Merkur

Butterfly valve PN10/16 • ATEX, CE, PED, NBR, EPDM

Description

- Wafer DN40-DN600
- High quality industrial butterfly valve with replaceable liner, on solid phenolic backup ring
- Wafer design for mounting between several flange standards
- ISO5211 connection for direct actuator assembly
- Ductile iron body with industrial epoxy coating at 200μ

Connection (Wafer)

DN40-DN300 : PN6, PN10, PN16, ANSI150
DN350-DN600: PN10, PN16, ANSI150

Pressure / rating

DN40-DN150: PN16
DN200-DN600: PN10

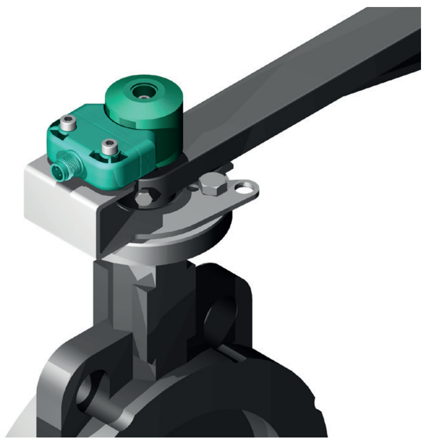
Options on request

Dimension: DN700-DN1200
Materials: Other steel- and liner materials

Accessories

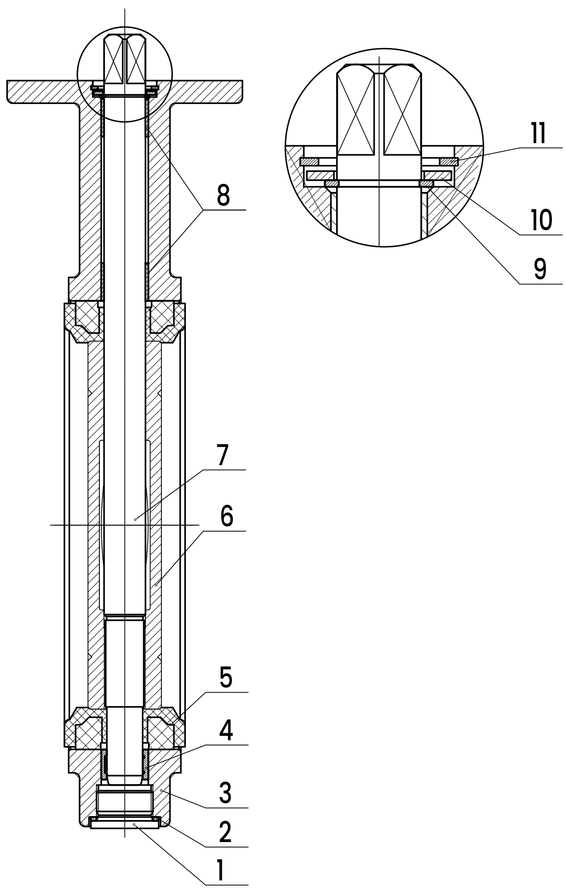
- Handle
- Gearbox
- Mechanical feedback
- Inductive feedback
- Locking pad

Example of inductive feedback mounted onto a manual butterfly valve



Materials

Pos	Description	Material
1	Plug	Steel, galvanized
2	Gasket	PTFE
3	Valve body	GGG40
4	Bushing	Bronze composite
5	Liner	EPDM / NBR / FPM
6	Disc	Stainless steel CF8M
7	Stem	Stainless steel AISI410
8	Bushing	Bronze composite PAP
9	Locking ring	65Mn
10	Locking plate	Steel, galvanized
11	Locking ring	65Mn



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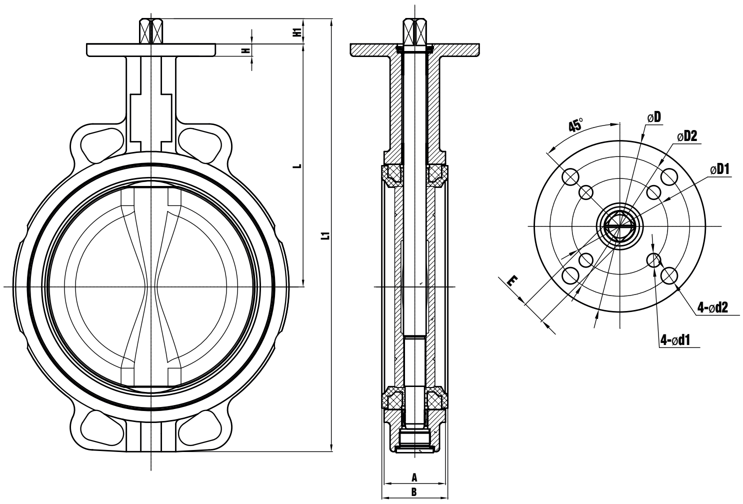
Dimensions



DIM	L	L1	A	B	øD	øD1	4-ød1	øD2	4-ød2	E	H1	H	Torque* [Nm]		MAST** [Nm]	Kv-value [m3/t]	Weight [Kg]
					All dimension in [mm]								NBR EPDM	FPM			
DN40 PN16	110	191.5	33.0	38.0	65	50	4-ø7	-	-	11	13.5	12	9	11	63	60	2.0
DN50 PN16	143	228.5	42.0	46.1	90	50	4-ø7	70	-	11	13.5	12	10	14	63	100	3.0
DN65 PN16	156	247.5w	45.0	49.1	90	50	4-ø7	70	-	11	13.5	12	13	17	63	201	3.6
DN80 PN16	162	265.5	45.0	49.1	90	50	4-ø7	70	4-ø10	11	13.5	12	19	27	63	395	4.0
DN100 PN16	177	299.5	51.0	55.3	90	50	4-ø7	70	4-ø10	14	17.5	12	28	40	125	785	5.4
DN125 PN16	190	327.5	54.5	58.8	90	70	4-ø10	-	-	14	17.5	12	47	78	125	1230	7.6
DN150 PN16	205	356.5	54.5	59.1	90	70	4-ø10	-	-	17	18.5	12	67	106	250	1901	8.8
DN200 PN10	236	420.5	59.6	64.1	125	70	4-ø10	102	4-ø12	17	18.5	12	110	146	250	3410	12.5
DN250 PN10	267	493.5	67.0	71.8	125	102	4-ø12	-	-	22	24.5	18	180	266	500	5600	22.0
DN300 PN10	308	564.5	75.5	79.5	149	102	4-ø12	125	4-ø14	27	30.0	19	260	403	1000	8799	30.1
DN350 PN10	368	670.0	75.5	79.5	175	102	4-ø12	140	4-ø18	27	30.0	19	330	449	1000	10254	41.2
DN400 PN10	400	777.0	102.0	106.5	175	102	4-ø12	140	4-ø18	27	30.0	19	540	925	1000	13329	57.0
DN450 PN10	422	839.0	114.0	118.5	210	140	4-ø18	165	4-ø22	36	39.0	20	750	1184	2000	16956	81.0
DN500 PN10	480	931.0	127.0	131.5	210	140	4-ø18	165	4-ø22	46	49.0	22	1000	1599	4000	20564	99.8
DN600 PN10	562	1077.0	154.0	158.5	300	165	4-ø22	254	8-ø18	46	49.0	22	1500	2300	4000	30020	171.0

* Max breakaway torque for common use in liquid systems
** Maximum stem torque according to ISO5211

Pressure / temperature

Liner / Rating	-20°C	-10°C	0°C	20°C	40°C	60°C	80°C	100°C	120°C	140°C	160°	170°C
						Max pressure in [bar]						
NBR / PN16	-	16.0	16.0	16.0	15.8	15.0	14.2	-	-	-	-	-
NBR / PN10	-	10.0	10.0	10.0	9.8	9.2	8.8	-	-	-	-	-
EPDM / PN16	-	16.0	16.0	16.0	15.8	15.0	14.2	13.8	13.4	-	-	-
EPDM / PN10	-	10.0	10.0	10.0	9.8	9.2	8.8	8.5	8.2	-	-	-

Keep in mind that the lifetime of the liner is reduced if you operate near the temperature limit of the rubber. Rubber will over time lose its flexibility and become less compressible.

Make it better.

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	Max pressure in [bar]											
NBR / PN16	-	16.0	16.0	16.0	15.8	15.0	14.2	-	-	-	-	-
NBR / PN10	-	10.0	10.0	10.0	9.8	9.2	8.8	-	-	-	-	-
EPDM / PN16	-	16.0	16.0	16.0	15.8	15.0	14.2	13.8	13.4	-	-	-
EPDM / PN10	-	10.0	10.0	10.0	9.8	9.2	8.8	8.5	8.2	-	-	-
FPM / PN16	16.0	16.0	16.0	16.0	15.8	15.0	14.2	13.8	13.4	13.3	13.1	13.0
FPM / PN10	10.0	10.0	10.0	10.0	9.8	9.2	8.8	8.5	8.2	8.1	8.1	8.0

Keep in mind that the lifetime of the liner is reduced if you operate near the temperature limit of the rubber.
Rubber will over time lose its flexibility and become less compressible.

Liner material

NBR:
Good resistance to alkaline hydrocarbons in medium temperature range. Resistant to mineral oil, hydraulic oil and gasoline. Can not withstand ozone and UV radiation.

EPDM:
Really good resistance to hot water and low pressure steam. Resistant to esters, ketones and glycols. Ozone resistant. Does not tolerate mineral oils.

FPM:
Good resistance to most chemicals, even at high temperatures. Oil resistant. Can not withstand steam.

Please contact MODU Valves regarding choise of liner material.

Actuator sizing

Media factor	Multiply by
Clean, particle free, lubricating (oil, hydraulic fluid, etc.)	1.00
Clean, particle free, non-lubricating (water, alcohol, etc.)	1.25
Moisture gas	1.25
Dry gas or air	1.50
Gas, dirty unfiltered eg natural gas	1.80

Service factor	Multiply by
Simple on / off maneuvering	1.00
Modulating service	1.20
Maneuvering once per. week	1.20
Maneuvering every other week or plant-critical	1.50

For actuator dimensioning:
Torque x Media factor x Service factor

Please note that the MAST value is not exceeded
(MAST = max stem torque)