DEF: Tight-sealing butterfly valve, PN 16



DEF100F200



How energy efficiency is improved

Intelligent collar design for working without loss through leakage

Features

- For cutting off and regulating water and low-pressure steam up to 110 °C
- Butterfly valve with 3-way brass bearing bush as spindle bearing
- Fits PN 6, PN 10 and PN 16 flanges
- Can be combined with motorised actuators of the ADM 322 and A44W type or damper actuators with spring return of the ASM 124, 134 and ASF 122, 123 type
- Damper body made of grey cast iron
- Collar made of ethylene-propylene rubber
- Butterfly disc made of stainless steel
- Spindle made of stainless steel with two O-rings

Technical data

Parameters		
	Nominal pressure	16 bar
	Valve characteristic	Linear
	Angle of rotation	90°
	Leakage rate[1)]	< 0,0001% of the K_{VS} value

Ambient conditions		
	Operating temperature	–10...130 °C
	Maximum operating pressure	16 bar

Overview of types

Type	Nominal diameter	K_{VS} value	Weight
DEF025F200	DN 25	36 m³/h	1 kg
DEF032F200	DN 32	40 m³/h	1.15 kg
DEF040F200	DN 40	50 m³/h	2.75 kg
DEF050F200	DN 50	85 m³/h	3.05 kg
DEF065F200	DN 65	215 m³/h	4.05 kg
DEF080F200	DN 80	420 m³/h	4.3 kg
DEF100F200	DN 100	800 m³/h	4.85 kg
DEF125F200	DN 125	1010 m³/h	7.2 kg
DEF150F200	DN 150	2100 m³/h	9.5 kg
DEF200F200	DN 200	4000 m³/h	12 kg

Accessories

Type	Description
0361632***	Two welding flanges, complete PN 6 as per EN 1092-1 DN 25, DN 32, DN 40, DN 50, DN 65, DN 80, DN 100, DN 125, DN 150, DN 200
0361633***	Two welding flanges, complete PN 10 (DN 25...100) as per EN 1092-1 and PN 16 (DN 25...200) as per EN 1092-1 DN 25, DN 32, DN 40, DN 50, DN 65, DN 80, DN 100, DN 125, DN 150, DN 200
0361634200	2 welding flanges complete PN 10 (DN 200) as per EN 1092-1
0378110001	Assembly parts; DEF DN 25…65 for A44
0378111001	Assembly parts; DEF DN 80…125 for A44
0378112001	Assembly parts; DEF DN 150…200 for A44
0378113001	Assembly parts; DEF DN 25…100 for ASF122/123
0372455001	Assembly part; DEF DN25...65 for ASM 124/134
0372455002	Assembly part; DEF DN80...100 for ASM 124; DN125 for ASM 134
0372455003	Assembly part; DEF DN150...200 for ASM 134
0510240014	ADM322 fitting kit with DEF DN20...65
0510240015	ADM322 fitting kit with DEF DN80...100

1) *At Δp 1.5 bar*

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Ordering information: DN 25 = /025, DN 100 = /100

Combination of DEF with electric actuators

i *Warranty: The technical data and pressure differences indicated here are applicable only in combination with SAUTER valve actuators. The warranty does not apply if used with valve actuators from other manufacturers.*

i ***Definition of Δp_s:*** *Max. admissible pressure drop in the event of a malfunction (pipe break after the damper) at which the actuator reliably closes the damper using the return spring.*

i ***Definition of Δp_{max}:*** *Max. admissible pressure drop in control mode at which the actuator reliably opens and closes the damper.*

Pressure differences

Actuator	ADM322F120 ADM322F122 ADM322HF120 ADM322HF122 ADM322PF120 ADM322PF122	ADM322SF122 ADM322SF152	ASM124F120 ASM124F122	ASM124SF132
Torque	15 Nm	15 Nm	18 Nm	15 Nm
Control signal	3-point	2-/3-point, 0...10 V	2-/3-point	2-/3-point, 0...10 V
Running time	120 s	30/60/120 s	120 s	60/120 s
Operating voltage	24 V~/= / 230 V	24 V~/=	24 V=/~ / 230 V	24 V=/~ / 230 V

Δp [bar]

Closes against the pressure	Δp_{max}	Δp_{max}	Δp_{max}	Δp_{max}
DEF025F200 DEF032F200 DEF040F200 DEF050F200	10.0	10.0	10.0	10.0
DEF065F200	7.0	7.0	7.0	7.0
DEF080F200	4.0	4.0	4.0	4.0
DEF100F200	2.0	2.0	2.0	2.0
Cannot be used to close with the pressure				

Actuator	ASF122F120 ASF122F220	ASF122F122	ASF122F222	ASF123F122	ASF123SF122
Torque	18 Nm	18 Nm	18 Nm	18 Nm	18 Nm
Control signal	2-point	2-point	2-point	3-point	0...10 V
Running time	90 s	90 s	90 s	90 s	90 s
Operating voltage	230 V~	24 V~	24V~	24V~	24V~

Δp [bar]

Closes against the pressure	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s	Δp_{max}	Δp_s
DEF025F200 DEF032F200 DEF040F200 DEF050F200	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
DEF065F200	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
DEF080F200	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
DEF100F200	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cannot be used to close with the pressure										

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Actuator	A44W2F001	A44W2F020	A44W2SF001	ASM134SF132	ASM134F130
Torque	30 Nm	30 Nm	30 Nm	30 Nm	30 Nm
Control signal	3-point	3-point	0...10 V; 4...20 mA	0...10 V	3-point
Running time	120 s	120 s	120 s	120/240 s	120/240 s
Operating voltage	230 V~	24 V~	24V~	24 V~	230 V~

Δp [bar]

Closes against the pressure	Δp_{max}	Δp_{max}	Δp_{max}	Δp_{max}	Δp_{max}
DEF025F200 DEF032F200 DEF040F200 DEF050F200	16.0	16.0	16.0	–	–
DEF065F200	16.0	16.0	16.0	7.0	7.0
DEF080F200 DEF100F200	10.0	10.0	10.0	7.0	7.0
DEF125F200	6.0	6.0	6.0	7.0	7.0
DEF150F200	5.0	5.0	5.0	6.0	6.0
DEF200F200	3.0	3.0	3.0	2.0	2.0
Cannot be used to close with the pressure					

Accessories required: Assembly parts; see accessories

Description of operation

Can be controlled to any intermediate position using a motorised actuator or a positioning actuator with spring return. Can be used as a shut-off unit when using actuator ASF 122 / 123. Here, when there is a power failure or a limiting controller is activated, the damper is moved to either the close or the open position.

Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the “Description of operation” section.
All related product regulations must also be adhered to. Changing or converting the product is not admissible.

Engineering and fitting notes

The device is fitted by inserting it between two flanges and tightening the screws. When it is being installed, the damper must be open min. 10%. Due to the special housing lining, no flange seal is required.
The flow can come from either side.

Additional version information

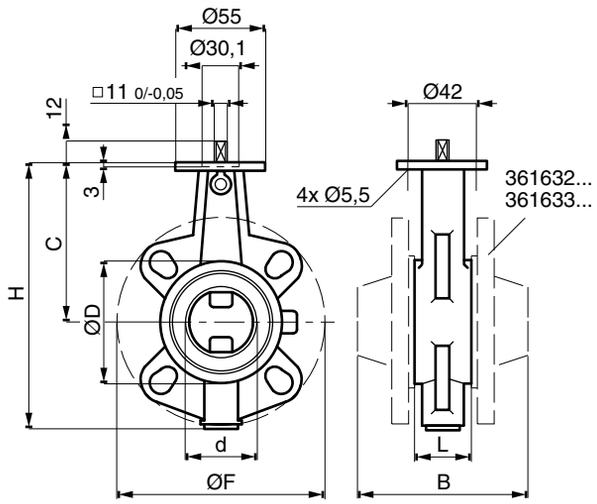
Length of the damper as per EN 558 series 20 from nominal diameter 40. Collar is lined so that grey cast iron and medium cannot come into contact.
Actuator flange as per EN ISO 5211-NFE 29-402
Flange adapted to DIN 2501

DN	Pressure Equipment Directive	CE
25	97 / 23 / EC Art. 3.3	
32	97 / 23 / EC Art. 3.3	
40	97 / 23 / EC Art. 3.3	
50	97 / 23 / EC Art. 3.3	
65	97 / 23 / EC Cat. I	CE
80	97 / 23 / EC Cat. I	CE
100	97 / 23 / EC Cat. I	CE
125	97 / 23 / EC Cat. I	CE
150	97 / 23 / EC Cat. I	CE
200	97 / 23 / EC Cat. I	CE

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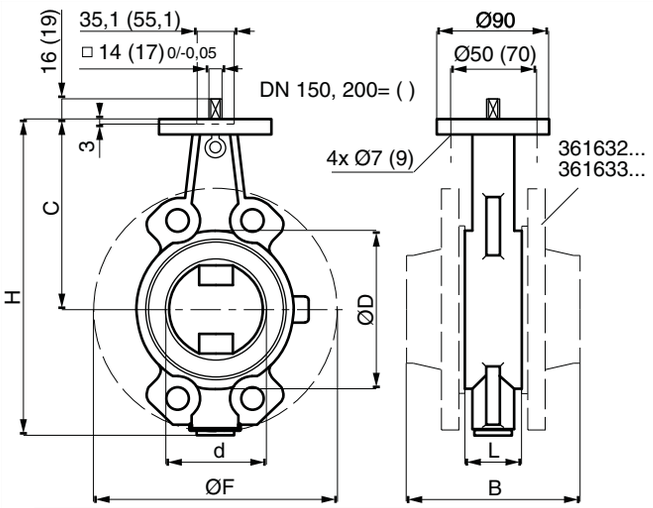
Dimension drawing 5M109

DEF 25...65



DN	d	C	H	L	ØD	B PN6	B PN10/16	ØF PN6	ØF PN10/16
25	32	104	149	33	64	103	109	100	115
32	32	104	154	33	69	103	113	120	140
40	40	113	178	33	82	109	117	130	150
50	50	126	209	43	95	119	133	140	165
65	62	134	226	46	115	122	136	160	185

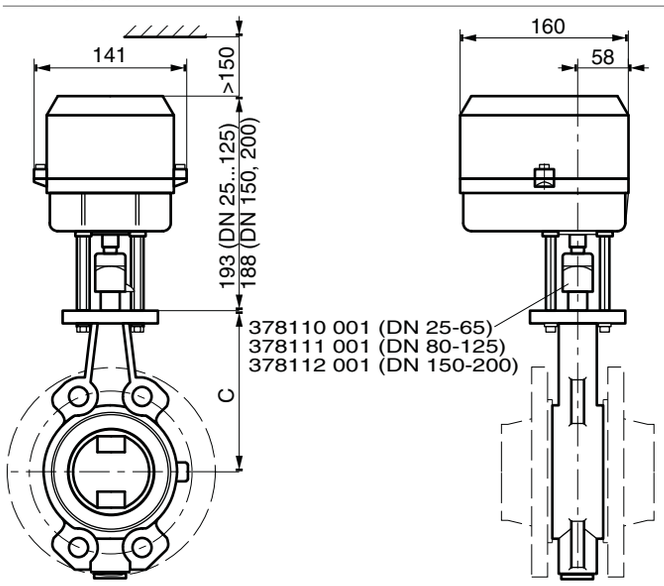
DEF 80...200



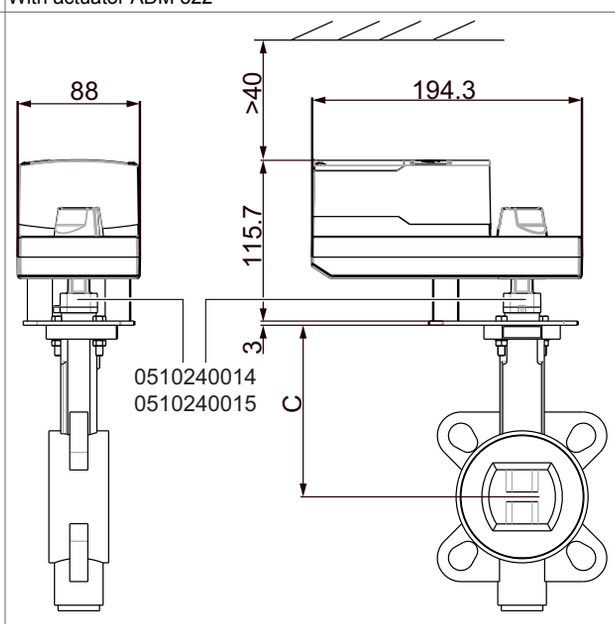
DN	d	C	H	L	ØD	B PN6	B PN10/16	ØF PN6	ØF PN10/16
80	78	157	260	46	138	130	146	190	200
100	98	167	281	52	158	142	156	210	220
125	123	180	306	56	188	152	166	240	250
150	147	203	355	56	212	152	166	265	285
200	197	228	403	60	250	170	182	320	340

Combinations

With actuator A44

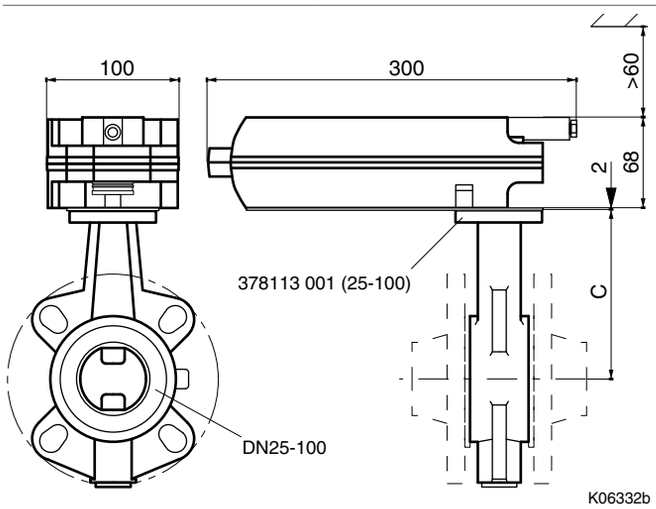


With actuator ADM 322



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DN 25...100 with actuator ASF 122, 123



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