

### Original seat configuration and material for stable sealing performance Double eccentric structure and RPTFE seat.

#### Specification

● Valve nominal size	SHB ..... 50 <sup>A</sup> ~ 300 <sup>A</sup> UHB ..... 40 <sup>A</sup> ~ 300 <sup>A</sup>
● Applicable flange	5UHB ..... JIS 5K 10SHB • 10UHB ..... JIS 10K 16SHB • 20UHB ..... JIS 16K (JIS 20K) 150SHB • 150UHB ..... ASME Class150
● Maximum allowable pressure	5UHB ..... 0.7MPa 10SHB • 10UHB ..... 1.4MPa 20SHB • 20UHB ..... 2.0MPa 150SHB • 150UHB ..... 1.72MPa
● Service temperature range	SHB ..... -10 ~ +200°C UHB ..... -29 ~ +200°C
● Face-to-face dimensions	..... JIS B 2002 46 series
● Flow direction	..... Bidirectional flow ※Recommended flow direction: Flow pressure from the retainer side
● Applicable gaskets (commercially available gaskets)	..... Joint seats (Minimum thickness 1.5 mm) Spiral wound gaskets / Envelope gaskets
● Automatic valves	..... Contact KITZ Corporation for details.

#### Feature

##### RPTFE seat rings for various types of fluids

- Chemical-resistant RPTFE is adopted as seat material, so that it can be used for fluids that cannot be handled with rubber seats. (See the table for "Corrosion resistance level of materials of disc and seat against fluid" on page 4.)

##### Double eccentric structure for stable sealing performance

- The double eccentric structure minimizes the contact between the disc and the seat during operation and provides stable sealing performance with less wear of the seats over a long period of time. (Fig.1)

##### Easy retightening of packing

- Retightening of packing is possible without removing the operating device. (Fig.2)

##### Original seat configuration for high durability (patented)

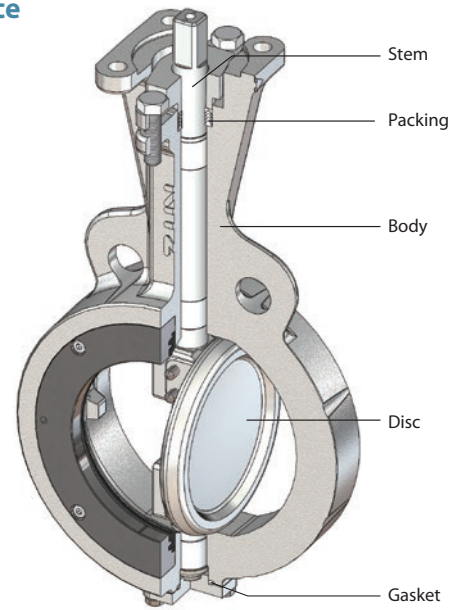
##### Bidirectional flow

- Applicable to both of the direct and reverse flow control, however, flow pressure from the retainer side is recommended.

##### Applicable to commercially-available pipe gaskets

- Joint seats (minimum thickness 1.5 mm), spiral wound gaskets and PTFE envelope gaskets conforming to the applicable standards can be used.

##### Top flange dimensions according to ISO 5211

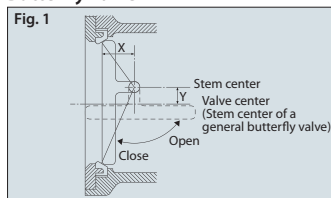


※This illustration shows the structure of size 100<sup>A</sup>.

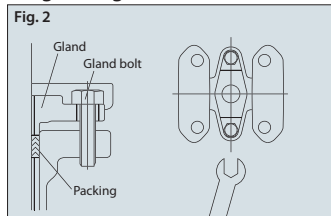
#### Standard Materials

Parts	Material	
	SHB	UHB
Body	FCD450-10	SUS13A/A351 Gr.CF8
Stem	SUS420J2	SUS304N2
Disc	SCS13A+Cr plated	
Gland	SCS13A	
Seat ring	RPTFE (Carbon fiber-filled PTFE)	
Seat retainer	S45C	SUS304
Stem bearing	PTFE (Metal backed)	
Gland packing	PTFE	
Gasket	PTFE	

#### Structural Drawing of Double Eccentric Butterfly Valve



#### Retightening of Gland Bolts

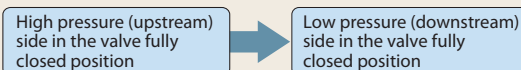


#### Cv

Nominal size	Rated CV value	
	A	B
50	2	64
65	2 1/2	112
80	3	199
100	4	372
125	5	569
150	6	838
200	8	1669
250	10	3088
300	12	4502

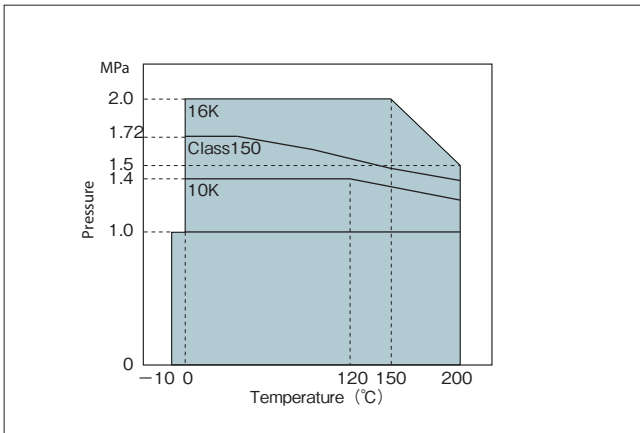
### CAUTION

- HB series butterfly valves must be installed according to the arrow direction indicated on the body.
- When HB series butterfly valves are used for bidirectional service, align the flow direction with the arrow which indicates the flow direction from the higher pressure side to the lower pressure side.
- HB series butterfly valves can be used with joint seats (minimum thickness 1.5 mm), spiral wound gaskets and PTFE envelope gaskets conforming to the applicable standards.
- HB series butterfly valves cannot be used with stub ends (lap joints, stainless steel pipe joints with flanged pipe end).
- HB series butterfly valves adopt gland structure. Retighten the gland bolts before operation of the valve. Check the handle torque while retightening the bolts so that the operation will not become too difficult due to over-tightening. Tighten the gland bolts alternately with even force. Retighten the gland bolts if leakage from the gland section due to stress relaxation is observed.
- Do not cover the gland with insulation material. Keep the gland uncovered to retighten the gland.

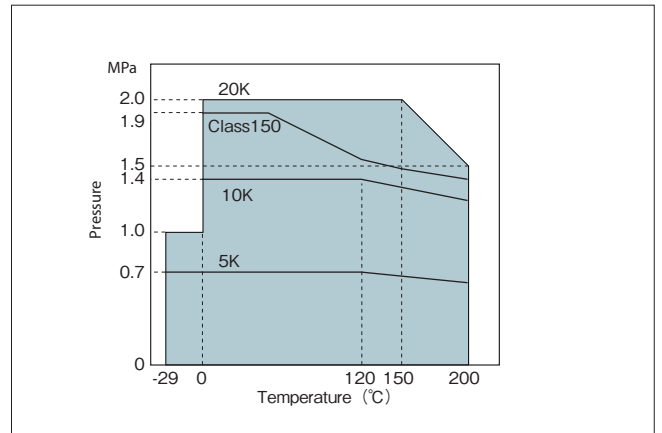


## Double Eccentric Butterfly Valves

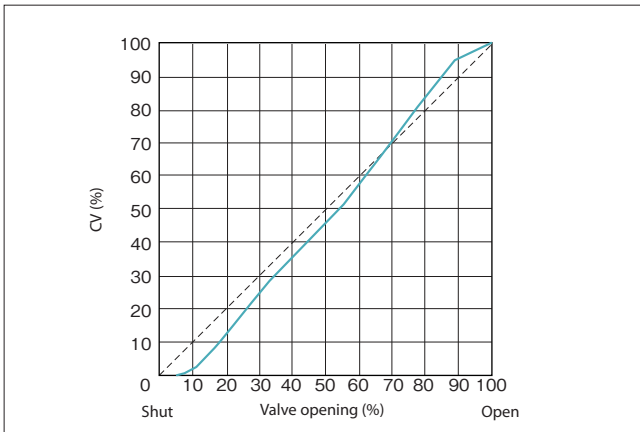
### P-T Rating (SHB series)



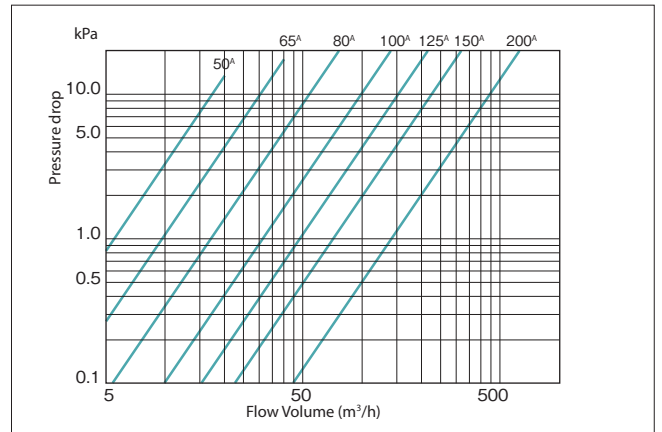
### P-T Rating (UHB series)



### Flow Characteristics



### Pressure Loss



## Double Eccentric Butterfly Valves

10K · 16K · Class150 Lever Operated / Gear Operated

HB

Valve operator

None: Lever

G: Gear

Class

10: JIS10K

10: JIS16K (SHB only)

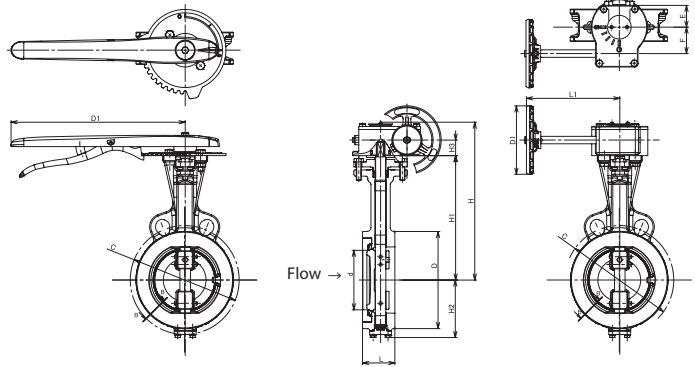
20: JIS20K (UHB only)

150: Class150

Body material

S: FCD450-10

U: SUS13A



### Dimensions

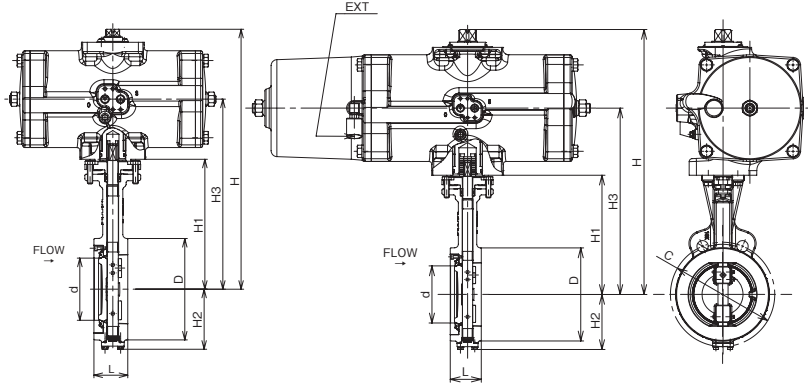
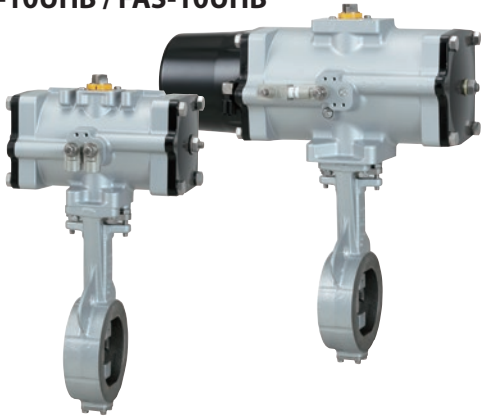
unit: mm

Size		d	H		H1	H2	H3	L	D	C			h			D1		Gear type
A	B		Lever	Gear						10K	16K/20K	150	10K	16K/20K	150	Lever	Gear	
40	1	36	183	202	149	58	25	33	81	105						230	110	No. FC-1
50	2	48	190	209	155	64	25	43	101	120	120	120.5	19	19	19	230		No. FC-1
65	2	59	203	222	168	74	25	46	121	140	140	139.5	19	19	19	230		
80	3	75	223	240	186	82	25	46	131	150	160	152.5	19	23	19	280		
100	4	96	237	254	200	92	25	52	156	175	185	190.5	19	23	19	280		No. FC-2
125	5	119	258	280	221	111	28	56	187	210	225	216	23	25	22	350		
150	6	142	275	297	238	142	28	56	215	240	260	241.5	23	25	22	350		No. FC-2
200	8	188	—	324	265	177 <sup>*1</sup>	28	60	267	290	305	298.5	23	25	22	350		
250	10	234	—	401	317	228	47	68	330	355	380	362	—	—	—	—	—	No. FC-3
300	12	283	—	429	344	266	47	78	374	400	430	432	—	—	—	—	—	

\*1 : 189 in case of UHB

### FA Type Pneumatically Operated

FA-10UHB / FAS-10UHB



### Dimensions

unit: mm

Size		d	H		H1	H2	H3		L	D	C	Actuator	
A	B		FA	FAS			FA	FAS				FA	Fas
50	2	48	301	317	155	64	221	231	43	101	120	No. FA-2	No. FAS-3
65	2½	59	314	368	168	74	234	261	46	121	140		No. FA-3
80	3	75	348	386	186	82	262	279	46	131	150	No. FA-4	
100	4	96	400	445	200	92	293	313	52	156	175		No. FA-5
125	5	119	421	495	221	111	314	343	56	187	210	No. FA-5	
150	6	142	483	512	238	142	351	360	56	215	240		
200	8	188	580	—	265	177	448	—	60	267	290		

# Double Eccentric Butterfly Valves

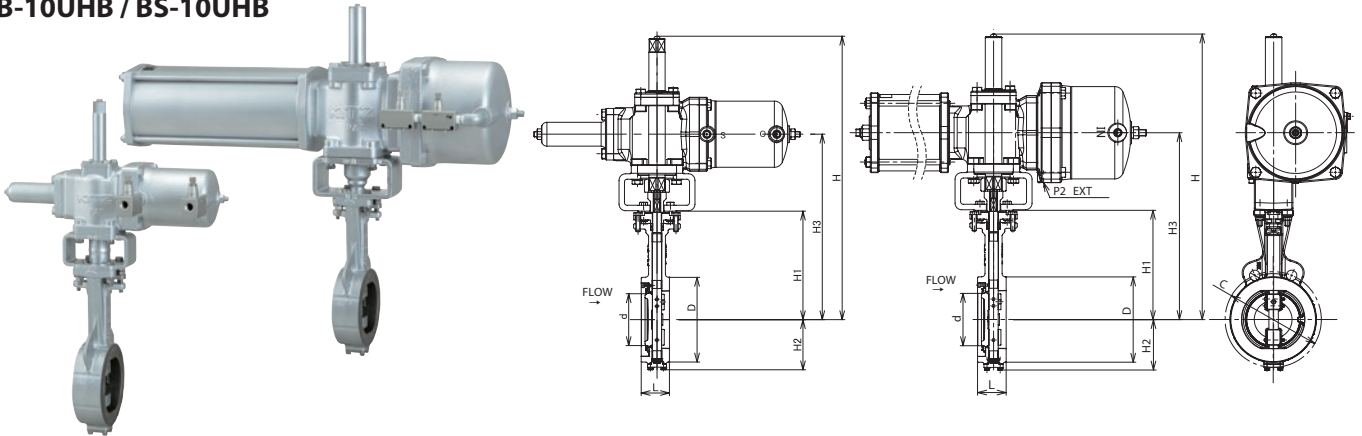
# HBseries

## B Type

## Pneumatically Operated

See page 00 for pressure-temperature range.

### B-10UHB / BS-10UHB



#### Dimensions

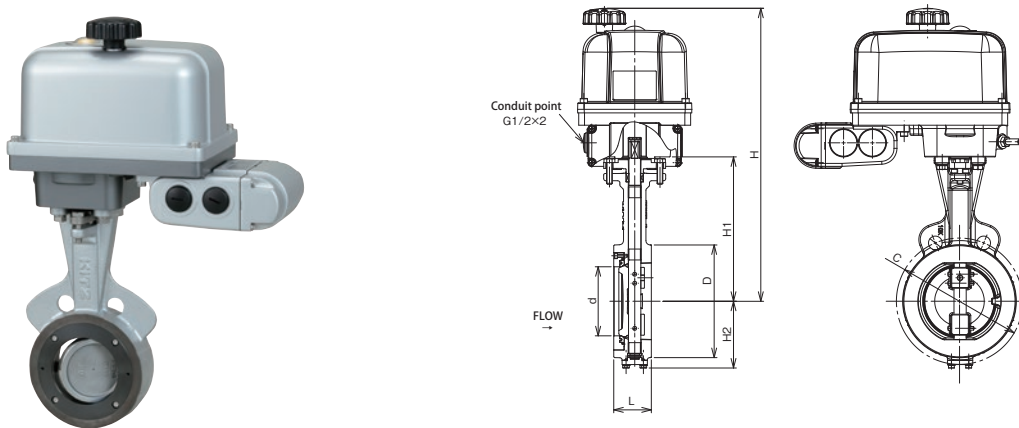
unit: mm

Size		d	H		H1	H2	H3		L	D	C	Actuator	
A	B		B	BS			B	BS				B	BS
50	2	48	403	403	155	64	262	262	43	101	120	No. B-1	No. BS(W)-1
65	2 1/2	59	431	431	168	74	277	277	46	121	140	No. B-2	No. BS(W)-2
80	3	75	449	509	186	82	295	328	46	131	150	No. B-3	No. BS(W)-3
100	4	96	523	523	200	92	342	342	52	156	175		No. BS(W)-4
125	5	119	544	544	221	111	363	363	56	187	210	No. B-4	No. BS(W)-4
150	6	142	561	644	238	142	380	413	56	215	240		No. BS(W)-4
200	8	188	685	685	265	177	454	454	60	267	290	No. B-4	No. BS(W)-4

## EX Type

## Electrically Operated

### EXS-10UHB



#### Dimensions

unit: mm

Size		d	H	H1	H2	L	D	C	Actuator
A	B								
50	2	48	336	155	64	43	101	120	No. EXS-2
65	2 1/2	59	349	168	74	46	121	140	
80	3	75	393	186	82	46	131	150	No. EXS-3
100	4	96	407	200	92	52	156	175	
125	5	119	428	221	111	56	187	210	No. EXS-4
150	6	142	515	238	142	56	215	240	
200	8	188	612	265	177	60	267	290	No. EXS-4