



Butterfly valves

VFY-LG / VFY-WG

Features & benefits

- Spline driven one piece shaft connected to spherically machined disc allows high torque transmission i.e. quick response and minimum back-lash
- Long term reliability due to upper and lower anti-friction bearings
- Safe maintenance : shaft blow out protection with circlip
- Padlockable hand lever with 10 positions

Ordering

Product code numbers

Wafer type **VFY-WG** / Lug type **VFY-LG**

Type	Diameter [mm]	Kvs values [m ³ /h]	Pressure nominal [bar]	Media temperature [°C] [Max]	Valve disc material	Code number
VFY-WG	50	79.00	16	130	Stainless Steel	065B7440
VFY-WG	65	174.00	16	130	Stainless Steel	065B7441
VFY-WG	80	275.00	16	130	Stainless Steel	065B7442
VFY-WG	100	496.00	16	130	Stainless Steel	065B7443
VFY-WG	125	883.00	16	130	Stainless Steel	065B7444
VFY-WG	150	1212.00	16	130	Stainless Steel	065B7445
VFY-WG	200	2500.00	16	130	Stainless Steel	065B7446
VFY-WG	50	79	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8420
VFY-WG	65	174	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8421
VFY-WG	80	275	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8422
VFY-WG	100	496	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8423
VFY-WG	125	883	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8424
VFY-WG	150	1212	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8425
VFY-WG	200	2500	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8426
VFY-LG	200	2500	16	130	Stainless Steel	065B7406
VFY-LG	50	79.00	16	130	Stainless Steel	065B7460
VFY-LG	65	174.00	16	130	Stainless Steel	065B7461
VFY-LG	80	275.00	16	130	Stainless Steel	065B7462
VFY-LG	100	496.00	16	130	Stainless Steel	065B7463
VFY-LG	125	883.00	16	130	Stainless Steel	065B7464
VFY-LG	150	1212.00	16	130	Stainless Steel	065B7465
VFY-LG	50	79	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8430
VFY-LG	65	174	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8431
VFY-LG	80	275	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8432
VFY-LG	100	496	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8433
VFY-LG	125	883	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8434
VFY-LG	150	1212	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8435
VFY-LG	200	2500	16	120	Ductile iron EN GJS 400-15 (DIN GGG 40) with Polyamid coating	065B8436

Spare parts code numbers

Type	For valve size	Code number
VFY-Gearbox	DN 50-100	065B7595
VFY-Gearbox	DN 125-150	065B7596

Product details

General data

Technical data

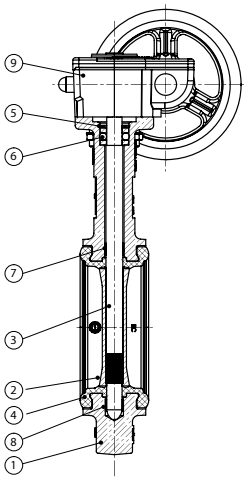
Type	VFY-WG	VFY-LG
Nominal diameter (DN)	50-200	50-200
k_{vs} value (m ³ /h)	79-2500	79-2500
Rotation angle	90°	90°
Leakage rate	Acc. to PED 2014/68/EU, EN 12266-1, Rate A ¹⁾	Acc. to PED 2014/68/EU, EN 12266-1, Rate A ¹⁾
Nominal pressure (PN)	16	16
Medium	Circulation water, Glycolic water up to 50%	Circulation water, Glycolic water up to 50%
Medium temperature, EP disc (°C)	–10 ... 120 (see p-T diagram)	–10 ... 120 (see p-T diagram)
Medium temperature, SS disc (°C)	–10 ... 130 (see p-T diagram)	–10 ... 130 (see p-T diagram)
Connection	Wafer (centering lugs)	Lug (Tapped lugs)
Mounting	mounting between flanges	mounting deadline

¹⁾ No visible detectable leakage during the testing procedure



Design

- 1 Body
- 2 Disc
- 3 Shaft
- 4 Liner
- 5 Circlip
- 6 O-ring
- 7 Upper guide bush
- 8 Lower guide bush
- 9 Gear box



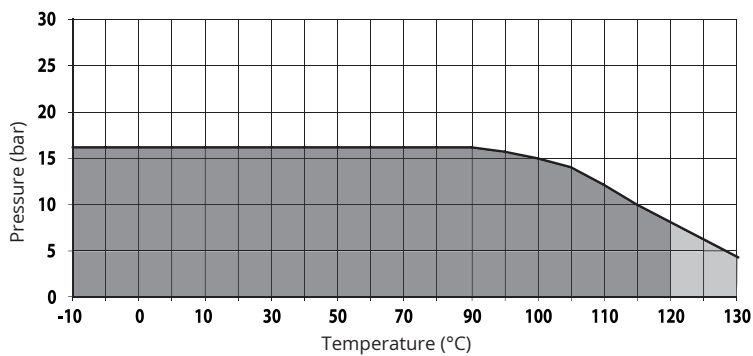
Materials

Type	VFY-WG	VFY-LG
Body	Ductile iron EN GJS 400-15 ¹⁾	Ductile iron EN GJS 400-15 DN50-150 ¹⁾ Ductile iron EN GJS 400-15 DN200
Disc	Ductile iron EN GJS 400-15 (DIN GGG 40) with Epoxy coating or Stainless Steel	Ductile iron EN GJS 400-15 (DIN GGG 40) with Epoxy coating or Stainless Steel
Shaft	Stainless steel AISI 420	Stainless steel AISI 420
Liner	EPDM	EPDM
Circlip	Steel XC 75 / Stainless steel	Steel XC 75 / Stainless steel
O-ring	Nitrile/Viton	Nitrile/Viton
Upper guide bush	Zinc coated S. + PTFE	Zinc coated S. + PTFE
Lower guide bush	Zinc coated S. + PTFE	Zinc coated S. + PTFE
Gear box	Aluminium	Aluminium

¹⁾ Changed from Cast iron EN GJL 250 (DIN GG25) in Q4/2024

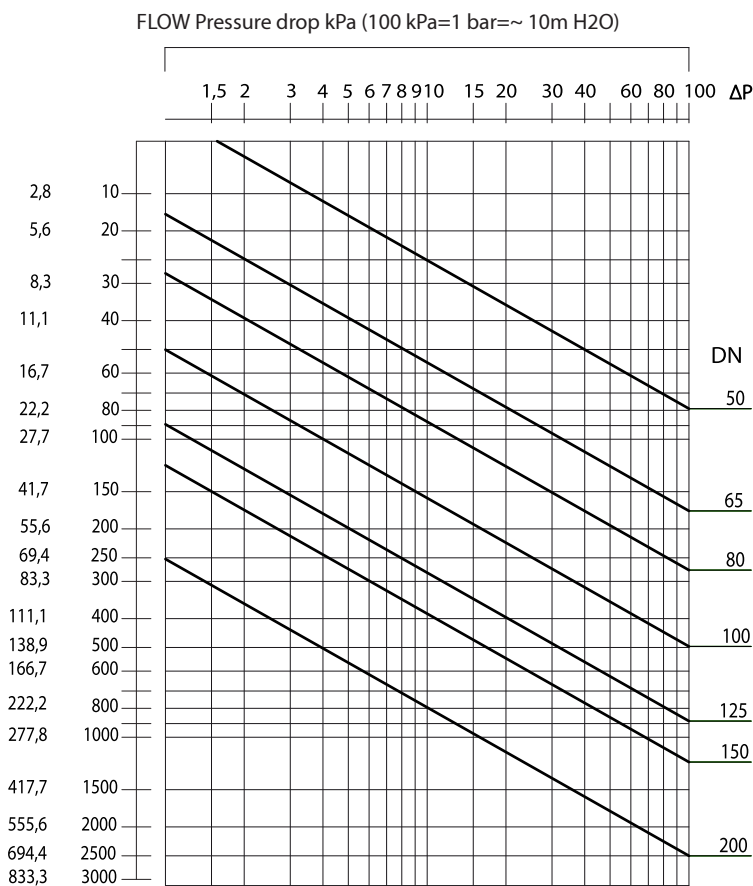
Pressure and temperature data

P-T diagram



Headloss diagram

For water at 20 °C



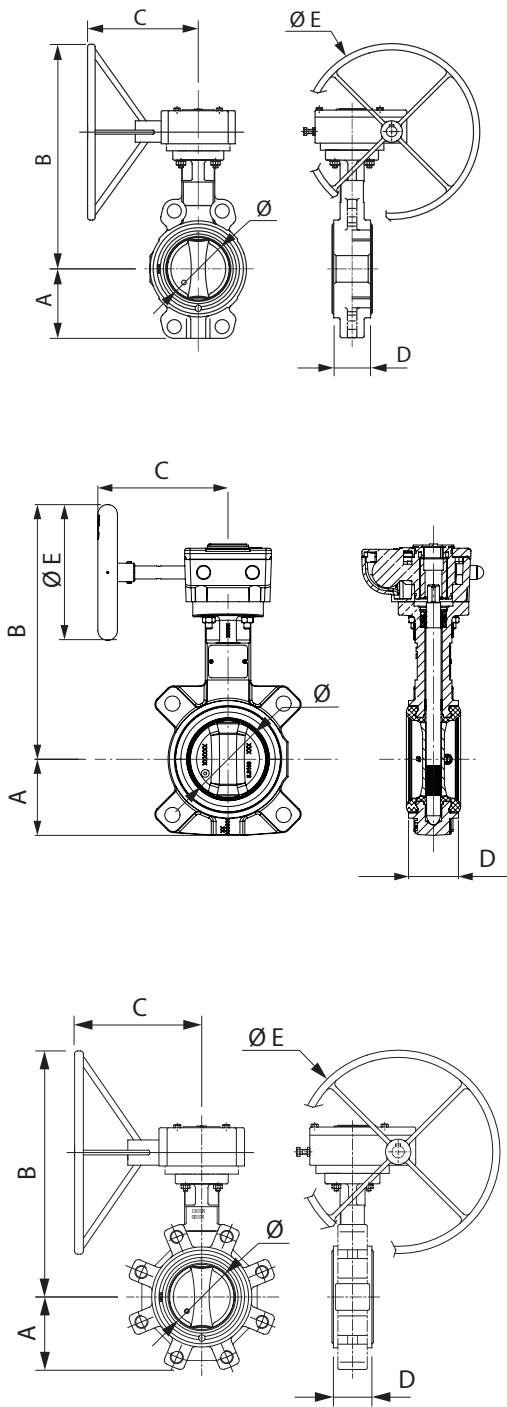
l/sec m³/H

Flow Rate

(liquid with specific gravity of 1)



Dimensions



Wafer type **VFY-WG**

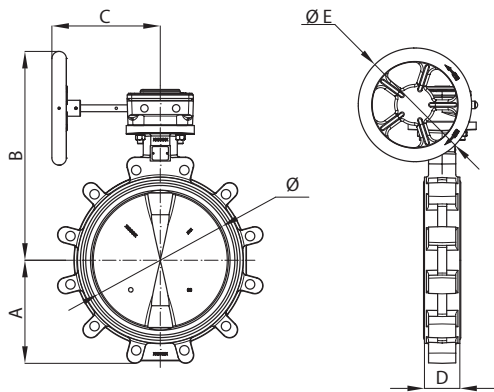
DN	Ø	A	B	C	D	ØE	Weight (kg)
	(mm)						
50	54	62	225.5	120	43	125	3.6
65	70	70	234.5	120	46	125	4
80	85	89	240.5	120	46	125	4.3
100	100	106	264.5	120	52	125	6.3
125	120	120	279.5	120	56	125	7.4
150	150	131	292.5	120	56	125	8.5
200	200	166	315	120	60	125	12.3

Lug type **VFY-LG**

DN	Ø	A	B	C	D	ØE	Weight (kg)
	(mm)						
50	54	62	225.5	120	43	125	4
65	70	70	234.5	120	46	125	4.5

Lug type **VFY-LG**

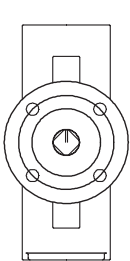
DN	Ø	A	B	C	D	ØE	Weight (kg)
	(mm)						
80	85	89	240.5	120	46	125	5.4
100	100	103	264.5	120	52	125	7.9
125	120	119	279.5	120	56	125	9.9
150	150	133	292.5	120	56	125	11.9



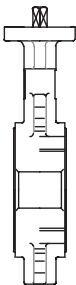
Lug type **VFY-LG**

DN	Ø	A	B	C	D	ØE	Weight (kg)
200	200	162	315	120	60	125	17

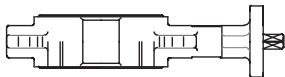
Installation
Installation positions



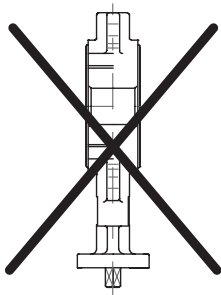
Recommended



Possible



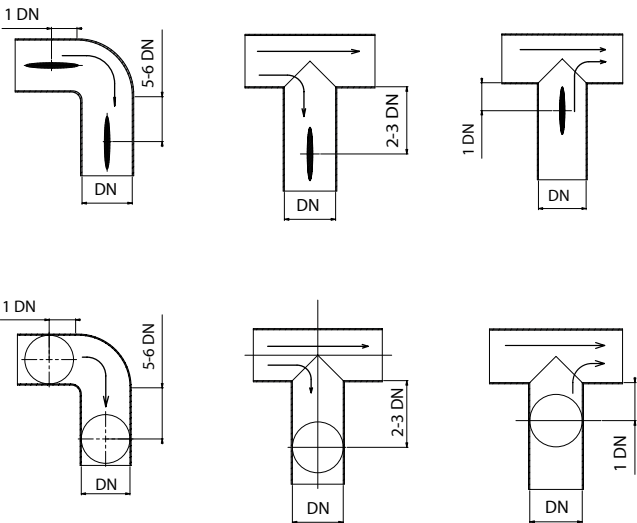
Possible



Not recommended

Installation conditions

It is recommended that distances indicated below are respected in order to prolong lifetime of the valve. Mounting the valve close to pipework junctions (turbulent zones) increases wear.



Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Issuer	Approval topic
EU Declaration	<u>Danfoss EU</u> <u>BF234186516731en-000502.02</u>	Danfoss	Pressure, PED
Pressure Safety Certificate	<u>LLC CDC EURO-TYSK</u> <u>UA.TR.089.1228.25-21</u>	LLC CDC EURO TYSK - Ukraine	Pressure, PED
UA Declaration	<u>Danfoss UA 2023-01-10</u> <u>butterfly valves PL08</u>	Danfoss	Pressure, PED
Export Control Declaration	<u>Butterfly valves</u>	Danfoss	
UA Declaration	<u>4) Declaration Shut-off and</u> <u>regulating valves</u>	Danfoss	PED
EU Declaration	<u>PL32 Packaging EU DoC</u>	Danfoss	Packaging, PPWR
EU Declaration	<u>Packaging EU Declaration of</u> <u>Conformity 260707EN0801</u>	Danfoss	Packaging, PPWR

Directive 2014/68/UE

Equipments under pressure

Products manufactured in conformity with the requirements of the directive, according to pressure, DN and fluid. Relevant for countries following this Directive (ie, PED).

Family		DN (mm)	Cat.	Mounting	PFA	PS				
					water	L1	L2	G1	G2	
VFY DN25 to 350 mm with EPDM liner	10 bar	25 to 100	453	Flanges	10	10	10	-	10	
				End of line	6	6	6	-	6	
		125 to 350	I	Flanges	10	10	10	-	10	
				End of line	6	6	6	-	6	
	16 bar	32 to 100	453	Flanges	16	16	16	-	10	
				End of line	12	12	12	-	10	
		125	I	Flanges	16	16	16	-	10	
				End of line	12	12	12	-	10	
		150	I	Flanges	16	10	16	-	10	
				End of line	12	6	12	-	10	
		200 to 300	I	Flanges	16	10	16	-	10	
				End of line	10	6	10	-	10	
		350	I	Flanges	16	10	16	-	10	
				End of line	8	6	8	-	8	
		20 bar	32 to 250	453	Flanges	20	-	20	-	-
					End of line	12	-	12	-	-
	300 to 350		I	Flanges	20	-	20	-	-	
				End of line	12	-	12	-	-	
	25 bar	32 to 150	453	Flanges	25	-	25	-	-	
				End of line	16	-	16	-	-	
VFY DN400 to 1200 mm with EPDM liner	10 bar	400 to 1200	I	Flanges	10	10	10	-	-	
				End of line	6	6	6	-	-	
	16 bar	400 to 1200	I	Flanges	16	-	16	-	-	
				End of line	8	-	8	-	-	
	20 bar	400 to 600	I	Flanges	20	-	20	-	-	
End of line				10	-	10	-	-		
PS: Maximum allowable pressure (bars) in accordance with directive 2014/68/EC				L1: Group 1 liquid - Hazardous fluid category						
PFA: Allowable operating pressure (bars) for supply, distribution and disposal of water				L2: Group 2 liquid - Other fluids						
				G1: Group 1 gas - Hazardous gas category						
				G2: Group 2 gas - Other gasses						

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