DIN EN 12259-15:2025-06 (E)

Fixed firefighting systems - Components for sprinkler and water spray systems - Part 15: Spray pattern sprinklers with a k-factor of at least K160, extended coverage sprinklers of at least K80 and control mode special application sprinklers

Contents

Page

European foreword 3

Introduction 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 5

4 Assessment methods and criteria 6
4.1 Tolerances 6
4.2 Connections 6
4.3 Durability of coated sprinklers 6
4.4 High temperature exposure 6
4.5 Conductivity (C-Factor) 7
4.6 Sensitivity (Air oven) 7
4.7 Leak resistance 9
4.8 Release of the sprinkler at minimum operating pressure (for spray pattern, EC and ECS sprinklers) 9
4.9 Nominal operating temperature 9
4.10 Function (only for CMSA) 10
4.11 Size of water passageways 11
4.12 Sprinkler temperature identification 11
4.13 Water distribution 12
4.14 Actual Delivered Density 22
4.15 Extinguishing performance 27
4.16 Discharge coefficient 28
4.17 Sensitivity (Response time index) 31
4.18 Frame strength 31
4.19 Strength of release element - fusible link type 32
4.20 Strength of release element - bulb type 33
4.21 Water hammer 36
4.22 Strength of deflector 36
4.23 Vibration resistance 36
4.24 Impact test 37
4.25 Freezing 37
4.26 High ambient temperature exposure (90-day test) 38
4.27 Thermal shock 38
4.28 Corrosion 38

5 Marking 38

6 Manufacturer's installation instructions 39

Annex A (normative) Tolerances 41

Annex B (normative) Extinguishing performance 42

B.1 General 42
B.2 Values for performance under fire 42

Annex C (informative) Actual delivered density (ADD) 78

Bibliography 80