A470

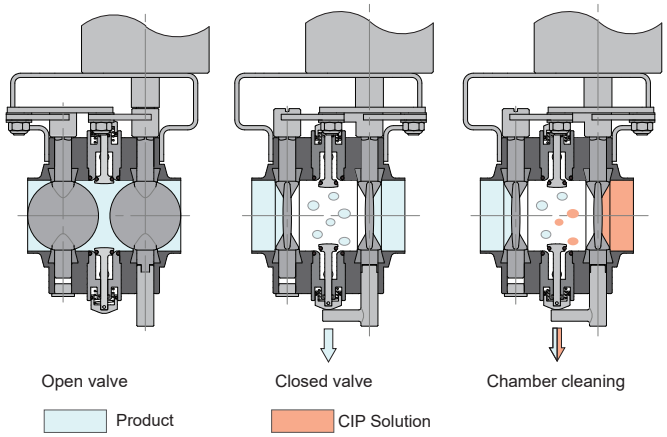
Leakage Butterfly Valve

APPLICATION

The A470 leakage butterfly valve can be used in most liquid product applications in the food-processing, pharmaceutical and chemical industries. The valve A470 offers a safe separation of products and prevents accidental mixing in case of gasket failure. The most usual applications are the ones that require safe separation of the product and CIP solutions in a single point or at the end of a manifold (e.g. CIP return) or entry of a CIP solution into a tank (through a spray ball).

OPERATING PRINCIPLE

The A470 valve provides double safety: the two discs are simultaneously actuated by only one actuator.



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When the two discs are closed, there is a chamber between them. The chamber is under atmospheric pressure as it opens to the exterior, thus, in case of failure of any of the two gaskets, leakage of the liquid product will indicate any possible mixing of products.
The state of the gaskets is supervised by means of either of the leakage detectors.
The other superior detector controls the entry of the cleaning solution to prevent any kind of contamination in the chamber.
These two leakage detectors provide optimal protection and enable cleaning of the intermediate chamber.

DESIGN AND FEATURES

Compact and robust design.
Low pressure losses.

TECHNICAL SPECIFICATIONS

Materials

Disc	1.4404 (AISI 316L)
Body halves	1.4404 (AISI 316L)
Other St. St. parts	1.4307 (AISI 304L)
Gasket	EPDM,FPM

Surface finish

Internal	Ra ≤ 0,8 µm
External	Machined

Available sizes

DIN EN 10357 series A (previously DIN 11850 series 2)	DN 25 - DN 100
ASTM A269/270 (previously to OD pipe)	OD 1" - OD 4"

Connections

Weld

Operating limits

Working temperature	-10ºC to 120ºC	14ºF to 248ºF
Temperature SIP	140ºC (max 30 min.)	284ºF
Minimum working pressure (absolute)	20 kPa (0,2 bar)	3 PSI
Maximum working pressure	1000 kPa (10 bar)	145 PSI

DN	25	32	40	50	65	80	100
Dry torque [Nm][1]	10	10	10	16	30	50	60

OD	1"	1½"	2"	2½"	3"	4"
Dry torque [Nm][1]	10	10	16	30	50	60

1) For rotating the valve disc in a dry seal ring

DRIVE TECHNICAL SPECIFICATIONS

Handles

Two position handle	1.4307 (AISI 304L) + plastic PF31

Actuator

Housing	1.4307 (AISI 304L)
Support	1.4301 (AISI 304)
Air pressure	6 - 8 bar
Air connection	G 1/8 (Ø6 pipe)

Compressed air consumption at P_{rel} = 6 bar (litres N/cycle)

Actuator	Air to spring
A940 - T1	1,3
A940 - T2	2,1
A940 - T2[1]	1,7
A940 - T3[1]	5,0

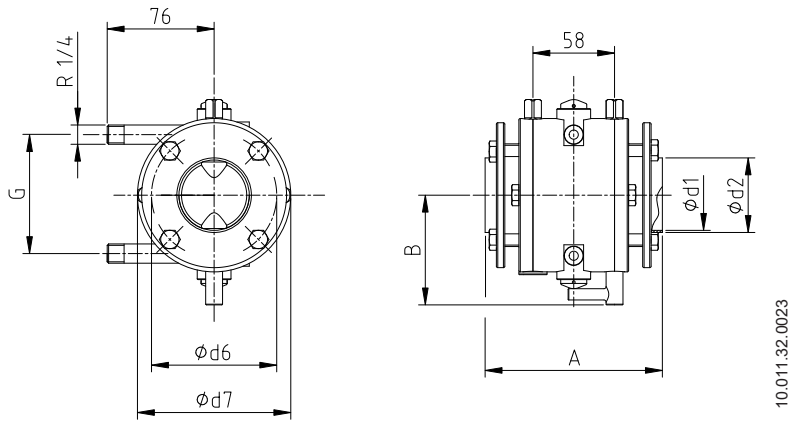
1) Actuator with specific stroke to A470 valves

Standard assembly

Valve	A940 - T1	A940 - T2	A940 - T2[1]	A940 - T3[1]
A480 & A490	DN 25	DN 40 a 50	DN 65	DN 80 a 100
	OD 1"	OD 1½" a 2"	OD 2½"	OD 3" a 4"

1) Actuator with specific stroke to A470 valves

DIMENSIONS



DN	Ød1	Ød2	Ød6	Ød7	A	B	G	Weight [kg]
25	26	29	63	83	126	63,5	59,5	3,7
40	38	41	76	96	126	72	72	4,6
50	50	53	89	109	126	78	84,5	5,6
65	66	70	106	126	126	86	101	7,0
80	81	85	121	141	130	93	116,5	8,5
100	100	104	141	161	130	101,5	136	10,5

DN	Ød1	Ød2	Ød6	Ød7	A	B	G	Weight [kg]
1"	22,1	25,4	58	78	126	62	55,5	3,3
1½"	34,9	38,1	71	91	126	70,5	68	4,2
2"	47,5	50,8	84	104	126	77	81	5,1
2½"	60,2	63,5	96	116	126	83,5	94	5,9
3"	72,9	76,2	109	129	130	89	106	7,1
4"	97,4	101,6	141	161	130	101,5	135	10,8

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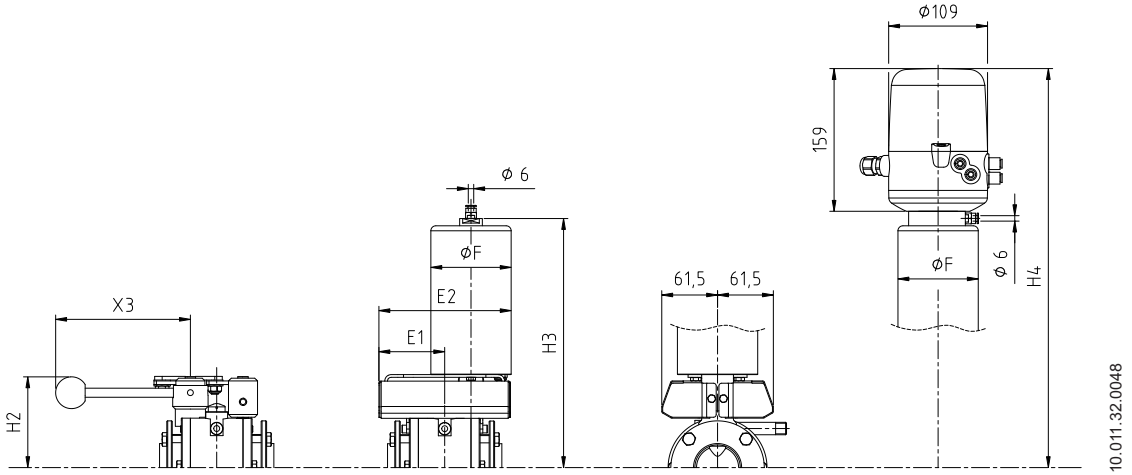

DN	X3	H2	E1	E2	ØF	T1 (ØF = 76)		T2 (ØF = 88,5)		T3 (ØF = 135)	
						H3	H4	H3	H4	H3	H4
25	146	87	72,5	145	76	239,5	406,5	-	-	-	-
40	146	93,5	72,5	146	88,5	-	-	268	435	-	-
50	146	100	72,5	146	88,5	-	-	274,5	441,5	-	-
65	175	108,5	72,5	146	88,5	-	-	283	450	-	-
80	175	116	72,5	169	135	-	-	-	-	341	508
100	175	126	72,5	169	135	-	-	-	-	351	518

DN	X3	H2	E1	E2	ØF	T1 (ØF = 76)		T2 (ØF = 88,5)		T3 (ØF = 135)	
						H3	H4	H3	H4	H3	H4
1''	146	84,5	72,5	145	76	237	404	-	-	-	-
1½"	146	91	72,5	146	88,5	-	-	265,5	432,5	-	-
2''	146	97,5	72,5	146	88,5	-	-	272	439	-	-
2½"	175	103,5	72,5	146	88,5	-	-	278	445	-	-
3''	175	110	72,5	169	135	-	-	-	-	335	502
4''	175	126	72,5	169	135	-	-	-	-	351	518