

Butterfly Valve Type 145/146/147

			
Type 145 Wafer style, in accordance with all standards	Type 146 For lug style and wafer style applications, in accordance with ISO/DIN	Type 147 For lug style and wafer style applications, in accordance with ANSI	Type 145 - 147 With smart electric actuator dEA

Product description

The electrically actuated butterfly valve of types 145, 146 and 147 from GF Piping Systems consists of the valve body, butterfly Valve Types 567 and 578 with the electric actuator EA or the smart electric actuator dEA. It can be used under the most varied conditions and enables a broad range of applications.

With the optional positioner, it goes from being a simple open/close valve to a precise flow control device integrated into systems controlled by PLCs and other computerized instrumentation

Applications

- Industrial water treatment
- Seawater desalinization
- Swimming pools
- Aquariums/oceanariums
- Chemical process industry
- Surface engineering
- Power plant construction

Benefits/features

Type 145

- Emergency manual override on actuator
- Rated for 150 PSI / 10 bar (bidirectional)
- EPDM, FKM or PTFE gaskets
- UL certified
- Double eccentric, off-center shaft for reduced wear and a lower operating torque
- Special O-ring design eliminates the need for flange seals
- With the optional positioner, it goes from being a simple open/close valve to a precise flow control device

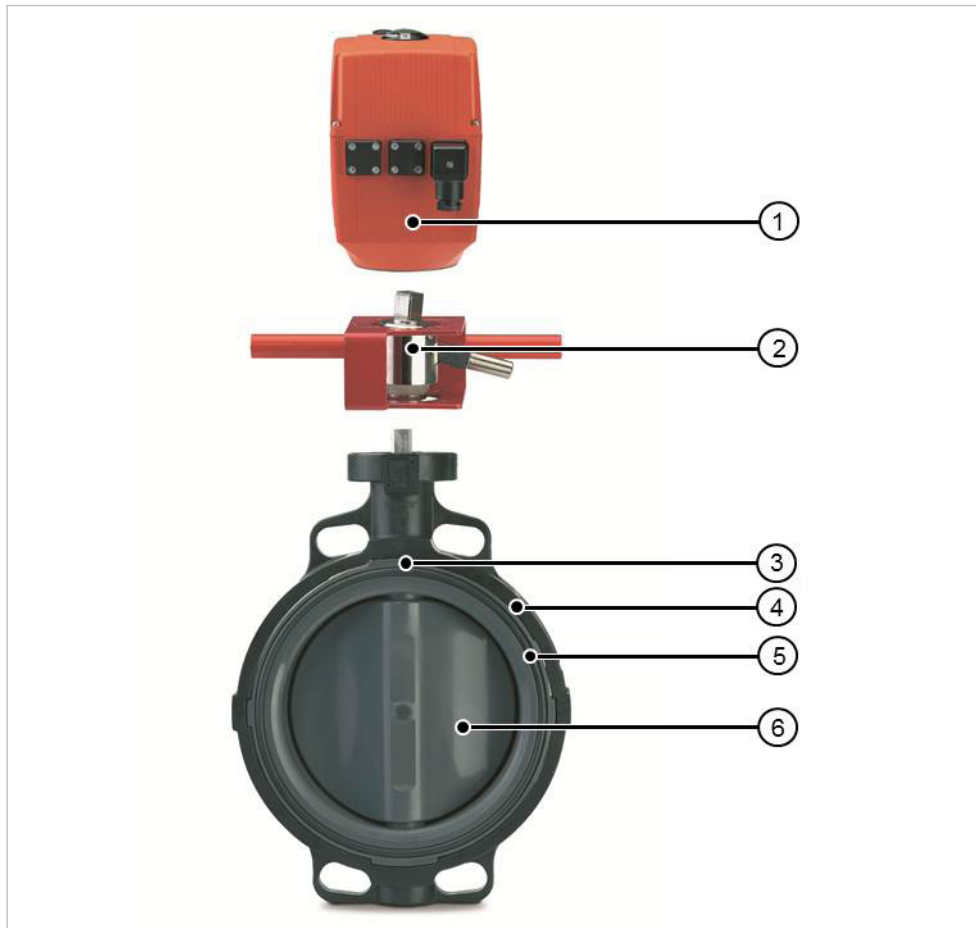
Type 146/147

- Designed for lug style and wafer style applications
- Type 146: butterfly Valve Type 578 with EN/ISO-compatible flange connection dimensions and electrical actuation
- Type 147: butterfly Valve Type 578 with ANSI-compatible flange connection dimensions and electrical actuation
- With the optional positioner, it goes from being a simple open/close valve to a precise flow control device

Flow media

- Very well suited for liquid media
- Suited for gaseous media
- Conditionally suited for solid media
- Conditionally suited for viscous media

Technical data



- ① Electric actuator
- ② Manual override (optional)
- ③ Inner housing
- ④ Outer housing
- ⑤ Flange seal
- ⑥ Disc

Specification		
Dimensions	Type 145 wafer style	d63/DN50 – d315/DN600, 2" – 24"
	Type 146/147	d63/DN50 – d225/DN300, 2" – 12"
	Lug style and wafer style applications	
Base type	Type 567	
	Type 578	
Materials	Disc / inner housing	PVC-U, PVC-C, ABS; PP-H, PVDF
	Outer housing	PP-GF30
Gasket materials	EPDM, FKM, FKM/PTFE	
Pressure ratings	Type 145, 146, 147	PN4 – PN10
Actuator type	Type 145	EA45, EA120, EA250 (DN350 – DN600 Valves)
	Type 146/147	EA45, EA120, EA250
Connections	Flanges	PVC-U, PVC-C, ABS, PP-H, PVDF, PE according to ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220
	Flange adapters	PVC-U, PVC-C, ABS, PP-H, SDR 11: PE100 SDR 11 or SDR 17.6, PVDF
	Backing flanges	PVC-U, PP-st / PP-V
Standards	Type 145	All standards
	Type 146	ISO/DIN
	Type 147	ANSI
Approvals	ACS, ABS, DIBt, TA Luft, BV, TSSA, DNV, GL, LR, NSF61, NSF 1970	

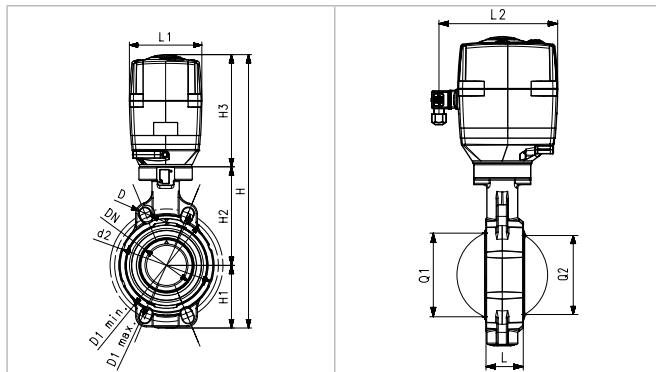


The following technical data can be found in the Planning Fundamentals under Butterfly Valve Type 567/578, manually operated:

- Pressure-temperature diagram
- Pressure loss
- Flow characteristics
- Kv values
- Reference values for screw fastenings

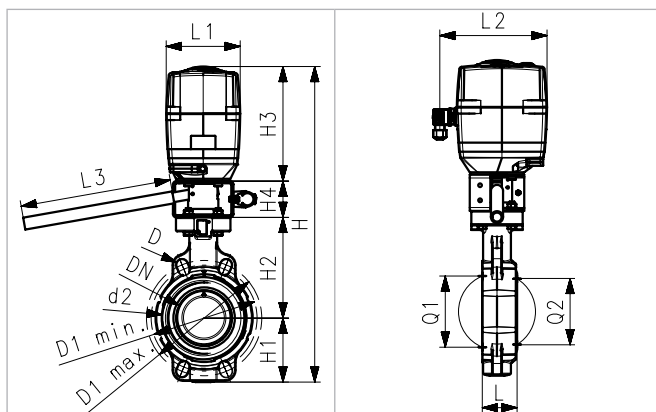
Dimensions

Butterfly Valve Type 145 with electrical actuator, without manual override DN50 – DN300



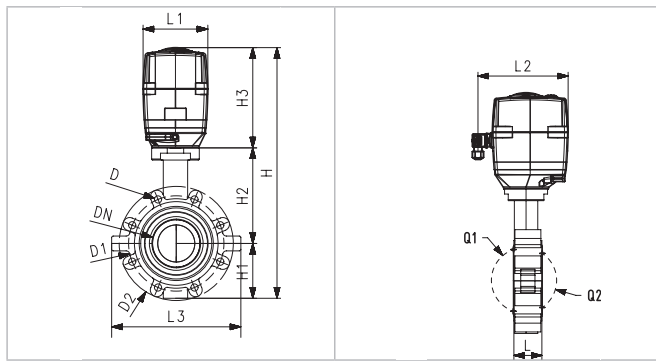
d (mm)	Inch (inch)	DN (mm)	Act. Type	d2 (mm)	D (mm)	D1 _{min} (mm)	D1 _{max} (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	Q1 (mm)	Q2 (mm)
63	2	50	EA45	104	19	120	125	400	77	134	188	45	122	180	40	
75	2 ½	65	EA45	115	19	140	145	413	83	140	188	46	122	180	54	35
90	3	80	EA120	131	19	150	160	428	89	146	188	49	122	180	67	50
110	4	100	EA120	161	19	175	131	460	104	167	188	56	122	180	88	74
140	5	125	EA120	187	23	210	216	481	117	181	188	64	122	180	113	97
160	6	150	EA120	215	24	241	241	508	130	189	188	72	122	180	139	123
225	8	200	EA250	267	23	290	295	575	158	210	208	73	122	180	178	169
280	10	250	EA250	329	25	353	362	677	205	264	208	113	122	180	210	207
315	12	300	EA250	379	25	400	432	721	228	285	208	113	122	180	256	253

Butterfly Valve Type 145 with electrical actuator, with manual override DN50 – DN200



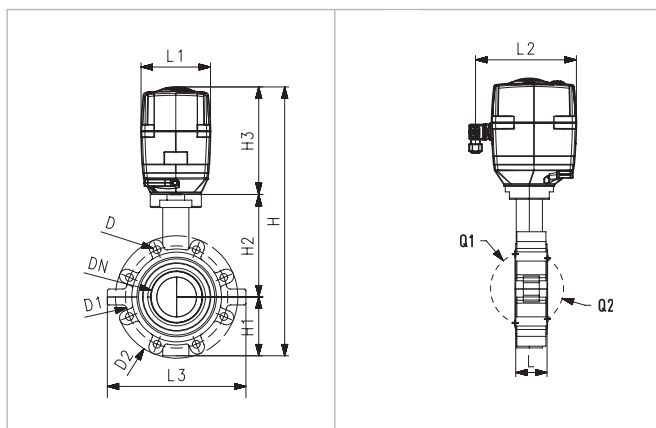
d (mm)	Inch (inch)	DN (mm)	Act. Type	d2 (mm)	D (mm)	D1 _{min} (mm)	D1 _{max} (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	2	50	EA120	104	19	120	125	475	77	134	188	45	122	180	250	40	
75	2 ½	65	EA120	115	19	140	145	488	83	140	188	46	122	180	250	54	35
90	3	80	EA120	131	19	150	160	488	89	146	188	49	122	180	250	67	50
110	4	100	EA120	161	19	175	131	520	104	167	188	56	122	180	250	88	74
140	5	125	EA120	187	23	210	216	547	117	181	188	64	122	180	250	113	97
160	6	150	EA120	215	24	241	241	568	130	189	188	72	122	180	250	139	123
225	8	200	EA250	267	23	290	295	635	158	210	208	73	122	180	250	178	169

Butterfly Valve Type 146 with electrical actuator, without manual override DN50 – DN300



d (mm)	DN (mm)	Antr. Type	d2 (mm)	D (mm)	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	50	EA45	160	M16	125	399	77	134	188	45	122	180	165	40	
75	65	EA45	180	M16	145	411	83	140	188	46	122	180	182	54	35
90	80	EA120	195	M16	160	423	89	146	188	49	122	180	210	67	50
110	100	EA120	226	M16	180	461	106	167	188	56	122	180	240	88	74
140	125	EA120	258	M16	210	490	121	181	188	64	122	180	272	113	97
160	150	EA120	284	M20	240	510	133	189	188	72	122	180	300	139	123
225	200	EA250	341	M20	295	577	159	210	208	73	122	180	360	178	169
280	250	EA250	412	M20	350	677	205	264	208	113	122	180	440	210	207
315	300	EA250	482	M20	400	727	234	285	208	113	122	180	510	256	253

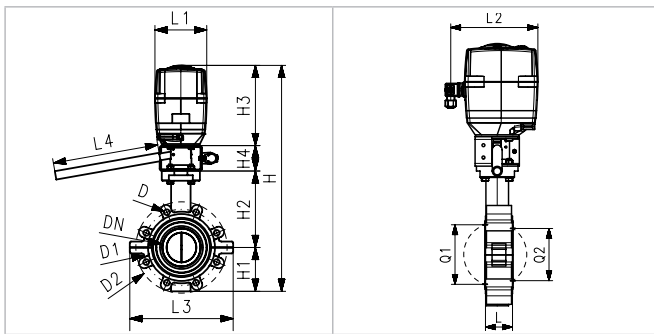
Butterfly Valve Type 147 with electrical actuator, without manual override DN50 – DN300



d inch	DN (mm)	Antr. Type	d2 (mm)	D ANSI	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
2	50	EA45	160	UNC 5/8	120.6	399	77	134	188	45	122	180	165	40	
2½	65	EA45	180	UNC 5/8	139.7	411	83	140	188	46	122	180	182	54	35
3	80	EA120	195	UNC 5/8	152.4	423	89	146	188	49	122	180	210	67	50
4	100	EA120	226	UNC 5/8	190.5	461	106	167	188	56	122	180	240	88	74
5	125	EA120	258	UNC ¾	215.9	490	121	181	188	64	122	180	272	113	97
6	150	EA120	284	UNC ¾	241.3	510	133	189	188	72	122	180	300	139	123
8	200	EA250	341	UNC ¾	298.4	577	159	210	208	73	122	180	360	178	169
10	250	EA250	412	UNC 7/8	362.0	677	205	264	208	113	122	180	440	210	207
12	300	EA250	482	UNC 7/8	431.8	727	234	285	208	113	122	180	510	256	253

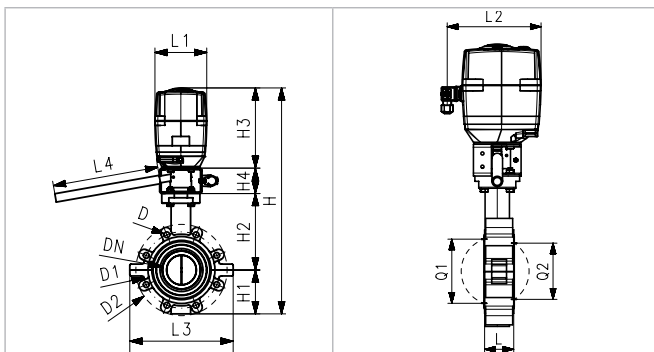
Dimensions in accordance with ANSI/ASME B16.5 Class 150

Butterfly Valve Type 146 with electrical actuator, with manual override DN50 – DN200



d (mm)	DN (mm)	Antr Type	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	l2 (mm)	l3 (mm)	L4 (mm)	Q1 (mm)	Q2 (mm)
63	50	EA45	160	M16	125	459	77	134	188	60	45	122	180	165	200	40	
75	65	EA45	180	M16	145	471	83	140	188	60	46	122	180	182	200	54	35
90	80	EA120	195	M16	160	483	89	146	188	60	49	122	180	210	200	67	50
110	100	EA120	226	M16	180	521	106	167	188	60	56	122	180	240	250	88	74
140	125	EA120	258	M16	210	550	121	181	188	60	64	122	180	272	250	113	39
160	150	EA120	284	M20	240	570	133	189	188	60	72	122	180	300	250	139	123
225	200	EA250	341	M20	295	637	159	210	208	60	73	122	180	360	250	178	169

Butterfly Valve Type 147 with electrical actuator, with manual override DN50 – DN200



Inch (inch)	DN (mm)	Act. Type	d2 (mm)	D	D1 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	L (mm)	L1 (mm)	l2 (mm)	l3 (mm)	L4 (mm)	Q1 (mm)	Q2 (mm)
2	50	EA45	160	UNC 5/8	120.6	459	77	134	188	60	45	122	180	165	200	40	
2 1/2	65	EA45	180	UNC 5/8	139.7	471	83	140	188	60	46	122	180	182	200	54	35
3	80	EA120	195	UNC 5/8	152.4	483	89	146	188	60	49	122	180	210	200	67	50
4	100	EA120	226	UNC 5/8	190.5	521	106	167	188	60	56	122	180	240	250	88	74
5	125	EA120	258	UNC 3/4	215.9	550	121	181	188	60	64	122	180	272	250	113	97
6	150	EA120	284	UNC 3/4	241.3	570	133	189	188	60	72	122	180	300	250	139	123
8	200	EA250	341	UNC 3/4	298.4	637	159	210	208	60	73	122	180	360	250	178	169

Dimensions in accordance with ANSI/ASME B16.5 Class 150