 Requirement 29
5.16 Vibration test 30
5.16.1 Procedure 30
5.16.2 Requirement 30

6 Documentation and test report 30
6.1 Documentation 30
6.2 Test report 30

7 Production testing 30

8 Markings 31

Annex A (normative) **Special valves 32**

Annex B (normative) **Production testing and inspection 33**

Annex C (normative) **Special low temperature requirements 34**

Annex D (normative) **Vibration testing 35**

Bibliography 36