

Wafer-type butterfly valve, article 840-GGG for high chemical demands

Diameter DN 40 up to DN 600

Meets the high requirements when used in chemical processes. The high-quality ring bellows made of TFM quality combines the excellent chemical resistance of the conventional PTFE with significantly improved cold flow properties, reduced gas permeability and an extremely smooth surface.

The permanent deformation against PTFE is about 60% lower for the TFM ring bellows.

Due to the multiple spindle sealing according to the principle of a axial face seals, the butterfly valve fulfills the VDI standard 2440 (TA-Luft).

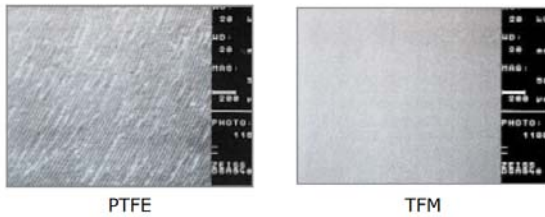
Mounting between flanges, possible connections:

DN 40 up to DN 150 flange according to EN 1092-1 PN 10 / 16
 DN 200 up to DN 600 flange according to EN 1092-1 PN 10
 or according to ANSI B16.5, class 150 lbs



CE	0036
T°C	surrounding -15°C ... +160°C
TSC	medium 10 bar up to max +175°C 6 bar up to max +200°C see pressure/temperature diagram

Surface Property at 50x Magnification



Shaft sealing according to the principle of a axial face seals

Pos. 7 dished washer
 Pos. 8 pressure piece



Design variants:

Liner TFM minimum 3,0 mm (standard)
Liner TFM-C conductive, antistatic with ATEX approval
Disc stainless steel (standard) up to DN 200 Duplex 1.4469 up to DN 250 stainless steel 1.4404
Disc PFA covered minimum 2.5 mm
Disc PFA-C conductive covered minimum 2,5 mm

Elastomere Back-Up Liner:

Silicone (standard), Temperature Tmax. +200° C
EPDM Temperature Tmax. +120° C
Viton Temperature Tmax. +180° C

Operating-Variants:

worm gear	pneumatic actuator	electrical actuator	electrical actuator
		DN 40 up to DN 100	DN 125 up to DN 300

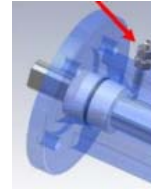
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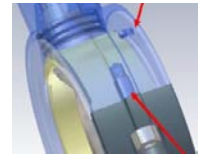
- Face to face dimensions according to EN 558/20, DIN 3202 K-1, API 609
- Design pressure up to maximum 10,0 bar
- Splited body, Innerparts easy exchangeable
- Body outside Epoxy coating minimum 80 µm, Ral 5011
- Identification marking EN 19, MSS SP-25
- Integrated flange seal -**no additional packing**-
- Centric disc 100% both sides bi-directional tight shutt off
- Anti-blow out drive shaft in PTFE bearing bushings guided, low operating moments, no s.g. slip stick effect
- Top flange and shaft according to ISO 5211
- Optionally conductive version according to ATEX 94/9 / EG

ATEX-Variant: Ex-Group II
Zone 0, 1, 2 or 20, 21, 22

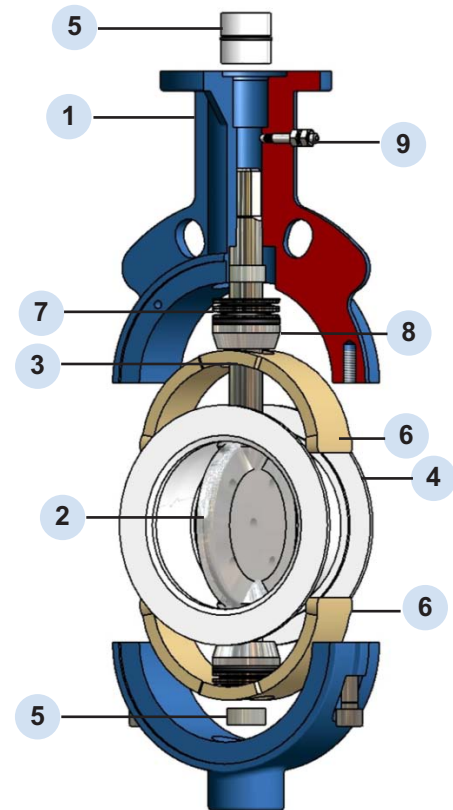
ground connection



Springing Body halves and liner



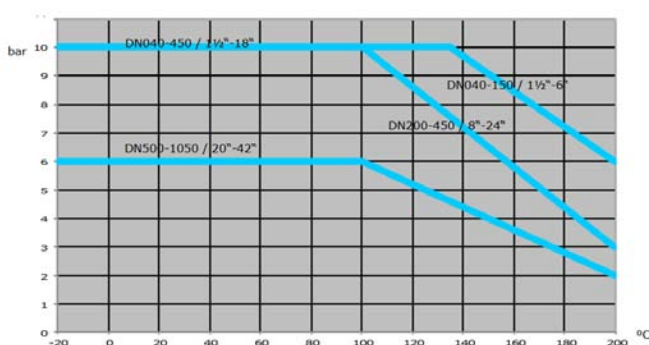
Pos.	Description	Material
01	2-part body	Ductile iron EN-JS 1025 (GGG 40.3) ASTM A 395
04	Liner	TFM-PTFE
05	Bearing	PTFE coated, self-lubricating
06	Elastomer Back-up	Silicone, optionally FPM (Viton) or EPDM
07	Dished washer	Spring steel
08	Pressure ring	stainless steel 1.4571 ASTM A 213 316Ti
Variant I		
02	Disc	DN 40 - DN 200 stainless steel DUPLEX 1.4469, ASTM A 890 DN 250 - DN 300 stainless steel 1.4404, ASTM 316L
03	Shaft	DN 40 - DN 200 stainless steel DUPLEX 1.4469, ASTM A 890 DN 250 - DN 300 stainless steel 1.4404, ASTM 316L
Variant II		
02	Disc	DN 40 - DN 150 Stainless steel PFA-covered DN 200 - DN 300 Steel PFA-covered
03	Shaft	DN 40 - DN 200 Stainless steel 1.4308, ASTM A 351-CF8 DN 250 - DN 300 Stainless steel 1.4301, ASTM A 182 (F304)
ATEX-Design (extra charge)		
09	Earthing connection	Springing Body <-> Liner Springing Body <-> Body
04	Liner	C-TFM 1705 antistatic, conductive ATEX compliant
02	Disc	Covered PFA 980 antistatic, conductive ATEX compliant



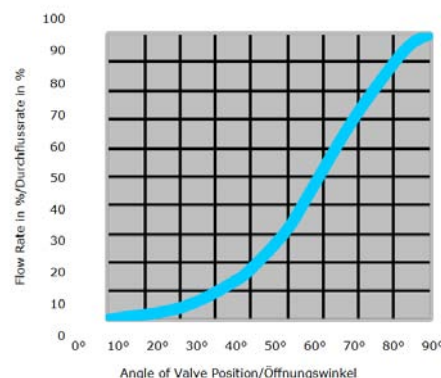
Flow rate Kv in m³/h with angle of valve position 90°

DN	KV
40	136
50	193
65	266
80	392
100	585
125	1.015
150	1.495
200	3.050
250	4.510
300	6.500
350	8.760
400	11.350
500	18.000

Pressure-Temperature Diagramm



Flow Curve



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DN 40



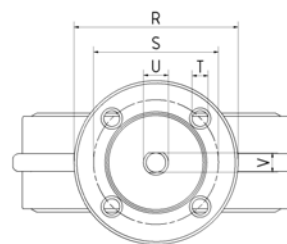
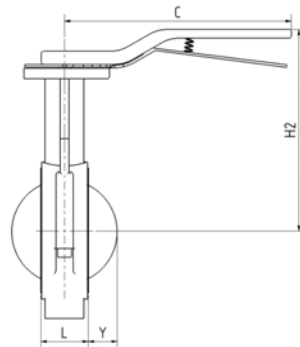
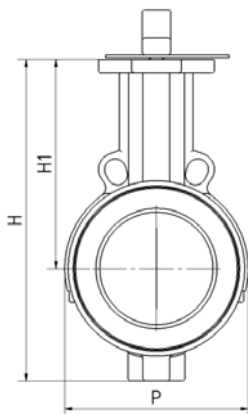
DN 50 - DN 80



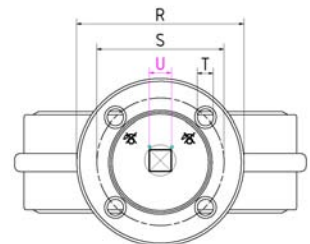
DN 100 - DN 125



DN 250 - DN 400



DN 40 - DN 150
shaft with double D



DN 200 - DN 300
shaft with square

size	P (mm)	L (mm)	Y (mm)	H (mm)	H1 (mm)	C (mm)	H2 (mm)	Top flange ISO 5211	R (mm)	S (mm)	U (mm)	V (mm)	T (mm)	pressure range max.(bar)	weight (kg)
DN 40	142	33	7	147	94	230	140	F05	65	50	9	13	4 x 7	10	2,3
DN 50	104	43	6	186	130	230	176	F07	102	70	11	14	4 x 9	10	3,8
DN 65	128	46	11	213	146	230	192	F07	102	70	11	14	4 x 9	10	4,8
DN 80	144	46	17	249	165	230	211	F07	102	70	11	14	4 x 9	10	5,8
DN 100	164	52	27	285	185	270	240	F07	102	70	14	18	4 x 9	10	7,4
DN 125	194	56	38	312	202	270	257	F07	102	70	14	18	4 x 9	10	8,8
DN 150	220	56	47	342	217	325	272	F07	102	70	17	22	4 x 11	10	11,4
DN 200	274	60	71	403	245	349	300	F10	152	102	19		4 x 11	10	18,4
DN 250	330	68	92	460	270	349	325	F10	152	102	22		4 x 11	10	26,4
DN 300	380	78	112	533	308	349	363	F10	152	102	22		4 x 11	10	38,9

size	Order-numbers (operation handle)	
	Disc stainless steel	Disc PFA-Covered
DN 40	279.2664.3.19	279.2666.3.19
DN 50	279.2664.3.21	279.2666.3.21
DN 65	279.2664.3.24	279.2666.3.24
DN 80	279.2664.3.25	279.2666.3.25
DN 100	279.2664.3.27	279.2666.3.27
DN 125	279.2664.3.28	279.2666.3.28
DN 150	279.2664.3.29	279.2666.3.29
DN 200	279.2664.3.31	279.2666.3.31
DN 250	279.2664.3.33	279.2666.3.33
DN 300	279.2664.3.34	279.2666.3.34

Addition behind article no. for special design:

Back-Up Viton = -V

Back-Up EPDM = -E

ATEX approval = -A

Body stainless steel = -VA

Example: 279.2664.3.25-V-A (Back-Up Viton / ATEX)