

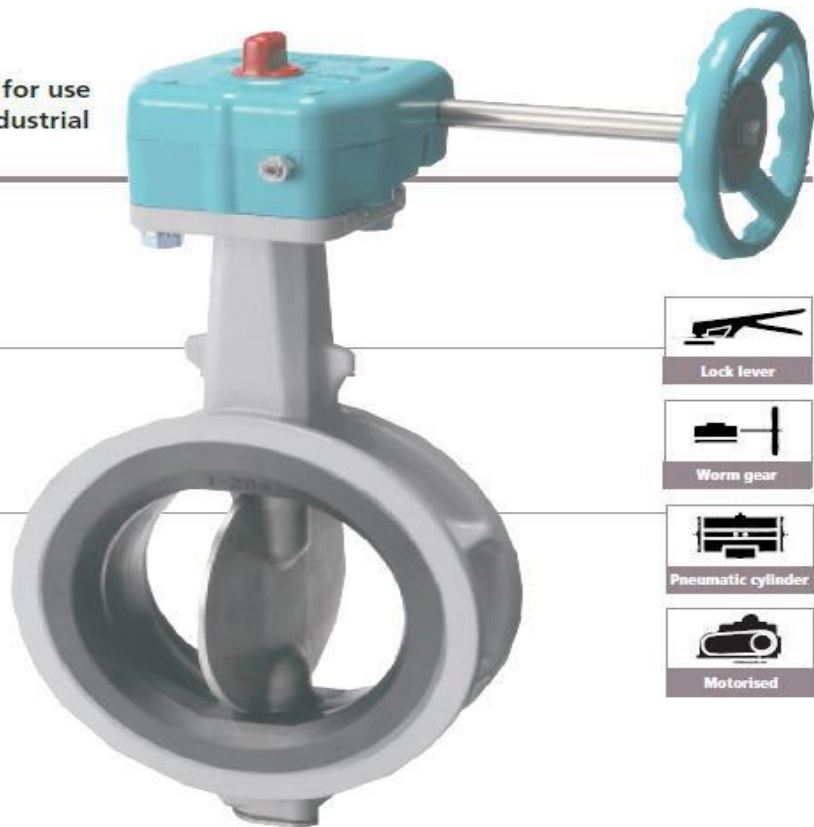
A variation of model 731/732X with vulcanized rubber lining on the body for use in high pressure, high velocity and industrial vacuum applications

731P

Wafer

732P

Wafer



Lock lever



Worm gear



Pneumatic cylinder



Motorised

Features and benefits

Vulcanized rubber lining on the body

The seat is vulcanized to the body which ensures correct rubber compression and greater strength of the rubber seat. This design is much more effective in high velocity and industrial vacuum applications than soft resilient seated valves.

New cosine-curve seat

The new cosine-curve seat (patent pending) allows better performance in reducing friction, torque and wear than the previous design.

Cubical shape by lowering height

The height of the raised part of the seat in the narrow area is lower. It provides strength and sealing performance by preventing the movement of the raised portion of the seat in high pressure applications.

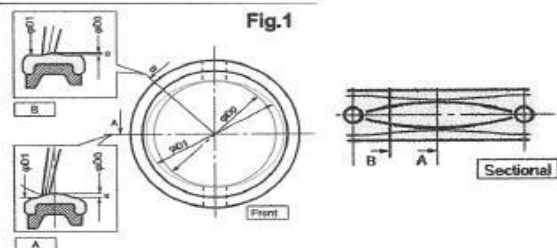
Tapered finish

To make the flow characteristic at small valve opening as close to linear as possible, the edge of the seat is tapered. This makes for a smoother flow and better performance in high velocity working conditions. The taper is narrow around the stem area and wide around the wing of the disc area to provide strength and sealing performance for the rubber seat.



New streamlined shape around stem hole

Although the spherical disc provides good sealing performance and extended life for our rubber lined valves, it still produces relatively high forces around the stem hole area where a large contact surface exists. In order to produce greater pressure at this point of contact with less friction, we incorporate a labyrinth effect where six small raised lines are moulded around the stem hole.



731P/732P Wafer

Features a concentric design with tight 100% bi-directional shut-off, low torque and a maximum working pressure of 1.6MPa to 2.0MPa.

Standard Specification

Valve nominal size		1.6MPa (16K) type	2.0MPa (20K) type
		731P (Wafer)	732P (Wafer)
		50mm to 300mm	50mm to 300mm
Applicable flange standard		JIS 10K, 16K, 20K ANSI 125, 150lb	DIN NP 10, 16, 25 BS 4504 PN 10, 16, 25
Face-to-face dimensions		JIS B 2002 (2032) 46 series / ISO 5752 (20 series) / BS5155	
Max. working pressure		1.6MPa	2.0MPa
Body shell test (hydraulic)		2.4MPa	3.0MPa
Seat leak test		1.76MPa	2.2MPa
Velocity range		Max. 6m/sec	
Vacuum condition		2.0 torr or over	
Working temperature range		NBR : -10 to 80 degrees C, *EPDM : -20 to 120 degrees C	
Working temperature in continuous use #1		NBR : 0 to 60 degrees C, *EPDM : 0 to 100 degrees C	
Standard materials	Body	Ductile iron (FCD450 / A395), Carbon steel (SCPH2 / WCB)	
	Disc	Stainless steel, SCS14 / CF8M	
	Stem	420J2 S.S, K-MONEL	
	Seat ring	NBR, *EPDM	
Actuators	Lock lever	50mm to 200mm	
	Worm gear		
	Pneumatic cylinder	50mm to 300mm	50mm to 300mm
	Motorised		
Coating		50mm to 300mm : Epoxy primer (Munsell N7)	

#1 'Working temperature in continuous use' stands for the temperature continuously kept exceeding one hour.

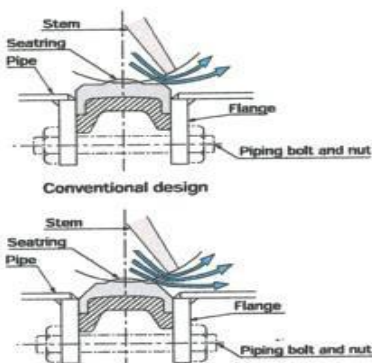
A resin column for condensation free applications is available.

Disc with pin finish is also available upon request for 732P.

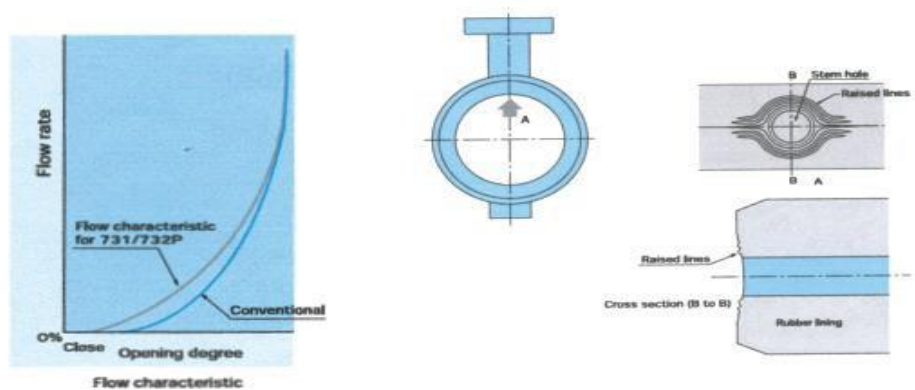
Lug type is available with ANSI 125/150 lb. For other standards, please consult us.

* Never use an EPDM rubber seat ring if the valve is being used for oil or for a fluid containing even a slight amount of oil.

Tapered Finish



New streamline shape around stem hole



■ 731P-01 (50mm to 300mm) / 731P-02 (350mm, 400mm)

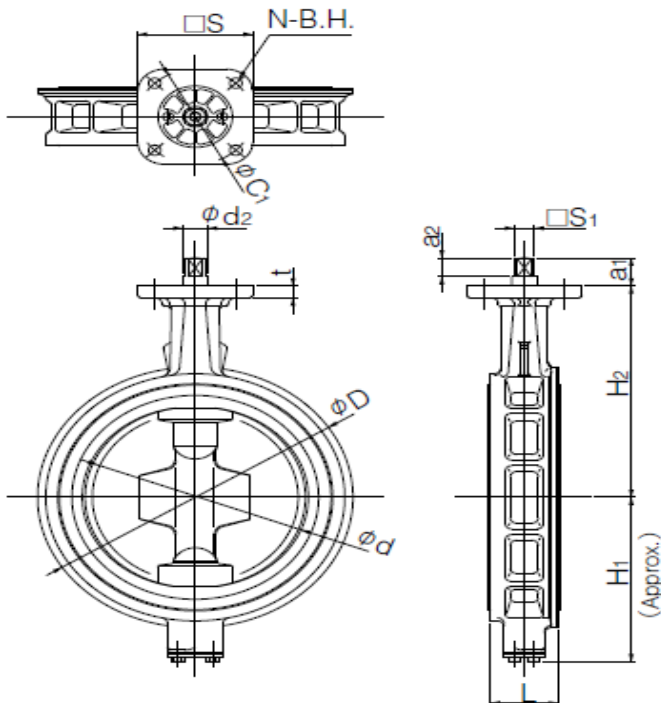
Type	Nominal size		Dimension (mm)													Approx. Mass (kg)	
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	a ₁	a ₂	□S ₁	ϕd_2	b	t ₂	t		Flan ges
				JIS10K	JIS16K												
731P	50	2	54	102	102	43	68	138	21.5	10.5	8	10	—	—	11	F07	1.8
	65	2 1/2	67	122	122	46	79	151	21.5	10.5	8	10	—	—	11	F07	2.2
	80	3	82	132	138	46	86	156	22.5	11.5	10	12	—	—	11	F07	2.8
	100	4	103	157	163	52	103	167	22.5	11.5	12	14	—	—	11	F07	3.6
	125	5	129	188	200	56	118	191	27.5	16.5	14	16	—	—	13	F10	5.8
	150	6	152	218	235	56	135	202	27.5	16.5	14	18	—	—	13	F10	7.8
	200	8	198	267	280	60	177	227	29	20	18	22	—	—	13	F10	11.5
	250	10	251	330	353	68	216	280	34	30	24	28	—	—	14	F10	20.3
	300	12	300	375	403	78	254	312	35	30	24	32	—	—	16	F12	28.9
	350	14	336	415	415	78	304	340	54	48	—	40	12	3	20	F14	71
	400	16	390	477	477	102	343	380	65	59	—	46	14	3.5	20	F14	107

■ Flange dimensions

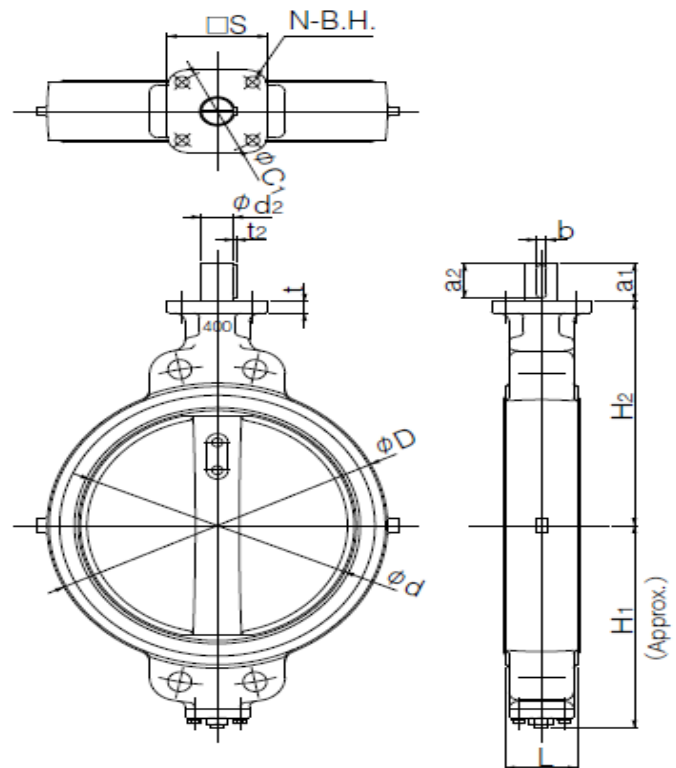
Flange	□S	ϕC_1	N	B.H.
F07	70	70	4	9
F10	102	102	4	11
F12	125	125	4	13
F14	140	140	4	19

Stem design	01: Square
	02: Round with key

■ 731P (16K) 50mm to 300mm



■ 731P (16K) 350mm, 400mm



Bare shaft 731P-02(450mm to 600mm)

■ 731P-02 (450mm to 600mm)

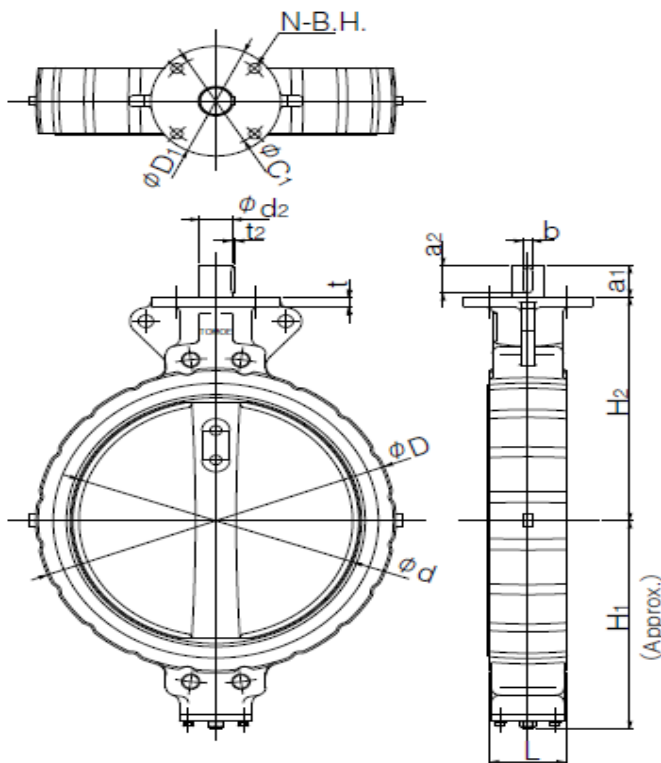
Type	Nominal size		Dimension (mm)															Approx. Mass (kg)	
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	a ₁	a ₂	ϕd_2	b	t ₂	t	D ₁	C ₁	N		B.H.
				JIS10K	JIS16K														
731P	450	18	439	532	532	114	379	420	60	53	47	12	3.5	20	200	170	4	19	137
	500	20	490	610	610	127	422	450	60	53	47	12	3.5	20	200	170	4	19	188
	600	24	583	826	720	154	494	530	75	65	65	18	6	25	260	220	4	23	318(348)

Remark: Value in brackets is for JIS 10K flanges.

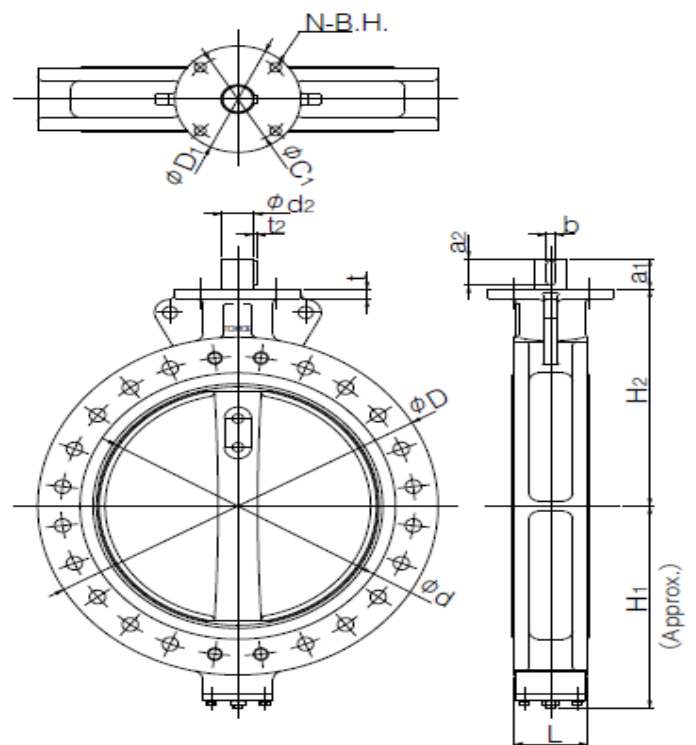
■ Flange dimensions

Flange	□S	ϕC_1	N	B.H.
F07	70	70	4	9
F10	102	102	4	11
F12	125	125	4	13
F14	140	140	4	19

■ 731P(16K) 450mm to 600mm



■ 731P(10K) 600mm



732P-01 (50mm to 300mm) / 732P-02 (350mm, 400mm)

Type	Nominal size		Dimension (mm)													Approx. Mass (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	a ₁	a ₂	$\square S_1$	ϕd_2	b	t ₂	t	Flange	
732P	50	2	54	102	43	68	138	21.5	10.5	8	10	—	—	11	F07	1.9
	65	2 1/2	67	122	46	79	151	21.5	10.5	8	10	—	—	11	F07	2.3
	80	3	82	138	46	86	156	22.5	11.5	10	12	—	—	11	F07	3
	100	4	103	163	52	103	167	22.5	11.5	12	14	—	—	11	F07	3.8
	125	5	129	200	56	118	191	27.5	16.5	14	16	—	—	13	F10	6.1
	150	6	152	235	56	135	202	27.5	16.5	14	18	—	—	13	F10	7.1
	200	8	198	280	60	177	227	29	20	18	22	—	—	13	F10	12.1
	250	10	251	353	68	216	280	34	30	24	28	—	—	14	F10	21
	300	12	300	403	78	254	312	35	30	24	32	—	—	16	F12	29
	350	14	336	415	78	304	340	54	48	—	40	12	3	20	F14	71
400	16	390	477	102	343	380	65	59	—	46	14	3.5	20	F14	107	

Flange dimensions

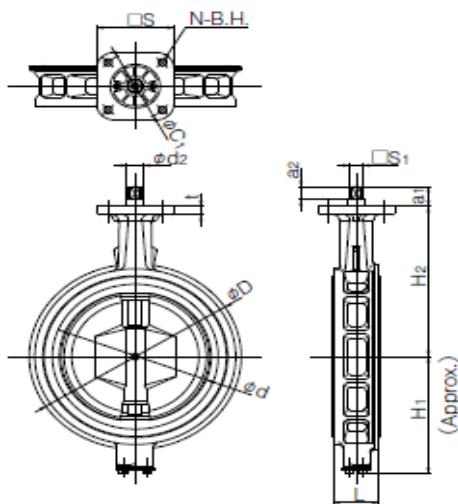
Flange	$\square S$	ϕC_1	N	B.H.
F07	70	70	4	9
F10	102	102	4	11
F12	125	125	4	13
F14	140	140	4	19

Stem design	01: Square
	02: Round with key

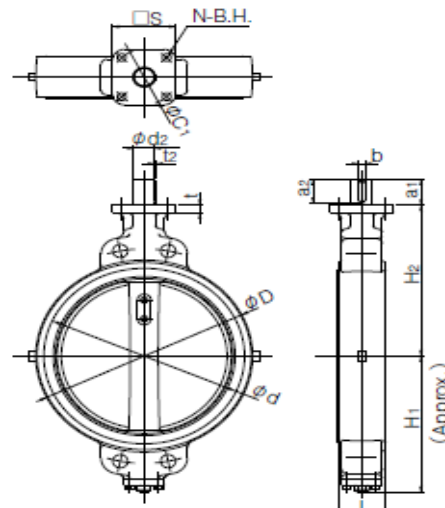
732P-02 (450mm to 600mm)

Type	Nominal size		Dimension (mm)														Approx. Mass (kg)	
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	a ₁	a ₂	ϕd_2	b	t ₂	t	D ₁	C ₁	N		B.H.
732P	450	18	439	532	114	379	420	60	53	47	12	3.5	20	200	170	4	19	137
	500	20	490	610	127	422	450	60	53	47	12	3.5	20	200	170	4	19	188
	600	24	583	720	154	494	530	75	65	65	18	6	25	260	220	4	23	318

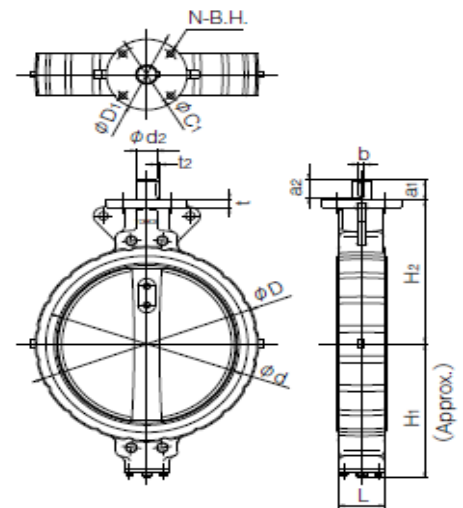
732P (20K) 50mm to 300mm



732P (20K) 350mm, 400mm



732P (20K) 450mm to 600mm



Lock lever type 732P-1T (50mm to 200mm)

■732P-1T

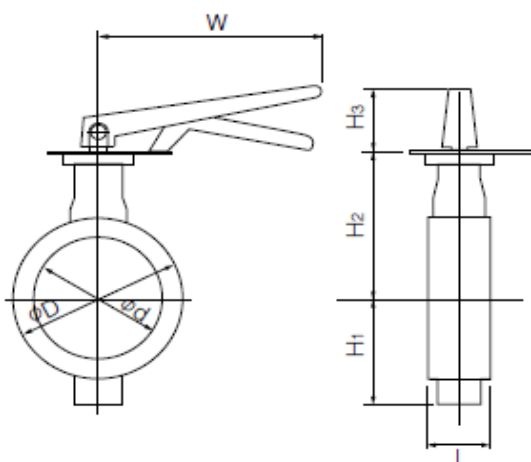
Nominal size		Dimension (mm)							Lever type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	W		
50	2	54	102	43	68	138	66	200	1T-1	2.5
65	2 1/2	67	122	46	79	151	66	200	1T-1	2.9
80	3	82	138	46	86	156	66	200	1T-1	3.6
100	4	103	163	52	103	167	66	200	1T-1	4.4
125	5	129	200	56	118	191	92	300	1T-2	7.4
150	6	152	235	56	135	202	92	300	1T-2	9
200	8	198	280	60	177	227	97	350	1T-3	13.8

Lock lever type 731P-1T (50mm to 200mm)

■731P-1T

Nominal size		Dimension (mm)								Lever type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	W		
			JIS10K	JIS16K							
50	2	54	102	102	43	68	138	66	200	1T-1	2.4
65	2 1/2	67	122	122	46	79	151	66	200	1T-1	2.8
80	3	82	132	138	46	86	156	66	200	1T-1	3.4
100	4	103	157	163	52	103	167	66	200	1T-1	4.2
125	5	129	188	200	56	118	191	92	300	1T-2	7.1
150	6	152	218	235	56	135	202	92	300	1T-2	9.1
200	8	198	267	280	60	177	227	97	350	1T-3	13.2

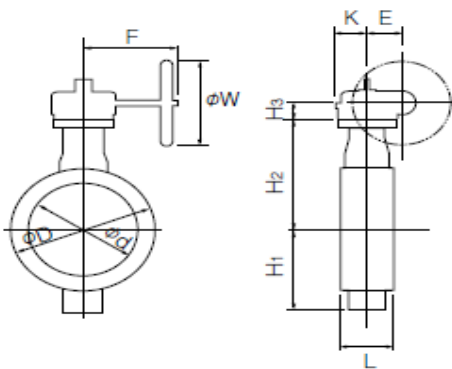
■732P/731P-1T



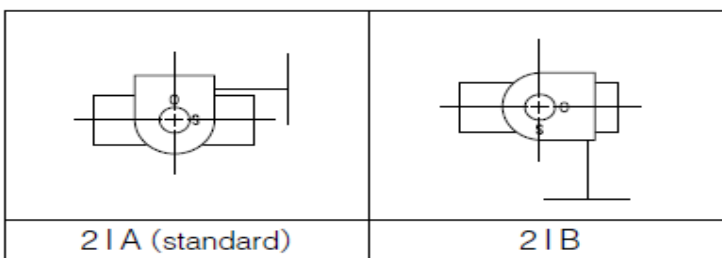
732P

Type	Nominal size		Dimension (mm)										Gear type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	W		
732P	50	2	54	102	43	68	138	24	28	35	83	70	2 I-0	2.4
	65	2 1/2	67	122	46	79	151	24	28	35	83	70	2 I-0	2.9
	80	3	82	138	46	86	156	27	46	48	145	100	2 I-1	4.2
	100	4	103	163	52	103	167	27	46	48	145	100	2 I-1	5
	125	5	129	200	56	118	191	30	53	51	160	125	2 I-2	8
	150	6	152	235	56	135	202	30	53	51	160	125	2 I-2	9.6
	200	8	198	280	60	177	227	36	71	65	208	200	2 I-3	16
	250	10	251	353	68	216	280	36	71	65	208	200	2 I-3	25
	300	12	300	403	78	254	312	38.5	71	65	193	200	2 I-4	34
	350	14	336	415	78	304	340	50	90	105	266	280	2U-5	90
	400	16	390	477	102	343	380	50	90	105	266	280	2U-5	126
	450	18	439	532	114	379	420	55	117	164	335	355	MGH-3	172
	500	20	490	610	127	422	450	55	117	164	335	355	MGH-3	222
	600	24	583	720	154	494	530	65	140	198	400	450	MGH-4	378

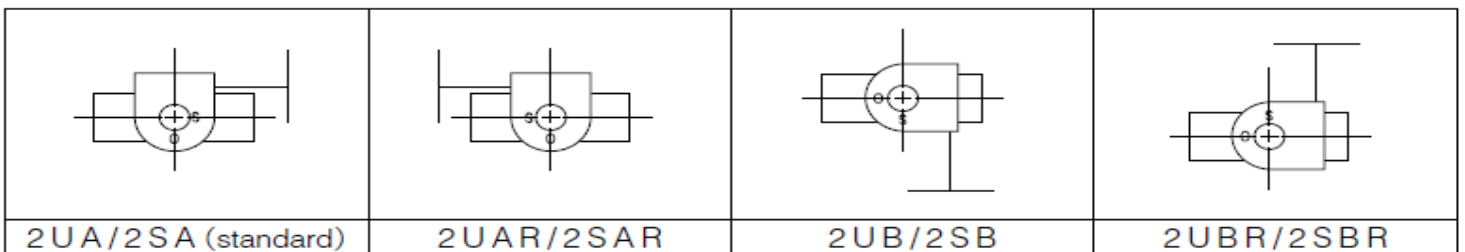
732P-2 I/2U/2S



2I Installation direction



2U/2S Installation direction



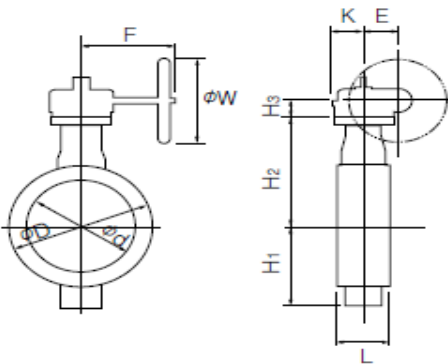
Worm gear type 731P-2I(50mm to 300mm)/731P-2U(350mm, 400mm)/731P-2S(450mm to 600mm)

732P

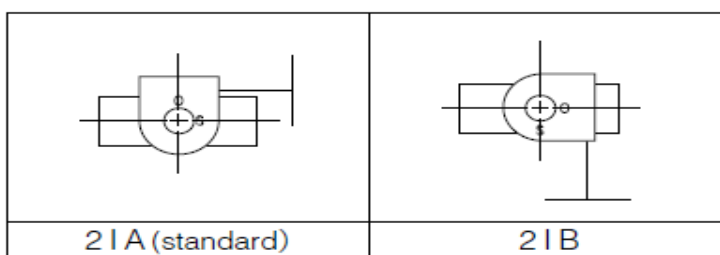
Type	Nominal size		Dimension (mm)											Gear type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	E	K	F	W		
				JIS10K	JIS16K										
731P	50	2	54	102	102	43	68	138	24	28	35	83	70	21-0	2.4
	65	2 1/2	67	122	122	46	79	151	24	28	35	83	70	21-0	2.8
	80	3	82	132	138	46	86	156	27	46	48	145	100	21-1	4.1
	100	4	103	157	163	52	103	167	27	46	48	145	100	21-1	4.8
	125	5	129	188	200	56	118	191	30	53	51	160	125	21-2	7.7
	150	6	152	218	235	56	135	202	30	53	51	160	125	21-2	9.7
	200	8	198	267	280	60	177	227	36	71	65	208	200	21-3	15.5
	250	10	251	330	353	68	216	280	36	71	65	208	200	21-3	24.3
	300	12	300	375	403	78	254	312	38.5	71	65	193	200	21-4	34.1
	350	14	336	415	415	78	304	340	50	90	105	266	280	2U-5	90
	400	16	390	477	477	102	343	380	50	90	105	266	280	2U-5	126
	450	18	439	532	532	114	379	420	55	117	164	335	355	MGH-3	172
	500	20	490	610	610	127	422	450	55	117	164	335	355	MGH-3	222
	600	24	583	826	720	154	494	530	65	140	198	400	450	MGH-4	378(408)

Remark: Value in brackets is for JIS 10K flanges.

731P-2 I/2U/2S



2I Installation direction



2U/2S Installation direction

