DIN EN 15069:2008-06 (E)

Safety gas connection valves for metal hose assemblies used for the connection of domestic appliances using gaseous fuel

Contents

Page

Foreword 5

Introduction 6

1 Scope 6

2 Normative references 6

3 Terms and definitions 7

4 General requirements 9
4.1 SC valve types 9
4.2 Classification 10
4.2.1 Temperature classes 10
4.2.2 Pressure classes 10
4.3 Construction requirements 10
4.3.1 General 10
4.3.2 Materials 11
4.3.3 Nominal sizes 11
4.4 Construction 11
4.5 Connection 12
4.5.1 General 12
4.5.2 Connection and disconnection 12
4.5.3 Disconnection 12
4.5.4 Rotation 12
4.6 Operation 12
4.6.1 General 12
4.6.2 Manual operated control (if fitted) 12
4.7 Dangerous substances 12

5 Performance requirements and tests 13
5.1 General 13
5.2 Test end fittings 13
5.3 Test sequence schedule 13
5.4 Leak-tightness 15
5.4.1 Angular seal 15
5.4.2 External leak-tightness 15
5.4.3 Internal leak-tightness 16
5.5 Internal Pressure 16
5.5.1 Requirements 16
5.5.2 Test 17
5.6 Rated flow rate 17
5.6.1 Requirements 17
5.6.2 Test 17
5.7 Tensile strength resistance 19
5.7.1 Requirements 19
5.7.2 Tests 19
5.8 Bending resistance 20
5.8.1 Requirements 20
5.8.2 Tests 20
5.9 Resistance to torsion 20

5.9.1 Requirements 20
5.9.2 Tests 20
5.10 Resistance to impact 21
5.10.1 Requirements 21
5.10.2 Tests 21
5.11 Durability 22
5.11.1 Durability of the manually operated control SC valve 22
5.11.2 Durability of connection and disconnection 23
5.11.3 Rotation durability of the SC valve outlet 23
5.11.4 Temperature durability - Thermal ageing 23
5.12 High and low temperature resistance 24
5.12.1 Low temperature resistance 24
5.12.2 High temperature resistance (only for SC valve without TSD) 26
5.12.3 Leak-tightness during thermal load (only for SC valve with TSD) 26
5.13 Resistance to lubricants 26
5.13.1 General 26
5.13.2 Requirement 26
5.13.3 Test 26
5.14 Reaction to fire 27
5.14.1 Requirement 27
5.14.2 Testing and assessment methods 27
5.15 Resistance to gas 27
5.15.1 General 27
5.15.2 Requirement 27
5.15.3 Test 27
5.16 Corrosion resistance 28
5.16.1 Requirement 28
5.16.2 Test 28
5.17 Operating torque for a manually operated control SC valve 28
5.17.1 Requirement 28
5.17.2 Test 28
5.18 Operating strength for a safety quick connection SC valve 29
5.18.1 Requirement 29
5.18.2 Test 29
5.19 Stop resistance 29
5.19.1 Requirement 29
5.19.2 Test 30
5.20 SC valves type 2 and 4 30
5.20.1 Leak-tightness of the OSD 30
5.20.2 Overflow safety rate 30
5.20.3 Overflow safety durability 31
5.20.4 Normal flow durability 31
5.21 Electrical continuity 32
5.21.1 Requirement 32
5.21.2 Test 32
5.22 Leak-tightness of the system with non-metal components 32
5.22.1 Requirement 32
5.22.2 Test 32
5.23 SC valves type 3 and 4 33
5.23.1 Reaction to temperature 33

6 Evaluation of conformity 33
6.1 General 33
6.2 Type testing 33
6.2.1 Initial type testing (ITT) 33
6.2.2 Subsequent type testing 34
6.3 Factory production control (FPC) 34
6.3.1 General 34
6.3.2 FPC requirements for all manufacturers 34
6.3.3 Manufacturer-specific FPC system requirements 36
6.4 Installation instructions 37
6.5 Packaging 38

Annex A (informative) SC valve and hose fitting design requirements for connection to the gas supply pipework or to the pressure reduction device of portable gas bottles 39

Annex B (informative) Test end fitting 58

Construction Products Directive 59

ZA.1 Scope and relevant characteristics 59

ZA.2 Procedure for attestation of conformity of SC valves 60

ZA.2.1 System of attestation of conformity 60

ZA.2.2 EC Certificate and Declaration of conformity 63

ZA.3 CE marking and labeling 64

Bibliography 66