

DIN EN 16898:2024-10 (E)

Safety and control devices for gas burners and gas burning appliances - Gas filters having a maximum working pressure up to and including 600 kPa; German version EN 16898:2022+A1:2023

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	9
6.1	General	9
6.2	Mechanical parts of the control	9
6.2.1	Appearance	9
6.2.2	Holes	9
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
6.2.101	Filter element replacement	10
6.2.102	Fixing of filter element	10
6.3	Materials	11
6.3.1	General material requirements	11
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	12
6.5	Electrical parts of the control	12
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	12
7.3	Torsion and bending	12
7.3.1	General	12
7.3.2	Torsion and bending moments	12
7.4	Rated flow rate	12
7.5	Durability	12
7.6	Performance tests for electronic controls	12
7.7	Long-term performance for electronic controls	13
7.8	Data exchange	13
7.101	Filtration efficiency according to test dust	13
7.101.1	Requirement	13
7.101.2	Test	13
8	Electrical requirements	15
9	Electromagnetic compatibility (EMC)	15
10	Marking, instructions	15
10.1	Marking	15
10.2	Instructions	15
10.3	Warning notice	16
Annex A (informative) Abbreviations and symbols		17
Annex B (informative) Leak-tightness test for gas controls - volumetric method		18
Annex C (informative) Leak-tightness test for gas controls - pressure loss method		19
Annex D (normative) Calculation of pressure loss into leakage rate		20
Annex E (normative) Electrical/electronic component fault modes		21
Annex F (normative) Additional requirements for safety accessories and pressure accessories as defined in EU Directive 2014/68/EU		22
Annex G (normative) Materials for pressurized parts		23
Annex H (normative) Additional materials for pressurized parts		24
Annex I (normative) Requirements for controls used in DC supplied burners and appliances burning gaseous or liquid fuels		25
Annex J (normative) Method for the determination of a Safety Integrity Level (SIL)		26
Annex K (normative) Method for the determination of a Performance Level (PL)		27
Annex L (informative) Relationship between Safety Integrity Level (SIL) and Performance Level (PL)		28
Annex M (normative) Reset functions		29
Annex N (informative) Guidance document on Environmental Aspects		30
Annex O (normative) Seals of elastomer, cork and synthetic fibre mixtures		31

Annex AA (normative) Dust collecting device	32
AA.1 General	32
AA.2 Dust collecting bag	32
AA.3 Outlet filter	32
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Regulation (EU) 2016/426 aimed to be covered	33
Bibliography	36