

DEF: Tight-sealing butterfly valve, PN 16

How energy efficiency is improved

Intelligent collar design for working without loss through leakage

Features

- Continuous control of water and low-pressure steam up to 110 °C or as a shut-off unit
- Butterfly valve with 3-way brass bearing bush as spindle bearing
- Fits PN 6, PN 10 and PN 16 flanges
- Can be combined with the motorised actuators of the AR30W and A44W type or ASF 122 and 123 damper actuators with spring return
- Damper body made of grey cast iron
- Collar made of ethylene-propylene rubber
- Butterfly disc made of stainless steel
- Spindle of stainless steel with two O-rings



DEF100F200



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
0378108001	Assembly parts; DEF DN 25...65 for AR30
0378109001	Assembly parts; DEF DN 80...100 for AR30
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

¹⁾ At Δp 1.5 bar



 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	AR30W23F001	AR30W23F020	AR30W23SF020
Torque	–	15 Nm	15 Nm
Control signal	3-point	3-point	0...10 V
Running time	120 s	120 s	120 s

Δp [bar]

Closes against the pressure	Δp_{max}	Δp_{max}	Δp_{max}
DEF025F200 DEF032F200 DEF040F200 DEF050F200	10.0	10.0	10.0
DEF065F200	7.0	7.0	7.0
DEF080F200	4.0	4.0	4.0
DEF100F200	2.0	2.0	2.0

Cannot be used to close with the pressure

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

Δp [bar]

Closes against the pressure	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
DEF065F200	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
DEF100F200	2.0	2.0	2.0	2.0	2.0	2.0

Cannot be used to close with the pressure

Actuator	A44W2F001 A44W2F020	A44W2SF001
Torque	30 Nm	30 Nm
Control signal	3-point	0...10 V; 4...20 mA
Running time	120 s	120 s

 Δp [bar]

Closes against the pressure	Δp_{\max}	Δp_{\max}
DEF025F200 DEF032F200 DEF040F200 DEF050F200 DEF065F200	16.0	16.0
DEF080F200 DEF100F200	10.0	10.0
DEF125F200	6.0	6.0
DEF150F200	5.0	5.0
DEF200F200	3.0	3.0

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.

Manual adjustment of the butterfly disc

- AR30
 - Using the crank handle (fixed in the adaptor plate)
- A44 W
 - Using the crank handle (fixed under the cover)
- ASF 122 / 123
 - Releasing the coupling by hand

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 documents 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

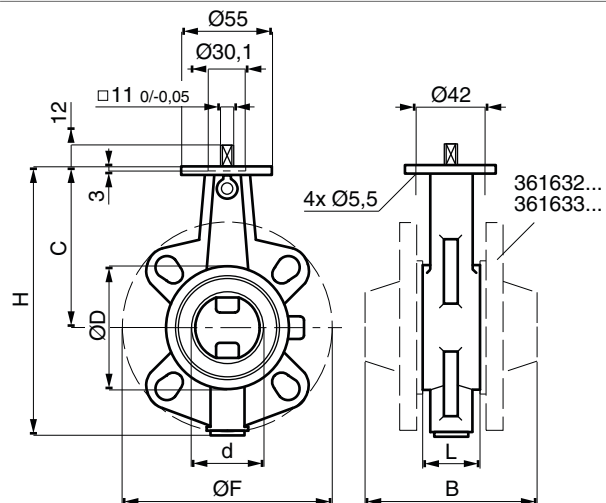
Flange adapted to DIN 2501

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

DN	Pressure Equipment Directive	CE
125	97 / 23 / EC Cat. I	CE
150	97 / 23 / EC Cat. I	CE
200	97 / 23 / EC Cat. I	CE

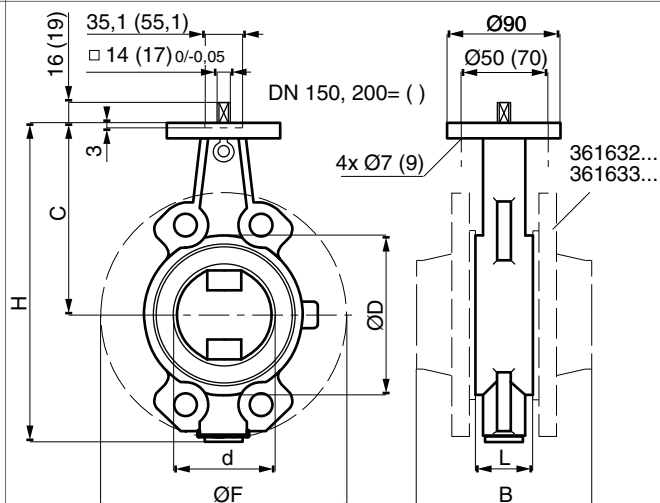
Dimension drawing 5M109

DEF 25...65



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

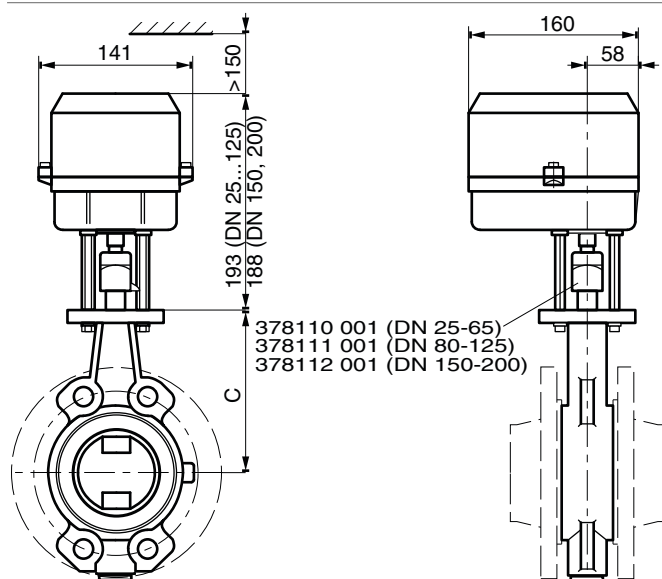
DEF 80...200



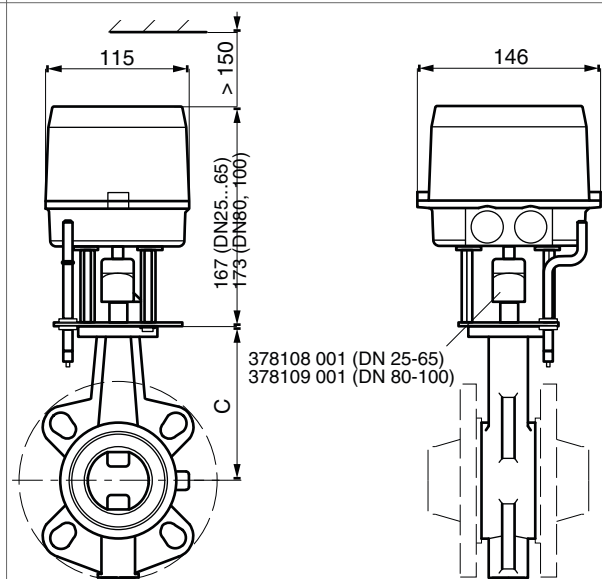
DN	d	C	H	L	ØD	B	ØF
						PN6 PN10/16	PN6 PN10/16
80	78	157	260	46	138	130	146
100	98	167	281	52	158	142	156
125	123	180	306	56	188	152	166
150	147	203	355	56	212	152	166
200	197	228	403	60	250	170	182

Combinations

With actuator A44



With actuator AR30



K10019

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

