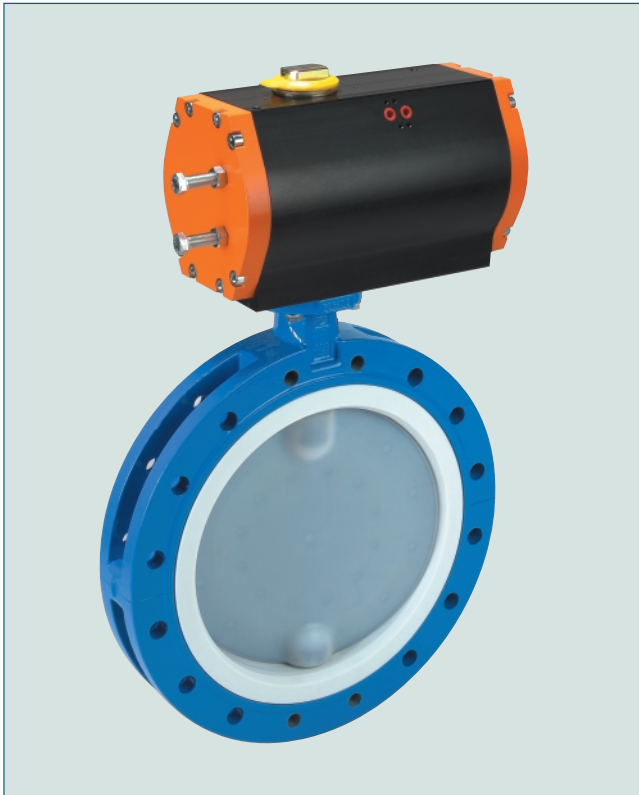


PTFE-LINED BUTTERFLY VALVE TYP T 212



Double flanged PTFE-Lined Butterfly valve for shut-off and Control Services in the chemical Industry.

TECHNICAL DATA

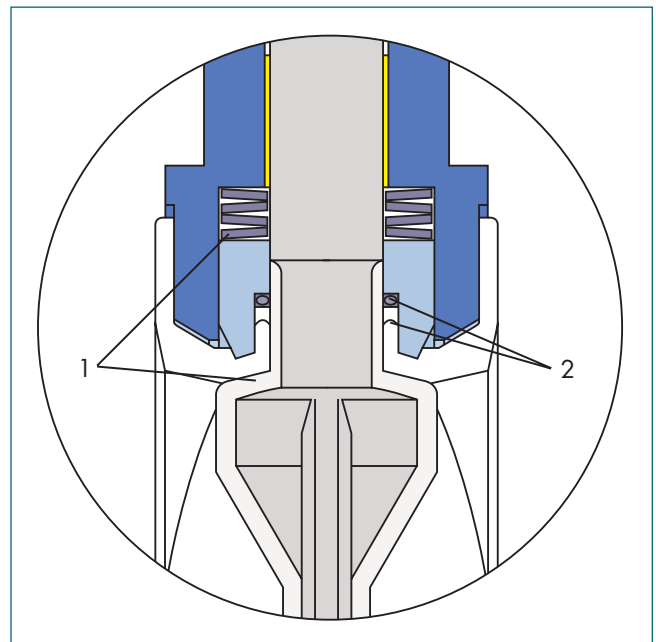
Nominal diameter:	DN 350 – DN 600
Face-to-face:	EN 558 Series 20 ISO 5752 Series 20 API 609 Table 1 BS 5155, Tab. 6 Series 4 NF E 29-305.1
Flange accommodation:	DIN 2501 PN 10/16 ANSI B 16.5, Class 150 MSS SP44 Class 150 AWWA C 207 AS 2129 Table D and E BS 10 Table D and E JIS B 2211-5 K JIS B 2212-10K
Flange surface design:	DIN 2526 Form A-E, ANSI B 16.5 RF, FF
Top flange:	EN ISO 5211 NF E 29-402
Marking:	DIN EN 19
Tightness check:	DIN 3230 T3 BO (Leakage Rate 1) ISO 5208, Category 3 API 598 Table 5 and ANSI B 16-104, Class VI
Temperature range:	-40 °C to +200 °C (depending on operation pressure)
Operating pressure:	max. 16 bar
Differential pressure:	max. Δp 10 bar

FEATURES

- PTFE-Lined butterfly valve for chemically corrosive media
- Environmental protection via EBRO-safety seal
- Split body design
- Isolation height as per plant regulations
- Can be installed in any desired position
- Maintenance free
- Can be disassembled, material-specific recycling possible
- The double flanged body enables the one side lugging of pipes

GENERAL APPLICATIONS

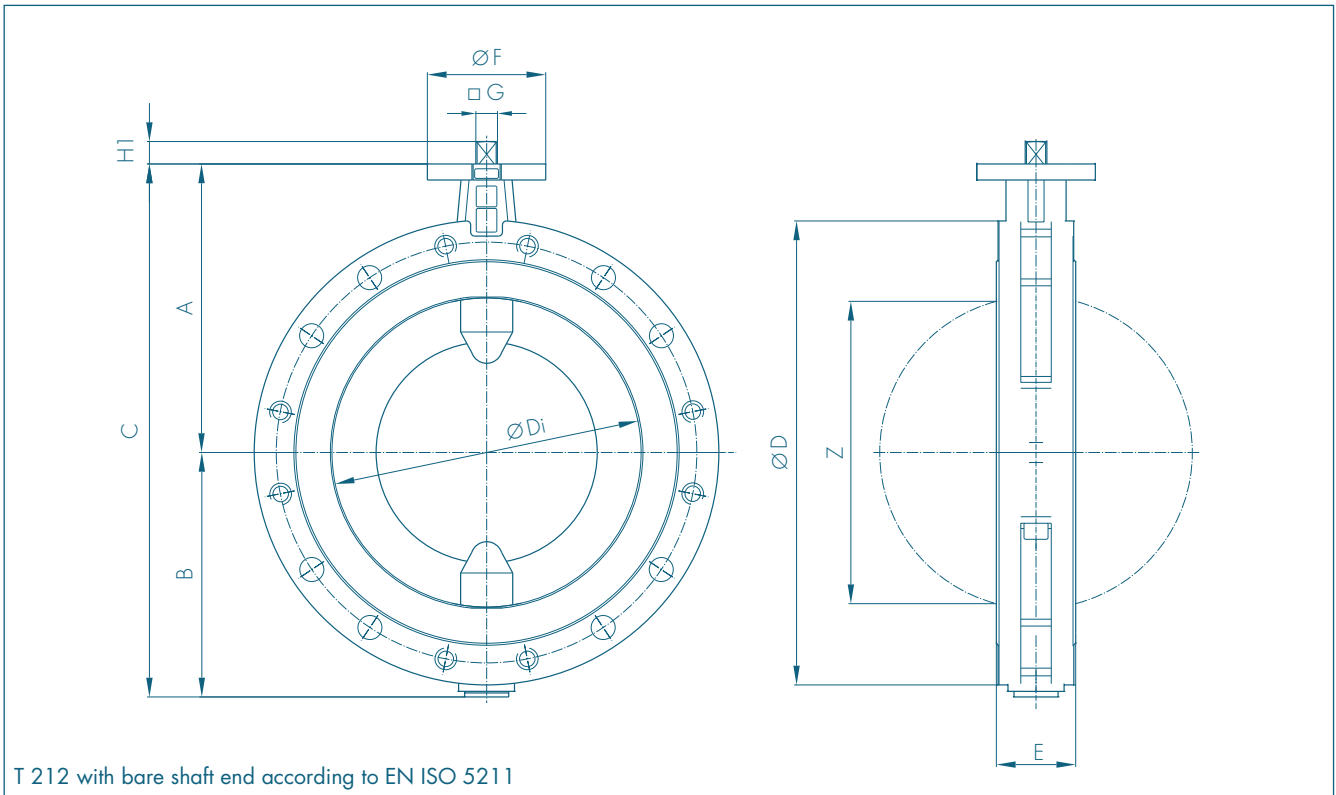
- Chemically corrosive media
- Purification plants
- Pharmaceutical Industry
- Adhesives, Paper Industry, Fuel Transport
- Paint manufacture and processing
- Food Industry



Safety seal in accordance with the EBRO Twin Seal principle.

- 1) Primary sealing by means of a Belleville spring washer, transmitting prestress on the spherical segment area.
- 2) Secondary sealing of the shaft by means of PTFE-gaskets and O-Rings.

PTFE-LINED BUTTERFLY VALVE TYP T 212



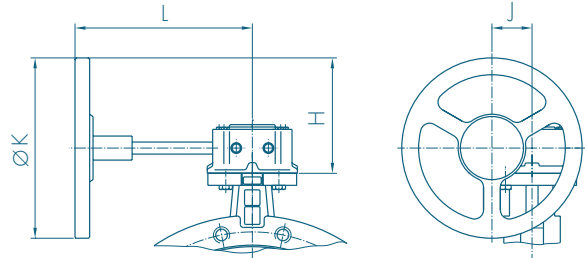
DN [mm]	Size [in]	Dimensions [mm]											Weight [kg]
		A	B	C	D	Di	E	F	Flange	G	H1	Z	
350	14	330	277	607	535	338	92	150	F12	27	29	327	68
400	16	360	305	665	580	389	102	150	F12	27	29	377	95
450	18	397	363	760	639	437	114	175	F14	36	38	423	130
500	20	437	390	827	715	490	127	175	F14	36	38	475	170
600	24	498	462	960	830	579	154	210	F16	46	48	560	270

Subject to change without notice.

ACTUATORS T 212

WORM GEAR

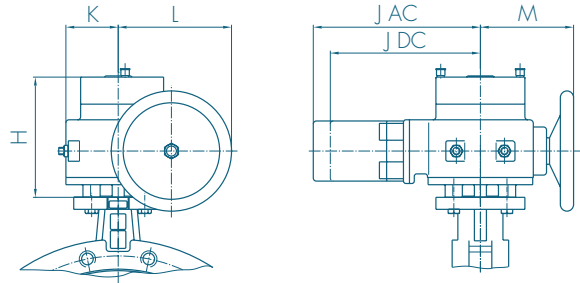
DN [mm]	Size [in]	Gear	H	J	K	L	Weight [kg]
350	14	Size V	158	76	250	280	6,3
400	16	Size XII	192	67	300	295	10,1
450-500	18-20	Size VI	228	90	356	322	16,0
600	24	Size VII	278	123	457	406	30,5



ELECTRIC ACTUATOR

DN [mm]	Size [in]	Actuator Type	H	J/DC	J/AC	K	L	M	Weight [kg]
350-400	14-16	E 150	200	238	278	105	189	155	21,0
450-600	18-24	E 200	212	313	313	124	283	220	34,0

AC = Alternating current
DC = Three phase current



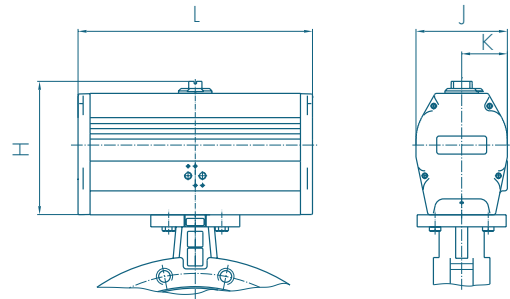
Subject to change without notice.

ACTUATORS T 212

PNEUMATIC DOUBLE ACTING

DN [mm]	Size [in]	Actuator Type	H	J	K	L	Weight [kg]
350	14	EB 12-DW	182	159	94	367	12,0
400	16	EB 16 DA	232	152	76	390	18,0
450-500	18-20	EB 270 DA	278	220	110	445	32,0
600	24	EB 280 DA	278	220	110	600	42,0

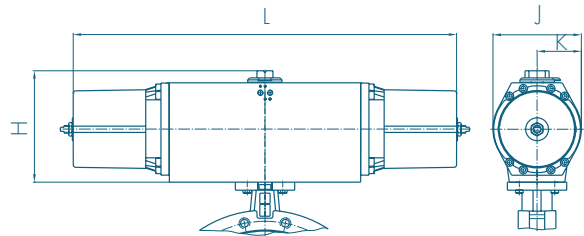
The dimensioning of actuators refers to a control air pressure of 6 bar.



PNEUMATIC SPRING RETURN

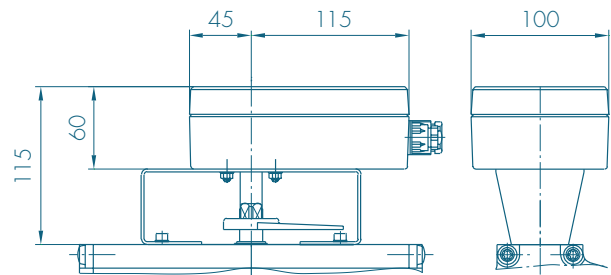
DN [mm]	Size [in]	Actuator Type	H	J	K	L	Weight [kg]
350	14	EB 270 SR	278	220	110	655	45,0
400-450	16-18	EB 280 SR	278	220	110	1020	68,0

The dimensioning of actuators refers to a control air pressure of 6 bar.



SWITCHBOX SERIES MSK/NSK

MSK: Switchbox with integrated micro limit switches
 NSK: Switchbox with integrated proximity switches

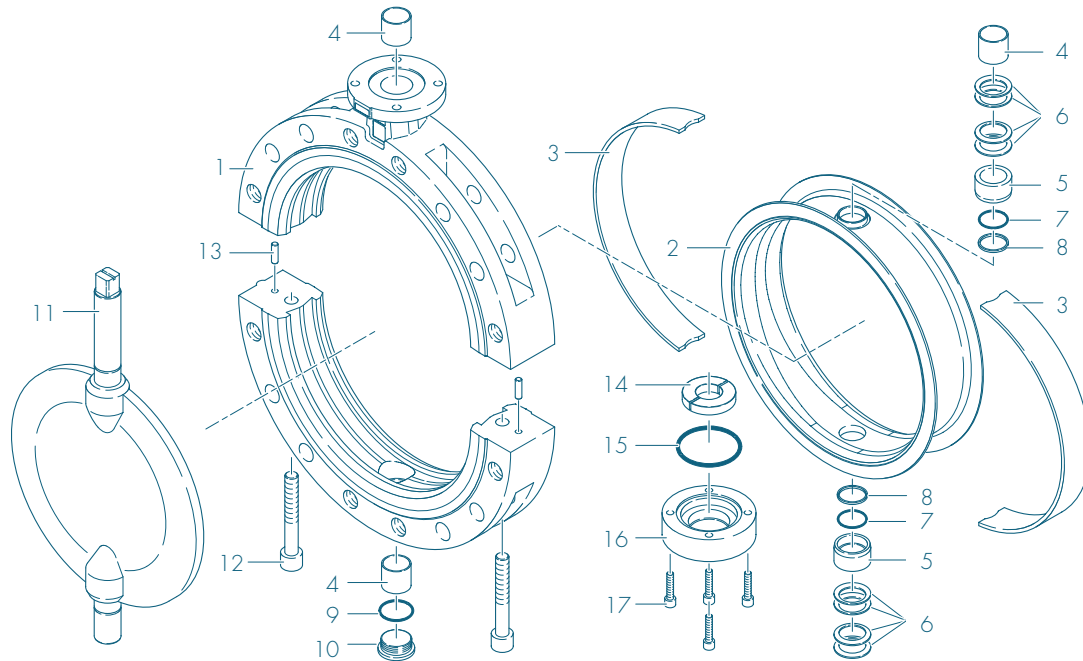


Other Actuators: See Documentation of the Manufacturer.

Subject to change without notice.

PTFE-LINED BUTTERFLY VALVE TYP T 212

MATERIAL SPECIFICATION AND PARTS LIST



Pt.	Description	Material	Material-No.	ASTM	Pt.	Description	Material	Material-Nr.	ASTM
1	Body				10	Plug screw DIN 908			
	Nodular Cast Iron	GGG-40.3	0.7043			Stainless Steel	G-X5CrNiMo19-11-2	1.4408	CF8M
2	Seat				11	Disc/Shaft			
	PTFE	Polytetrafluorethylen	PTFE	PTFE		St. Steel/St. Steel	X2CrNiMo 22-5-3	1.4462	F 51
3	Elastomer insert					Steel PFA coated	11SMnPb30	1.0718 ni.-pld.	SAE12L14
	Silicon	Silicon rubber	MVQ	VMQ				PFA	PFA
	EPDM	Etylene propylene caoutchouc	EPDM	EPDM	12	Screw			
	FPM	Fluorcarbon caoutchouc				Stainless Steel	A4-70	1.4401	B8M
4	DU-bearing				13	Set Screw			
	Steel/PTFE coated					Steel	9SMnPb28K	1.0718	SAE12L14
5	Trust collar				14	Shaft Retainer			
	Stainless Steel	X5CrNiMo 17-12-2	1.4401	316		Steel	St37-2		
6	Bellev.spr.washer				15	O-ring			
	Stainless Steel	X12CrNi177	1.4310	301		Viton	Fluorcarbon caoutchouc FPM		FKM
7	O-ring				16	Cover plate			
	Viton	Fluorcarbon caoutchouc FPM		FKM		Steel	St37-2		
8	Chevron seal				17	Screw			
	PTFE	Polytetrafluorethylen	PTFE	PTFE		Stainless Steel	A4-70	1.4401	B8M
9	Seal								
	Stainless Steel	X5CrNi 18-10	1.4301	304					
	Copper	Cu		Copper					
									Other materials upon request

Subject to change without notice.

PTFE-LINED BUTTERFLY VALVE T 212

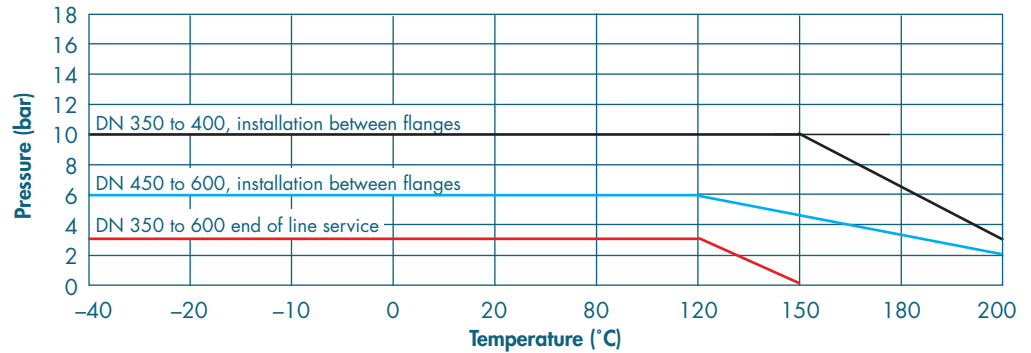
TORQUE

- The torque values specified (MD) are based on dry media and are measured with air at a temperature of 20 °C.
- The values specified are based on the initial breakaway torque (disc disengages from seat, torque then drops).
- Dynamic torque specification available upon request.

Regarding the dimensioning of actuators, please contact our engineers.

DN [mm]	350	400	450	500	600
Size [in]	14	16	18	20	24
MD (Nm)	720	980	1200	1500	2500

PRESSURE/TEMPERATURE DIAGRAM*



* For valves with silicone elastomer inserts.

K_V-VALUES

- The K_V-value (m³per hour) is the flow of water at a temperature of 5 °C to 30 °C (41°F to 86°F) at Δp of 1 bar.
- The K_V-values specified are based on tests carried out by the Delfter Hydraulics Laboratories, the Netherlands.
- Permissible velocity of flow
V_{max} 4,5 m/s for liquids and
V_{max} 70 m/s for gases.
- The throttle function is linear at an angle 30° to 70°.
- Avoid cavitation!

For further values, please contact our engineers.

DN [mm]	Size [in]	K _V -Values (Valve fully opened)	
		K _V -values metal disc	K _V -values PTFE-disc
350	15	13500	11500
400	16	15000	12000
450	18	18500	14000
500	20	22000	16000
600	24	28000	20000