

KITZ XJ series aluminum butterfly valves:
Featuring a unique style for the neck designs (U.S.P. No. 6676109) to accommodate various piping designs, piping positions, and installation environments.

Specification

Class	JIS 10K	Class 150	PN16
Maximum service pressure	1 MPa	1 MPa	1.6 MPa (16 bar)
Service temperature range*1	-20°C to +120°C		
Continuous service temperature range*2	-20°C to +100°C		
Face-to-face dimension	API609, BS EN 558 Basic Series 20 ISO 5752-20, JIS B 2002 46 series		
Coupling flanges	JIS B 2220 / 2239 10K	ASME Class 150 JIS B 2220 / 2239 10K	EN1092 PN16*3

*1 Condition : Fluid is not frozen.

*2 Refer to P-T rating chart.

*3 With centering sleeves.

Refer to the product range chart in page 2 and precaution in page 39 for details.

Cv value

Size		Cv	Size		Cv
DN	NPS		DN	NPS	
40	1 1/2	77	125	5	1100
50	2	99	150	6	1820
65	2 1/2	205	200	8	2780
80	3	372	250	10	4350
100	4	723	300	12	6860

Feature

Your choice of two neck designs

A long neck type and a short neck type are available for use in a variety of applications.

Easy valve-to-flange centering

The light weight of the die-cast aluminum valve body (which is only one third of the weight of KITZ's conventional cast-iron butterfly valves) eases valve-to-flange centering work on mounting valves on pipelines.

Wide range of service applications

Austenitic stainless steel discs and EPDM* rubber seats can handle many different types of line fluid without risk of corrosion.

Stabilized operating torque

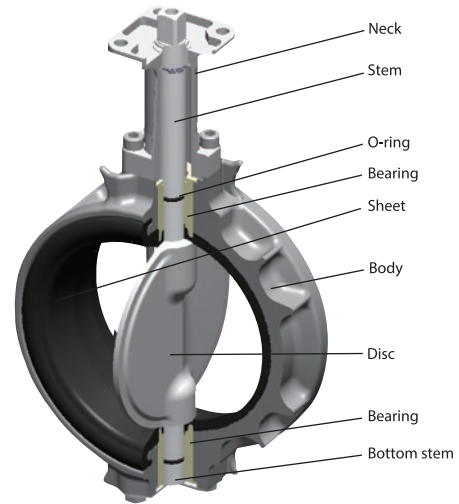
A pair of stem bearings assembled around the top and bottom stems prevents stem galling and stabilizes the valve operating torque for smooth and trouble-free disc rotation.

On-the-spot actuator assembly

The actuator mounting pads of all necks are designed in conformity with ISO 5211 requirements for direct on-site mounting of actuators that are provided with ISO 5211 valve mounting flanges.

Prevention of dew condensation (Long neck type)

A long stainless steel neck blocks transfer of fluid heat to the valve operating device, so no insulation is needed on the operating device. Dew condensation is also minimized for gear-operated valves used in cold water service.



Standard Materials

*Please refer to the drawing of deliverables for detail.

Parts	Materials
Body	Aluminum die-cast/equivalent ASTM B85-84-383.0
Neck	304 SS
Stem	(Equivalent ASTM A276 type 410)
Disk	A351 Gr. CF8M
O-ring	EPDM
Rubber seat	EPDM
Bottom stem	(Equivalent ASTM A276 type 410)
Bearing	Metal backed PTFE (size 10" and 12") Polyphenylenesulfide (10XJMEA: size 1 1/2" to 8") Bronze: CAC401C (PN16XJME: size 2" to 8")

Rust prevention

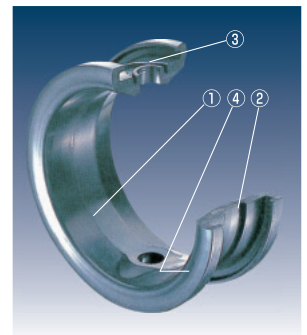
The main parts such as the stems, discs, necks, neck connectors, and endplates and small parts such as stopper plates, washers, and boltings are all made of stainless steel for high-grade rust prevention.

S-shaped spherical disc for high sealing performance (patented)

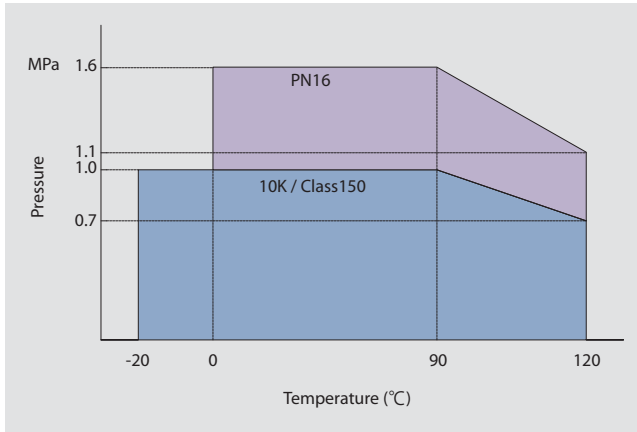
KITZ's original cross-sectionally S-shaped valve discs with spherical surfaces make evenly tight contact with rubber liners for excellent sealing performance with reduced operating torque. Complete 360° shut-off mechanisms help to extend the service life of rubber liners. (Size: ≥2 inches)

Carefully designed KITZ EPDM seats have the following unique features that ensure their functional stability, high sealing performance, and long life:

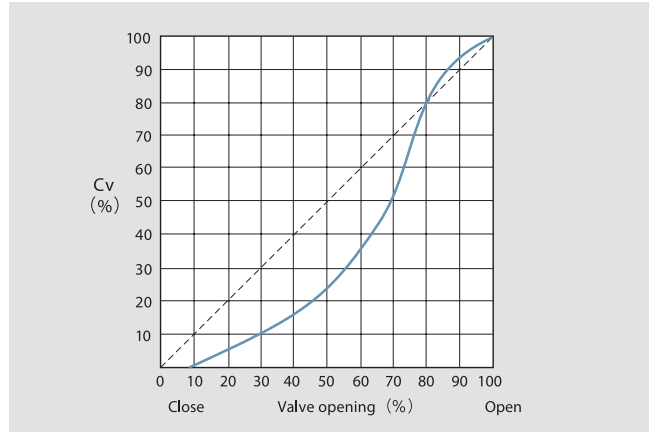
- Self-reinforced ribbing
 - Wide disc seating contact
 - Dual stem seal bearings
- ① Wide disc seating contact for high sealing performance.
 - ② Reinforced ribbing minimizes valve operating problems such as distortion, skidding, and exfoliation of rubber liners caused by line pressure load and friction with metal discs.
 - ③ Stem seal bearings are assembled on the top and bottom stems for stable sealing.
 - ④ Gasketless flange sealing contact for easy valve mounting.



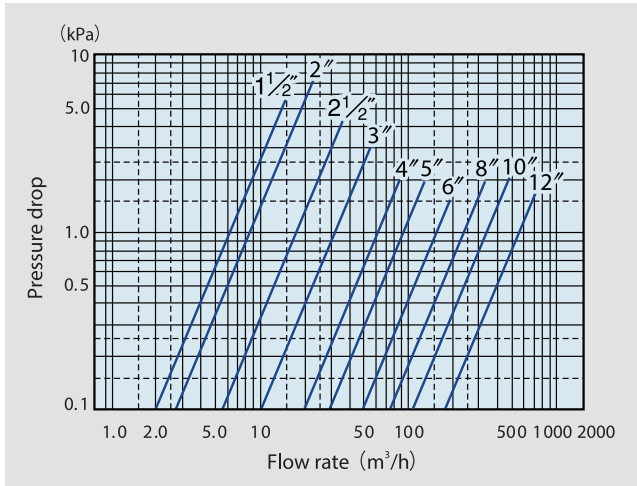
P-T Rating



Flow Characteristics



Pressure Loss



Long Neck Type

Prevented dew condensation



Feature

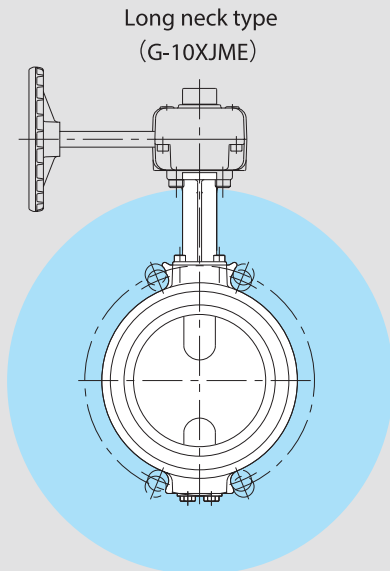
- A long stainless steel neck reduces the conductivity of fluid heat and prevents dew condensation.
- Variety of valve body and neck insulation designs available.
- Choice of actuators for automated valve operation.

Application

- Building utilities
- Piping networks for cold water, hot water, and other water supply

Valve Insulation

Insulation is recommended for areas in blue.



Note: It is not available in short neck type.

Short Neck Type

Compact design



Feature

- Suitable for piping in a limited space.
- Choice of actuators for automated valve operation.

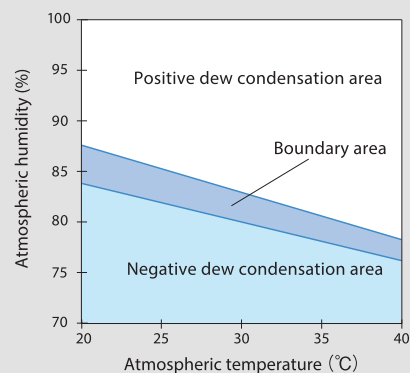
Application

- Building utilities
- Plant facilities
- Water treatment facilities
- Industrial machinery operation

Dew Condensation Test

Samples of KITZ XJ series butterfly valves equipped with long necks (KITZ Product Code: G-10XJMEA) were tested at the KITZ Laboratory under the conditions listed below. The lower surface temperatures of gear boxes, ambient temperatures, and ambient humidities were measured as the variable functions. The dew condensation boundary was estimated as illustrated below.

G-10XJME Estimated Dew Condensation Boundary



Test condition

- Line fluid: +5°C cold water
- Atmospheric temperature range: +20°C to +40°C
- Valve insulation: 50-mm glass wool (JIS A 9501) around the test valve, with gear boxes exposed to open air.

Note:

The estimation shown here is the result of a summary of tests carried out within a test basin at a constant temperature and humidity and does not necessarily represent the absolute values. Note that the dew condensation prevention properties of these valves may be affected by changes in the test conditions, such as the variation in the degree of air transfer, line fluid temperature, atmospheric humidity, or condition of insulation. Acceptance of an allowance of $\pm 5\%$ beyond the boundary area is recommended.

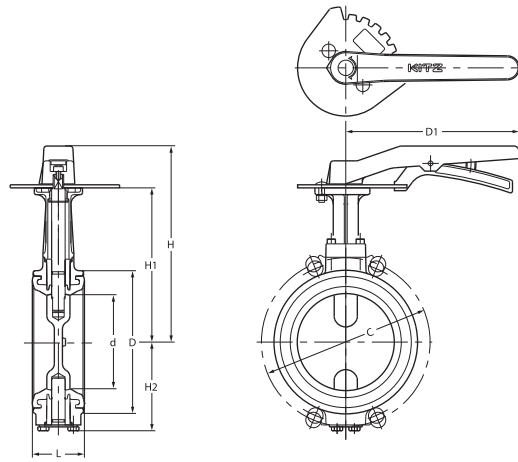
Aluminum Butterfly Valves

XJ series

Long Neck Type Lever Operated

10XJME*
10XJMEA
PN16XJME*

* Available up to size 150^A



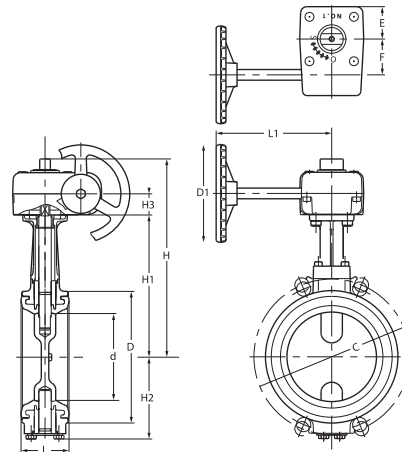
Dimensions

unit: mm

Size		d	H	H1	H2	L	D	C		D1
A	B							10K	PN16	
40	1½	40	172	128	40	33	80	105	—	180
50	2	50	176	132	66	43	93	120	125	180
65	2½	65	185	141	74	46	118	140	145	180
80	3	80	193	149	83	46	129	150	160	180
100	4	100	204	160	94	52	149	175	180	180
125	5	125	249	195	122	56	184	210	210	230
150	6	150	261	207	135	56	214	240	240	230
200	8	196	281	234	161	60	258	290	—	350

Long Neck Type Gear Operated

G-10XJME
G-10XJMEA
G-PN16XJME



Dimensions

unit: mm

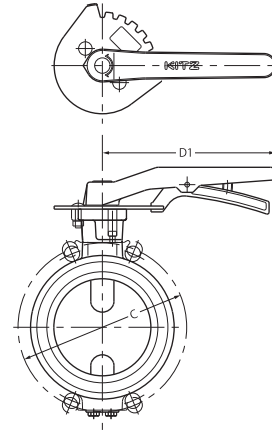
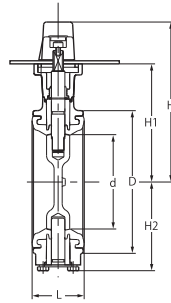
Size		d	H	H1	H2	H3	L	D	C		D1	L1	E	F	Gear type
A	B								10K	PN16					
40	1½	40	175	128	40	19	33	80	105	—	80	122	29	28	No. 0
50	2	50	179	132	66	19	43	93	120	125	80	122	29	28	
65	2½	65	188	141	74	19	46	118	140	145	80	122	29	28	
80	3	80	196*2	149	83	19	46	129	150	160	80	122	29	28	No. 1
100	4	100	223	160	94	24	52	149	175	180	110	135	36	40	
125	5	125	258	195	122	24	56	184	210	210	110	150	36	40	
150	6	150	270	207	135	24	56	214	240	240	110	150	36	40	No. 2
200	8	196	311	234	161*1	32	60	258	290	295	170	180	51	63	
250	10	245	405	328	238	32	68	316	355	—	170	180	51	63	
300	12	295	430	353	263	32	78	367	400	—	170	180	51	63	

* 1 G-PN16XJME H2=183

* 2 G-PN16XJME H=212

Short Neck Type Lever Operated

10XJSME



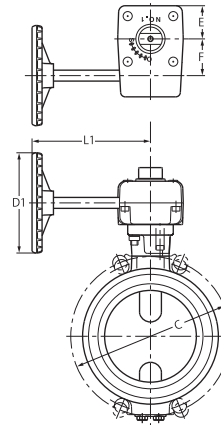
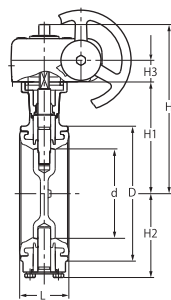
■ Dimensions

unit: mm

Size		d	H	H1	H2	L	D	C	D1
A	B								
40	1½	40	137	93	40	33	80	105	180
50	2	50	139	95	66	43	93	120	180
65	2½	65	147	103	74	46	118	140	180
80	3	80	156	112	83	46	129	150	180
100	4	100	167	123	94	52	149	175	180
125	5	125	205	151	122	56	184	210	230
150	6	150	217	163	135	56	214	240	230

Short Neck Type Gear Operated

G-10XJSME



■ Dimensions

unit: mm

Size		d	H	H1	H2	H3	L	D	C	D1	L1	E	F	Gear type
A	B													
40	1½	40	140	93	40	19	33	80	105	80	122	29	28	No. 0
50	2	50	142	95	66	19	43	93	120	80	122	29	28	
65	2½	65	150	103	74	19	46	118	140	80	122	29	28	
80	3	80	159	112	83	19	46	129	150	80	122	29	28	
100	4	100	186	123	94	24	52	149	175	110	135	36	40	No. 1
125	5	125	214	151	122	24	56	184	210	110	150	36	40	
150	6	150	226	163	135	24	56	214	240	110	150	36	40	No. 2
200	8	196	267	190	161	32	60	258	290	170	180	51	63	
250	10	245	317	239	238	32	68	316	355	170	180	51	63	
300	12	295	342	264	263	32	78	367	400	170	180	51	63	

Aluminum Butterfly Valves

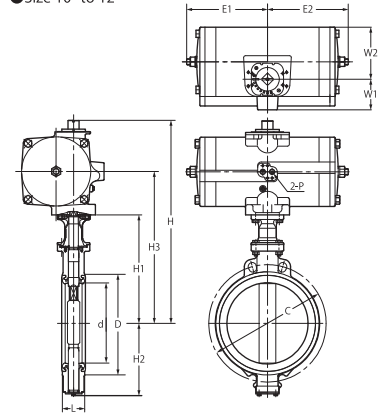
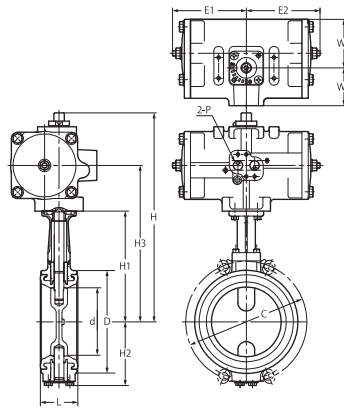
XJ series

Long Neck Type Pneumatically Operated – Double Action Actuator

FA-10XJME

● Size 1 1/2" to 8"

● Size 10" to 12"



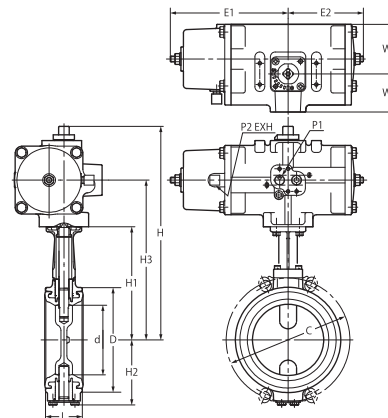
Please contact the KITZ Corporation for actuator specifications.

Dimensions

Size		d	H	H1	H2	H3	L	D	C	Actuator					
A	B									E1	E2	W1	W2	P	Type
40	1 1/2	40	251	128	40	181	33	80	105	87	87	50	54	Rc 1/4	No. FA-1
50	2	50	255	132	66	185	43	93	120						
65	2 1/2	65	287	141	74	207	46	118	140						
80	3	80	295	149	83	215	46	129	150	107	107	54	70	Rc 1/4	No. FA-2
100	4	100	306	160	94	226	52	149	175						
125	5	125	357	195	122	271	56	184	210	128	128	57	87	Rc 1/4	No. FA-3
150	6	150	369	207	135	283	56	214	240						
200	8	196	435	234	161	327	60	258	290	160	160	68	111	Rc 1/4	No. FA-4
250	10	245	573	328	238	441	68	316	355						
300	12	295	627	353	263	475	78	367	400	268	268	101	178	Rc 1/4	No. FA-6

Long Neck Type Pneumatically Operated – Spring Return Action Actuator

FAS-10XJME



Please contact the KITZ Corporation for actuator specifications.

Dimensions

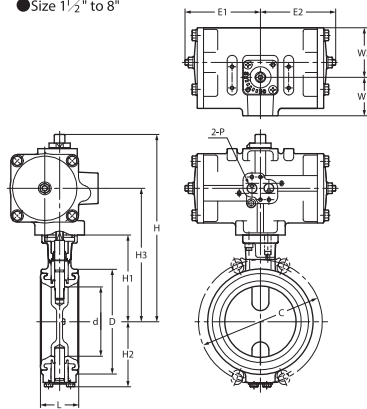
Size		d	H	H1	H2	H3	L	D	C	Actuator						
A	B									E1	E2	W1	W2	P1	P2	Type
40	1 1/2	40	274	128	40	194	33	80	105	166	107	54	70	Rc 1/4	Rc 1/8	No. FAS-2
50	2	50	278	132	66	198	43	93	120							
65	2 1/2	65	303	141	74	217	46	118	140							
80	3	80	311	149	83	225	46	129	150	203	128	57	87	Rc 1/4	Rc 1/8	No. FAS-3
100	4	100	364	160	94	256	52	149	175							
125	5	125	396	195	122	288	56	184	210	290	160	68	111	Rc 1/4	Rc 1/8	No. FAS-4
150	6	150	452	207	135	320	56	214	240							
200	8	196	508	234	161	356	60	258	290	483	268	101	178	Rc 1/4	Rc 1/8	No. FAS-6

Short Neck Type Pneumatically Operated - Double Action Actuator

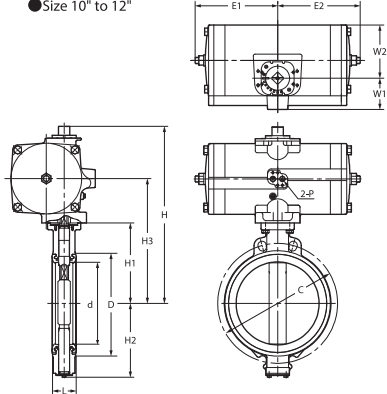
FA-10XJSME



● Size 1½" to 8"



● Size 10" to 12"



Please contact the KITZ Corporation for actuator specifications.

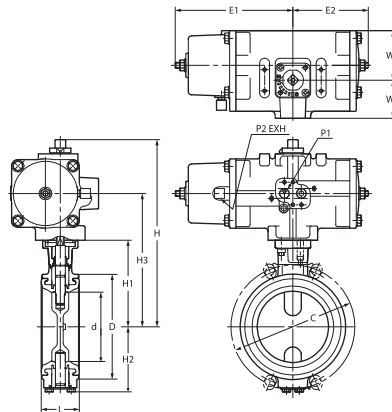
Dimensions

unit: mm

Size		d	H	H1	H2	H3	L	D	C	Actuator					
A	B									E1	E2	W1	W2	P	Type
40	1½	40	216	93	40	146	33	80	105	87	87	50	54	Rc¼	No. FA-1
50	2	50	218	95	66	148	43	93	120						
65	2½	65	249	103	74	169	46	118	140						
80	3	80	258	112	83	178	46	129	150	107	107	54	70	Rc¼	No. FA-2
100	4	100	269	123	94	189	52	149	175						
125	5	125	313	151	122	227	56	184	210	128	128	57	87	Rc¼	No. FA-3
150	6	150	325	163	135	239	56	214	240						
200	8	196	391	190	161	283	60	258	290						
250	10	245	483	238	238	351	68	316	355	208	208	78	135	Rc¼	No. FA-5
300	12	295	537	263	263	385	78	367	400						

Short Neck Type Pneumatically Operated - Spring Return Action Actuator

FAS-10XJSME



Please contact the KITZ Corporation for actuator specifications.

Dimensions

unit: mm

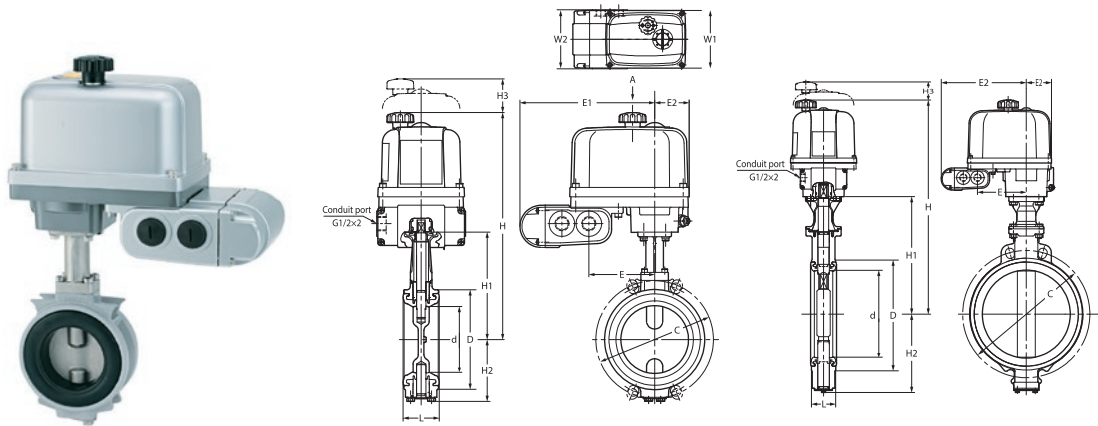
Size		d	H	H1	H2	H3	L	D	C	Actuator						
A	B									E1	E2	W1	W2	P1	P2	Type
40	1½	40	239	93	40	159	33	80	105	166	107	54	70	Rc¼	Rc⅛	No. FAS-2
50	2	50	241	95	66	161	43	93	120							
65	2½	65	265	103	74	179	46	118	140							
80	3	80	274	112	83	188	46	129	150	203	128	57	87	Rc¼	Rc⅛	No. FAS-3
100	4	100	327	123	94	219	52	149	175							
125	5	125	352	151	122	244	56	184	210	290	160	68	111	Rc¼	Rc⅛	No. FAS-4
150	6	150	408	163	135	276	56	214	240							
200	8	196	467	190	161	315	60	258	290							
										363	208	78	135	Rc¼	Rc⅛	No. FAS-5
										483	268	101	178	Rc¼	Rc⅛	No. FAS-6

Aluminum Butterfly Valves

XJ series

Long Neck Type Electrically Operated

EXS-10XJME



Please contact the KITZ Corporation for actuator specifications.

Dimensions

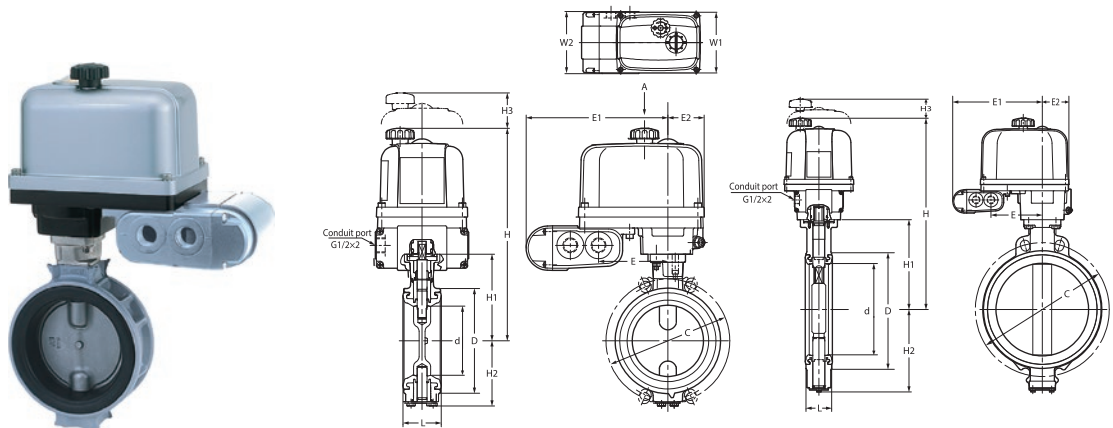
unit: mm

Size		d	H	H1	H2	L	D	C	Actuator						
A	B								E	E1	E2	W1	W2	H3	Type
40	1½	40	309	128	40	33	80	105	98	206.5	54	131	132	107.5	No. EXS-2
50	2	50	313	132	66	43	93	120							
65	2½	65	322	141	74	46	118	140							
80	3	80	330	149	83	46	129	150							
100	4	100	341	160	94	52	149	175	121.5	230	69	158	132	117.5	No. EXS-3
125	5	125	401	194.5	122	56	184	210							
150	6	150	413.5	207	135	56	214	240							
200	8	196	440	233.5	161	60	258	290							
250	10	245	604	328	238	68	316	355	137	245.5	73	188	132	153	No. EXS-4
300	12	295	629	353	263	78	367	400							

Power sources of actuator coding. Please refer to page 1.

Short Neck Type Electrically Operated

EXS-10XJSME



Please contact the KITZ Corporation for actuator specifications.

Dimensions

unit: mm

Size		d	H	H1	H2	L	D	C	Actuator						
A	B								E	E1	E2	W1	W2	H3	Type
40	1½	40	274	93	40	33	80	105	98	206.5	54	131	132	107.5	No. EXS-2
50	2	50	276	95	66	43	93	120							
65	2½	65	284	103	74	46	118	140							
80	3	80	293	112	83	46	129	150							
100	4	100	304	123	94	52	149	175	121.5	230	69	158	132	117.5	No. EXS-3
125	5	125	357.5	151	122	56	184	210							
150	6	150	369.5	163	135	56	214	240							
200	8	196	396.5	190	161	60	258	290							
250	10	245	514	238	238	68	316	355	137	245.5	73	188	132	153	No. EXS-4
300	12	295	539	263	263	78	367	400							

Power sources of actuator coding. Please refer to page 1.