

DIN EN 125:2025-08 (E)

Flame supervision devices for gas burning appliances - Thermoelectric flame supervision devices (includes Amendment :2024)

Contents		Page
European foreword		5
Introduction		6
1	Scope	8
2	Normative references	8
3	Terms and definitions	8
4	Classification	9
4.1	Classes of control	9
4.2	Groups of control	9
4.3	Classes of control functions	9
4.4	Types of DC supplied controls	9
5	Test conditions and uncertainty of measurements	9
6	Design and construction	10
6.1	General	10
6.2	Mechanical parts of the control	10
6.2.1	Appearance	10
6.2.2	Holes	10
6.2.3	Breather holes	10
6.2.4	Screwed fastenings	10
6.2.5	Jointing	10
6.2.6	Moving parts	10
6.2.7	Sealing caps	10
6.2.8	Dismantling and reassembly	10
6.2.9	Auxiliary canals and orifices	10
6.2.10	Presetting device	10
6.3	Materials	10
6.3.1	General material requirements	10
6.3.2	Housing	11
6.3.3	Zinc alloys	11
6.3.4	Springs	11
6.3.5	Resistance to corrosion and surface protection	11
6.3.6	Impregnation	11
6.3.7	Seals for glands for moving parts	11
6.4	Gas connections	11
6.4.1	Making connections	11
6.4.2	Connection sizes	11
6.4.3	Threads	11
6.4.4	Union joints	11
6.4.5	Flanges	11
6.4.6	Compression fittings	11
6.4.7	Nipples for pressure test	11
6.4.8	Strainers	11
6.5	Electronic parts of the control	11
6.6	Protection against internal faults for the purpose of functional safety	12

7	Performance	12
7.1	General	12
7.2	Leak-tightness	12
7.2.1	Requirements	12
7.2.2	Test	13
7.3	Torsion and bending	13
7.4	Rated flow rate	13
7.4.1	Requirement	13
7.4.2	Test	14
7.4.3	Conversion of air flow rate	14
7.5	Durability	14
7.6	Performance tests for electronic controls	14
7.7	Long-term performance for electronic controls	14
7.8	Data exchange	14
7.101	Operating torque and force	14
7.101.1	Requirement	14
7.101.2	Test for operating torque and force	15
7.102	Interlocks	15
7.102.1	Requirement	15
7.102.2	Test for interlocks	15
7.103	Closing current	15
7.103.1	Requirement	15
7.103.2	Test for closing current	15
7.104	Sealing force	16
7.104.1	Requirement	16
7.104.2	Test for sealing force	16
7.105	Endurance	17
7.105.1	Requirement	17
7.105.2	Endurance test	17
8	EMC/Electrical requirements	18
9	Electromagnetic compatibility (EMC)	18
10	Marking, instructions	18
10.1	Marking	18
10.2	Instructions	18
10.3	Warning notice	19
	Annex A (informative) Abbreviations and Symbols	20
	Annex B (informative) Leak-tightness test for gas controls - volumetric method	21
	Annex C (informative) Leak-tightness test - pressure loss method	22
	Annex D (normative) Calculation of pressure loss into leakage rate	23
	Annex E (normative) Electrical/electronic component fault modes	24
	Annex F (normative) Additional requirements for safety accessories and pressure accessories as defined in EU Directive 2014/68/EU	25
	Annex G (normative) Materials for pressurized parts	26
	Annex H (normative) Additional materials for pressurized parts	27
	Annex I (normative) Requirements for controls used in DC supplied burners and burning gaseous or liquid fuels appliances	28
	Annex J (normative) Method for the determination of the Safety Integrity Level (SIL)	29
	Annex K (normative) Method for the determination of a Performance Level (PL)	30

Annex L (informative) Relationship between Safety Integrity Level (SIL) and Performance Level (PL)	31
Annex M (normative) Reset functions	32
Annex N (informative) Guidance document on Environmental Aspects	33
Annex O (normative) Seals of elastomers, cork and synthetic fibre mixtures	34
Annex AA (informative) Types of flame supervision devices	35
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of Regulation (EU) 2016/426 aimed to be covered	37
Bibliography	40