

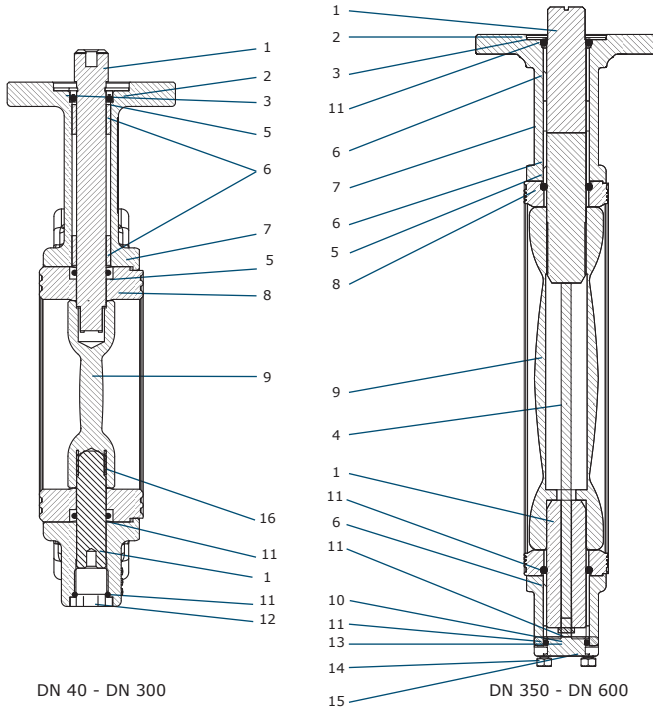
# BUTTERFLY VALVE

## TYPE 2235: WAFER



### GENERAL

DIMENSIONS/PRESSURE:	DN50 - DN600 = PN16
MATERIAL BODY:	GGG40
MATERIAL DISC:	CF8M
MATERIAL SEAT:	PP7BDZ (NBR FOR GAS)
MATERIAL STEM:	AISI 420 (DN50 - DN150) AISI 431 (DN200 - DN600)
SURFACE:	3-LAYER EPOXY/EPOXY/PUR 160µ, RAL 1004
FACE-TO-FACE:	EN558-1
OPERATING:	FREE STEM
COUNTER FLANGE:	DN50-DN300 (PN10/16/ANSI150 BS10 TABLE D/E, JIS 10K, 16K) DN350-DN600 (PN10/16/ANSI150 BS10 TABLE D)



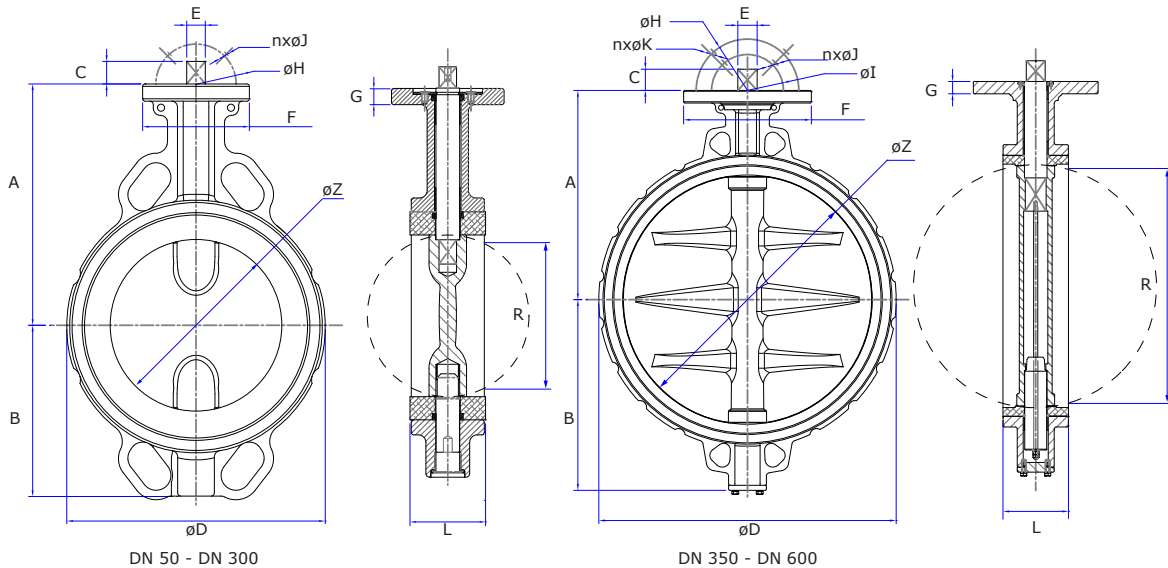
POS	DESCRIPTION	MATERIALS
1	STEM	STAINLESS STEEL - AISI 420/AISI 431
2	PREVENTING PLATE	STAINLESS STEEL - AISI 316
3	SCREW	STAINLESS STEEL - AISI 304
4	CONNECTION ROD	STAINLESS STEEL - AISI 304
5	O-RING	SAME AS SEAT
6	BUSHINGS	PTFE/GRAPHITE
7	BODY	DUCTILE IRON
8	SEAT	PP7BDZ
9	DISC	CF8M
10	NUT	STAINLESS STEEL - AISI 304
11	O-RING	SAME AS SEAT
12	PLUG	GALVANIZED STEEL
13	BOLTS	STAINLESS STEEL - AISI 304
14	WASHERS	STAINLESS STEEL - AISI 304
15	COVER	STEEL
16	BUSHING	PTFE + GRAPHITE

### DESCRIPTION

- **High quality industrial butterfly valve**, EN 10204 3.1 certificate, GOST certificate, CE/PED and ATEX approvals are available.
- **Seat vulcanized** to a replaceable back-up ring compared to a traditional replaceable seat has several advantages: Exact tolerances produce 100 % tightness and prolong service life - suitable for vacuum and high flow velocity - mounting between flanges without seat displacement.
- **Liner in PP7BDZ** gas approved rubber. DVGW certification according to EN13774.
- **Two-piece stem and streamlined disc** result in high Kv-value and less turbulence.
- **ISO 5211 mounting flanges** and 45° square stem enable direct mounting of actuators without the use of brackets or couplings.
- **Square transition** between stem and disc ensures maximum reliability.
- **3 pieces of bearing** reduces friction and prolongs service life.
- **Self-centering solution during mounting** covers many standards (see general).

DS-2235-UK-02-2016-REV. B  
We reserve the right for changes.

## DIMENSIONS



DIM [MM]	BUTTERFLY VALVES															
	A	B	C	D	E	ØF	ØG	ØH	ØI	N X ØJ	N X ØK	L	ØZ	R	ISO	WEIGHT [KG] FREE STEM
DN50	126	72.0	13.5	99.0	11	65	10	50	-	4 X 7	-	43	55.2	34.6	F05	2.4
DN65	134	78.0	13.5	113.4	11	65	10	50	-	4 X 7	-	46	66.3	47.7	F05	3.1
DN80	157	91.5	13.5	128.7	11	65	10	50	-	4 X 7	-	46	83.0	69.1	F05	4.0
DN100	167	108.5	17.5	156.7	14	90	13	70	50	4 X 7	4 X 9	52	101.5	87.2	F05 / F07	6.0
DN125	180	124.0	17.5	190.3	14	90	13	70	-	4 X 9	-	56	129.3	116.5	F07	7.7
DN150	203	137.0	18.5	213.0	17	90	13	70	-	4 X 9	-	56	154.5	144.0	F07	9.2
DN200	228	167.0	24.5	265.8	22	125	15	102	-	4 X 11	-	60	200.3	191.1	F10	14.7
DN250	266	207.0	24.5	324.2	22	125	15	102	-	4 X 11	-	68	250.0	240.6	F10	22.4
DN300	291	236.0	27.0	376.8	27	150	15	125	102	4 X 11	4 X 14	78	301.0	290.7	F10 / F12	31.9
DN350	332	258,0	30,0	411,7	27	175	19	140	125	4 X 14	4 X 18	78	338,7	329,7	F12 / F14	41,0
DN400	363	301,5	30,0	471,2	27	175	20	140	125	4 X 14	4 X 18	102	389,9	376,3	F12 / F14	58,0
DN450	397	333,0	39,0	528,0	36	210	25	165	140	4 X 18	4 X 22	114	440,6	425,6	F14 / F16	82,0
DN500	425	378,0	49,0	580,4	46	210	25	165	140	4 X 18	4 X 22	127	491,4	474,7	F14 / F16	101,0
DN600	498	438,0	49,0	687,9	46	300	30	254	165	4 X 22	4 X 22	154	593,3	573,0	F16 / F25	173,0

## VALVE DATA

DIM [MM]	KV-VALUE RATED FLOW COEFFICIENT (M <sup>3</sup> /H AT 1 BAR ΔP)									
	MAX TORQUE [NM]	10°	20°	30°	40°	50°	60°	70°	80°	90°
DN50	12	<1	<1	5	14	29	47	71	98	107
DN65	17	1	2	11	27	50	77	122	171	213
DN80	24	3	6	28	54	91	140	213	301	404
DN100	35	5	14	57	108	175	262	404	594	799
DN125	59	6	27	84	156	248	385	624	954	1239
DN150	84	7	51	129	224	363	572	977	1535	1929
DN200	164	22	114	229	401	639	1018	1755	2880	3484
DN250	280	33	171	334	634	970	1530	2650	4403	5753
DN300	386	49	250	490	925	1416	2231	3865	6641	8828
DN350	700	118	301	631	1131	1918	3081	4963	8884	10308
DN400	850	153	393	824	1478	2506	4024	6482	11603	13464
DN450	1497	195	498	1043	1871	3170	5093	8210	14686	17041
DN500	1988	240	615	1288	2309	3913	6287	10128	18130	21038
DN600	3264	345	885	1853	3326	5635	9054	14584	26109	30295

SEAT - INFO
<b>RUBBER SEAT:</b> RUBBER WILL OVER TIME LOOSE FLEXIBILITY AND COMPRESSION SET. THE HIGHER THE TEMPERATURE RUBBER IS INSTALLED IN, THE SHORTER THE EXPECTED LIFESPAN IS. OUR VALUES FOR TEMPERATURE IS GIVEN TO THE BEST OF OUR KNOWLEDGE, AND WE ADVISE THAT VALVES ARE TESTED FOR LIFESPAN IF INSTALLATION IS RUNNING NEAR THE GIVEN TEMPERATURE LIMIT. IF IN DOUBT, PLEASE CONSULT US.
<b>REPLACEABLE SEAT:</b> THE SEAT IS REPLACEABLE AS IT IS VULCANIZED ONTO A PHENOL BACK-UP RING.

Above mentioned torques are based on on/off services/lubricating liquid.

## SERVICE AND MEDIUM FACTOR - ACTUATOR SIZING TORQUE

**ON/OFF operation "non lubricating"** Multiply by: 1.15  
**Modulating operation** Multiply by: 1.25  
**\*) 2 cycle/day "NC"** Multiply by: 1.15  
**\*\*) 1 cycle/week "NC"** Multiply by: 1.50  
**Lubricating liquid/gas** Multiply by: 0.90  
**Saturated steam** Multiply by: 1.20  
**Dirtygreasing liquid** Multiply by: 1.25  
**Dirty air/dirty slurry, natural/chlorin gas, lime water, oxygen, powder** Multiply by: 1.50  
**For dry service (Dry gas /air)** Multiply by: 1.25  
**Viscous Liquids, Molasses** Multiply by: 1.30  
**Hydrodynamic torque** Multiply by: NA  
**Hydrodynamic torque** Multiply by: 1.50-1.80

\*) Valve is completely closed and opens 2 times a day minimum. \*\*) Valve is completely closed and opens only one time per week or longer. Having a long period without maneuvering the valve, will increase the breakaway torque.

NB: Please maneuver the DVC butterfly valve at least one time per month to avoid deformation of the rubber seat.

## SEAT DATA

SEAT	TEMPERATURE
PP7BDZ (NBR for gas)	-10°C. to +60°C.

Temperatures are at continuous operation.