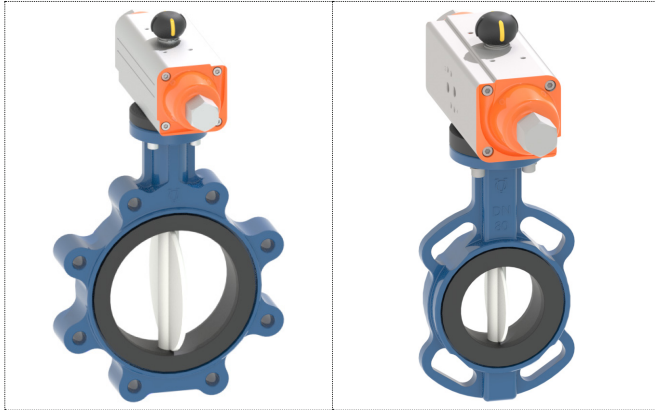


Butterfly Valve type 038P/039P



Type 038P
Wafer or lug style

Type 039P
Wafer style installation

Product description

Metal butterfly valves are ideal for shutting off and controlling the flow of liquid media in pipelines. They possess high temperature and pressure resistance.

Function

The metal butterfly Valve types 038P and 039P can be used universally as open/close or control valves. The easy installation of the valve between pipe flanges guarantees reliable operation and sealing. The Rilsan-coating of the valve body and the ductile iron valve disk provide a high resistance against corrosion. The butterfly valves are also available in a standard version with a stainless steel valve disk.

Applications

- Water treatment
- Chemical process industry
- Cooling water facilities
- Power plant
- Shipbuilding

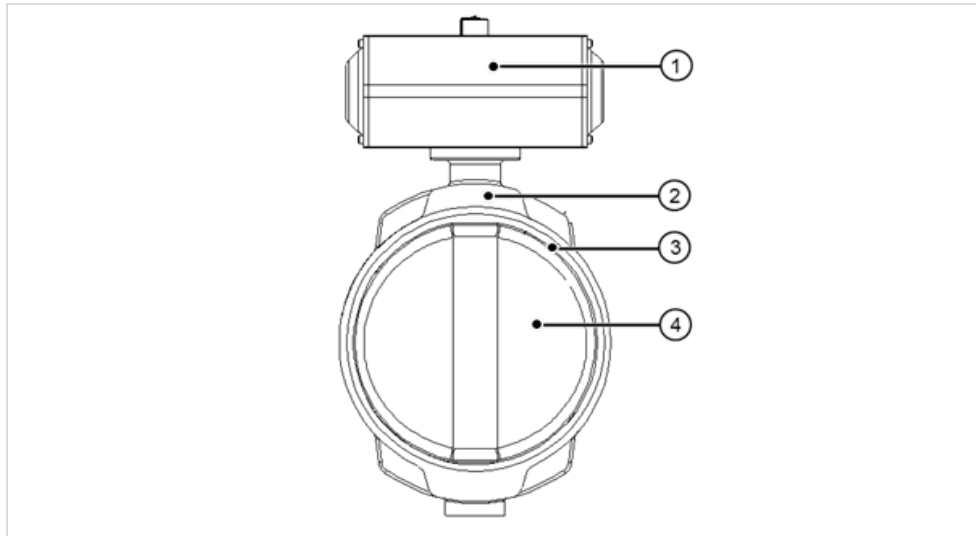
Benefits/features

- Good flow characteristics
- Rilsan/epoxy-coating: good chemical resistance
- Easy installation
- Reliable automatic open/close and control valves
- Lasting high temperature and pressure resistance
- Low maintenance costs and high cost efficient
- KTW / DVGW / WRAS certification

Flow media

Not recommended for media containing solids

Technical data



- 1 Pneumatic actuator
- 2 Outside housing
- 3 Flange seal
- 4 Disc

Specification

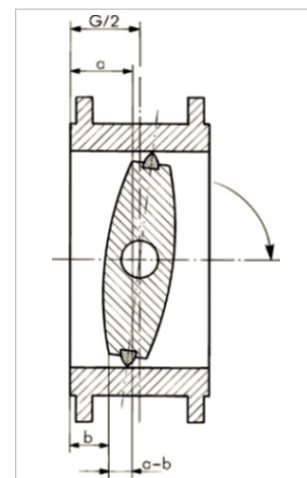
Dimensions	Type 038P wafer style or lug style installation	DN50 – DN300, 2" – 12"	
	Type 039P wafer style installation	DN50 – DN1200, 2" – 48"	
Base type	Type 038		
	Type 039		
Materials	Disc	Ductile cast iron Rilsan/epoxy-coated Stainless steel Aluminum bronze	
	Outside housing	Ductile cast iron	
Gasket materials	EPDM, FKM, others upon request		
Pressure levels	Type 038P, 039P	PN10/16	
Actuator type	Type 038P	PA30 – PA90	
	Type 039P	PA30 – PA90	
Connections	Flange connections	EN1092-1	PN10/PN16
		DIN2501	PN10/PN16
		ANSI B16.5	Class 150
	Valve flange	ISO/DIN, BS, ASTM	
Standards	Type 038P	ISO/DIN, ASTM	
	Type 039EP	All standards	
Approvals	KTW, DVGW, ACS, WRAS		

Technical basics

Setting the "Closed" position when setting up actuators for DN50 – DN300

When the butterfly valve is in the CLOSED position, the valve disc is not perfectly perpendicular to the pipe axis. The table below shows the deflection.

DN (mm)	d (mm)	b (mm)
50	63	16
65	75	16
80	90	16
100	110	18
125	140	17
150	160	17
200	225	17
250	280	15
300	315	15



Valve handling

Differentiation between and use of respective types

- Use butterfly Valve type 039P only as a wafer style valve
- Use butterfly Valve type 038P as either a wafer style or a lug style valve

Installation notes

- Make sure that the butterfly valves to be installed correspond specifically to the pressure rating, type of connection, dimension and materials of the particular application.
- Perform a function test. To do this, close and re-open the butterfly valve.
- Only install butterfly valves that function without trouble.

Pneumatic actuator PA30 – PA90

- Actuators without spring accumulator remain in the current position in case of a loss of the control pressure.
- Actuators with spring accumulator go into safety position, in case of failure or after switching off the control pressure, depending on the version of the actuator.
- The actuator is not intended for uses other than those stated here. Failure to observe the instructions contained in this manual will void the manufacturer's liability for the products mentioned above.

Maintenance notes

In normal operation, butterfly valves do not require maintenance. It is nonetheless recommended to perform maintenance on butterfly valves after 5,000 actuation cycles at most. The following steps must be taken when doing so:

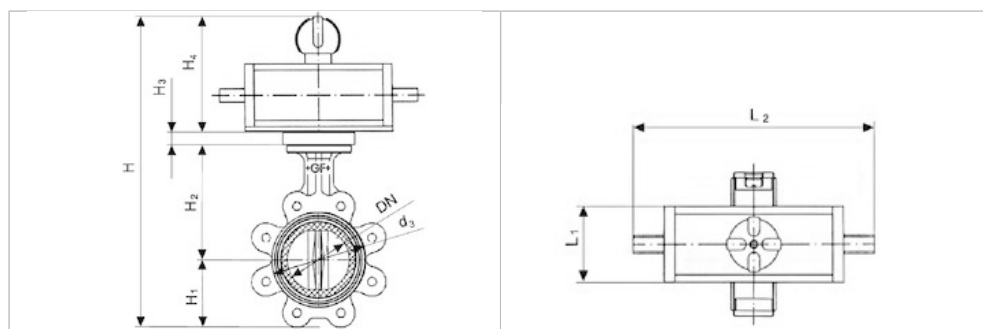
- Regularly check that no medium escapes to the outside. If medium exits from the flange connections, tighten them.
- We recommend operating butterfly valves that are kept permanently in the same position 1 – 2 times per year to check their functionality.
- Depending on the operating conditions, the collars should be lubricated periodically with grease (silicon-base grease).



Installation and maintenance must be performed according to the corresponding installation instructions. The installation manual is included with the product, see also the online product catalog at www.gfps.com

Dimensions

Type 038P



d (mm)	DN (mm)	Inch (inch)	PN (bar)	kv value opening value 90° (Δp=1bar) (l/min)	Cv value opening value 90° (Δp=1psi) (US gal/min)
65	50	2	10	3'167	837
75	65	2 ½	10	4'667	1'233
90	80	3	10	7'167	1'893
110	100	4	10	11'834	3'126
140	125	5	10	18'334	4'844
160	150	6	10	26'667	7'045
225	200	8	10	46'668	12'330
280	250	10	6	78'335	20'696
315	300	12	4	115'002	30'384

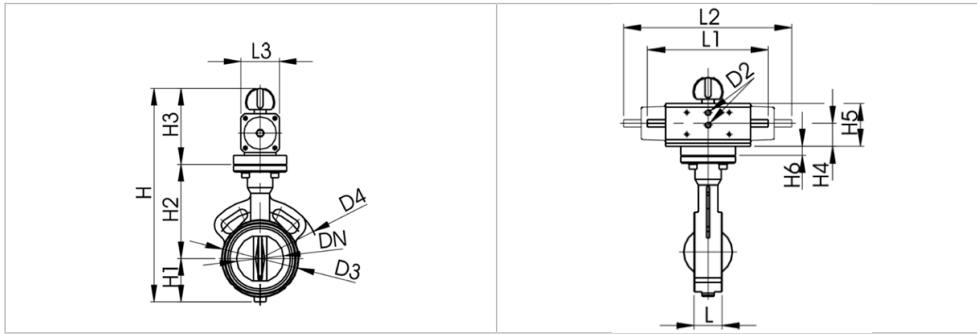
Single-acting FC/F0

d (mm)	Actuator type	d3 (mm)	L1 (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)
65	PA30	95	70.4	274.4	313.2	63	140	12	98.2
75	PA30	114	70.4	274.4	335.2	73	152	12	98.2
90	PA35	131	83.3	325.2	366.1	81	159	15	111.1
110	PA40	152	87	359.5	404.8	97	178	15	114.8
140	PA45	182	107.5	418	467.5	112	191	15	149.5
160	PA50	209	111.1	433.9	493.1	122	203	15	153.1
225	PA60	262	134.9	547.3	582.9	149	245	12	176.9
280	PA60	331	134.9	547.3	679.9	203	275	25	176.9
315	PA70	380	168	681	789.1	241	315	23	210.1

Double-acting DA

d (mm)	Actuator type	d3 (mm)	L1 (mm)	L2 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)
65	PA35	95	64.5	196.1	313.3	63	140	18	92.3
75	PA35	114	64.5	196.1	335.3	73	152	18	92.3
90	PA35	131	64.5	196.1	350.3	81	159	18	92.3
110	PA45	152	83.3	242	401.1	97	178	15	111.1
140	PA45	182	83.3	242	429.1	112	191	15	111.1
160	PA55	209	107.5	290.2	489.5	122	203	15	149.5
225	PA60	262	111.1	313.9	562.1	149	245	15	153.1
280	PA65	331	118	339.6	663	203	275	25	160
315	PA70	380	134.9	382.5	757.9	241	315	25	176.9

Type 039P



d (mm)	DN (mm)	Inch (inch)	L (mm)	H1 (mm)	H2 (mm)	Q (mm)	D3 (mm)	D4 (mm)	kv value opening value 90° (Δp=1bar) (l/min)	Cv value opening value 90° (Δp=1psi) (US gal/min)
65	50	2	43	83	140	32	102	165	3'167	219.45
75	65	2 ½	46	93	152	51	122	185	4'667	323.4
90	80	3	46	98	159	69	139	190	7'167	496.65
110	100	4	52	111	178	89	159	229	11'834	820.05
140	125	5	56	127	191	115	189	254	18'334	1'270.5
160	150	6	56	143	203	143	214	285	26'667	1'848
225	200	8	60	172	241	194	269	343	46'668	3'234
280	250	10	68	204	275	243	331	333	78'335	5'428.5
315	300	12	78	242	315	293	380	353	115'002	7'969.5
355	350	14	78	291	307	332	460	442	143'336	9'933
400	400	16	102	325	342	382	515	493	186'670	12'936
450	450	18	113	357	387	432	565	544	258'339	17'902.5
500	500	20	126	381	425	478	620	601	316'673	21'945
630	600	24	146	488	532	585	725	695	431'675	29'914.5
700	700	28	175	506	573	683	840	798	618'346	42'850.5
800	800	32	215	578	650	755	950	908	871'684	60'406.5
900	900	36	246	643	707	852	1'050	1004	1'005'020	59'713.5
1'000	1'000	40	280	729	755	958	1'160	1114	1'306'693	90'552
1'200	1'200	48	360	855	900	1'098	1'380	1330	1'906'705	132'132

Single-acting FC/FO

d (mm)	DN (mm)	Inch (inch)	Actuator type	L2 (mm)	L3 (mm)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	D2 (mm)
65	50	2	PA30	274.4	70.4	333.2	110.2	35.2	70.4	12	1/8"
75	65	2 ½	PA30	274.4	70.4	355.2	110.2	35.2	70.4	12	1/8"
90	80	3	PA35	325.2	83.3	383.1	126.1	42	83.3	15	1/8"
110	100	4	PA40	359.5	87	418.8	129.8	43.5	87	15	1/8"
140	125	5	PA45	418	107.5	482.5	164.5	54	107.5	15	1/8"
160	150	6	PA50	433.9	111.4	514.1	168.1	55.5	111.1	15	1/8"
225	200	8	PA60	547.3	134.9	601.9	188.9	67	134.9	12	1/8"
280	250	10	PA60	547.3	134.9	680.9	201.9	67	134.9	25	1/8"
315	300	12	PA70	681	168	790.1	233.1	84	168	23	¼"
355	350	14	*	590	200	980	382				
400	400	16	*	684	350	1'047	380				
450	450	18	*	722	281	1'094	350				
500	500	20	*	860	349	1'238	432				
630	600	24	*	918	450	1'530	540				
700	700	28	*	1'550	640	1'779	700				
800	800	32	*	1'550	640	1'928	700				
900	900	36	*	1'550	640	2'050	700				
1'000	1'000	40	*	1'550	640	2'184	700				
1'200	1'200	48	*	2'070	850	2'630	875				

* On request, depending on application

Double-acting DA

d (mm)	DN (mm)	inch (inch)	Actuator type	L1 (mm)	L3 (mm)	H (mm)	H3 (mm)	H4 (mm)	H5 (mm)	H6 (mm)	D2 (mm)	* On request, depending on application
65	50	2	PA35	196.1	64.5	333.3	110.3	32.3	64.5	18	1/8"	
75	65	2 ½	PA35	196.1	64.5	355.3	110.3	32.3	64.5	18	1/8"	
90	80	3	PA35	196.1	64.5	367.3	110.3	32.3	64.5	18	1/8"	
110	100	4	PA45	242	83.3	415.1	126.1	41.7	83.3	15	1/8"	
140	125	5	PA45	242	83.3	444.1	126.1	41.7	83.3	15	1/8"	
160	150	6	PA55	290.2	87	510.5	164.5	53.75	107.5	15	1/8"	
225	200	8	PA60	313.9	111.1	581.1	168.1	55.6	111.1	15	1/8"	
280	250	10	PA65	339.6	118	664	185	59	118	25	1/8"	
315	300	12	PA70	382.5	134.9	758.9	201.9	67.5	134.9	25	¼"	
355	350	14	*	575	220	888	290					
400	400	16	*	575	220	957	290					
450	450	18	*	684	350	1'124	380					
500	500	20	*	684	350	1'186	380					
630	630	24	*	8680	349	1'452	432					
700	700	28	*	860	349	1'511	432					
800	800	32	*	918	450	1'738	510					
900	900	36	*	1'550	640	2'050	700					
1'000	1'000	40	*	1'550	640	2'184	700					
1'200	1'200	48	*	1'550	640	2'455	700					

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