

GENERAL CATALOG

Valves & Actuator Selection Guide

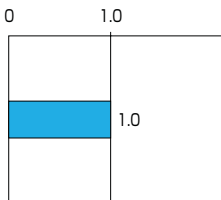


700Z

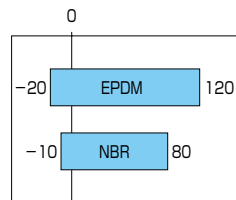
Valve nominal size

40 to 300mm

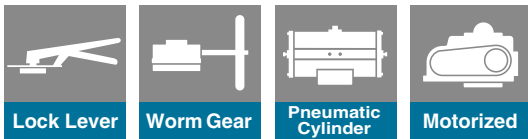
Max. working pressure MPa



Working temperature range °C

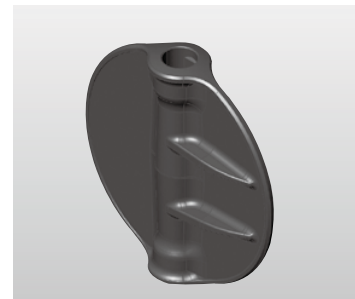
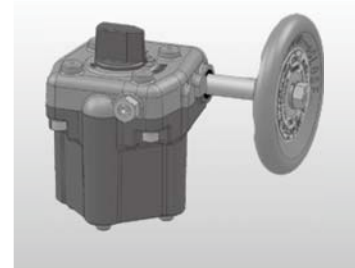


JIS JIS B 2032 Compliant
 (This product conforms to General Specifications for Machinery and Equipment of the Ministry of Land, Infrastructure, Transport and Tourism.)



Evolution of Long Sellers Sealing performance and Durability Improved!

- Gears and lever have been integrated with valve body to achieve both functionality and downsizing.
- Resin-aluminum hybrid gearbox improves the strength and durability of valves with anti-condensation performance added.
- High anti-condensation performance of the Z series has been inherited. (Gear valves)
- New lightweight valve disc with optimized seal shape improves the sealing performance and operability of valves.
- Modified rubber seat structure stabilizes the sealing performance of valve seat.
- Strong bearings have been adopted to significantly improve the durability of valve opening/closing. (Automatic valves)
- Special valve body has been developed for automatic valves to improve their strength and durability.



***Note : These valves are different in face-to-face dimensions from the first 700Z (Coating color: Light blue; Munsell 10BG-6/4) developed in 1980 and discontinued in August 2003.**

Standard Specifications

Body type (Connection)	Concentric rubber seated butterfly valve, flangeless (wafer) type	
Valve nominal size	40, 50, 65, 80, 100, 125, 150, 200, 250, 300mm	
Flange accommodation	JIS5K/10K, ASME125/150Lb, DIN NP10, BS4504 PN10, GB/T 9113.1 1MPa	
Face-to-face dimensions	JIS B 2002 ¹⁹⁸⁷ Series 46 (ISO 5752 table5/BS5155/API609)	
Max. working pressure	1.0 MPa	
Allowable seat leakage rate	JIS B 2003 ²⁰¹³ Rate A (Tight shut-off)	
Flow direction	Bi-direction	
Test	Body shell test	1.5 MPa (Hydraulic pressure)
Pressure	Seat leak test	1.1 MPa (Pneumatic pressure)
Working temperature range	EPDM: -20 ~ 120°C (Option:NBR: -10 ~ 80°C)	
Working temperature in continuous use ^{*1}	EPDM: 0 ~ 70°C (Option:NBR: 0 ~ 60°C)	
Standard materials	Body	Aluminum die cast alloy ADC12
	Disc ^{*2}	SCS13 (A351 CF8), SCS14 (A351 CF8M), PPS (40~200mm)
	Stem ^{*2}	SUS420J2 (AISI420)
	Seat ring	EPDM ^{*3,4} (Option:NBR)
Top flange	Lever/Gear type: Valve integrated type, Cylinder/ Electric motor type: In accordance with ISO 5211	
Actuator ^{*5}	Manual, pneumatic, electric	
Pipe flow velocity (limit value)	Up to 3 m/s (Valve fully-open, continuous operation, ambient temp. and fresh water)	
Coating	Urethane coating (Munsell 2.5BG 6/12)	
Condensation property	No condensation in the upper part of gears at ambient temperature 30°C and humidity 80% with cold water at 5°C ^{*6}	

※1 'Working temperature in continuous use' stands for the temperature continuously kept exceeding on hour.

※2 Materials shown in (): equivalent materials in ASTM/AISI standard.

※3 If the fluid contains even a slight amount of oil, never use an EPDM rubber seat ring. If the fluid contains chlorine, the seat ring may deteriorate early due to combined factors including density and temperature. For details consult our sales office.

※4 In the pipe lines where chemicals containing calcium are supplied, it is recommended to use an EPDM rubber seat ring to protect pipes.

※5 The actuator of the product cannot be replaced.

※6 These values are based on data obtained in a laboratory and may vary if the temperature and humidity distributions in the field are not uniform. Even in an environment having these values, condensation can occur if ambient or water temperature changes suddenly.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

700Z Actuator Selection Chart

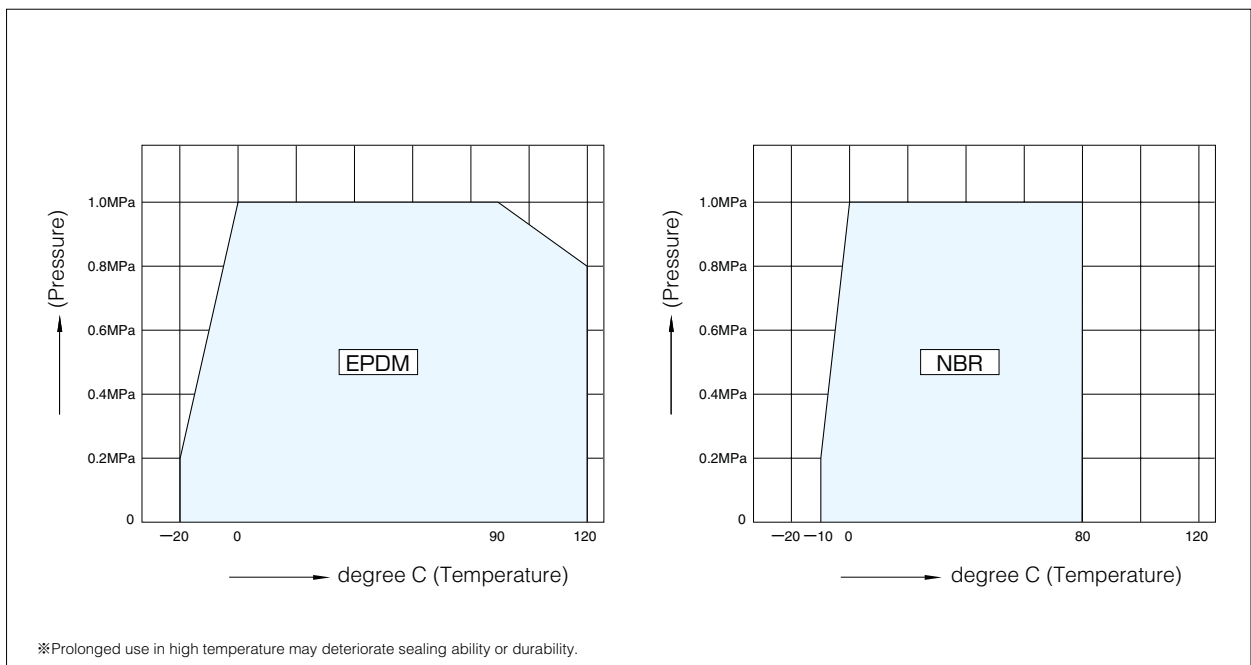
Type	Model	Category	Size $\left(\frac{\text{mm}}{\text{inch}}\right)$									
			40	50	65	80	100	125	150	200	250	300
			1 1/2	2	2 1/2	3	4	5	6	8	10	12
Lock lever	1J, 1T	Standard	1J-1			1J-2		1T-2				
		Heavy duty	1J-1			1J-2		1T-2				
Worm gear	2F	Standard	2F-G0Z		2F-G00		2F-G01	2F-G02	2F-G03			
		Heavy duty	2F-G0Z		2F-G00		2F-G01	2F-G02	2F-G03			
Double-action pneumatic	7E	Standard	T35		T85		T200		T380	T750		
		Heavy duty	T35		T85		T200		T380	T750		
Single-action pneumatic	7G, 7F 3K, 3U	Standard	T85S	T200S		T380S		T750S		TG-12S		
		Heavy duty	T85S	T200S		T380S		T750S		TG-12S		
Single phase motor	4I	ON-OFF	4I-00		4I-0		4I-1	4I-2	4I-2.5	4I-3		
		Control	4I-00		4I-0		4I-1	4I-2	4I-2.5	4I-3		

Note) In case of the single-phase motorized actuator 4I that has the following optional equipment, "Control" specification is applied.

- Micom unit
- Servo unit
- Speed control unit
- Potentiometer

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Gas, powder or high viscosity slurry (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

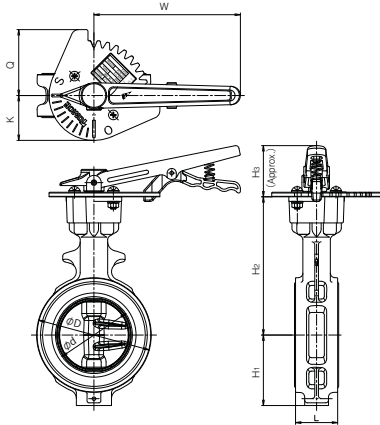
700Z Pressure-Temperature Rating



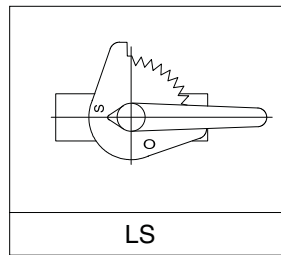
Lock Lever Type 700Z-1J(40mm to 125m)、1T(150m)

Nominalsize		Dimension (mm)									Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	Q	K	W	
40	1 1/2	45	80	35	47	144	56	72	49	160	0.8
50	2	56	91	43	57	150	56	72	49	160	0.9
65	2 1/2	69	111	46	64	163	56	72	49	160	1.1
80	3	84	125	46	77	151	56	72	49	160	1.4
100	4	104	147	52	94	162	70	72	49	200	1.9
125	5	130	180	56	108	190	70	72	49	200	3.0
150	6	153.5	210	56	125	201	96	88	63	300	5.0

■700Z-1J/1T



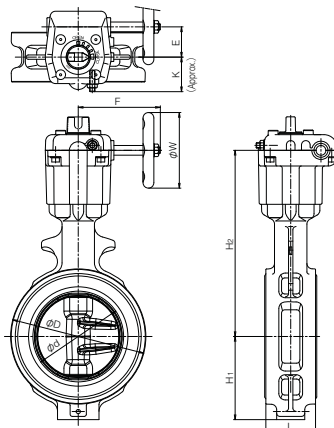
■1J Installation direction



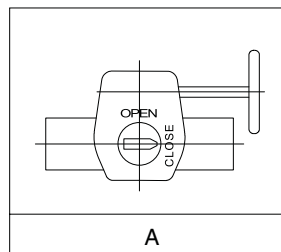
Worm Gear Type 700Z-2F(40mm to 300mm)

Nominalsize		Dimension (mm)									Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	E	K	F	ϕW	
40	1 1/2	45	80	35	47	160	22.5	26	85	70	0.8
50	2	56	91	43	57	166	22.5	26	85	70	1.0
65	2 1/2	69	111	46	64	179	22.5	26	85	70	1.2
80	3	84	125	46	77	172	28	31	110	70	1.7
100	4	104	147	52	94	183	28	31	110	70	2.2
125	5	130	180	56	108	211	46	42	133	100	3.8
150	6	153.5	210	56	125	222	46	42	133	100	4.7
200	8	199	255	60	167	257	53	40	162	125	7.2
250	10	253	322	68	186	316	71	54	206	200	13
300	12	302	375	78	216	348	71	54	206	200	18

■700Z-2F



■2F Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

700Z

Double-acting Pneumatic Cylinder Type 700Z-7E (40mm to 300mm)

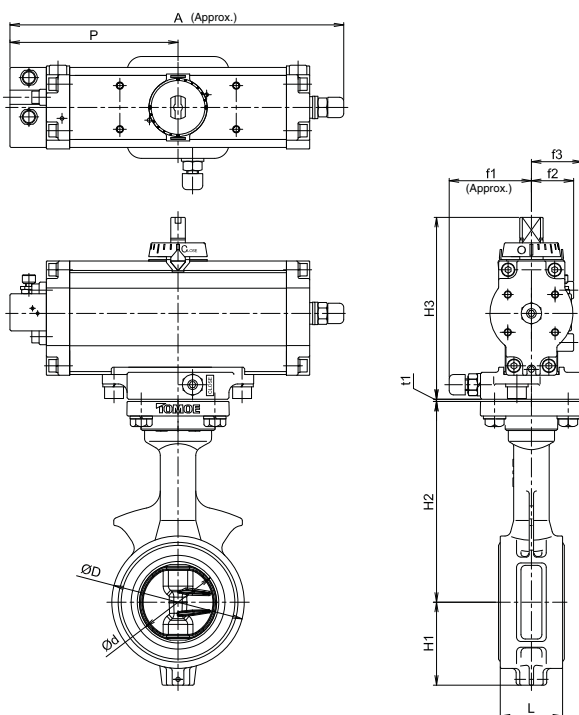
Standard

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂	f ₃	t ₁		
40	1 1/2	45	80	35	47	132	125	228	116	57	29	35	1	T35	2.6
50	2	56	91	43	57	138	125	228	116	57	29	35	1	T35	2.7
65	2 1/2	69	111	46	64	151	125	228	116	57	29	35	1	T35	2.9
80	3	84	125	46	77	156	125	228	116	57	29	35	1	T35	3.4
100	4	104	147	52	94	167	168	276	142	75	47	51	1	T85	6.8
125	5	130	180	56	108	191	168	276	142	75	47	51	1.5	T85	8.1
150	6	153.5	210	56	125	202	203	346	176	79	57	51	1.5	T200	12.3
200	8	199	255	60	167	227	203	346	176	79	57	51	1.5	T200	14.5
250	10	253	322	68	186	280	231	423	214	91	69	63	1.5	T380	25.5
300	12	302	375	78	216	312	269	546	270	118	85	70	1.5	T750	39.6

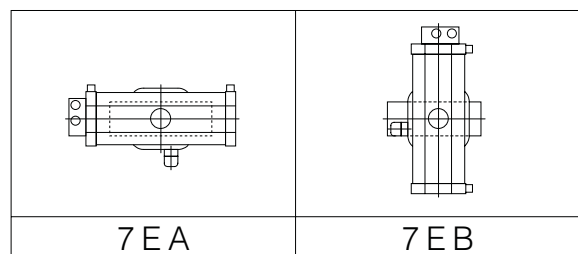
Heavy Duty

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂	f ₃	t ₁		
40	1 1/2	45	80	35	47	132	125	228	116	57	29	35	1	T35	2.6
50	2	56	91	43	57	138	125	228	116	57	29	35	1	T35	2.7
65	2 1/2	69	111	46	64	151	125	228	116	57	29	35	1	T35	2.9
80	3	84	125	46	77	156	168	276	142	75	47	51	1	T85	6.4
100	4	104	147	52	94	167	168	276	142	75	47	51	1	T85	6.8
125	5	130	180	56	108	191	203	346	176	79	57	51	1.5	T200	11.4
150	6	153.5	210	56	125	202	203	346	176	79	57	51	1.5	T200	12.3
200	8	199	255	60	167	227	231	423	214	91	69	63	1.5	T380	20.7
250	10	253	322	68	186	280	231	423	214	91	69	63	1.5	T380	25.5
300	12	302	375	78	216	312	269	546	270	118	85	70	1.5	T750	39.6

700Z-7E



7E Installation Direction



Single-acting Pneumatic Cylinder Type 700Z-7G(40mm to 200mm)/700Z-7F(40mm to 200mm)

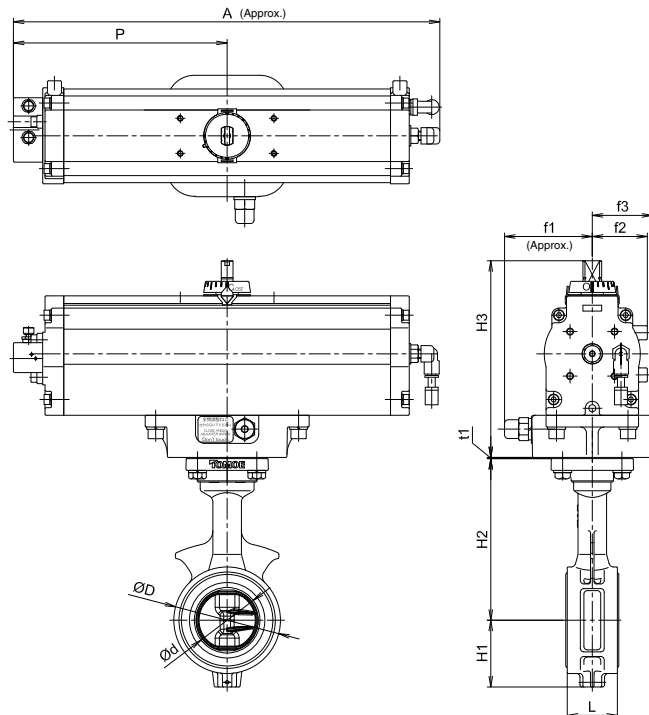
Standard

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂	f ₃	t ₁		
40	1 1/2	45	80	35	47	132	168	364	183	75	47	51	1	T85S	7.2
50	2	56	91	43	57	138	168	364	183	75	47	51	1	T85S	7.3
65	2 1/2	69	111	46	64	151	168	364	183	75	47	51	1	T85S	7.5
80	3	84	125	46	77	156	203	449	226	79	57	51	1	T200S	12.5
100	4	104	147	52	94	167	203	449	226	79	57	51	1	T200S	12.9
125	5	130	180	56	108	191	231	550	276	91	69	63	1.5	T380S	22.5
150	6	153.5	210	56	125	202	231	550	276	91	69	63	1.5	T380S	23.4
200	8	199	255	60	167	227	269	723	360	118	85	70	1.5	T750S	39.2
250	10	253	322	68	186	280	269	723	360	118	85	70	1.5	T750S	43.8

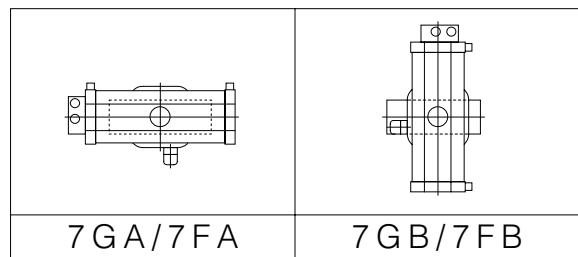
Heavy Duty

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂	f ₃	t ₁		
40	1 1/2	45	80	35	47	132	168	364	183	75	47	51	1	T85S	7.2
50	2	56	91	43	57	138	168	364	183	75	47	51	1	T85S	7.3
65	2 1/2	69	111	46	64	151	203	449	226	79	57	51	1	T200S	12.0
80	3	84	125	46	77	156	203	449	226	79	57	51	1	T200S	12.5
100	4	104	147	52	94	167	231	550	276	91	69	63	1	T380S	21.2
125	5	130	180	56	108	191	231	550	276	91	69	63	1.5	T380S	22.5
150	6	153.5	210	56	125	202	269	723	360	118	85	70	1.5	T750S	37.0
200	8	199	255	60	167	227	269	723	360	118	85	70	1.5	T750S	39.2

700Z-7G/7F



7G/7F Installation Direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

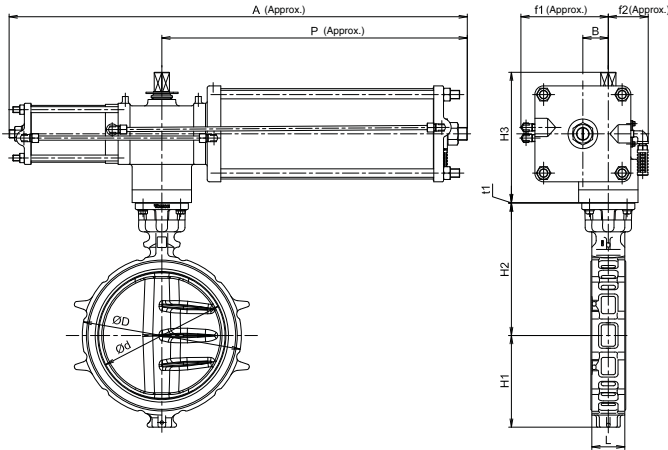
700Z

Single-acting Pneumatic Cylinder Type 700Z-3U (250mm to 300mm)

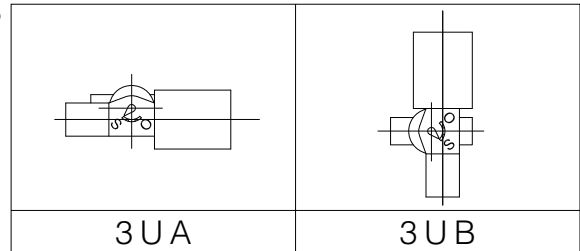
Standard

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	B	f ₁	f ₂	t ₁		
250	10	253	322	68	186	280	307	1080	720	60	206	94	1.5	TG-12S	110.8
300	12	302	375	78	216	312	307	1080	720	60	206	94	1.5	TG-12S	115.3

700Z-3U



3U Installation Direction

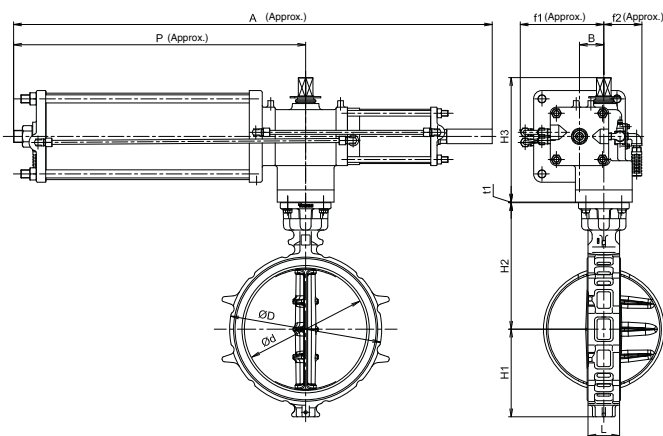


Single-acting Pneumatic Cylinder Type 700Z-3K (250mm to 300mm)

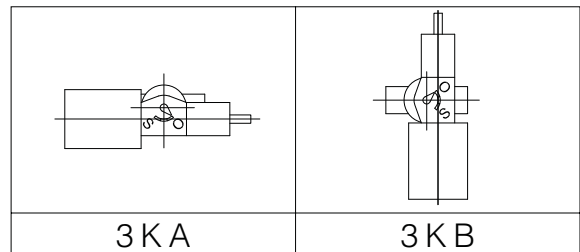
Standard/Heavy Duty

Nominal size		Dimension (mm)												Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	B	f ₁	f ₂	t ₁		
250	10	253	322	68	186	280	307	1080	720	60	206	94	1.5	TG-12S	110.8
300	12	302	375	78	216	312	307	1080	720	60	206	94	1.5	TG-12S	115.3

700Z-3K



3K Installation Direction

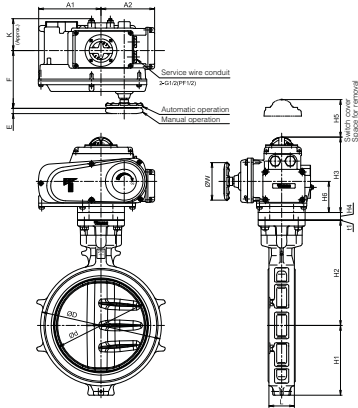


Single Phase Electric Motor Type 700Z-4 I (40mm to 300mm)

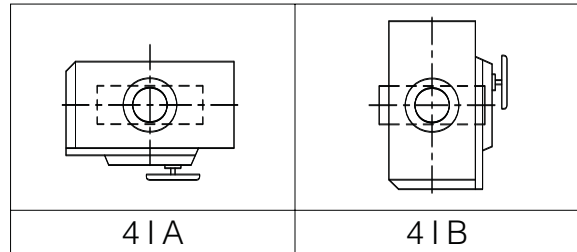
ON-OFF

Nominal size		Dimension (mm)																Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	H ₄	H ₅	H ₆	A ₁	A ₂	E	F	K	ϕW	t ₁		
40	1 1/2	45	80	35	47	132	121	—	100	57	84	77	39	58	45	80	1	4I-00	3.0
50	2	56	91	43	57	138	121	—	100	57	84	77	39	58	45	80	1	4I-00	3.1
65	2 1/2	69	111	46	64	151	121	—	100	57	84	77	39	58	45	80	1	4I-00	3.3
80	3	84	125	46	77	156	150	—	100	43	100	102	43	85	54	80	1	4I-0	6.1
100	4	104	147	52	94	167	150	—	100	43	100	102	43	85	54	80	1	4I-0	6.5
125	5	130	180	56	108	191	165	—	100	61	138	114	12	126	65	70	1.5	4I-1	10.3
150	6	153.5	210	56	125	202	198	—	100	80	167	143	14	154	85	100	1.5	4I-2	16.2
200	8	199	255	60	167	227	198	—	100	80	167	143	14	154	85	100	1.5	4I-2	18.4
250	10	253	322	68	186	280	201	20	100	80	167	143	14	154	85	100	1.5	4I-2.5	26.3
300	12	302	375	78	216	312	230	4	100	98	223	165	23	246	136	200	1.5	4I-3	41.0

700Z-4 I (ON-OFF)



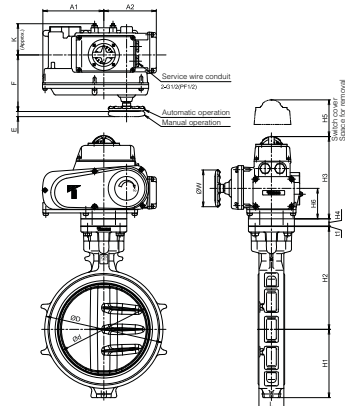
4 I Installation Direction



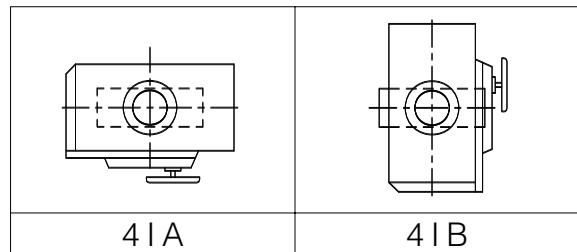
Control

Nominal size		Dimension (mm)																Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	H ₄	H ₅	H ₆	A ₁	A ₂	E	F	K	ϕW	t ₁		
40	1 1/2	45	80	35	47	132	176	—	100	43	100	102	43	85	54	80	1	4I-0	5.3
50	2	56	91	43	57	138	176	—	100	43	100	102	43	85	54	80	1	4I-0	5.4
65	2 1/2	69	111	46	64	151	176	—	100	43	100	102	43	85	54	80	1	4I-0	5.6
80	3	84	125	46	77	156	176	—	100	43	100	102	43	85	54	80	1	4I-0	6.1
100	4	104	147	52	94	167	176	—	100	43	100	102	43	85	54	80	1	4I-0	6.5
125	5	130	180	56	108	191	191	—	100	61	138	114	12	126	65	70	1	4I-1	10.3
150	6	153.5	210	56	125	202	224	—	100	80	167	143	14	154	85	100	1	4I-2	16.2
200	8	199	255	60	167	227	224	—	100	80	167	143	14	154	85	100	1	4I-2.5	20.0
250	10	253	322	68	186	280	227	20	100	80	167	143	14	154	85	100	1.5	4I-2.5	26.3
300	12	302	375	78	216	312	255	4	100	98	223	165	23	246	136	200	1.5	4I-3	41.0

700Z-4 I (Control)



4 I Installation Direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/
732Q/752W

71LG

700E/700K/700S

704G/722F/720F

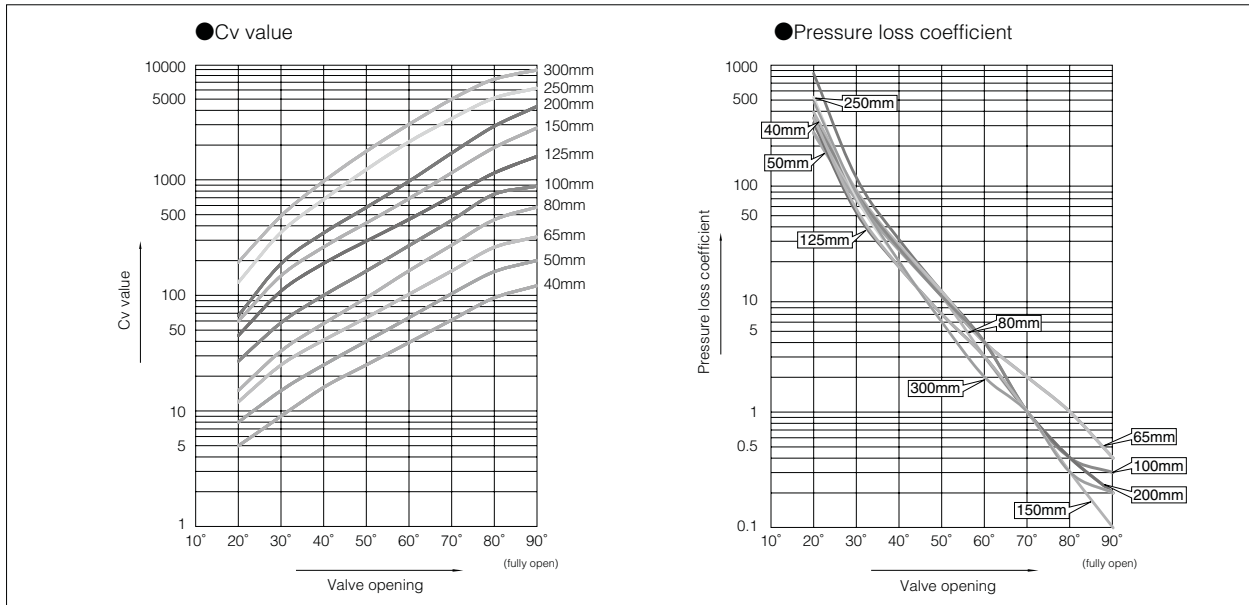
KRV

227P

907H/908H
(MKT)

903C

700Z Cv value / pressure loss coefficient



700Z Cv value

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
40	1 1/2	5	9	16	25	39	61	95	121
50	2	8	15	25	40	64	103	160	200
65	2 1/2	12	25	41	64	102	162	260	320
80	3	15	33	57	95	163	271	450	580
100	4	27	58	100	162	269	444	749	880
125	5	45	109	189	295	453	719	1144	1590
150	6	60	148	262	423	685	1147	1897	2800
200	8	67	188	347	576	969	1698	2902	4300
250	10	130	351	675	1225	2125	3375	5091	6200
300	12	194	487	972	1764	3011	4966	7412	8900

700Z Pressure loss coefficient

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
40	1 1/2	264	72	26	10	4	2	1	0.4
50	2	257	68	25	10	4	2	1	0.4
65	2 1/2	310	75	28	11	4	2	1	0.4
80	3	394	83	27	10	3	1	0.4	0.2
100	4	350	78	26	10	4	1	0.4	0.3
125	5	316	53	18	7	3	1	0.4	0.2
150	6	348	57	18	7	3	1	0.3	0.1
200	8	849	106	31	11	4	1	0.4	0.2
250	10	528	72	20	6	2	1	0.3	0.2
300	12	488	78	20	6	2	1	0.3	0.2

700Z Applicable pipe list in case of **A**, **B**

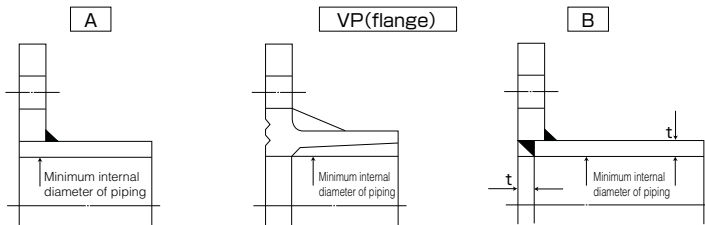
Nominal size		SGP	Sch20	Sch40	VP (TS flange)	Sch10S	Sch20S	Minimum internal diameter of piping (mm)
mm	inch							
40	1 1/2	○	—	○	○	○	○	25
50	2	○	○	○	○	○	○	34
65	2 1/2	○	○	○	○	○	○	51
80	3	○	○	○	○	○	○	70
100	4	○	○	○	○	○	○	91
125	5	○	○	○	○	○	○	118
150	6	○	○	○	○	○	○	144
200	8	○	○	○	○	○	○	194
250	10	○	○	○	○	○	○	246
300	12	○	○	○	○	○	○	295

Remark 1: The symbols above mean the following.

○: Piping possible —: Not standardized

Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.

In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange. For details, please consult us.



Butterfly
Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

**304M
(HLV)**

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

**731P/732P/
732Q/752W**

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

**907H/908H
(MKT)**

903C

700Z Piping bolt and nut sizes

Hexagon bolt & nut

Nominal size		JIS 5K	JIS 10K
mm	inch	Hexagon bolts and nuts	Hexagon bolts and nuts
40	1 1/2	4-M12× 75×30	4-M16× 90×38
50	2	4-M12× 90×30	4-M16×100×38
65	2 1/2	4-M12× 90×30	4-M16×105×38
80	3	4-M16× 95×38	8-M16×105×38
100	4	8-M16×105×38	8-M16×110×38
125	5	8-M16×110×38	8-M20×125×46
150	6	8-M16×115×38	8-M20×130×52
200	8	8-M20×130×52	12-M20×130×52
250	10	12-M20×140×52	12-M22×150×60
300	12	12-M20×150×52	16-M22×160×60

Long bolt & nut

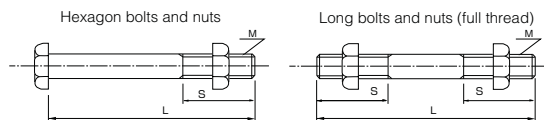
Nominal size		JIS 5K	JIS 10K	ANSI 125Lb/150Lb
mm	inch	Long bolts and nuts	Long bolts and nuts	Long bolts and nuts
40	1 1/2	4-M12× 95×25	4-M16×110×25	4-U1/2 ×110×32
50	2	4-M12×105×25	4-M16×120×30	4-U5/8 ×140×38
65	2 1/2	4-M12×110×25	4-M16×125×30	4-U5/8 ×140×38
80	3	4-M16×120×30	8-M16×125×30	4-U5/8 ×140×38
100	4	8-M16×130×30	8-M16×130×30	8-U5/8 ×150×38
125	5	8-M16×130×30	8-M20×150×40	8-U3/4 ×160×51
150	6	8-M16×140×35	8-M20×155×40	8-U3/4 ×165×51
200	8	8-M20×155×40	12-M20×155×40	8-U3/4 ×175×51
250	10	12-M20×165×40	12-M22×175×45	12-U7/8 ×195×58
300	12	12-M20×175×40	16-M22×185×45	12-U7/8 ×205×58

Remark: Please use a hexagon nut with 80% threading. (For ANSI, use heavy nut.)

Example

Long bolts : 12 - M22 × 185 × 45 Hexagon bolts : 12 - M22 × 60 × 50

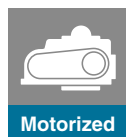
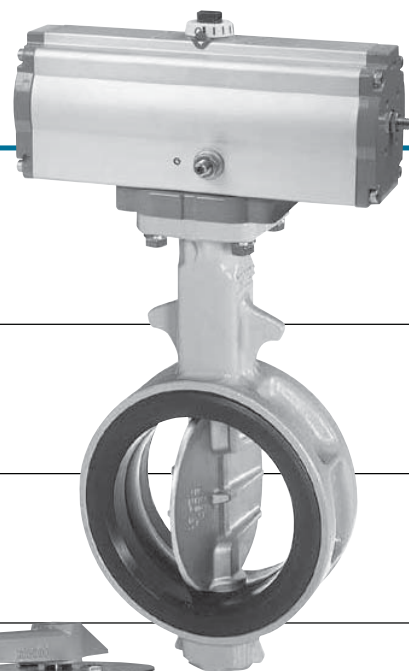
N
M
L
S
N
M
L
S



700G Wafer

704G Full lugged

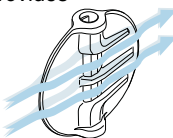
705G Semi lugged



Features and Benefits

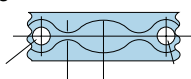
Rib disc

The 316 stainless steel (JIS SCS14) rib disc comes standard from 50mm to 300mm. Thin profile disc reinforced by ribs (patent pending) provides larger Cv compared to our conventional design. It also reduces weight while maintaining mechanical strength. A flat face disc is also available on request.



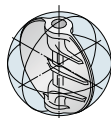
Patented cosine curve seat ring

The cosine curve seat ring reduces valve operating torque substantially and allows the torque to be adjusted according to the working pressure.



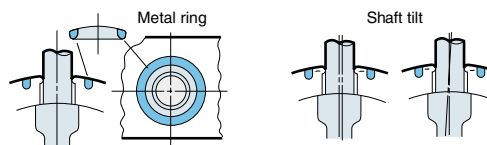
Much longer life with spherical design

Similar to a spherical body rotating inside a spherical area, the operation of the disc is smooth and unhindered. Torque is reduced and the valve life is lengthened by 300%.



Self-aligning stem seal through backup ring

The stem seal is the primary and secondary seal system. The backup ring functions as the self-aligning stem seal.



Long bonnet

The long neck shape allows insulation of up to 50mm after the valve is installed. 701G: Nylon coated body is also available (50 to 300mm). Please contact us for more information.

Two aligning methods (350 to 600mm)

Two valve models are available: the casted hole type (700G) and the tapped and drilled hole type (705G). They accommodate all the applicable flange standards.

Discs and seats come in various materials to meet a wide range of needs. These are the ultimate general purpose valves and they provide excellent cost performance.

General Description

Handling, durability and longevity are the basic aspects by which valve performance can be improved. TOMOE have now developed the 700G series, a superior, pressure-proof, general purpose valve, with the addition of a wide range of features to offer improved performance and better cost efficiency.

The 700G series is designed to satisfy many international flange standards for use worldwide.

Structure

The body is available in various designs such as wafer, semi-lugged and full-lugged, with various materials such as ductile iron, carbon steel, etc. The disc is also available with high-grade stainless steel, type 316, nylon coating, aluminium, bronze or PPS. The patented cosine-curve structure is adopted for the seat ring. The 700G series is superior to conventional models in all respects.

Standard Specifications

Model		700G (Wafer)			704G (Fully lugged)		705G (Semi lugged)	
Valve nominal size		40 to 300mm	350 to 500mm	600mm	50 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm
Applicable flange standard		JIS 5K/10K ANSI 125lb/150 lb DIN NP10, NP16 BS 4504 PN10, PN16, BS 10 'E'	JIS 5K/10K	JIS 5K, ANSI 125 lb/150 lb, DIN NP10, BS4504 PN10, (excluding JIS 10K)	JIS 5K/10K, ANSI 125lb/150lb, DIN NP10, NP16, BS 4504 PN10/PN16		JIS 5K/10K, ANSI 125lb/150lb, DIN NP10, NP16, BS 4504 PN10, PN16, BS10 'E'	JIS 5K/10K, ANSI 125lb/150lb, DIN NP10, BS 4504 PN10, PN16, BS10 'E'
Face-to-face dimensions		API 609 / ISO 5752 (20 series)						
Max. working pressure		1.0 MPa						
Body shell test (hydraulic)		1.5 MPa						
Seat leak test (pneumatic) ※1		1.1 MPa						
Working temperature range ※2,※3		NBR : -10 to 80 degrees C, *EPDM : -20 to 120 degrees C						
Working temperature in continuous use ※4		NBR : 0 to 60 degrees C, *EPDM : 0 to 70 degrees C						
Standard materials	Body ※5	Ductile iron, JIS FCD450	Cast iron, JIS FC 250	Ductile iron, JIS FCD450		Ductile iron, JIS FCD 450	Cast iron, JIS FC250, Ductile iron, JIS FCD450	
	Disc	316 stainless steel, JIS SCS14 ※6	304 stainless steel, JIS SCS13 316 stainless steel, JIS SCS14	316 stainless steel, JIS SCS14 ※6	304 stainless steel, JIS SCS 13, 316 stainless steel, JIS SCS14	316 stainless steel, JIS SCS 14 ※6	304 stainless steel, JIS SCS 13, 316 stainless steel, JIS SCS 14	
		PPS (50 to 200mm) Aluminium bronze JIS CAC702 (50 to 600mm)	Aluminium bronze JIS CAC702	PPS (50 to 200mm) Aluminium bronze JIS CAC702 (50 to 600mm)	Aluminium bronze JIS CAC702	PPS (50 to 200mm) Aluminium bronze JIS CAC702 (50 to 600mm)	Aluminium bronze JIS CAC702	
		Ductile iron, JIS FCD 450	Ductile iron, JIS FCD 450 with hard chrome plating	Ductile iron, JIS FCD 450	Ductile iron, JIS FCD 450 with hard chrome plating	Ductile iron, JIS FCD 450	Ductile iron, JIS FCD 450 with hard chrome plating	
	Stem	SUS420J2 / SUS329J1 as an option						
	Seat ring ※7	NBR, *EPDM ※7						
Actuators	Lock lever	40 to 200mm	-	50 to 200mm	-	50 to 200mm	-	
	Worm gear	40 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	
	Centre handle	40 to 300mm	-	50 to 300mm	-	50 to 300mm	-	
	Pneumatic	40 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	
	Motorised	40 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	50 to 300mm	350 to 600mm	
Coating ※8	Epoxy primer finish (Munsell N7)							

※1 16bar finish is also available subject to working conditions.

※2 Working temperature range varies depending on combination of disc materials and seating. Please consult us.

※3 Please consult us when using NBR and EPDM seating continuously above 60 degrees C and 70 degrees C respectively.

※4 *Working temperature in continuous use* stands for the temperature continuously kept exceeding one hour.

※5 Cast steel body or stainless steel body is also available.

※6 Rib disc: standard. Flat face disc: optional.

※7 Heat resistant EPDM (to 150 degrees C), FPM, SEP, CR and white-NBR seats are also available. See below table.

※8 Polyester powder backed finish (V-Pet #4000) for 700G size 40 to 300mm. Epoxy resin coating for 705G size 50 to 300mm.

* 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.

Seat ring material table

Material	Standard		On request				
	EPDM	NBR	Heat resistant EPDM	W-NBR	FKM	CR	SEP
Working temperature range (degrees C)	-20~120	-10~80	-10~150	-10~70	-10~60	-10~80	-10~60
Working temperature in continuous use (degrees C)	0~70	0~60	0~130	0~60	0~50	0~60	0~50
Max. working pressure (MPa)	1.0	1.0	0.5	0.5	0.5	1.0	0.5

Butterfly
Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M
(HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/
732Q/752W

71LG

700E/700K/700S

704G/722F/720F

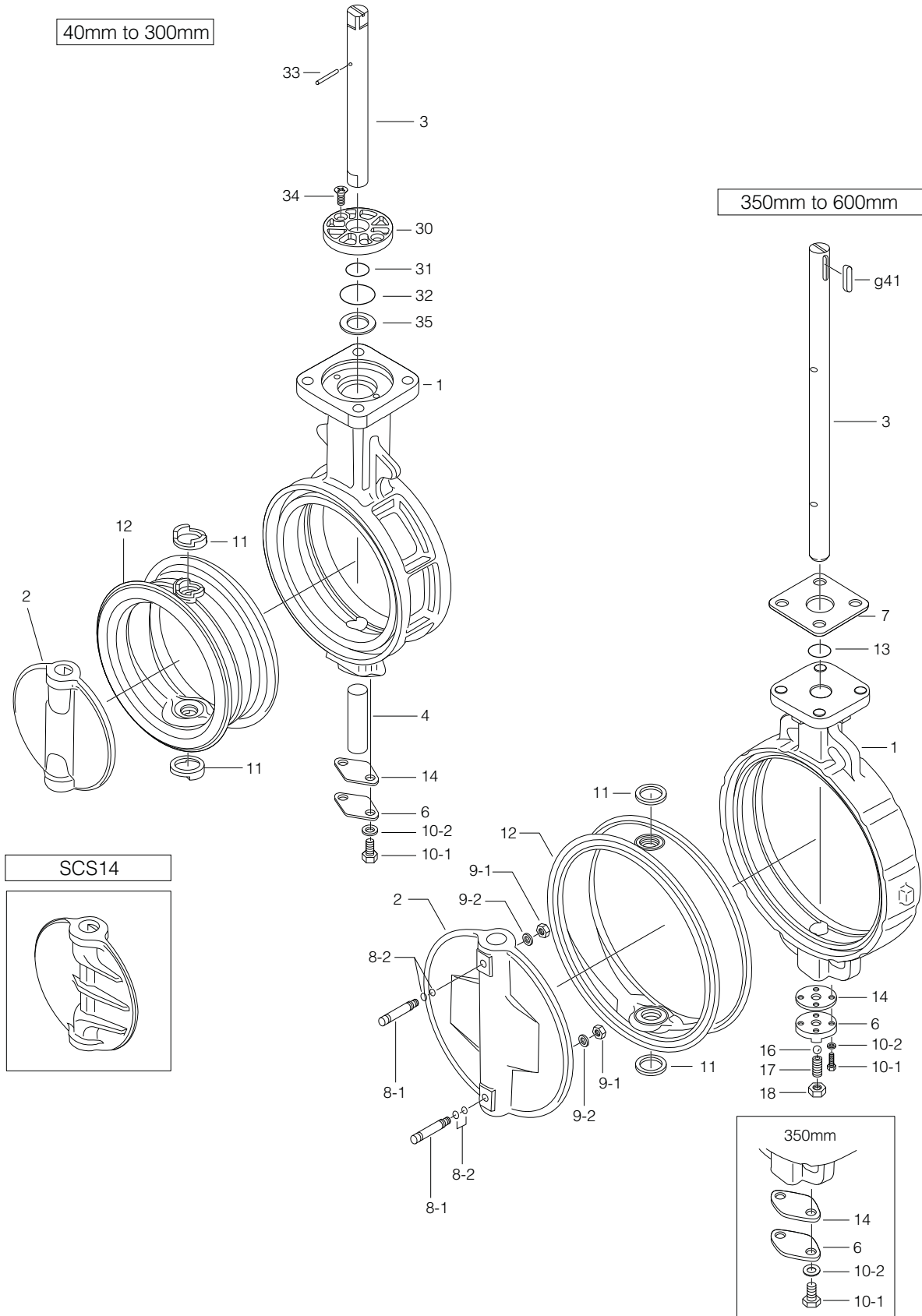
KRV

227P

907H/908H
(MKT)

903C

700G Expanded view of components



700G Parts list

■700G Parts list(40mm to 300mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Upper stem	1	
4	Lower stem	1	See Remark 2.
6	Bottom cover	1	
10-1	Hexagon bolt	2	
10-2	Spring washer	2	
★ 11	Secondary ring	2	Only 50mm to 300mm
★ 12	Seat ring	1	
★ 14	Gasket	1	
★ 30	Bushing	1	
★ 31	O-ring	1	
★ 32	O-ring	1	
33	Spring pin	1	
34	Machine screw	2	
35	Plate	1	

■700G Parts list(350mm to 600mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
6	Bottom cover	1	
7	Retainer plate	1	
★ 8-1	Taper bolt	2	
★ 8-2	O-ring	4	
★ 9-1	Hexagon nut	2	
★ 9-2	Spring washer	2	
10-1	Hexagon bolt	2	350mm
		4	400mm to 600mm
10-2	Spring washer	2	350mm
		4	400mm to 600mm
★ 11	Secondary ring	2	350mm
11	Secondary ring	2	400mm to 600mm
★ 12	Seat ring	1	
★ 13	O-ring	1	
★ 14	Gasket	1	
16	Ball	1	Only 400mm to 600mm
17	Hollow bolt	1	Only 400mm to 600mm
18	Lock nut	1	Only 400mm to 600mm
g41	Key	1	

Remark 1: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt.
 Remark 2: When the disc material is PPS, the lower stem length of types 50mm to 100mm is different from standard.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

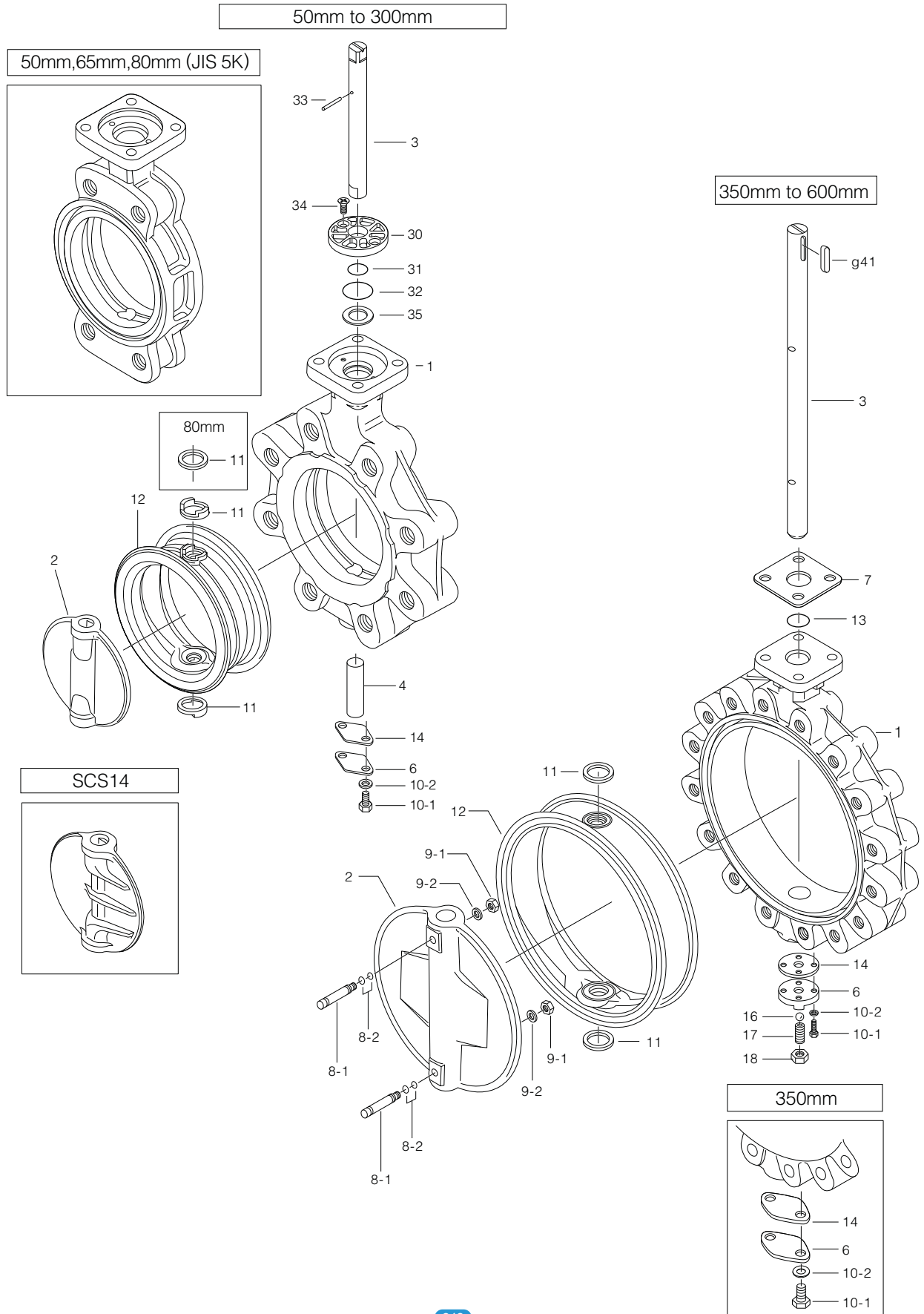
KRV

227P

907H/908H (MKT)

903C

704G Expanded View of Components



704G Parts list

■704G Parts list (50mm to 300mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Upper stem	1	
4	Lower stem	1	See Remark 2.
6	Bottom cover	1	
10-1	Hexagon bolt	2	
10-2	Spring washer	2	
★ 11	Secondary ring	2	
★ 12	Seat ring	1	
★ 14	Gasket	1	
★ 30	Bushing	1	
★ 31	O-ring	1	
★ 32	O-ring	1	
33	Spring pin	1	
34	Machine screw	2	
35	Plate	1	

■704G Parts list (350mm to 600mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
6	Bottom cover	1	
7	Retainer plate	1	
★ 8-1	Taper bolt	2	
★ 8-2	O-ring	4	
★ 9-1	Hexagon nut	2	
★ 9-2	Spring washer	2	
10-1	Hexagon bolt	2	350mm
		4	400mm to 600mm
10-2	Spring washer	2	350mm
		4	400mm to 600mm
★ 11	Secondary ring	2	350mm
11	Secondary ring	2	400mm to 600mm
★ 12	Seat ring	1	
★ 13	O-ring	1	
★ 14	Gasket	1	
16	Ball	1	Only 400mm to 600mm
17	Hollow bolt	1	Only 400mm to 600mm
18	Lock nut	1	Only 400mm to 600mm
g41	Key	1	

Remark 1: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt.
 Remark 2: When the disc material is PPS, the lower stem length of types 50mm to 100mm is different from standard.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

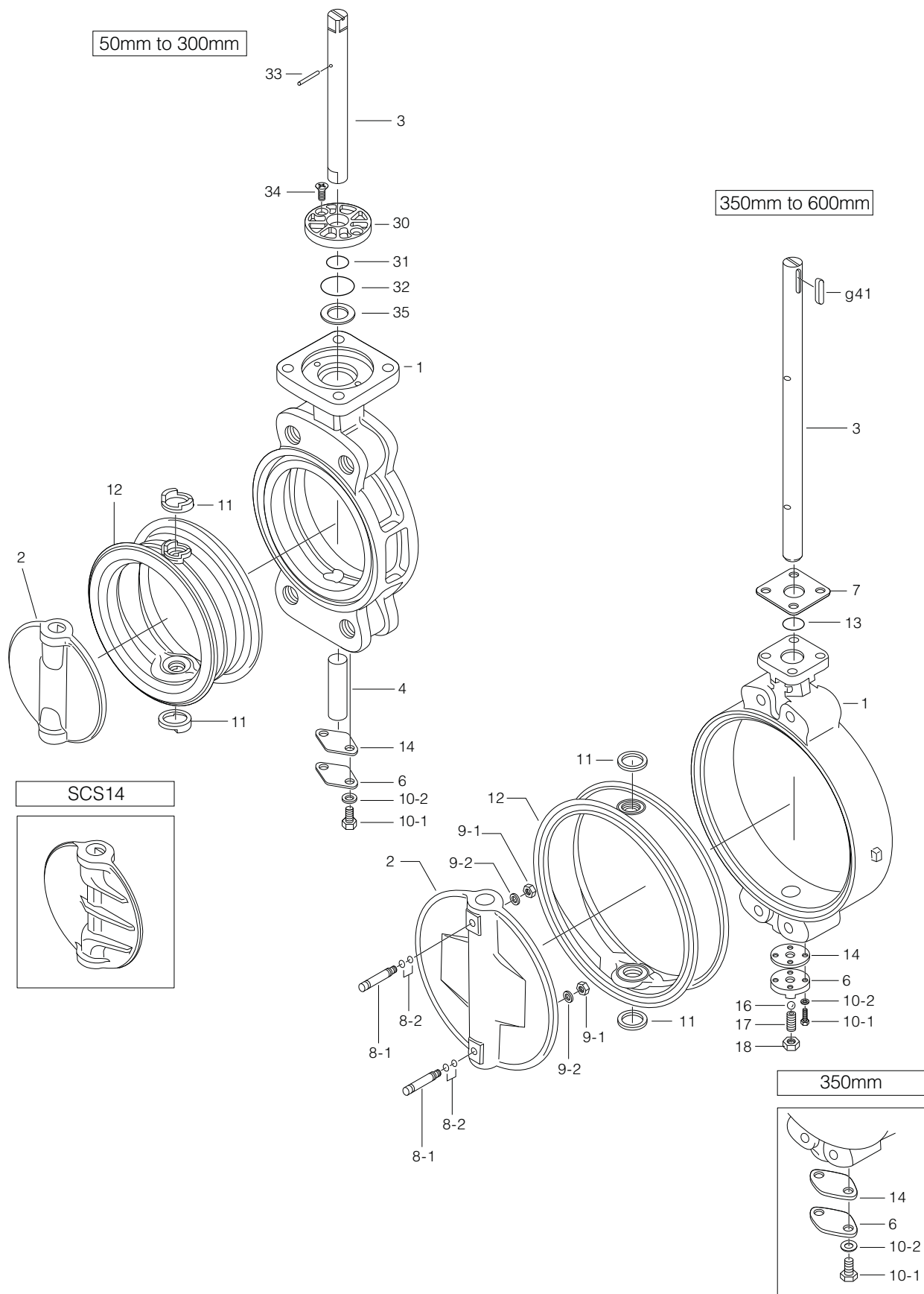
KRV

227P

907H/908H (MKT)

903C

705G Expanded view of components



705G Parts list

■705G Parts list (50mm to 300mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Upper stem	1	
4	Lower stem	1	See Remark 2.
6	Bottom cover	1	
10-1	Hexagon bolt	2	
10-2	Spring washer	2	
★ 11	Secondary ring	2	
★ 12	Seat ring	1	
★ 14	Gasket	1	
★ 30	Bushing	1	
★ 31	O-ring	1	
★ 32	O-ring	1	
33	Spring pin	1	
34	Machine screw	2	
35	Plate	1	

■705G Parts list (350mm to 600mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
6	Bottom cover	1	
7	Retainer plate	1	
★ 8-1	Taper bolt	2	
★ 8-2	O-ring	4	
★ 9-1	Hexagon nut	2	
★ 9-2	Spring washer	2	
10-1	Hexagon bolt	2	350mm
		4	400mm to 600mm
10-2	Spring washer	2	350mm
		4	400mm to 600mm
★ 11	Secondary ring	2	350mm
11	Secondary ring	2	400mm to 600mm
★ 12	Seat ring	1	
★ 13	O-ring	1	
★ 14	Gasket	1	
16	Ball	1	Only 400mm to 600mm
17	Hollow bolt	1	Only 400mm to 600mm
18	Lock nut	1	Only 400mm to 600mm
g41	Key	1	

Remark 1: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt.
 Remark 2: When the disc material is PPS, the lower stem length of types 50mm to 100mm is different from standard.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

700G / 704G / 705G Actuator Selection Chart

700G

Model	Category	Size (mm / inch)														
		40 1 1/2	50 2	65 2 1/2	80 3	100 4	125 5	150 6	200 8	250 10	300 12	350 14	400 16	450 18	500 20	600 24
1T	Standard	1T-1			1T-2			1T-3								
	Heavy duty															
2U	Standard	2U-0		2U-1		2U-2		2U-3		2U-4		2U-5		2U-6		
	Heavy duty															
2G,2R	Standard	2G-1				2G-2		2G-3		2G-4		2R-3			2R-4	
	Heavy duty															
7E,3A	Standard	T35		T85		T200		T380		T750		TGA-125	TGA-140	TGA-180		
	Heavy duty											TGA-125	TGA-140	TGA-160		
7G,7F 3U,3K	Standard	T85S		T200S		T380S		T750S		TG-10S		TG-12S		TG-14S		TG-20S
	Heavy duty															
4I*	ON-OFF	4I-00		4I-0		4I-1	4I-2	4I-2.5		4I-3		4I-4				
	Control															
4J,4L	Standard	SRJ-010				SRJ-020		SRJ-060			LTKD-01 0.2kW /MGH-3	LTKD-01 0.4kW /MGH-3	LTKD-05 0.75kW /MGH-4			
	Heavy duty															

Remark*: For 400mm with the accessories below, type 4I-4 should be selected.

- Micom unit
- Servo unit
- Speed control unit
- Potentiometer

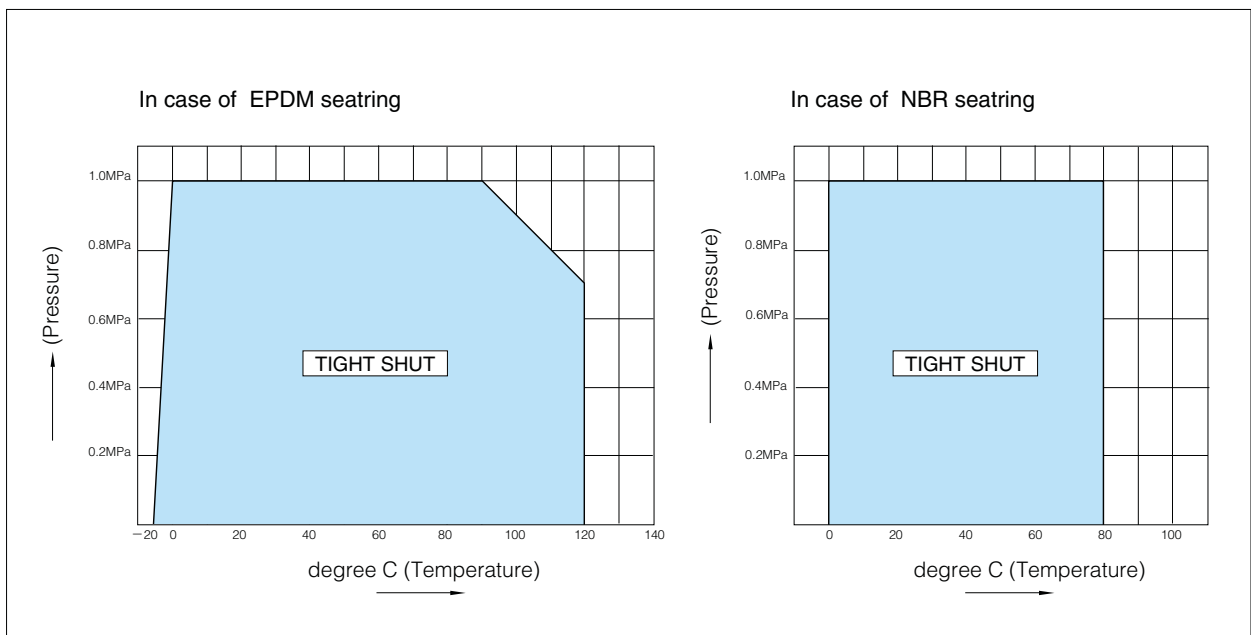
Selection criteria	Standard
	Heavy duty

Select when none of the following heavy duty items apply.

Select when any of the following items apply.

- ① Powder or high viscosity fluid (crude oil, etc.)
- ② Control specification (with positioner)
- ③ Emergency open valve or pipe dead end valve

700G / 704G / 705G Pressure-Temperature Rating



700G Bare shaft (01: 40mm to 300mm, 02: 350mm to 600mm)

700G

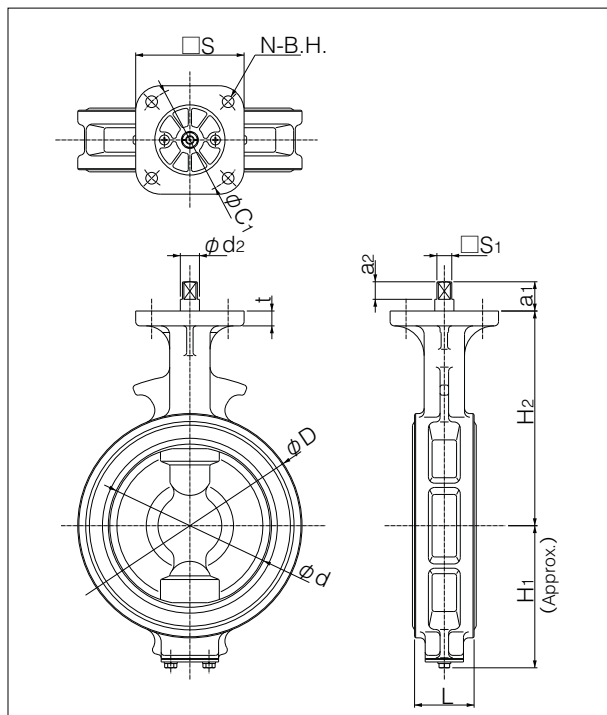
Shaft type	Nominal size		Dimension (mm)													Approx. Mass (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	a ₁	a ₂	$\square S_1$	ϕd_2	b	t ₂	t	Top flange	
01	40	1 1/2	45	80	35	61	132	21.5	10.5	8	10	—	—	12	F07	1.5
	50	2	56	90	43	68	138	21.5	10.5	8	10	—	—	12	F07	1.8
	65	2 1/2	69	115	46	79	151	21.5	10.5	8	10	—	—	12	F07	2.5
	80	3	84	126	46	86	156	22.5	11.5	10	12	—	—	12	F07	2.6
	100	4	104	146	52	103	167	22.5	11.5	12	14	—	—	12	F07	3.4
	125	5	130	181	56	118	191	27.5	16.5	14	16	—	—	14	F10	5.4
	150	6	153.5	211	56	135	202	27.5	16.5	14	18	—	—	14	F10	7
	200	8	199	256	60	177	227	30	20	18	22	—	—	14	F10	10.4
	250	10	253	322	68	215	280	35	30	24	28	—	—	14	F10	18
02	300	12	302	367	78	253	312	35	30	24	32	—	—	16	F12	25
	350	14	337	410	78	276	348	48	43	—	32	10	3	23	F14	42
	400	16	394	469	102	338	383	54	48	—	40	12	3	23	F14	64
	450	18	441	525	114	368	413	65	59	—	46	14	3.5	23	F14	87
	500	20	492	580	127	403	453	79	73	—	50	14	3.5	28	F14	114
	600	24	584	682	154	458	528	79	73	—	55	16	4	28	F16	191

Top flange dimension list

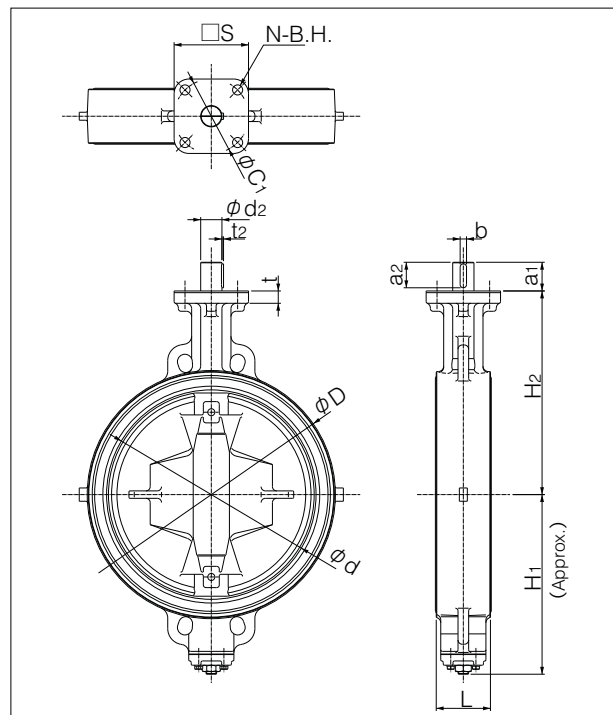
Flange type	$\square S$	ϕC_1	N	B.H.
F07	70	70	4	9
F10	102	102	4	11
F12	125	125	4	13
F14	140	140	4	19
F16	165	165	4	23

Shaft type	
01	Square
02	Round (Key way)

700G 40mm~300mm



700G 350mm~500mm



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

704G Bare shaft (01: 50mm to 300mm, 02: 350mm to 600mm)

704G

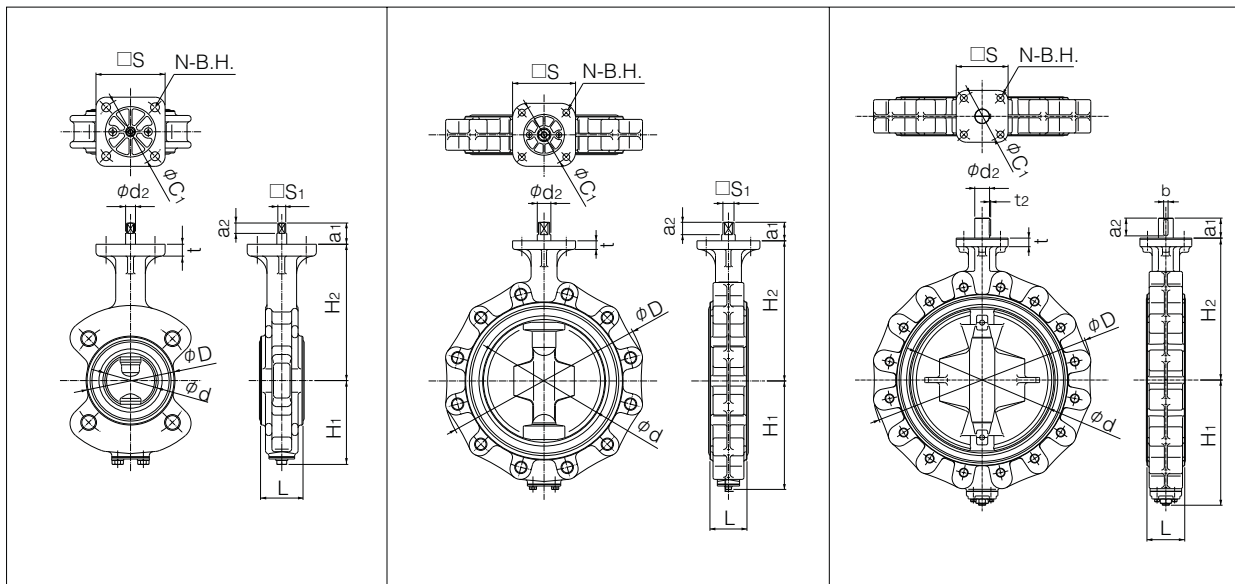
Shaft type	Nominal size		Dimension (mm)													Approx. Mass (kg)	
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	a ₁	a ₂	$\square S_1$	ϕd_2	b	t ₂	t		Top flange
				JIS5K	JIS10K												
01	50	2	56	90	90	43	85	138	21.5	10.5	8	10	—	—	12	F07	2.5
	65	2 1/2	69	115	115	46	94	151	21.5	10.5	8	10	—	—	12	F07	3.5
	80	3	84	126	190	46	109	156	22.5	11.5	10	12	—	—	12	F07	4 (4.8)
	100	4	104	223	223	52	117	167	22.5	11.5	12	14	—	—	12	F07	6.7
	125	5	130	250	250	56	143	191	27.5	16.5	14	16	—	—	14	F10	8.8
	150	6	153.5	276	276	56	164	202	27.5	16.5	14	18	—	—	14	F10	10.4
	200	8	199	334	329	60	176	227	30	20	18	22	—	—	14	F10	16.3
	250	10	253	402	402	68	215	280	35	30	24	28	—	—	14	F10	27
	300	12	302	472	438	78	253	312	35	30	24	32	—	—	16	F12	39
02	350	14	337	533	505	78	276	348	48	43	—	32	10	3	23	F14	66
	400	16	394	597	597	102	338	383	54	48	—	40	12	3	23	F14	107
	450	18	441	634	626	114	368	413	65	59	—	46	14	3.5	23	F14	128
	500	20	492	696	696	127	403	453	79	73	—	50	14	3.5	28	F14	170
	600	24	584	820	795	154	458	528	79	73	—	55	16	4	28	F16	275 (269)

Remark: In case of JIS10K the mass with round bracket.

Top flange dimension list

Flange type	$\square S$	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
F16	165	165	4	23

Shaft type	01 : Square
	02 : Round (Key way)



705G Bare shaft (01: 50mm to 300mm, 02: 350mm to 600mm)

705G

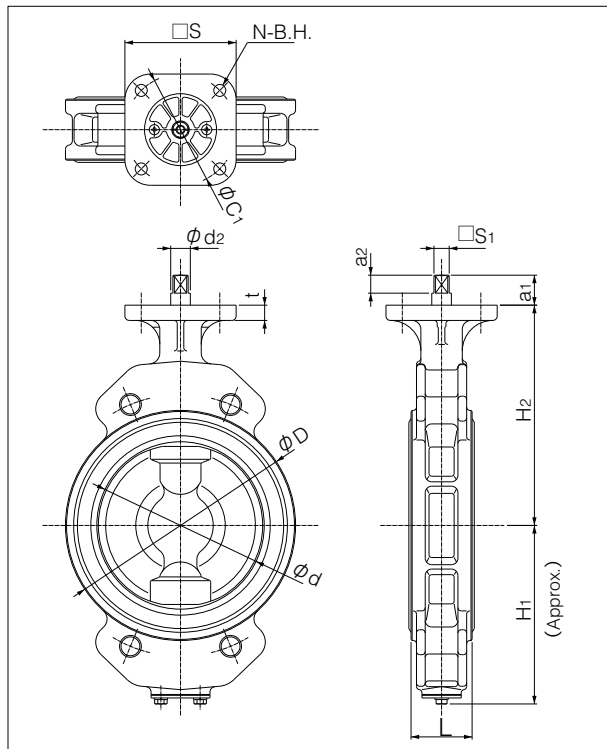
Shaft type	Nominal size		Dimension (mm)													Approx. Mass (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	a ₁	a ₂	$\square S_1$	ϕd_2	b	t ₂	t	Top flange	
01	50	2	56	90	43	85	138	21.5	10.5	8	10	—	—	12	F07	2.5
	65	2 1/2	69	115	46	94	151	21.5	10.5	8	10	—	—	12	F07	3.5
	80	3	84	126	46	109	156	22.5	11.5	10	12	—	—	12	F07	4
	100	4	104	146	52	117	167	22.5	11.5	12	14	—	—	12	F07	5
	125	5	130	181	56	143	191	27.5	16.5	14	16	—	—	14	F10	8
	150	6	153.5	211	56	164	202	27.5	16.5	14	18	—	—	14	F10	11
	200	8	199	256	60	186	227	30	20	18	22	—	—	14	F10	15
	250	10	253	322	68	215	280	35	30	24	28	—	—	14	F10	24
02	300	12	302	367	78	253	312	35	30	24	32	—	—	16	F12	31
	350	14	337	410	78	276	348	48	43	—	32	10	3	23	F14	47
	400	16	394	469	102	338	383	54	48	—	40	12	3	23	F14	72
	450	18	441	525	114	368	413	65	59	—	46	14	3.5	23	F14	96
	500	20	492	580	127	403	453	79	73	—	50	14	3.5	28	F14	127
	600	24	584	682	154	458	528	79	73	—	55	16	4	28	F16	191

Top flange dimension list

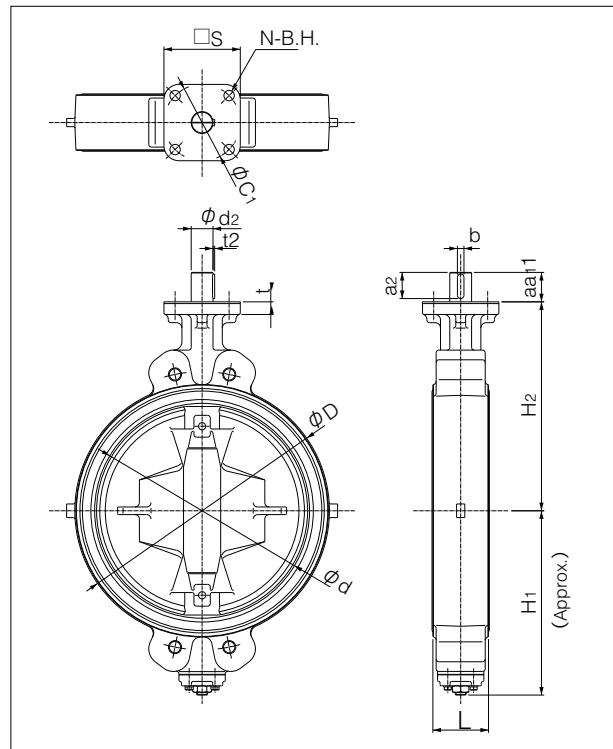
Flange type	$\square S$	ϕC_1	N	B.H.
F07	70	70	4	9
F10	102	102	4	11
F12	125	125	4	13
F14	140	140	4	19
F16	165	165	4	23

Shaft type	
01	Square
02	Round (Key way)

705G 50mm~300mm



705G 350mm~600mm

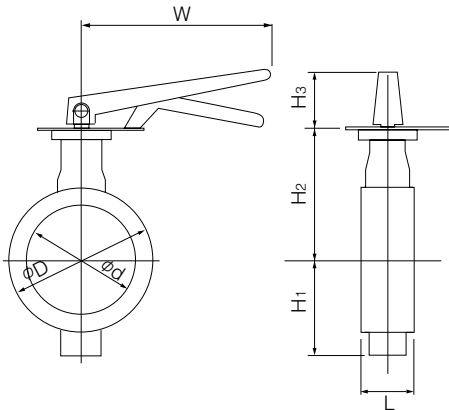


Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

Lock lever type 700G-1T (40mm to 200mm)

Nominal size		Dimension (mm)							Lever type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	W		
40	1 1/2	45	80	35	61	132	66	200	1T-1	2.1
50	2	56	90	43	68	138	66	200	1T-1	2.4
65	2 1/2	69	115	46	79	151	66	200	1T-1	3.1
80	3	84	126	46	86	156	66	200	1T-1	3.2
100	4	104	146	52	103	167	66	200	1T-1	4
125	5	130	181	56	118	191	92	300	1T-2	6.7
150	6	153.5	211	56	135	202	92	300	1T-2	8.3
200	8	199	256	60	177	227	97	350	1T-3	12.1

700G-1T



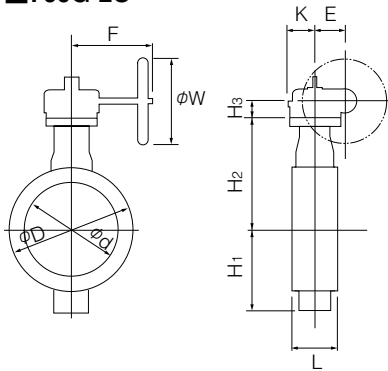
1T Installation direction

1TTL S (standard)	1TLR	1TRS	1TRR
1TXS	1TXR	1TVS	1TVR

Worm gear type 700G-2U (40mm to 600mm)

Nominal size		Dimension (mm)										Gear type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	W		
40	1 1/2	45	80	35	61	132	29.5	36	46	160	100	2U-0	3.8
50	2	56	90	43	68	138	29.5	36	46	160	100	2U-0	4.1
65	2 1/2	69	115	46	79	151	29.5	36	46	160	100	2U-0	4.8
80	3	84	126	46	86	156	29.5	36	46	160	100	2U-1	4.9
100	4	104	146	52	103	167	29.5	36	46	160	100	2U-1	5.7
125	5	130	181	56	118	191	34.5	44	53	173.5	160	2U-2	9.6
150	6	153.5	211	56	135	202	34.5	44	53	173.5	160	2U-2	11.2
200	8	199	256	60	177	227	41.5	67	75	198	200	2U-3	18
250	10	253	322	68	215	280	41.5	67	75	198	200	2U-3	26
300	12	302	367	78	253	312	48	87.5	90	222.5	200	2U-4	39
350	14	337	410	78	276	348	48	87.5	90	222.5	280	2U-4	58
400	16	394	469	102	338	383	50	90	105	266	280	2U-5	80
450	18	441	525	114	368	413	50	90	105	266	280	2U-5	103
500	20	492	580	127	403	453	50	90	105	266	280	2U-5	130
600	24	584	682	154	458	528	61	113	140	352	400	2U-6	222

700G-2U



2U Installation direction

2 UA (standard)	2 UAR	2 UB	2 UBR

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

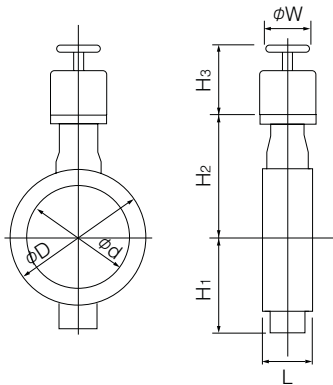
907H/908H (MKT)

903C

Center handle type 700G-2G (40mm to 300mm) / 700G-2R (350mm to 600mm)

Nominal size		Dimension (mm)							Center handle type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	W		
40	1 1/2	45	80	35	61	132	136	100	2G-1	4.4
50	2	56	90	43	68	138	136	100	2G-1	4.7
65	2 1/2	69	115	46	79	151	136	100	2G-1	5.4
80	3	84	126	46	86	156	136	100	2G-1	5.5
100	4	104	146	52	103	167	136	100	2G-1	6.3
125	5	130	181	56	118	191	133	100	2G-2	9.2
150	6	153.5	211	56	135	202	133	100	2G-2	10.8
200	8	199	256	60	177	227	151	200	2G-3	17.5
250	10	253	322	68	215	280	151	200	2G-3	25.1
300	12	302	367	78	253	312	161	200	2G-4	32.1
350	14	337	410	78	276	348	409	355	2R-3	75
400	16	394	469	102	338	383	409	355	2R-3	97
450	18	441	525	114	368	413	409	355	2R-3	121
500	20	492	580	127	403	453	409	355	2R-3	148
600	24	584	682	154	458	528	498	450	2R-4	244

700G-2G/2R



Double-acting pneumatic cylinder type 700G-7E (40mm to 350mm)

Standard

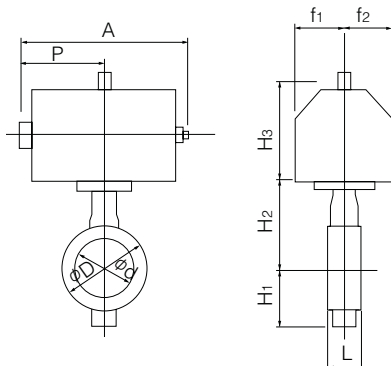
Nominal size		Dimension (mm)										Center handle type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
40	1 1/2	45	80	35	61	132	125	228	116	57	29	T35	4
50	2	56	90	43	68	138	125	228	116	57	29	T35	4
65	2 1/2	69	115	46	79	151	125	228	116	57	29	T35	5
80	3	84	126	46	86	156	168	276	142	75	47	T85	8
100	4	104	146	52	103	167	168	276	142	75	47	T85	8
125	5	130	181	56	118	191	168	276	142	75	47	T85	10
150	6	153.5	211	56	135	202	203	346	176	79	57	T200	15
200	8	199	256	60	177	227	231	423	214	91	69	T380	25
250	10	253	322	68	215	280	231	423	214	91	69	T380	32
300	12	302	367	78	253	312	269	546	270	118	85	T750	49
350	14	337	410	78	276	348	269	546	270	118	85	T750	74

Heavy duty

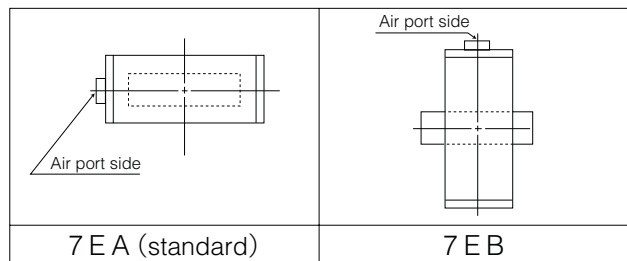
Nominal size		Dimension (mm)										Center handle type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
40	1 1/2	45	80	35	61	132	125	228	116	57	29	T35	4
50	2	56	90	43	68	138	125	228	116	57	29	T35	4
65	2 1/2	69	115	46	79	151	125	228	116	57	29	T35	5
80	3	84	126	46	86	156	168	276	142	75	47	T85	8
100	4	104	146	52	103	167	203	346	176	79	57	T200	12
125	5	130	181	56	118	191	203	346	176	79	57	T200	14
150	6	153.5	211	56	135	202	203	346	176	79	57	T200	15
200	8	199	256	60	177	227	231	423	214	91	69	T380	25
250	10	253	322	68	215	280	231	423	214	91	69	T380	32
300	12	302	367	78	253	312	269	546	270	118	85	T750	49

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

700G-7E



7E Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

Double-acting pneumatic cylinder type 700G-3A (350mm to 600mm)

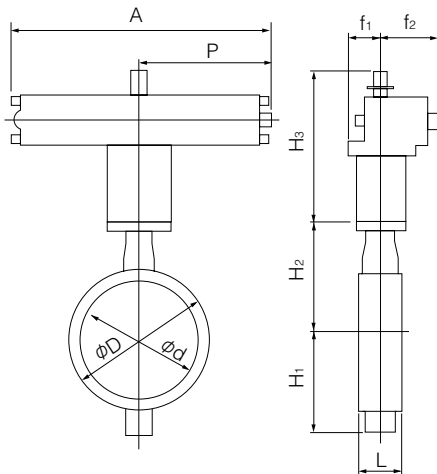
Standard

Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
400	16	394	469	102	338	383	364	743	381	100	164	TGA-125	101
450	18	441	525	114	368	413	412	810	417	100	180	TGA-140	138
500	20	492	580	127	403	453	465	939	483	130	202	TGA-160	204
600	24	584	682	154	458	528	478	1053	543	218	69	TGA-180	330

Heavy duty

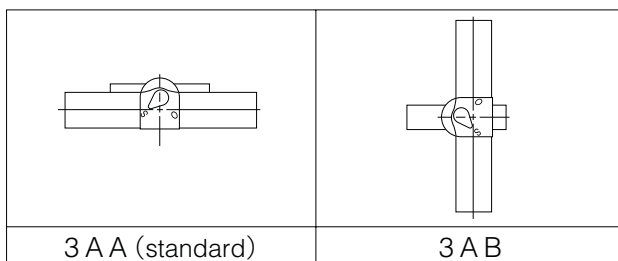
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
350	14	337	410	78	276	348	364	743	381	100	164	TGA-125	80
400	16	394	469	102	338	383	412	810	417	100	180	TGA-140	116
450	18	441	525	114	368	413	465	939	483	130	202	TGA-160	188
500	20	492	580	127	403	453	465	939	483	130	202	TGA-160	204
600	24	584	682	154	458	528	525	1163	599	160	253	TGA-200	390

700G-3A



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

3A Installation direction



Single-acting pneumatic cylinder type 700G-7G (Air to open: 40mm to 250mm) / 700G-7F (Air to close: 40mm to 250mm)

■ Standard

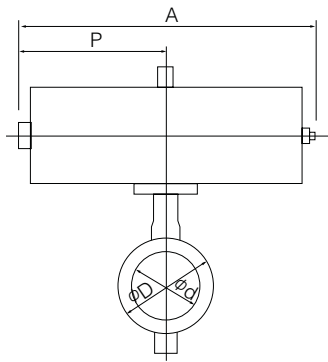
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	φd	φD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
40	1 1/2	45	80	35	61	132	168	364	183	75	47	T85S	8
50	2	56	90	43	68	138	168	364	183	75	47	T85S	8
65	2 1/2	69	115	46	79	151	203	449	226	79	57	T200S	14
80	3	84	126	46	86	156	203	449	226	79	57	T200S	14
100	4	104	146	52	103	167	203	449	226	79	57	T200S	15
125	5	130	181	56	118	191	231	550	276	91	69	T380S	25
150	6	153.5	211	56	135	202	231	550	276	91	69	T380S	26
200	8	199	256	60	177	227	269	723	360	118	85	T750S	43
250	10	253	322	68	215	280	269	723	360	118	85	T750S	51

■ Heavy duty

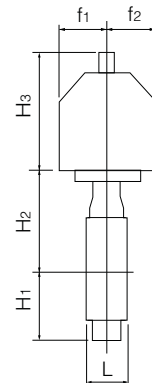
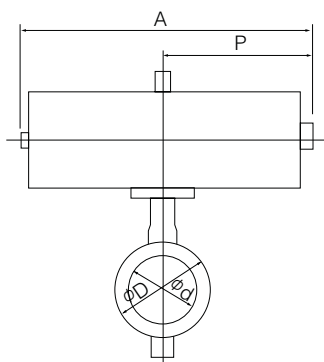
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	φd	φD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
40	1 1/2	45	80	35	61	132	168	364	183	75	47	T85S	8
50	2	56	90	43	68	138	168	364	183	75	47	T85S	8
65	2 1/2	69	115	46	79	151	203	449	226	79	57	T200S	14
80	3	84	126	46	86	156	203	449	226	79	57	T200S	14
100	4	104	146	52	103	167	231	550	276	91	69	T380S	23
125	5	130	181	56	118	191	231	550	276	91	69	T380S	25
150	6	153.5	211	56	135	202	269	723	360	118	85	T750S	40

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

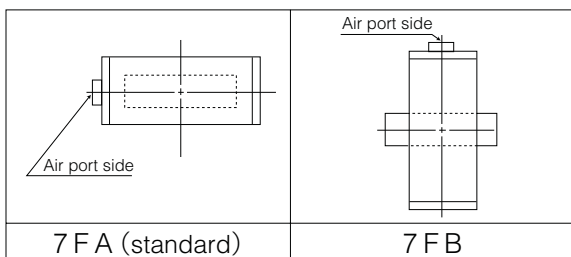
■ 700G-7F



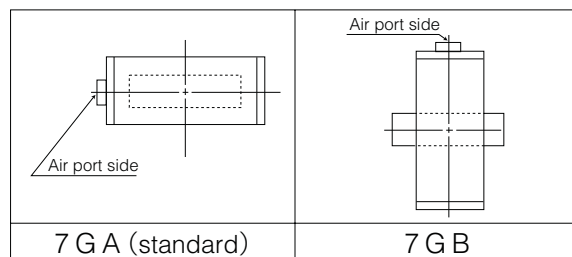
■ 700G-7G



■ 7F Installation direction



■ 7G Installation direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

Single-acting pneumatic cylinder type 700G-3U (Air to open: 200mm to 600mm) / 700G-3K (Air to close: 200mm to 600mm)

Standard

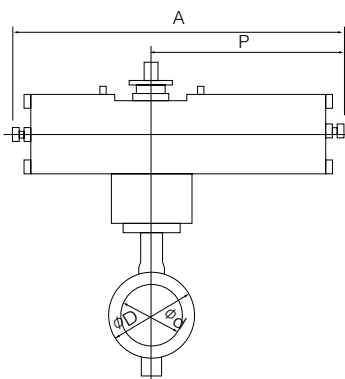
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
250	10	253	322	68	215	280	307	945	585	70	165	TG-10S	74
300	12	302	367	78	253	312	307	1080	720	94	206	TG-12S	126
350	14	337	410	78	276	348	307	1080	720	94	206	TG-12S	143
400	16	394	469	102	338	383	340	1255	865	131	257	TG-14S	262
450	18	441	525	114	368	413	340	1255	865	131	257	TG-14S	285
500	20	492	580	127	403	453	474	1655	1095	164	348	TG-20S	525
600	24	584	682	154	458	528	474	1655	1095	164	348	TG-20S	602

Heavy duty

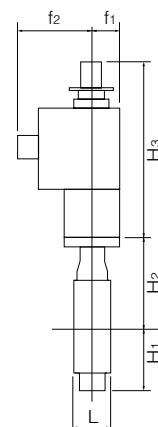
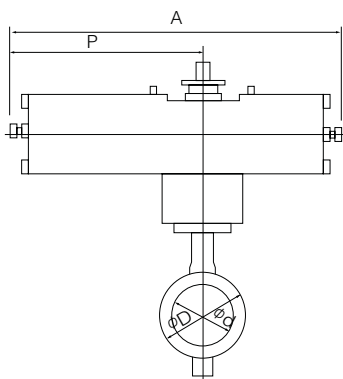
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
200	8	199	256	60	177	227	307	945	585	70	165	TG-10S	66
250	10	253	322	68	215	280	307	1080	720	94	206	TG-12S	119
300	12	302	367	78	253	312	307	1080	720	94	206	TG-12S	126
350	14	337	410	78	276	348	340	1255	865	131	257	TG-14S	239
400	16	394	469	102	338	383	340	1255	865	131	257	TG-14S	262
450	18	441	525	114	368	413	474	1655	1095	164	348	TG-20S	498
500	20	492	580	127	403	453	474	1655	1095	164	348	TG-20S	525
600	24	584	682	154	458	528	474	1655	1095	164	348	TG-20S	602

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

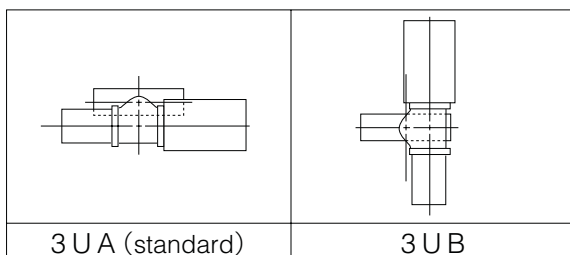
700G-3U



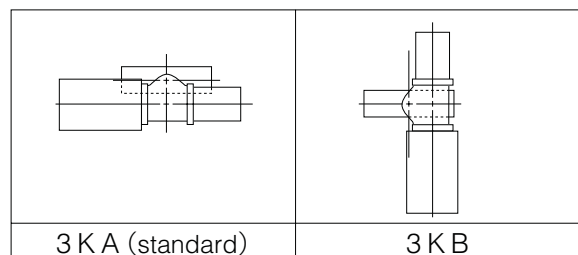
700G-3K



3U Installation direction



3K Installation direction



Single phase electric motor type 700G-4I (40mm to 500mm)

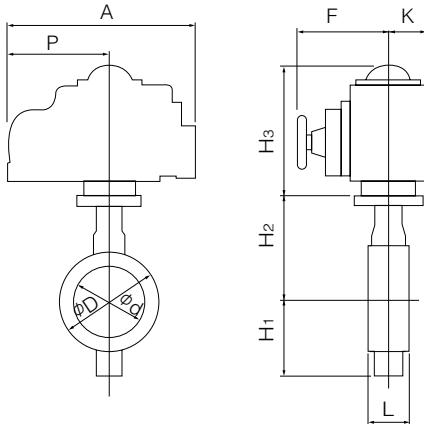
Nominal size		Dimension (mm)										Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	F	K		
40	1 1/2	45	80	35	61	132	120	161	84	58	45	4 I-00	4
							150	202	100	85	54	4 I-0	5.7
50	2	56	90	43	68	138	120	161	84	58	45	4 I-00	4.3
							150	202	100	85	54	4 I-0	6
65	2 1/2	69	115	46	79	151	150	202	100	85	54	4 I-0	6.7
80	3	84	126	46	86	156	150	202	100	85	54	4 I-0	6.8
100	4	104	146	52	103	167	165	252	138	126	65	4 I-1	9.8
125	5	130	181	56	118	191	198	310	167	154	85	4 I-2	16.6
150	6	153.5	211	56	135	202	198	310	167	154	85	4 I-2	18.2
200	8	199	256	60	177	227	198	310	167	154	85	4 I-2.5	21.6
250	10	253	322	68	215	280	198	310	167	154	85	4 I-2.5	30.8
300	12	302	367	78	253	312	230	388	223	246	136	4 I-3	48.2
350	14	337	410	78	276	348	230	388	223	246	136	4 I-3	65
400	16	394	469	102	338	383	230	388	223	246	136	4 I-3	87
							255	388	223	246	136	4 I-4	93
450	18	441	525	114	368	413	230	388	223	246	136	4 I-4	116
500	20	492	580	127	403	453	230	388	223	246	136	4 I-4	143

Note 1: For nominal size 40, 50 mm type (for control), the 4I-0 type should be selected. (The 4I-00 type is only designed for ON-OFF operation.)

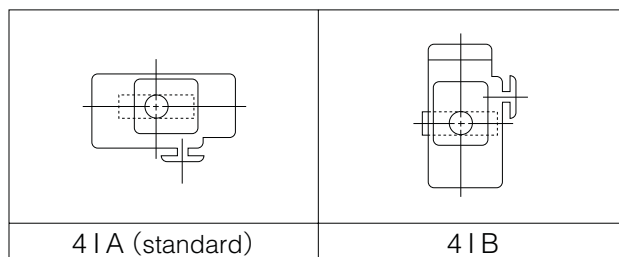
Remark: For 400mm type with the accessories below, type 4I-4 should be selected.

- Micom unit
- Servo unit
- Speed control unit
- Potentiometer

700G-4 I



4I Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

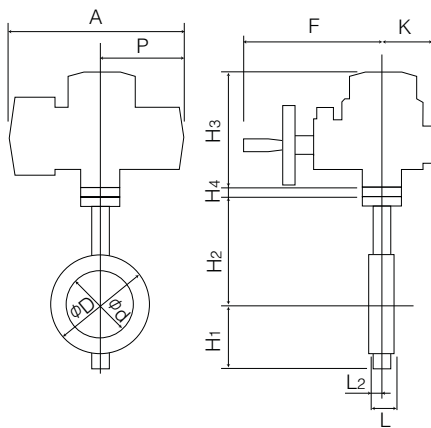
907H/908H (MKT)

903C

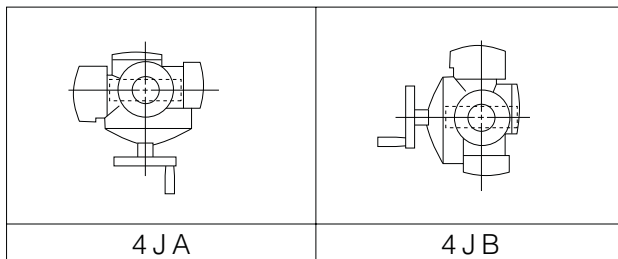
Three phase motor actuator type 700G-4J (40mm to 300mm)

Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	H ₄	A	P	F	K		
40	1 1/2	45	80	35	61	132	218	3.2	353	167	286	104	SRJ-010	15.2
50	2	56	90	43	68	138	218	3.2	353	167	286	104	SRJ-010	15.5
65	2 1/2	69	115	46	79	151	218	3.2	353	167	286	104	SRJ-010	16.2
80	3	84	126	46	86	156	218	3.2	353	167	286	104	SRJ-010	16.3
100	4	104	146	52	103	167	218	3.2	353	167	286	104	SRJ-010	16.9
125	5	130	181	56	118	191	218	15	353	167	286	104	SRJ-020	19.6
150	6	153.5	211	56	135	202	218	15	353	167	286	104	SRJ-020	21
200	8	199	256	60	177	227	235	3.2	393	191	330	130	SRJ-060	38
250	10	253	322	68	215	280	235	3.2	393	191	330	130	SRJ-060	50
300	12	302	367	78	253	312	235	20	393	191	330	130	SRJ-060	61

700G-4J



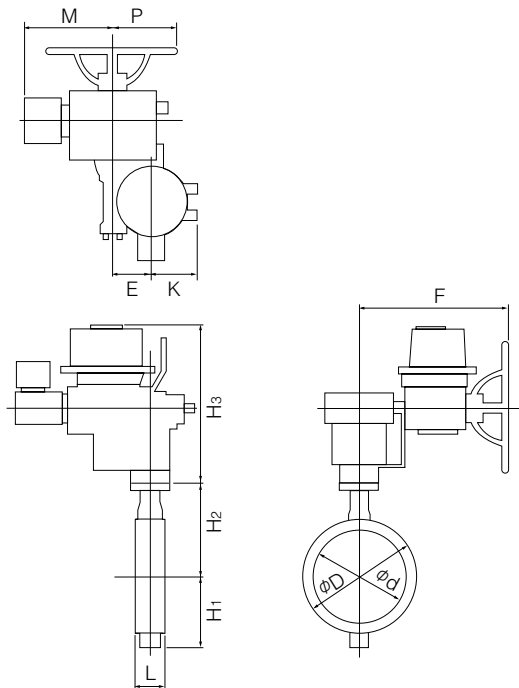
4J Installation direction



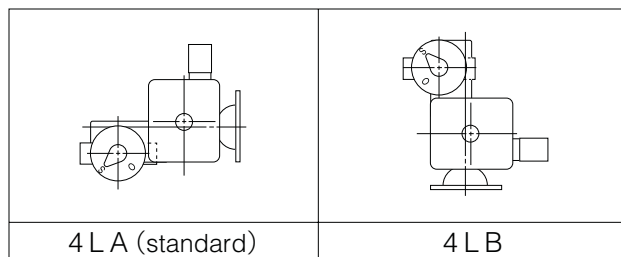
Three phase motor actuator type 700G-4L (350mm to 600mm)

Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	M	P		
350	14	337	410	78	276	348	487	117	164	533	357	230	LTKD-01 0.2kW /MGH-3	143
400	16	394	469	102	338	383	487	117	164	533	357	230	LTKD-01 0.2kW /MGH-3	165
450	18	441	525	114	368	413	487	117	164	533	370	230	LTKD-01 0.4kW /MGH-3	192
500	20	492	580	127	403	453	487	117	164	533	370	230	LTKD-01 0.4kW /MGH-3	219
600	24	584	682	154	458	528	590	140	198	637	440	375	LTKD-05 0.75kW /MGH-4	398

■700G-4L



■4L Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

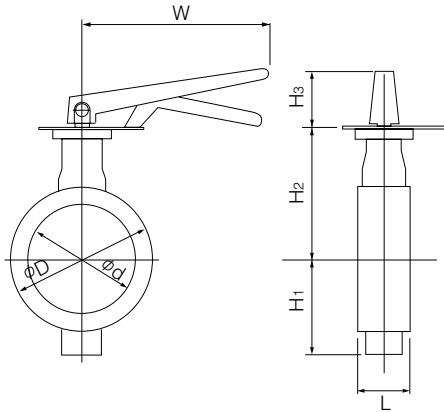
903C

Lock lever type 704G-1T (50mm to 200mm)

Nominal size		Dimension (mm)								Lever type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	W		
			JIS5K	JIS10K							
50	2	56	90	90	43	85	138	66	200	1T-1	3.1
65	2 1/2	69	115	115	46	94	151	66	200	1T-1	4.1
80	3	84	126	190	46	109	156	66	200	1T-1	4.6 (5.4)
100	4	104	223	223	52	117	167	66	200	1T-1	8
125	5	130	250	250	56	143	191	92	300	1T-2	11.9
150	6	153.5	276	276	56	164	202	92	300	1T-2	15.1
200	8	199	334	329	60	186	227	97	350	1T-3	22.2 (23.7)

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

704G-1T



1T Installation direction

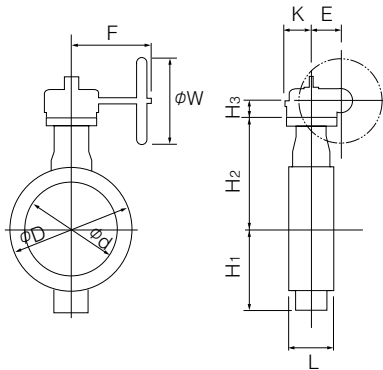
1T LS (standard)	1T LR	1T RS	1T RR
1T XS	1T XR	1T VS	1T VR

Worm gear type 704G-2U (50mm to 600mm)

Nominal size		Dimension (mm)										Gear type	Approx. Mass (kg)	
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	E	K	F			W
			JIS5K	JIS10K										
50	2	56	90	90	43	85	138	29.5	36	46	160	100	2U-0	4.8
65	2 1/2	69	115	115	46	94	151	29.5	36	46	160	100	2U-0	5.8
80	3	84	126	190	46	109	156	29.5	36	46	160	100	2U-1	6.3 (7.1)
100	4	104	223	223	52	117	167	29.5	36	46	160	100	2U-1	9.7
125	5	130	250	250	56	143	191	34.5	44	53	173.5	160	2U-2	14.8
150	6	153.5	276	276	56	164	202	34.5	44	53	173.5	160	2U-2	18.8
200	8	199	334	329	60	186	227	41.5	67	75	198	200	2U-3	27 (28.5)
250	10	253	402	402	68	215	280	41.5	67	75	198	200	2U-3	40
300	12	302	472	438	78	253	312	48	87.5	90	222.5	200	2U-4	58 (56)
350	14	337	533	505	78	276	348	48	87.5	90	222.5	280	2U-4	86 (86)
400	16	394	597	597	102	338	383	50	90	105	266	280	2U-5	123
450	18	441	634	626	114	368	413	50	90	105	266	280	2U-5	148 (151)
500	20	492	696	696	127	403	453	50	90	105	266	280	2U-5	195
600	24	584	820	795	154	458	528	61	113	140	352	400	2U-6	306 (300)

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

704G-2U



2U Installation direction

2 U A (standard)	2 U A R	2 U B	2 U B R

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

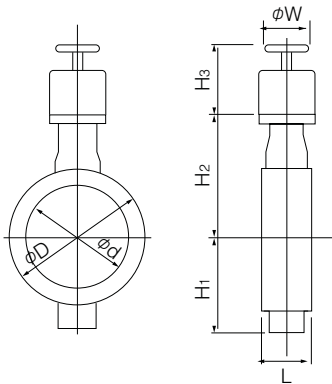
903C

Center handle type 704G-2G (50mm to 300mm) / 704G-2R (350mm to 600mm)

Nominal size		Dimension (mm)								Center handle type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	W		
			JIS5K	JIS10K							
50	2	56	90	90	43	85	138	136	100	2G-1	5.4
65	2 1/2	69	115	115	46	94	151	136	100	2G-1	6.4
80	3	84	126	190	46	109	156	136	100	2G-1	6.9 (7.7)
100	4	104	223	223	52	117	167	136	100	2G-1	10.3
125	5	130	250	250	56	143	191	133	100	2G-2	14.4
150	6	153.5	276	276	56	164	202	133	100	2G-2	17.6
200	8	199	334	329	60	186	227	151	200	2G-3	26.1 (27.6)
250	10	253	402	402	68	215	280	151	200	2G-3	40
300	12	302	472	438	78	253	312	161	200	2G-4	52 (50)
350	14	337	533	505	78	276	348	409	355	2R-3	103 (103)
400	16	394	597	597	102	338	383	409	355	2R-3	140
450	18	441	634	626	114	368	413	409	355	2R-3	166 (169)
500	20	492	696	696	127	403	453	409	355	2R-3	213
600	24	584	820	795	154	458	528	498	450	2R-4	328 (322)

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

704G-2G/2R



Double-acting pneumatic cylinder type 704G-7E (50mm to 350mm)

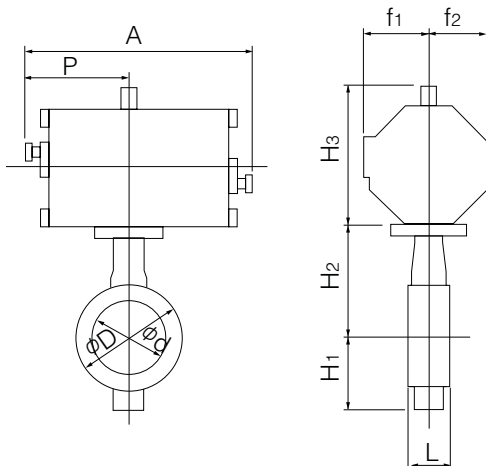
Standard

Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
mm	inch	φd	φD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
			JIS5K	JIS10K										
50	2	56	90	90	43	85	138	125	228	116	57	29	T35	5
65	2 1/2	69	115	115	46	94	151	125	228	116	57	29	T35	6
80	3	84	126	190	46	109	156	168	276	142	75	47	T85	11 (10)
100	4	104	223	223	52	117	167	168	276	142	75	47	T85	12
125	5	130	250	250	56	143	191	168	276	142	75	47	T85	14
150	6	153.5	276	276	56	164	202	203	346	176	79	57	T200	19
200	8	199	334	329	60	176	227	231	423	214	91	69	T380	29 (31)
250	10	253	402	402	68	215	280	231	423	214	91	69	T380	41
300	12	302	472	438	78	253	312	269	546	270	118	85	T750	63
350	14	337	533	505	78	276	348	269	546	270	118	85	T750	94

Heavy duty

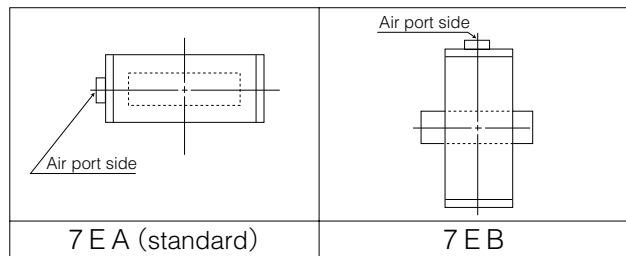
Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
mm	inch	φd	φD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
			JIS5K	JIS10K										
50	2	56	90	90	43	85	138	125	228	116	57	29	T35	5
65	2 1/2	69	115	115	46	94	151	125	228	116	57	29	T35	6
80	3	84	126	190	46	109	156	168	276	142	75	47	T85	11 (10)
100	4	104	223	223	52	117	167	203	346	176	79	57	T200	15
125	5	130	250	250	56	143	191	203	346	176	79	57	T200	17
150	6	153.5	276	276	56	164	202	203	346	176	79	57	T200	19
200	8	199	334	329	60	176	227	231	423	214	91	69	T380	29 (31)
250	10	253	402	402	68	215	280	231	423	214	91	69	T380	41
300	12	302	472	438	78	253	312	269	546	270	118	85	T750	63

704G-7E



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

7E Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

Double-acting pneumatic cylinder type 704G-3A (350mm to 600mm)

Standard

Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)	
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁			f ₂
			JIS5K	JIS10K										
400	16	394	597	597	102	338	383	364	743	381	100	164	TGA-125	153
450	18	441	634	626	114	368	413	412	810	417	100	180	TGA-140	191
500	20	492	696	696	127	403	453	465	939	483	130	202	TGA-160	269
600	24	584	820	795	154	458	528	478	1053	543	130	218	TGA-180	414 (408)

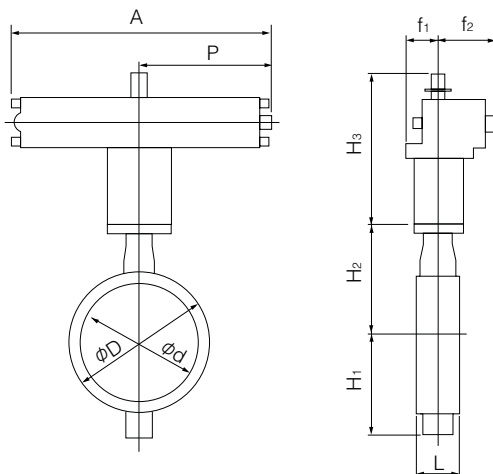
Heavy duty

Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)	
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁			f ₂
			JIS5K	JIS10K										
350	14	337	533	505	78	276	348	364	743	381	100	164	TGA-125	109
400	16	394	597	597	102	338	383	412	810	417	100	180	TGA-140	159
450	18	441	634	626	114	368	413	465	939	483	130	202	TGA-160	233 (236)
500	20	492	696	696	127	403	453	465	939	483	130	202	TGA-160	269
600	24	584	820	795	154	458	528	525	1163	599	160	253	TGA-200	474 (468)

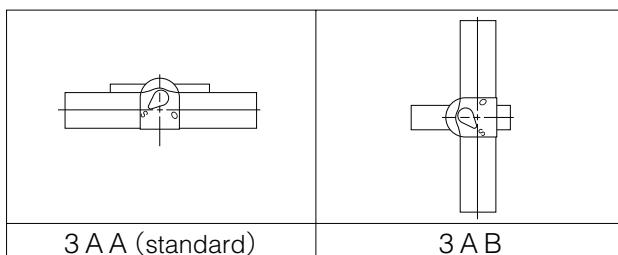
Remark: Value in brackets is for JIS 10K flanges.

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

704G-3A



3A Installation direction



Single-acting pneumatic cylinder type 704G-7G (Air to open: 50mm to 250mm) / 704G-7F (Air to close: 50mm to 250mm)

■ Standard

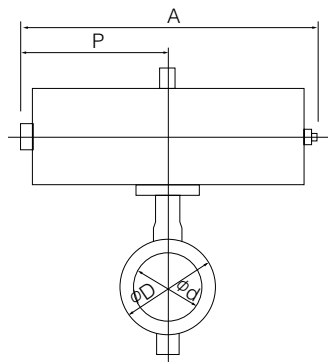
Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
mm	inch	φd	φD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
			JIS5K	JIS10K										
50	2	56	90	90	43	85	138	168	364	183	75	47	T85S	9
65	2 1/2	69	115	115	46	94	151	203	449	226	79	57	T200S	15
80	3	84	126	190	46	109	156	203	449	226	79	57	T200S	15 (16)
100	4	104	223	223	52	117	167	203	449	226	79	57	T200S	19
125	5	130	250	250	56	143	191	231	550	276	91	69	T380S	30
150	6	153.5	276	276	56	164	202	231	550	276	91	69	T380S	33
200	8	199	334	329	60	176	227	269	723	360	118	85	T750S	52 (53)
250	10	253	402	402	68	215	280	269	723	360	118	85	T750S	65

■ Heavy duty

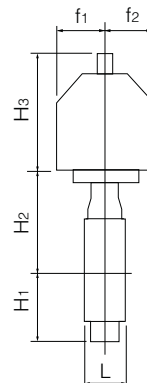
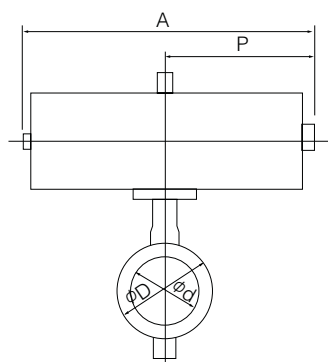
Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
mm	inch	φd	φD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
			JIS5K	JIS10K										
50	2	56	90	90	43	85	138	168	364	183	75	47	T85S	9
65	2 1/2	69	115	115	46	94	151	203	449	226	79	57	T200S	15
80	3	84	126	190	46	109	156	203	449	226	79	57	T200S	15 (16)
100	4	104	223	223	52	117	167	231	550	276	91	69	T380S	27
125	5	130	250	250	56	143	191	231	550	276	91	69	T380S	30
150	6	153.5	276	276	56	164	202	269	723	360	118	85	T750S	47

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

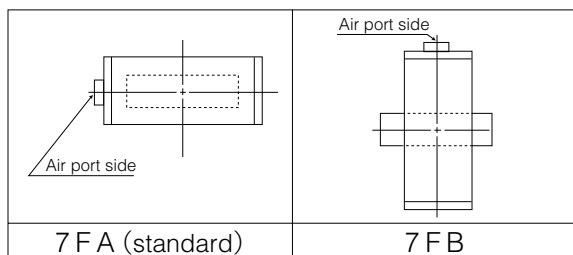
■ 704G-7F



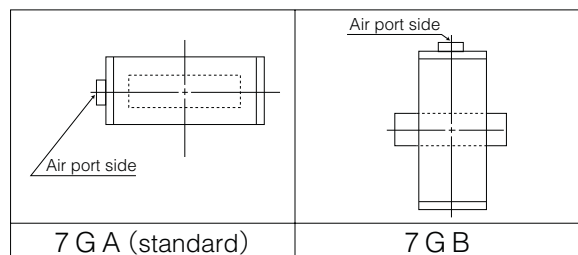
■ 704G-7G



■ 7F Installation direction



■ 7G Installation direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

704G (Full lugged)

Single-acting pneumatic cylinder type 704G-3U (Air to open: 200mm to 600mm) / 704G-3K (Air to close: 200mm to 600mm)

Standard

Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
			JIS5K	JIS10K										
250	10	253	402	402	68	215	280	307	945	585	70	165	TG-10S	88
300	12	302	472	438	78	253	312	307	1080	720	94	206	TG-12S	145 (143)
350	14	337	533	505	78	276	348	307	1080	720	94	206	TG-12S	171 (171)
400	16	394	597	597	102	338	383	340	1255	865	131	257	TG-14S	305
450	18	441	634	626	114	368	413	340	1255	865	131	257	TG-14S	330 (333)
500	20	492	696	696	127	403	453	474	1655	1095	164	348	TG-20S	590
600	24	584	820	795	154	458	528	474	1655	1095	164	348	TG-20S	686 (680)

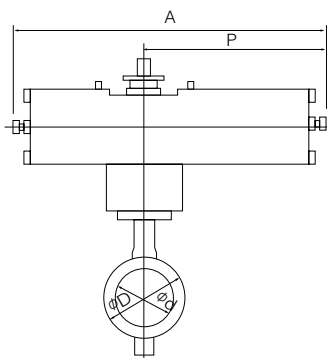
Heavy duty

Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
			JIS5K	JIS10K										
200	8	199	334	329	60	186	227	307	945	585	70	165	TG-10S	75 (77)
250	10	253	402	402	68	215	280	307	1080	720	94	206	TG-12S	133
300	12	302	472	438	78	253	312	307	1080	720	94	206	TG-12S	145 (143)
350	14	337	533	505	78	276	348	340	1255	865	131	257	TG-14S	267 (267)
400	16	394	597	597	102	338	383	340	1255	865	131	257	TG-14S	305
450	18	441	634	626	114	368	413	474	1655	1095	164	348	TG-20S	543 (546)
500	20	492	696	696	127	403	453	474	1655	1095	164	348	TG-20S	590
600	24	584	820	795	154	458	528	474	1655	1095	164	348	TG-20S	686 (680)

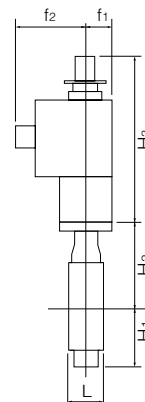
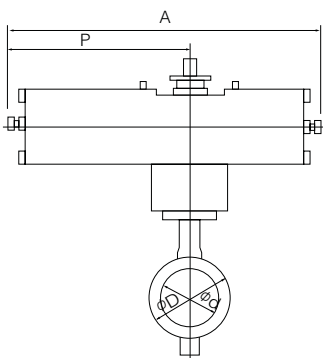
Remark: Value in brackets is for JIS 10K flanges.

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

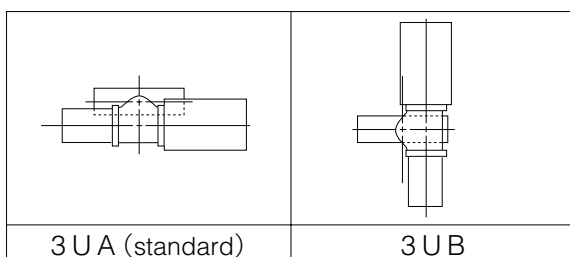
704G-3U



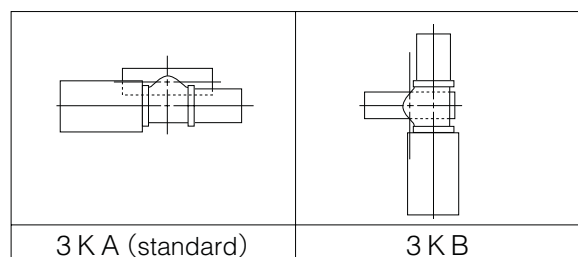
704G-3K



3U Installation direction



3K Installation direction



Single phase electric motor type 704G-4I (50mm to 500mm)

Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	F	K		
			JIS5K	JIS10K										
50	2	56	90	90	43	85	138	120	161	84	58	45	4 I-00	5.9
								150	202	100	85	54	4 I-0	6.7
65	2 1/2	69	115	115	46	94	151	150	202	100	85	54	4 I-0	7.7 (9)
80	3	84	126	190	46	109	156	150	202	100	85	54	4 I-0	8.2
100	4	104	223	223	52	117	167	165	252	138	126	65	4 I-1	13.8
125	5	130	250	250	56	143	191	198	310	167	154	85	4 I-2	21.8
150	6	153.5	276	276	56	164	202	198	310	167	154	85	4 I-2	25 (31.7)
200	8	199	334	329	60	186	227	198	310	167	154	85	4 I-2.5	30.2
250	10	253	402	402	68	215	280	198	310	167	154	85	4 I-2.5	45 (66)
300	12	302	472	438	78	253	312	230	388	223	246	136	4 I-3	68 (93)
350	14	337	533	505	78	276	348	230	388	223	246	136	4 I-3	93
400	16	394	597	597	102	338	383	230	388	223	246	136	4 I-3	130
								255	388	223	246	136	4 I-4	136 (164)
450	18	441	634	626	114	368	413	230	388	223	246	136	4 I-4	161
500	20	492	696	696	127	403	453	230	388	223	246	136	4 I-4	208

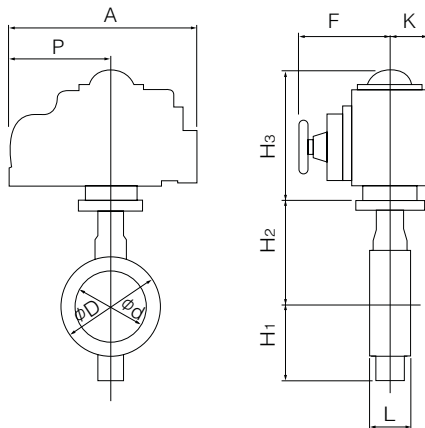
Note 1: For nominal size 50 mm (for control), the 4I-0 type should be selected. (The 4I-00 type is only designed for ON-OFF operation.)

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

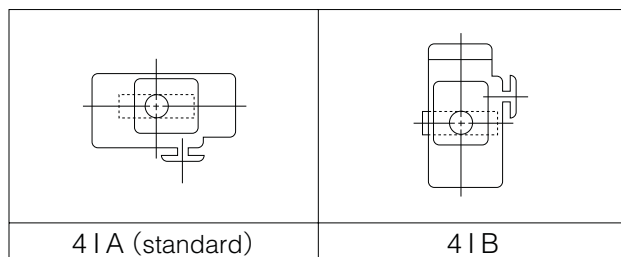
Remark: For 300mm with the accessories below, type 4I-4 should be selected.

- Micom unit
- Servo unit
- Speed control unit
- Potentiometer

704G-4 I



4I Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

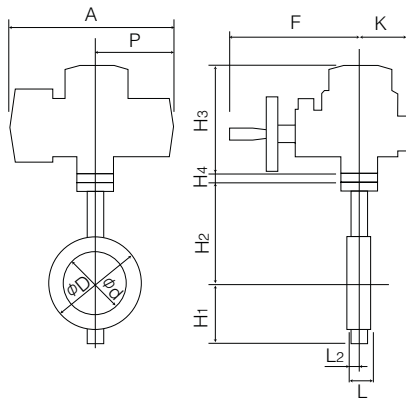
903C

Three phase motor actuator type 704G-4J (50mm to 300mm)

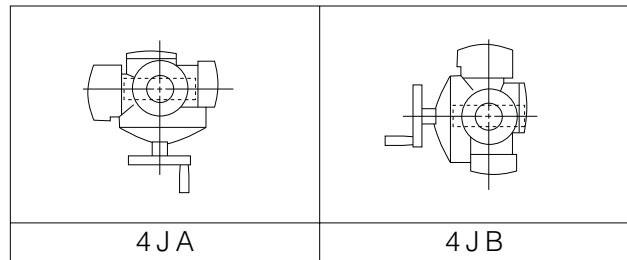
Nominal size		Dimension (mm)												Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	H ₄	A	P	F	K		
			JIS5K	JIS10K											
50	2	56	90	90	43	85	138	218	3.2	353	167	286	104	SRJ-010	15.5
65	2 1/2	69	115	115	46	94	151	218	3.2	353	167	286	104	SRJ-010	16.5(17.8)
80	3	84	126	190	46	109	156	218	3.2	353	167	286	104	SRJ-010	17
100	4	104	223	223	52	117	167	218	3.2	353	167	286	104	SRJ-010	10.4
125	5	130	250	250	56	143	191	218	15	353	167	286	104	SRJ-020	23.6
150	6	153.5	276	276	56	164	202	218	15	353	167	286	104	SRJ-020	26.8
200	8	199	334	329	60	186	227	235	3.2	393	191	330	130	SRJ-060	37
250	10	253	402	402	68	215	280	235	3.2	393	191	330	130	SRJ-060	50 (33.5)
300	12	302	472	438	78	253	312	235	20	393	191	330	130	SRJ-060	62 (42)

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

704G-4J



4J Installation direction

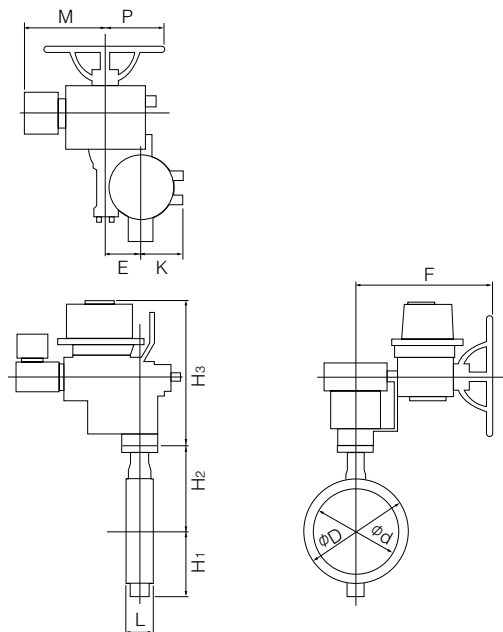


Three phase motor actuator type 704G-4L (350mm to 600mm)

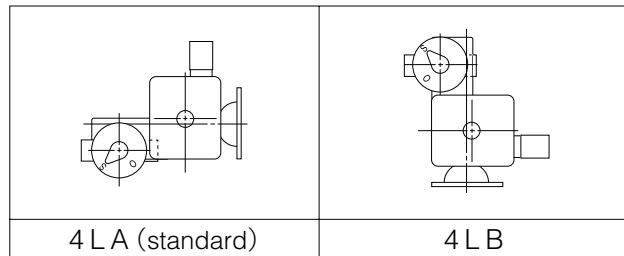
Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)	
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	E	K	F	M			P
			JIS5K	JIS10K											
350	14	337	533	505	78	276	348	487	117	164	533	357	230	LTKD-01 0.2kW /MGH-3	171 (171)
400	16	394	597	597	102	338	383	487	117	164	533	357	230	LTKD-01 0.2kW /MGH-3	208
450	18	441	634	626	114	368	413	487	117	164	533	370	230	LTKD-01 0.4kW /MGH-3	237 (240)
500	20	492	696	696	127	403	453	487	117	164	533	370	230	LTKD-01 0.4kW /MGH-3	284
600	24	584	820	795	154	458	528	590	140	198	637	440	375	LTKD-05 0.75kW /MGH-4	482 (476)

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

704G-4L



4L Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/
732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H
(MKT)

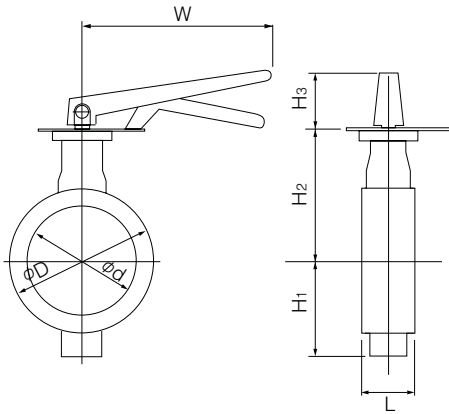
903C

705G (Semi lugged)

Lock lever type 705G-1T (50mm to 200mm)

Nominal size		Dimension (mm)							Lever type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	W		
50	2	56	90	43	85	138	66	200	1T-1	3.1
65	2 1/2	69	115	46	94	151	66	200	1T-1	4.1
80	3	84	126	46	109	156	66	200	1T-1	4.6
100	4	104	146	52	117	167	66	200	1T-1	5.6
125	5	130	181	56	143	191	92	300	1T-2	9.3
150	6	153	211	56	164	202	92	300	1T-2	12.3
200	8	199.0	256	60	186	227	97	350	1T-3	16.7

705G-1T



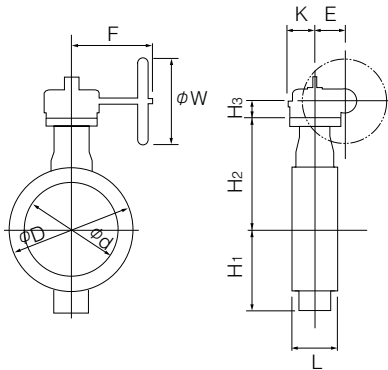
1T Installation direction

1T LS (standard)	1T LR	1T RS	1T RR
1T XS	1T XR	1T VS	1T VR

Worm gear type 705G-2U (50mm to 600mm)

Nominal size		Dimension (mm)										Gear type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	W		
50	2	56	90	43	85	138	29.5	36	46	160	100	2U-0	4.8
65	2 1/2	69	115	46	94	151	29.5	36	46	160	100	2U-0	5.8
80	3	84	126	46	109	156	29.5	36	46	160	100	2U-1	6.3
100	4	104	146	52	117	167	29.5	36	46	160	100	2U-1	7.3
125	5	130	181	56	143	191	34.5	44	53	173.5	160	2U-2	12.2
150	6	153.5	211	56	164	202	34.5	44	53	173.5	160	2U-2	16
200	8	199	256	60	186	227	41.5	67	75	198	200	2U-3	23
250	10	253	322	68	215	280	41.5	67	75	198	200	2U-3	32
300	12	302	367	78	253	312	48	87	90	222.5	200	2U-4	45
350	14	337	410	78	276	348	48	87.5	90	222.5	280	2U-4	63
400	16	394	469	102	338	383	50	90	105	266	280	2U-5	88
450	18	441	525	114	368	413	50	90	105	266	280	2U-5	112
500	20	492	580	127	403	453	50	90	105	266	280	2U-5	143
600	24	584	682	154	458	528	61	113	140	352	400	2U-6	222

■705G-2U



■2U Installation direction

2 U A (standard)	2 U AR	2 U B	2 U BR

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

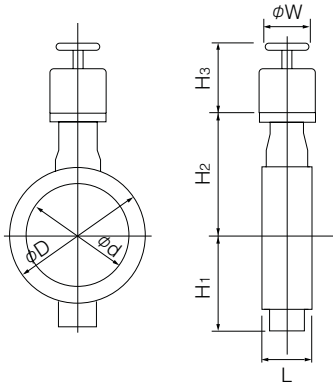
903C

705G (Semi lugged)

Center handle type 705G-2G (50mm to 300mm) / 705G-2R (350mm to 600mm)

Nominal size		Dimension (mm)							Center handle type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	W		
50	2	56	90	43	85	138	136	100	2G-1	5.4
65	2 1/2	69	115	46	94	151	136	100	2G-1	6.4
80	3	84	126	46	109	156	136	100	2G-1	6.9
100	4	104	146	52	117	167	136	100	2G-1	7.9
125	5	130	181	56	143	191	133	100	2G-2	11.8
150	6	153.5	211	56	164	202	133	100	2G-2	14.8
200	8	199	256	60	186	227	151	200	2G-3	22.1
250	10	253	322	68	215	280	151	200	2G-3	32
300	12	302	367	78	253	312	161	200	2G-4	39
350	14	337	410	78	276	348	409	355	2R-3	80
400	16	394	469	102	338	383	409	355	2R-3	105
450	18	441	525	114	368	413	409	355	2R-3	130
500	20	492	580	127	403	453	409	355	2R-3	161
600	24	584	682	154	458	528	498	450	2R-4	244

705G-2G/2R



Double-acting pneumatic cylinder type 705G-7E (50mm to 350mm)

Standard

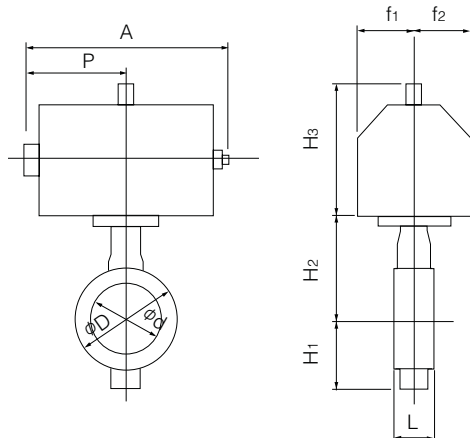
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
50	2	56	90	43	85	138	125	228	116	57	29	T35	5
65	2 1/2	69	115	46	94	151	125	228	116	57	29	T35	6
80	3	84	126	46	109	156	168	276	142	75	47	T85	9
100	4	104	146	52	117	167	168	276	142	75	47	T85	10
125	5	130	181	56	143	191	168	276	142	75	47	T85	13
150	6	153.5	211	56	164	202	203	346	176	79	57	T200	19
200	8	199	256	60	186	227	231	423	214	91	69	T380	29
250	10	253	322	68	215	280	231	423	214	91	69	T380	38
300	12	302	367	78	253	312	269	546	270	118	85	T750	55
350	14	337	410	78	276	348	324	546	270	118	85	T750	79

Heavy duty

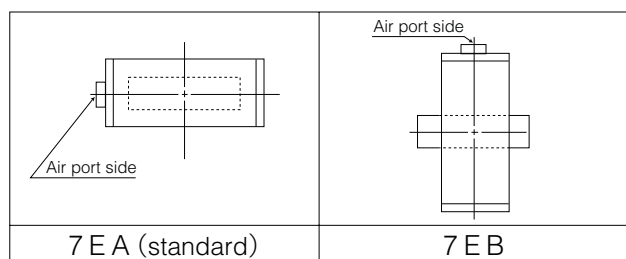
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
50	2	56	90	43	85	138	125	228	116	57	29	T35	5
65	2 1/2	69	115	46	94	151	125	228	116	57	29	T35	6
80	3	84	126	46	109	156	168	276	142	75	47	T85	9
100	4	104	146	52	117	167	203	346	176	79	57	T200	13
125	5	130	181	56	143	191	203	346	176	79	57	T200	16
150	6	153.5	211	56	164	202	203	346	176	79	57	T200	19
200	8	199	256	60	186	227	231	423	214	91	69	T380	29
250	10	253	322	68	215	280	231	423	214	91	69	T380	38
300	12	302	367	78	253	312	269	546	270	118	85	T750	55

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

705G-7E



7E Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

Double-acting pneumatic cylinder type 705G-3A (400mm to 600mm)

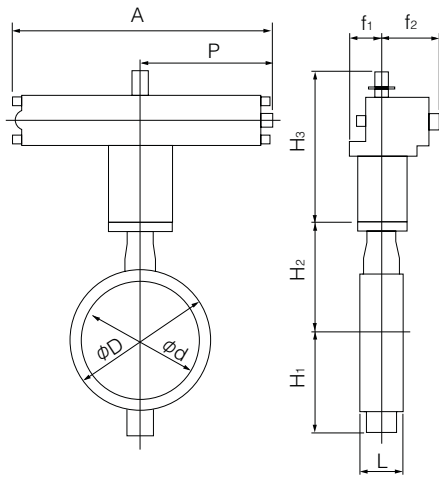
Standard

Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
400	16	394	469	102	338	383	364	743	381	100	164	TGA-125	110
450	18	441	525	114	368	413	412	810	417	100	180	TGA-140	150
500	20	492	580	127	403	453	465	939	483	130	202	TGA-160	217
600	24	584	682	154	458	528	478	1053	543	130	218	TGA-180	330

Heavy duty

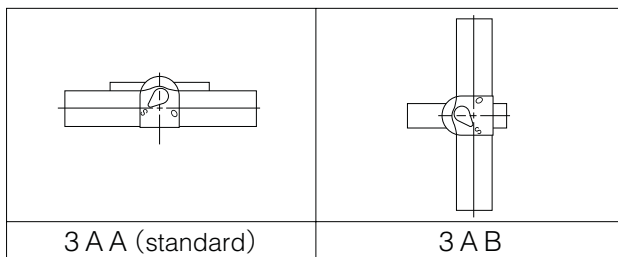
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
350	14	337	410	78	276	348	364	743	381	100	164	TGA-125	85
400	16	394	469	102	338	383	412	810	417	100	180	TGA-140	124
450	18	441	525	114	368	413	465	939	483	130	202	TGA-160	197
500	20	492	580	127	403	453	465	939	483	130	202	TGA-160	217
600	24	584	682	154	458	528	525	1163	599	160	253	TGA-200	390

705G-3A



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

3A Installation direction



Single-acting pneumatic cylinder type 705G-7G (Air to open: 50mm to 250mm) / 705G-7F (Air to close: 50mm to 250mm)

■ Standard

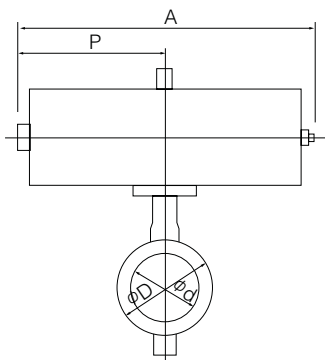
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
50	2	56	90	43	85	138	168	364	183	75	47	T85S	9
65	2 1/2	69	115	46	94	151	203	449	226	79	57	T200S	14
80	3	84	126	46	109	156	203	449	226	79	57	T200S	15
100	4	104	146	52	117	167	203	449	226	79	57	T200S	16
125	5	130	181	56	143	191	231	550	276	91	69	T380S	27
150	6	153.5	211	56	164	202	231	550	276	91	69	T380S	30
200	8	199	256	60	186	227	269	723	360	118	85	T750S	48
250	10	253	322	68	215	280	269	723	360	118	85	T750S	57

■ Heavy duty

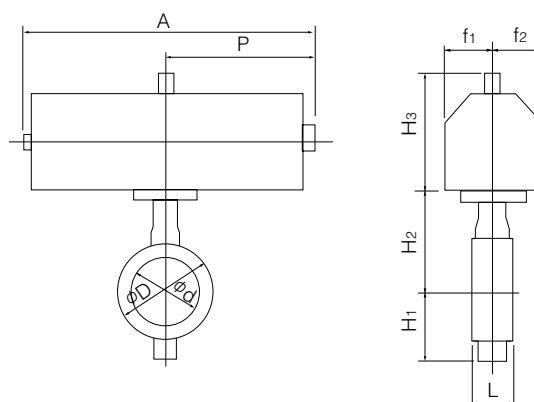
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
50	2	56	90	43	85	138	168	369	183	75	47	T85S	9
65	2 1/2	69	115	46	94	151	203	449	226	79	57	T200S	14
80	3	84	126	46	109	156	203	449	226	79	57	T200S	15
100	4	104	146	52	117	167	231	550	276	91	69	T380S	24
125	5	130	181	56	143	191	231	550	276	91	69	T380S	27
150	6	153.5	211	56	164	202	269	723	360	118	85	T750S	44

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

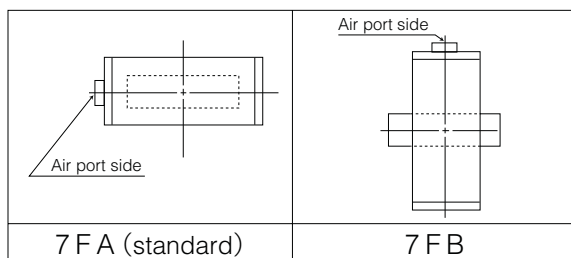
■ 705G-7F



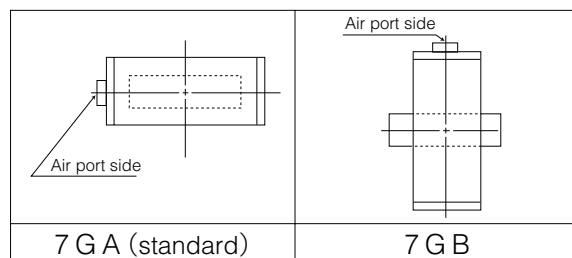
■ 705G-7G



■ 7F Installation direction



■ 7G Installation direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

705G (Semi lugged)

Single-acting pneumatic cylinder type 705G-3U (Air to open: 200mm to 600mm) / 705G-3K (Air to close: 200mm to 600mm)

Standard

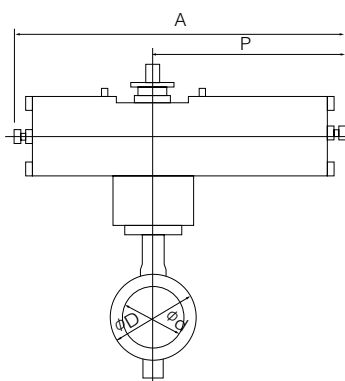
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
250	10	253	322	68	215	280	307	945	585	70	165	TG-10S	80
300	12	302	367	78	253	312	307	1080	720	94	206	TG-12S	132
350	14	337	410	78	276	348	307	1080	720	94	206	TG-12S	148
400	16	394	469	102	338	383	340	1255	865	131	257	TG-14S	270
450	18	441	525	114	368	413	340	1255	865	131	257	TG-14S	294
500	20	492	580	127	403	453	474	1655	1095	164	348	TG-20S	538
600	24	584	682	154	458	528	474	1655	1095	164	348	TG-20S	602

Heavy duty

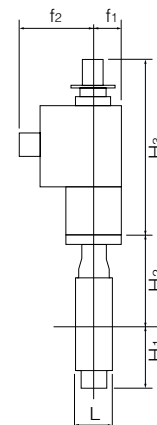
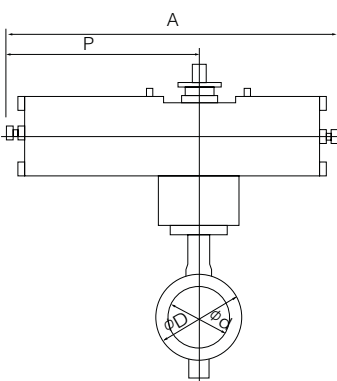
Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
200	8	199	256	60	186	227	307	945	585	70	165	TG-10S	71
250	10	253	322	68	215	280	307	1080	720	94	206	TG-12S	125
300	12	302	367	78	253	312	307	1080	720	94	206	TG-12S	132
350	14	337	410	78	276	348	340	1255	865	131	257	TG-14S	244
400	16	394	469	102	338	383	340	1255	865	131	257	TG-14S	270
450	18	441	525	114	368	413	474	1655	1095	164	348	TG-20S	507
500	20	492	580	127	403	453	474	1655	1095	164	348	TG-20S	538
600	24	584	682	154	458	528	474	1655	1095	164	348	TG-20S	602

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

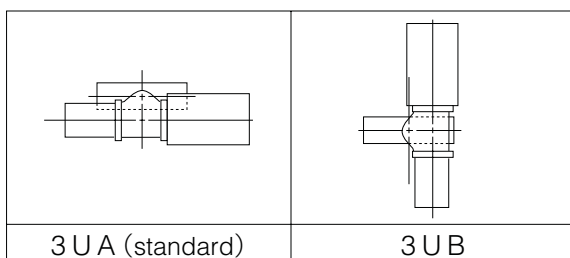
705G-3U



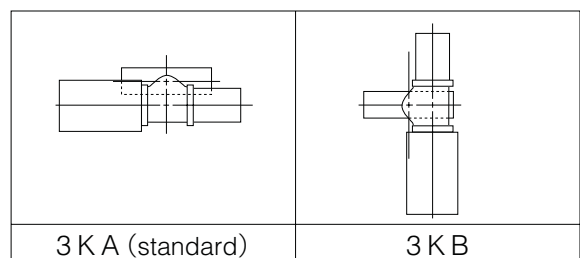
705G-3K



3U Installation direction



3K Installation direction



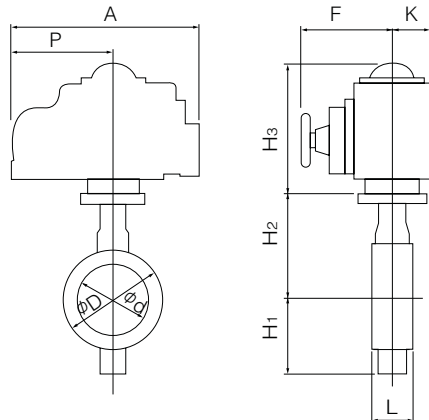
Single phase electric motor type 705G-4I (50mm to 500mm)

Nominal size		Dimension (mm)										Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	F	K		
50	2	56	90	43	85	138	120	161	84	58	45	4 I-00	5.3
							150	202	100	85	54	4 I-0	6.7
65	2 1/2	69	115	46	94	151	150	202	100	85	54	4 I-0	7.7
80	3	84	126	46	109	156	150	202	100	85	54	4 I-0	8.2
100	4	104	146	52	117	167	165	252	138	126	65	4 I-1	11.4
125	5	130	181	56	143	191	198	310	167	154	85	4 I-2	19.2
150	6	153.5	211	56	164	202	198	310	167	154	85	4 I-2	22.2
200	8	199	256	60	186	227	198	310	167	154	85	4 I-2.5	26.2
250	10	253	322	68	215	280	198	310	167	154	85	4 I-2.5	37
300	12	302	367	78	253	312	230	388	223	246	136	4 I-3	55
350	14	337	410	78	276	348	230	388	223	246	136	4 I-3	70
400	16	394	469	102	338	383	230	388	223	246	136	4 I-3	95
							255	388	223	246	136	4 I-4	101
450	18	441	525	114	368	413	230	388	223	246	136	4 I-4	125
500	20	492	580	127	403	453	230	388	223	246	136	4 I-4	156

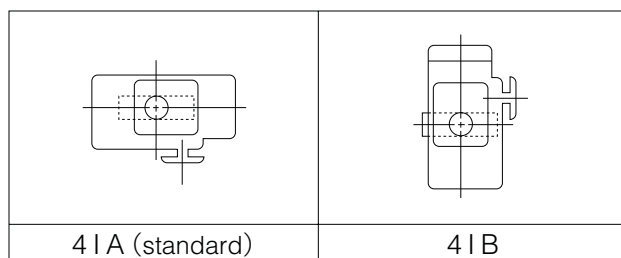
Note 1: For nominal size 50 mm type (for control), the 4I-0 type should be selected. (The 4I-00 type is only designed for ON-OFF operation.)
 Remark: For 400mm type with the accessories below, type 4I-4 should be selected.

- Microm unit
- Servo unit
- Speed control unit
- Potentiometer

705G-4 I



4 I Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

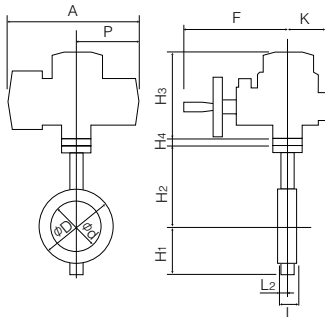
907H/908H (MKT)

903C

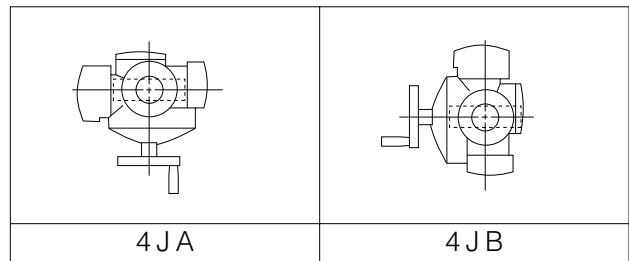
Three phase motor actuator type 705G-4J (50mm to 300mm)

Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	H ₄	A	P	F	K		
50	2	56	90	43	85	138	218	3.2	353	167	286	104	SRJ-010	16.2
65	2 1/2	69	115	46	94	151	218	3.2	353	167	286	104	SRJ-010	17.2
80	3	84	126	46	109	156	218	3.2	353	167	286	104	SRJ-010	17.7
100	4	104	146	52	117	167	218	3.2	353	167	286	104	SRJ-010	18.5
125	5	130	181	56	143	191	218	15	353	167	286	104	SRJ-020	22.2
150	6	153.5	211	56	164	202	218	15	353	167	286	104	SRJ-020	25
200	8	199	256	60	186	227	235	3.2	393	191	330	130	SRJ-060	43
250	10	253	322	68	215	280	235	3.2	393	191	330	130	SRJ-060	56
300	12	302	367	78	253	312	235	20	393	191	330	130	SRJ-060	67

705G-4J



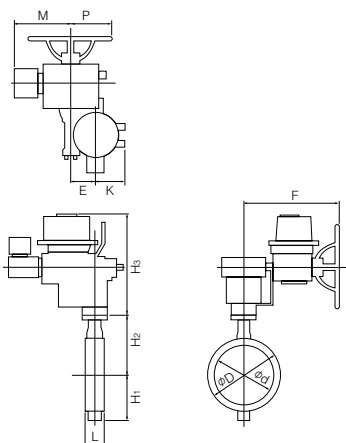
4J Installation direction



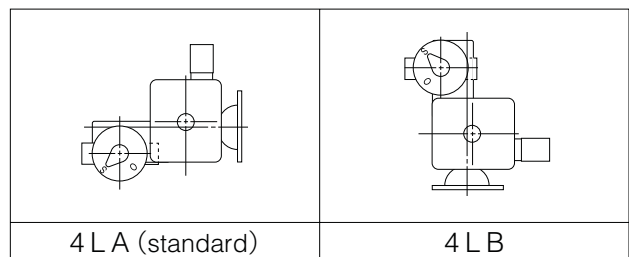
Three phase motor actuator type 705G-4L (350mm to 600mm)

Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	M	P		
350	14	337	410	78	276	348	487	117	164	533	357	230	LTKD-01 0.2kW /MGH-3	148
400	16	394	469	102	338	383	487	117	164	533	357	230	LTKD-01 0.2kW /MGH-3	173
450	18	441	525	114	368	413	487	117	164	533	370	230	LTKD-01 0.4kW /MGH-3	201
500	20	492	580	127	403	453	487	117	164	533	370	230	LTKD-01 0.4kW /MGH-3	232
600	24	584	682	154	458	528	590	140	198	637	440	375	LTKD-05 0.75kW /MGH-4	398

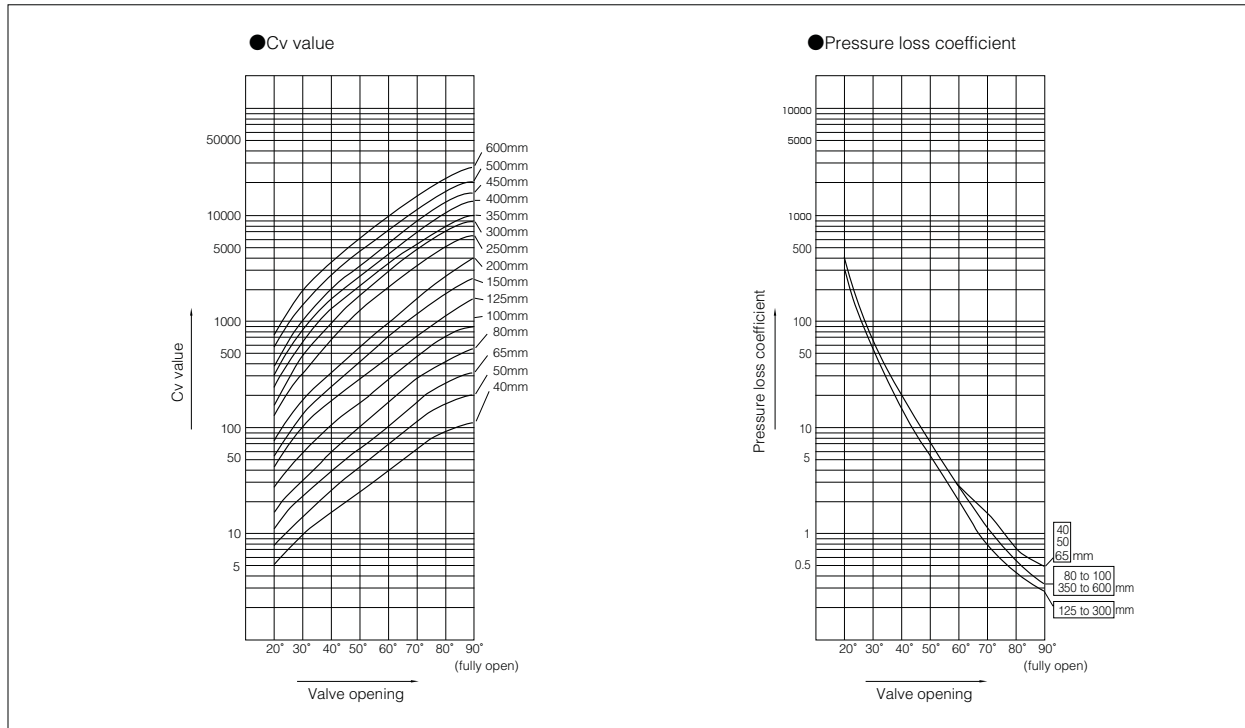
705G-4L



4L Installation direction



700G/704G/705G Cv value/pressure loss coefficient



- Butterfly Valve
- TRITEC**
- TT2**
- 334A**
- 302A/303Q**
- 304A/304Q**
- 302Y/304Y**
- 304M (HLV)**
- 507V/508V**
- DTM**
- 846T/847T/847Q**
- 841T/842T**
- 700Z**
- 700G/704G/705G**
- 700GB**
- 731P/732P/732Q/752W**
- 71LG**
- 700E/700K/700S**
- 704G/722F/720F**
- KRV**
- 227P**
- 907H/908H (MKT)**
- 903C**

700G/704G/705G Cv value

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
40	1 1/2	5	9	16	25	39	61	95	121
50	2	8	15	25	40	64	103	160	200
65	2 1/2	12	25	41	64	102	162	260	320
80	3	15	33	57	95	163	271	450	580
100	4	27	58	100	162	269	444	749	880
125	5	45	109	189	295	453	719	1144	1590
150	6	60	148	262	423	685	1147	1897	2800
200	8	67	188	347	576	969	1698	2902	4300
250	10	130	351	675	1225	2125	3375	5091	6200
300	12	194	487	972	1764	3011	4966	7412	8900
350	14	232	662	1350	2030	3294	5167	7832	9620
400	16	468	964	1648	2724	4529	6815	10553	12700
450	18	583	1202	2068	3448	5692	8384	13116	15500
500	20	758	1555	2656	4379	7214	10845	17100	19800
600	24	1037	2141	3681	6129	10106	14911	22827	27300

700G (Wafer) / 704G (Full lugged) / 705G (Semi lugged)

700G / 704G / 705G Pressure Loss Coefficient

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
40	1 1/2	264	72	26	10	4	2	1	0.4
50	2	257	68	25	10	4	2	1	0.4
65	2 1/2	310	75	28	11	4	2	1	0.4
80	3	394	83	27	10	3	1	0.4	0.2
100	4	350	78	26	10	4	1	0.4	0.3
125	5	316	53	18	7	3	1	0.4	0.2
150	6	348	57	18	7	3	1	0.3	0.1
200	8	849	106	31	11	4	1	0.4	0.2
250	10	528	72	20	6	2	1	0.3	0.2
300	12	488	78	20	6	2	1	0.3	0.2
350	14	531	65	16	7	3	1	0.4	0.3
400	16	227	54	18	7	2	1	0.4	0.3
450	18	239	56	19	7	3	1	0.4	0.3
500	20	218	52	18	7	2	1	0.4	0.3
600	24	247	58	20	7	3	1	1	0.3

700G Applicable Flange Standard

Nominal size		JIS		ANSI		BS4504		DIN		BS10
mm	inch	5K	10K	125Lb	150Lb	PN10	PN16	NP10	NP16	Table E
40	1 1/2	○	○	○	○	○	○	○	○	○
50	2	○	○	○	○	○	○	○	○	○
65	2 1/2	○	○	○	○	○	○	○	○	△
80	3	○	○	◎	◎	◎	◎	◎	◎	○
100	4	○	○	◎	◎	◎	◎	◎	◎	○
125	5	○	○	◎	◎	◎	◎	◎	◎	○
150	6	○	○	○	○	○	○	○	○	○
200	8	○	○	◎	◎	◎	◎	◎	◎	○
250	10	○	○	○	○	○	○	○	○	○
300	12	○	○	◎	◎	◎	◎	◎	◎	○
350	14	○	○	×	×	×	×	×	×	×
400	16	○	○	×	×	×	×	×	×	×
450	18	○	○	×	×	×	×	×	×	×
500	20	○	○	×	×	×	×	×	×	×
600	24	T	T	×	×	×	×	×	×	×

- : Can be used without flange drilling.
- ◎ : Can be used without flange drilling. (Use ANSI body.)
- △ : With additional flange drilling.
- T : With flange tapping.
- × : Not applicable.

704G Applicable Flange Standard

Nominal size		JIS		ANSI		BS4504		DIN		BS10
mm	inch	5K	10K	125Lb	150Lb	PN10	PN16	NP10	NP16	Table E
50	2	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T
65	2 1/2	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T
80	3	◎D/T	○D/T	◎D/T	◎D/T	○D/T	○D/T	○D/T	○D/T	◎D/T
100	4	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T
125	5	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T
150	6	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T
200	8	◎D/T	○D/T	◎D/T	◎D/T	◎D/T	○D/T	◎D/T	○D/T	◎D/T
250	10	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T
300	12	◎D/T	○D/T	◎D/T	◎D/T	◎D/T	◎D/T	◎D/T	◎D/T	◎D/T
350	14	◎D/T	○D/T	◎D/T	◎D/T	○D/T	○D/T	○D/T	○D/T	◎D/T
400	16	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	△D/T
450	18	◎D/T	○D/T	◎D/T	◎D/T	○D/T	○D/T	○D/T	○D/T	○D/T
500	20	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	○D/T	△D/T
600	24	◎T	○T	◎T	◎T	◎T	◎T	◎T	◎T	△T

○D/T: Drilled or tapped hole
 ◎D/T: Drilled or tapped hole (JIS 5K / ANSI body used)
 △D/T: Drilled or tapped hole (DIN body used)
 ○T: Tapped hole only
 ◎T: Tapped hole only (JIS 5K / ANSI body used)
 △T: Tapped hole only (DIN body used)

705G Applicable Flange Standard

Nominal size		JIS		ANSI		BS4504		DIN		BS10
mm	inch	5K	10K	125Lb	150Lb	PN10	PN16	NP10	NP16	Table E
50	2	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
65	2 1/2	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
80	3	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
100	4	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
125	5	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
150	6	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
200	8	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
250	10	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
300	12	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
350	14	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
400	16	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
450	18	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
500	20	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T	D/T
600	24	T	T	T	T	T	T	T	T	T

D/T: Drilled or tapped hole
 T: Tapped hole only

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

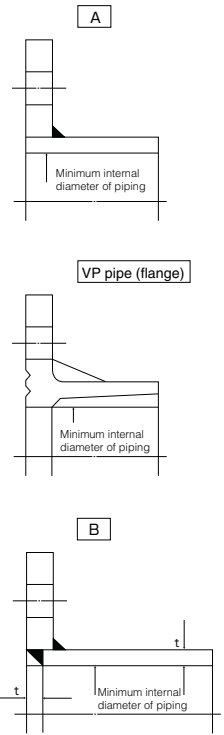
903C

700G / 704G / 705G Applicable Pipe List in Case of **A**

Nominal size		SGP	STPY	Sch20	Sch40	VP (TS flange)	Sch10S	Sch20S	Minimum internal diameters of piping (mm)
mm	inch								
40	1 1/2	○	—	—	○	○	○	○	25
50	2	○	—	○	○	○	○	○	34
65	2 1/2	○	—	○	○	○	○	○	51
80	3	○	—	○	○	○	○	○	70
100	4	○	—	○	○	○	○	○	91
125	5	○	—	○	○	○	○	○	118
150	6	○	—	○	○	○	○	○	144
200	8	○	—	○	○	○	○	○	194
250	10	○	—	○	○	○	○	○	246
300	12	○	—	○	○	○	○	○	294
350	14	○	○	○	○	○	—	—	330
400	16	○	○	○	○	—	—	—	381
450	18	○	○	○	○	—	—	—	427
500	20	○	○	○	○	—	—	—	477
600	24	—	○	○	○	—	—	—	567

700G / 704G / 705G Applicable Pipe List in Case of **B**

Nominal size		SGP	STPY	Sch20	Sch40	Sch10S	Sch20S
mm	inch						
40	1 1/2	○	—	—	○	○	○
50	2	○	—	○	○	○	○
65	2 1/2	○	—	○	○	○	○
80	3	○	—	○	○	○	○
100	4	○	—	○	○	○	○
125	5	○	—	○	○	○	○
150	6	○	—	○	○	○	○
200	8	○	—	○	○	○	○
250	10	○	—	○	○	○	○
300	12	○	—	○	○	○	○
350	14	○	○	○	○	—	—
400	16	○	○	○	○	—	—
450	18	○	○	○	○	—	—
500	20	○	○	○	○	—	—
600	24	—	○	○	○	—	—



Remark 1: The symbols above mean the following.
 ○: Piping possible —: Not standardized

Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.
 In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter,
 use is still possible if means are taken such as inserting a spacer between the valve and flange.
 For details, please consult us.

700G Piping Bolts and Nuts Sizes

■ For Hexagon Bolts and Nuts

Nominal size		JIS 5K		JIS 10K	
mm	inch	Hexagon Bolts and Nuts	Setting Bolts	Hexagon Bolts and Nuts	Setting Bolts
40	1 1/2	4-M12× 75×30	—	4-M16× 90×38	—
50	2	4-M12× 90×30	—	4-M16×100×38	—
65	2 1/2	4-M12× 90×30	—	4-M16×105×38	—
80	3	4-M16× 95×38	—	8-M16×105×38	—
100	4	8-M16×105×38	—	8-M16×110×38	—
125	5	8-M16×110×38	—	8-M20×125×46	—
150	6	8-M16×115×38	—	8-M20×130×52	—
200	8	8-M20×130×52	—	12-M20×130×52	—
250	10	12-M20×140×52	—	12-M22×150×60	—
300	12	12-M20×150×52	—	16-M22×160×60	—
350	14	12-M22×155×45	—	16-M22×160×45	—
400	16	16-M22×180×45	—	16-M24×190×45	—
450	18	16-M22×190×45	—	20-M24×205×45	—
500	20	20-M22×205×45	—	20-M24×215×45	—
600	24	16-M24×235×50	8-M24× 70×54	20-M30×255×60	8-M30× 75×60

■ For Long Bolts and Nuts

Nominal size		JIS 5K		JIS 10K		ANSI 125Lb/150Lb	
mm	inch	Long Bolts and Nuts	Setting Bolts	Long Bolts and Nuts	Setting Bolts	Long Bolts and Nuts	Setting Bolts
40	1 1/2	4-M12× 95×25	—	4-M16×110×25	—	4-U1/2 ×110×32	—
50	2	4-M12×105×25	—	4-M16×120×30	—	4-U5/8 ×140×38	—
65	2 1/2	4-M12×110×25	—	4-M16×125×30	—	4-U5/8 ×140×38	—
80	3	4-M16×120×30	—	8-M16×125×30	—	4-U5/8 ×140×38	—
100	4	8-M16×130×30	—	8-M16×130×30	—	8-U5/8 ×150×38	—
125	5	8-M16×130×30	—	8-M20×150×40	—	8-U3/4 ×160×51	—
150	6	8-M16×140×35	—	8-M20×155×40	—	8-U3/4 ×165×51	—
200	8	8-M20×155×40	—	12-M20×165×40	—	8-U3/4 ×175×51	—
250	10	12-M20×165×40	—	12-M22×175×45	—	12-U7/8 ×195×58	—
300	12	12-M20×175×40	—	16-M22×185×45	—	12-U7/8 ×205×58	—
350	14	12-M22×185×45	—	16-M22×185×45	—	12-U1 ×225	—
400	16	16-M22×205×45	—	16-M24×220×50	—	16-U1 ×255	—
450	18	16-M22×225×45	—	20-M24×245×50	—	16-U1 1/8 ×280	—
500	20	20-M22×230×45	—	20-M24×265×50	—	20-U1 1/8 ×295	—
600	24	16-M24×275×50	8-M24× 70×54	20-M30×300×60	8-M30× 75×60	16-U1 1/4 ×340	8-U1 1/4×95×70

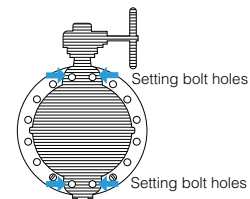
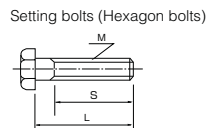
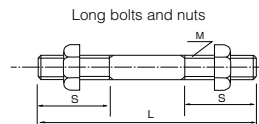
Remarks:

1. Please use a hexagon nut with 80% threading. (For ANSI, use heavy nut.)
 2. A unified screw should have 8 threads per inch if its nominal diameter exceeds 1 inch.
- * Nominal size "600 mm" requires hexagon bolt for setting.

Example

Long bolts: 12 - M22 × 185 × 45
 Quantity Nominal size (M) Length of bolt (L) Effective screw length (S)

Setting bolts: 4 - M30 × 95 × 65
 (Hexagon bolts) Quantity Nominal size (M) Length of bolt (L) Effective screw length (S)



704G Piping Bolts and Nuts Sizes

* Dimensions on the table show when the piping flange hole are tapped. For drilled holes, please consult us.

Nominal size		JIS 5K	JIS 10K	ANSI 125Lb	ANSI 150Lb	DIN NP10 BS 4504 PN10
mm	inch					
50	2	8-M12×30×28	8-M16×35×33	8-U 5/8×35×30	8-5/8-11UNC×38	8-M16×35×33
65	2 1/2	8-M12×35×33	8-M16×35×33	8-U 5/8×40×30	8-5/8-11UNC×40	8-M16×35×33
80	3	8-M16×35×33	16-M16×35×33	8-U 5/8×40×38	8-5/8-11UNC×45	16-M16×40×38
100	4	16-M16×40×38	16-M16×40×38	16-U 5/8×45×38	16-5/8-11UNC×45	16-M16×40×38
125	5	16-M16×40×38	16-M20×45×41	16-U 3/4×50×44	16-3/4-10UNC×50	16-M16×40×38
150	6	16-M16×40×38	16-M20×45×41	16-U 3/4×50×44	16-3/4-10UNC×50	16-M20×45×41
200	8	16-M20×45×41	24-M20×50×46	16-U 3/4×55×44	16-3/4-10UNC×55	16-M20×50×46
250	10	24-M20×50×46	24-M22×50×46	24-U 7/8×60×50	24-7/8- 9UNC×60	24-M20×55×50
300	12	24-M20×55×51	32-M22×55×51	24-U 7/8×60×50	24-7/8- 9UNC×60	24-M20×55×50
350	14	24-M22×60×50	32-M22×60×50	24-U1 ×70×57	24-1- 8UNC×70	32-M20×60×46
400	16	32-M22×60×50	32-M24×70×50	32-U1 ×75×57	32-1- 8UNC×70	32-M24×70×50
450	18	32-M22×60×50	40-M24×70×50	32-U1 · 1/8×85×63	32-1 · 1/8-8UN ×80	40-M24×70×50
500	20	40-M22×60×50	40-M24×70×50	40-U1 · 1/8×85×63	40-1 · 1/8-8UN ×80	40-M24×70×50
600	24	40-M24×70×50	48-M30×75×60	40-U1 · 1/4×95×70	40-1 · 1/4-8UN ×90	40-M27×80×60

Remarks:

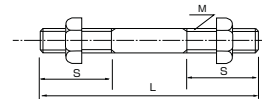
1. The bolt lengths are in accordance with thickness of steel flanges.
2. A unified screw should have 8 threads per inch if its nominal diameter exceeds 1 inch.
3. The list is exclusively for standard material "SS400".

Example

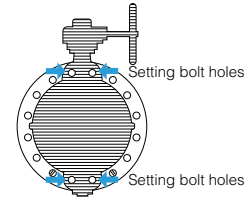
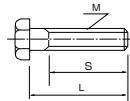
Long bolts: 12 - M22 × 185 × 45
 Quantity Nominal size (M) Length of bolt (L) Effective screw length (S)

Setting bolts: 4 - M30 × 95 × 65
 (Hexagon bolts) Quantity Nominal size (M) Length of bolt (L) Effective screw length (S)

Long bolts and nuts



Setting bolts (Hexagon bolts)



705G Piping Bolts and Nuts Sizes

■ For Hexagon Bolts and Nuts (Flange Bolt Hole: Tapped Holes)

Nominal size		JIS 5K		JIS 10K	
mm	inch	Hexagon Bolts and Nuts	Setting Bolts	Hexagon Bolts and Nuts	Setting Bolts
50	2	—	8-M12× 30×28	—	8-M16× 35×32
65	2 1/2	—	8-M12× 35×33	—	8-M16× 35×32
80	3	—	8-M16× 35×33	4-M16×110×40	8-M16× 35×32
100	4	4-M16×110×40	8-M16× 40×38	4-M16×110×40	8-M16× 40×38
125	5	4-M16×110×40	8-M16× 40×38	4-M20×120×50	8-M20× 45×41
150	6	4-M16×120×40	8-M16× 40×38	4-M20×130×50	8-M20× 45×41
200	8	4-M20×130×50	8-M20× 45×41	8-M20×135×50	8-M20× 50×46
250	10	8-M20×135×50	8-M20× 50×46	8-M22×150×60	8-M22× 55×50
300	12	8-M20×150×50	8-M20× 55×51	12-M22×160×60	8-M22× 60×55
350	14	8-M22×160×60	8-M22× 60×50	12-M22×160×40	8-M22× 60×50
400	16	12-M22×175×45	8-M22× 60×50	12-M24×190×45	8-M24× 70×50
450	18	12-M22×185×45	8-M22× 60×50	16-M24×205×45	8-M24× 70×50
500	20	16-M22×205×45	8-M22× 60×50	16-M24×215×45	8-M24× 70×50
600	24	16-M24×230×50	8-M24× 70×54	20-M30×255×50	8-M30× 70×60

■ For Long Bolts and Nuts (Flange Bolt Hole: Tapped Holes)

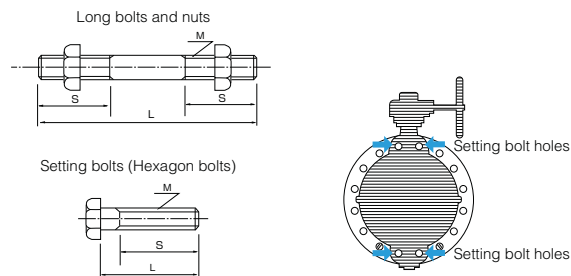
Nominal size		JIS5K		JIS10K		ANSI125Lb/150Lb	
mm	inch	Long Bolts and Nuts	Setting Bolts	Long Bolts and Nuts	Setting Bolts	Long Bolts and Nuts	Setting Bolts
50	2	—	8-M12× 30×28	—	8-M16× 35×33	—	8-U5/8-11UNC×35×30
65	2 1/2	—	8-M12× 35×33	—	8-M16× 35×33	—	8-U5/8-11UNC×40×30 (8-U5/8-11UNC×35×30)
80	3	—	8-M16× 35×33	4-M16×125×30	8-M16× 35×33	—	8-U5/8-11UNC×45×38 (8-U5/8-11UNC×40×30)
100	4	4-M16×130×30	8-M16× 40×38	4-M16×130×30	8-M16× 40×38	4-U5/8-11UNC×165×50	8-U5/8-11UNC×45×38
125	5	4-M16×130×30	8-M16× 40×38	4-M20×150×40	8-M20× 45×41	4-U3/4-10UNC×175×55	8-U3/4-10UNC×50×44
150	6	4-M16×140×35	8-M16× 40×38	4-M20×155×40	8-M20× 45×41	4-U3/4-10UNC×175×55	8-U3/4-10UNC×50×44
200	8	4-M20×155×40	8-M20× 45×41	8-M20×155×40	8-M20× 50×46	4-U3/4-10UNC×175×55	8-U3/4-10UNC×55×44
250	10	8-M20×165×40	8-M20× 50×46	8-M22×175×45	8-M22× 55×50	8-U7/8- 9UNC×215×55	8-U7/8- 9UNC×60×50
300	12	8-M20×175×40	8-M20× 55×51	12-M22×185×45	8-M22× 60×55	8-U7/8- 9UNC×215×55	8-U7/8- 9UNC×60×50
350	14	8-M22×185×45	8-M22× 60×50	12-M22×185×45	8-M22× 60×50	8-U1 - 8UNC×225	8-U1 - 8UNC×70×57
400	16	12-M22×205×45	8-M22× 60×50	12-M24×220×50	8-M24× 70×50	12-U1 - 8UNC×255	8-U1 - 8UNC×75×57
450	18	12-M22×225×45	8-M22× 60×50	16-M24×230×50	8-M24× 70×50	12-U1 1/8- 8UN×280	8-U1 1/8-8UN×85×63
500	20	16-M22×230×45	8-M22× 60×50	16-M24×245×50	8-M24× 70×50	16-U1 1/8- 8UN×295	8-U1 1/8-8UN×85×63
600	24	16-M24×275×50	8-M24× 70×54	20-M30×290×60	8-M30× 70×60	16-U1 1/4- 8UN×340	8-U1 1/4-8UN×95×70

Remarks:
 Bolt/Nut material: SS400/SS400, SUS304/SUS304
 The dimensions in parenthesis show ANSI125Lb. (for 65 mm and 80 mm)
 Heavy nut shall be used for ANSI125Lb/150Lb hexagon nuts.
 A unified screw should have 8 threads per inch if its nominal diameter exceeds 1 inch.

Example

Long bolts: 12 - M22 × 185 × 45
 Quantity Nominal size (M) Length of bolt (L) Effective screw length (S)

Setting bolts: 4 - M30 × 95 × 65
 (Hexagon bolts) Quantity Nominal size (M) Length of bolt (L) Effective screw length (S)



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

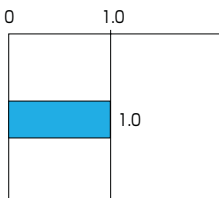
700GB



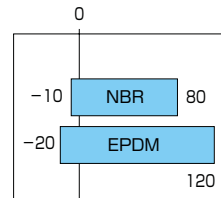
Valve nominal size

40 to 300mm

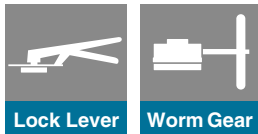
Max. working pressure MPa



Working temperature range °C

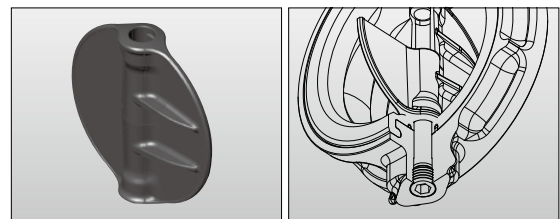


JIS JIS B 2032 Compliant
 (This product conforms to General Specifications for Machinery and Equipment of the Ministry of Land, Infrastructure, Transport and Tourism.)



Drastic cost reduction is achieved

- Cost reduction by simplifying the function
 - Manual (lever, gear) only
 - Disc material: SCS13; Seat ring material: NBR/EPDM only
 - 1MPa tight shut
- Further weight saving
 - Newly-designed ribbed thin disc
 - Aluminum die-cast gear
 - Reduced number of parts, adopting plug-in bottom cover
- Compliant with applicable standards, and maintainable
 - Compliant with JIS B 2032
 - Top flange complies with ISO5211
 - Replaceable seat ring



Newly-designed ribbed thin disc Plug-in bottom cover

To protect pipes, EPDM seat ring is recommended for the production line where calcium-containing chemicals are used.

846T/847T, which adopts fluorine resin seat, is recommended for a butterfly valve used in the production line where highly concentrated chlorine disinfectant is used.

[Warranty period]
Warranty shall cover one year from the start of the trial run or 1,000 operation cycles (with fresh water and at room temperature), whichever comes earlier.

Standard Specifications

Body type (Connection)	Concentric Rubber Seated Butterfly Valve (Wafer)		
Valve nominal size	40, 50, 65, 80, 100, 125, 150, 200, 250, 300mm		
Flange accommodation*1	JIS 5K/10K, GB/T9113.1 PN1.0, BS4504 PN10, DIN2632 PN10, ASME B16.1 Class 125, ASME B16.5 Class150		
Face-to-face dimensions	JIS B 2002 (Series 46)		
Max. working pressure	1.0MPa		
Allowable seat leakage rate	JIS B 2003 Rate A (Tight shut off)		
Flow direction	Bi-direction		
Test	Body shell test	1.5MPa (hydraulic) ※only JIS5K → 0.75MPa	
Pressure	Seat leak test	1.1MPa (pneumatic) ※only JIS5K → 0.55MPa	
Working temperature range*2	NBR: -10°C ~ 80°C, EPDM: -20°C ~ 120°C		
Allowable temperature in continuous use*3	NBR: 0°C ~ 60°C, EPDM: 0°C ~ 70°C		
Standard materials	Body	Ductile Iron JIS: FCD450	
	Disc*4	SCS13(A351 CF8) New Ribbed Disc	
	Stem*4	SUS420J2 (AISI420)	
	Seat ring	NBR, EPDM*5,6,7	
Top flange	ISO5211 compliant		
Actuator	Manual type*8		
Average fluid velocity limit in pipe (Limit value)	Under 3 m/s (Valve full-opened and continuous operation)		
Coating	Polyester epoxy powder coating (thermosetting) Munsell N7		

- ※1 Overseas flange with nominal valve size of 80, 200 or 300 mm has a special body. Overseas flange with nominal valve size of 65, 100 or 125 mm needs a little processing.
 ※2 Operating temperature range varies depending on seat ring material. Please contact our sales staff before use.
 ※3 Fluid temperature range for more than one hour of continuous use. It is required that the fluid does not freeze.
 ※4 Materials shown in (): equivalent materials in ASTM/AISI.
 ※5 If the fluid contains chlorine, seat ring could be corroded early by combined factors such as concentration and temperature.
 For further information, please contact our sales staff.
 In case of chlorine-containing fluid, 846T or 847T (containing fluorine resin) is recommended depending on combined factors such as concentration.
 Operating temperature range varies depending on the combination of valve disc material and seat ring. Please contact our sales staff before use.
 ※6 It is recommended EPDM rubber seat ring if the line is used for medical agent containing calcium composition to protect the pipes.
 ※7 "Allowable temperature in continuous use" stands for the temperature continuously kept exceeding one hour.
 ※8 Not selling separately.

700GB List of seat ring material

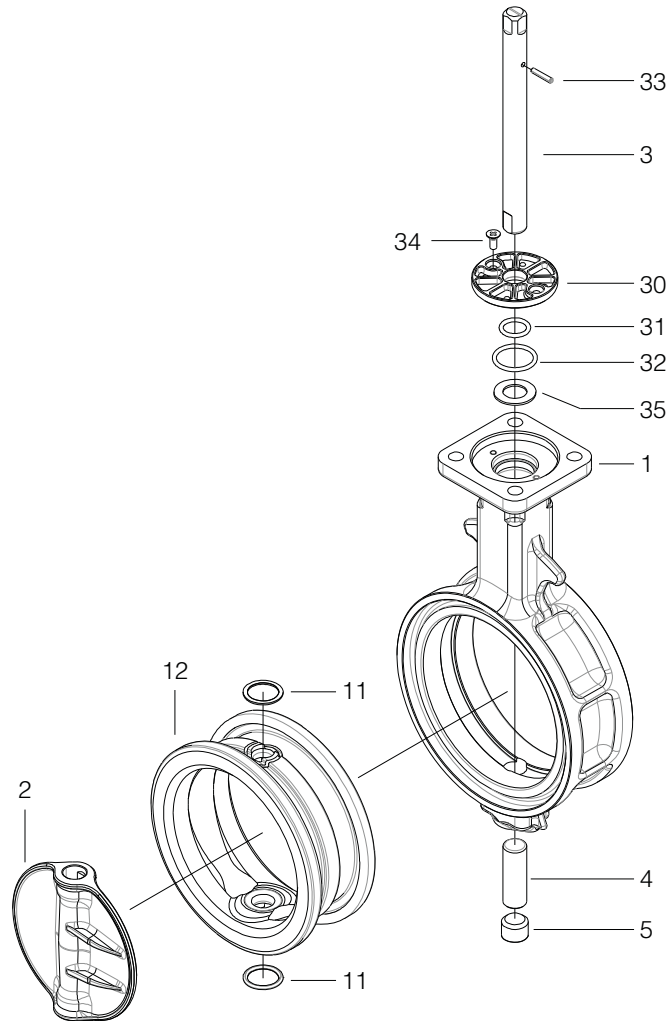
Material		EPDM	NBR
Temperature range	Allowable (°C)	-20~120	-10~80
	Continuous (°C)	0~70	0~60
Maximum operating pressure (MPa)		1.0	1.0
Color		black	black
Properties	Corrosion resistance	○	△
	Heat resistance	○	○
	Oil resistance	×	○
	Wear resistance	△	○

Symbols: ○…………Good (suitable for use)
 △…………Usable
 ×…………Not usable

- Note 1) NBR cannot be used for C-heavy oil for marine fuel oil (FO line) as the viscosity of oil is reduced and actual temperature is often higher even if the customer's usage condition is below 60°C.
 Note 2) Never use EPDM rubber seat ring if the fluid to be used contains even a tiny amount of oil.
 Note 3) The symbols ○, △ and × above indicate typical properties. These properties may vary depending on specific liquids and temperature conditions.
 For further information, please contact us.

Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

700GB Expanded View of Components



700GB Parts list

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Upper stem	1	
4	Lower stem	1	
5	Hex. socket set screws	1	
★ 11	Secondary ring	2	
★ 12	Seat ring	1	
★ 30	Bushing	1	
★ 31	O-ring	1	
★ 32	O-ring	1	
34	Machine screw	2	
35	Plate	1	

Remark: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove set screws.

700GB Actuator Selection Chart

700GB

Type	Model	Category	Size ($\frac{\text{mm}}{\text{inch}}$)									
			40	50	65	80	100	125	150	200	250	300
			1 1/2	2	2 1/2	3	4	5	6	8	10	12
Lock lever	1T	EPDM	1T-1				1T-2					
		NBR	1T-1				1T-2					
Worm gear	2T		2T-1				2T-2		2T-3			

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

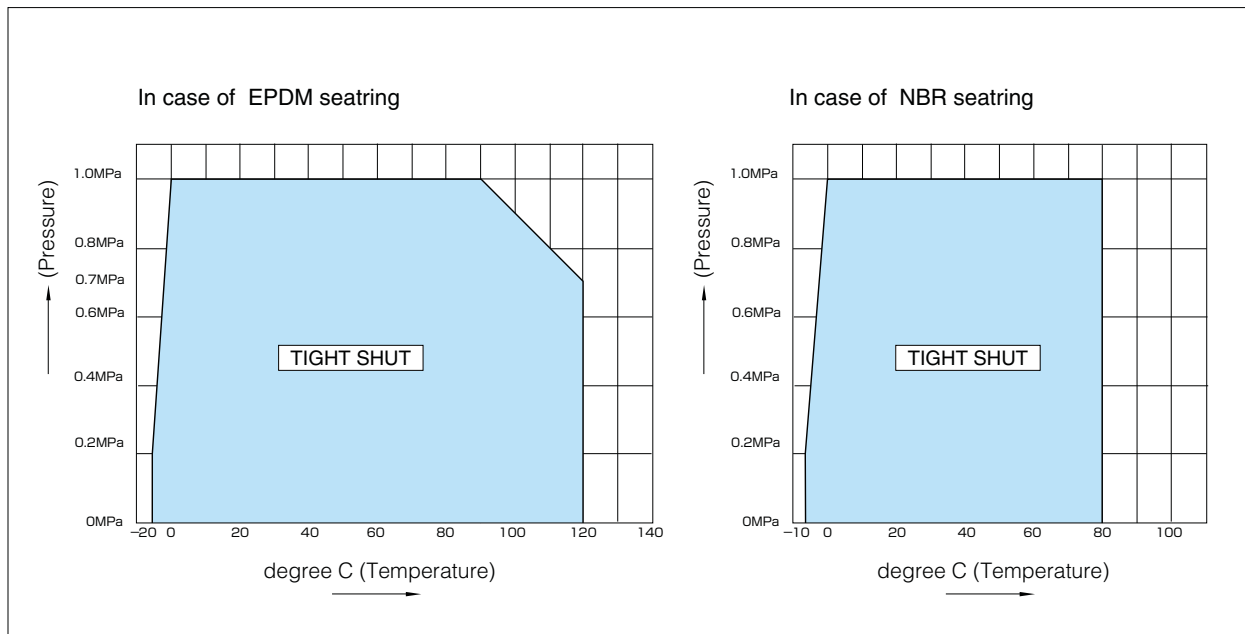
KRV

227P

907H/908H (MKT)

903C

700GB Pressure-Temperature Rating



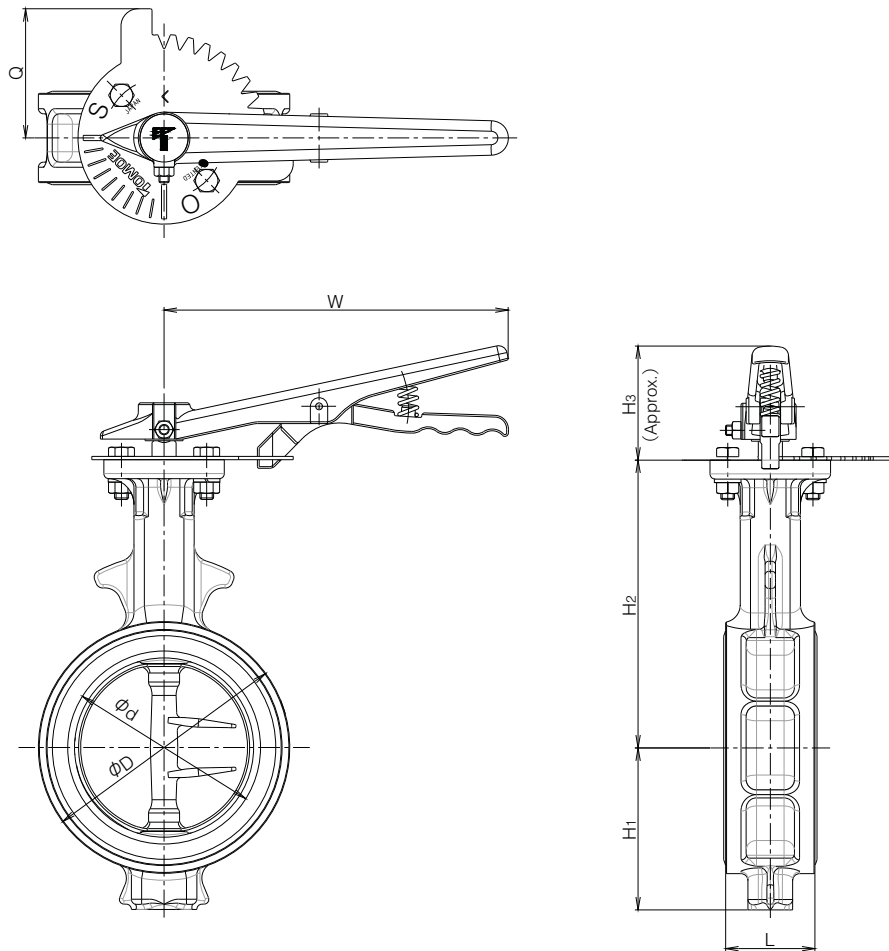
700GB

Lock lever type 700GB-1T(40mm to 150mm)

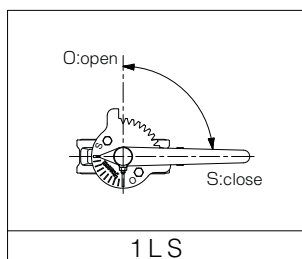
Nominal size		Dimension (mm)								Lever type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H1	H2	H3	Q	W		
40	1 1/2	45	80	35	52	132	66	75	200	1T-1	2.1
50	2	56	90	43	59	138	66	75	200	1T-1	2.4
65	2 1/2	69	115	46	70	151	66	75	200	1T-1	3.0
80	3	84	126	46	77	156	66	75	200	1T-1	3.1
100	4	104	146	52	94	167	66	75	200	1T-1	3.8
125	5	130	181	56	108	191	92	87.5	300	1T-2	6.4
* 150	6	153.5	211	56	125	202	92	87.5	300	1T-2	7.9

*EPDM : 40mm~150mm
 N B R : 40mm~125mm (150 mm is not available)

700GB-1T



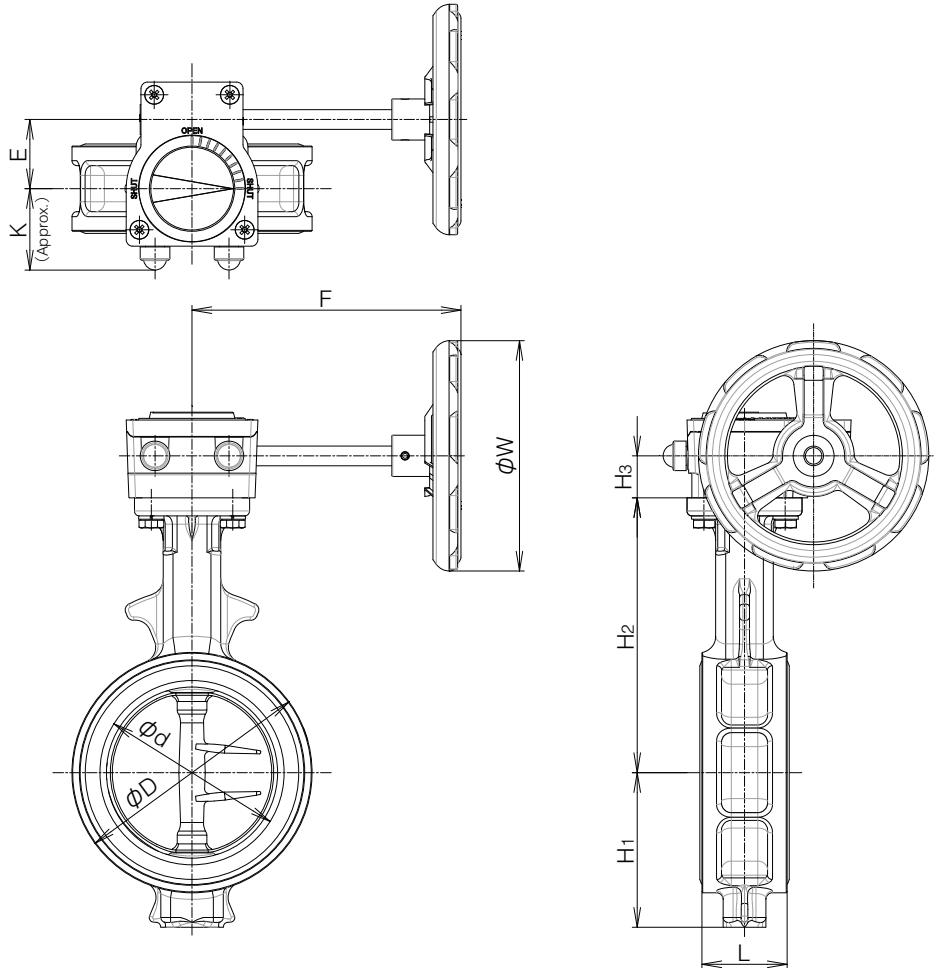
1T Installation direction



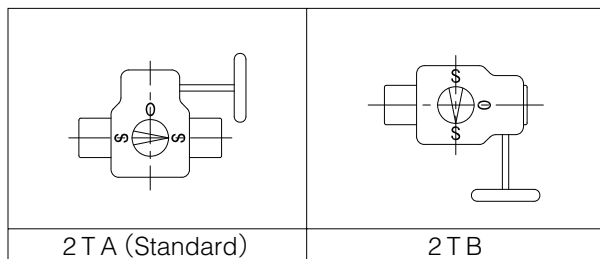
Worm Gear Type 700GB-2T (40mm to 300mm)

Nominal size		Dimension (mm)										Worm gear type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H1	H2	H3	E	K	F	W		
40	1 1/2	45	80	35	52	132	25	42	50	164	140	2T-1	2.8
50	2	56	90	43	59	138	25	42	50	164	140	2T-1	3.1
65	2 1/2	69	115	46	70	151	25	42	50	164	140	2T-1	3.7
80	3	84	126	46	77	156	25	42	50	164	140	2T-1	3.8
100	4	104	146	52	94	167	25	42	50	164	140	2T-1	4.4
125	5	130	181	56	108	191	30.5	60	65	240	250	2T-2	8.7
150	6	153.5	211	56	125	202	30.5	60	65	240	250	2T-2	10.2
200	8	199	256	60	167	227	30.5	60	65	240	250	2T-2	13.3
250	10	253	322	68	203	280	42	60	80	240	300	2T-3	21.1
300	12	302	367	78	241	312	42	60	80	240	300	2T-3	27.2

700GB-2T



2T Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

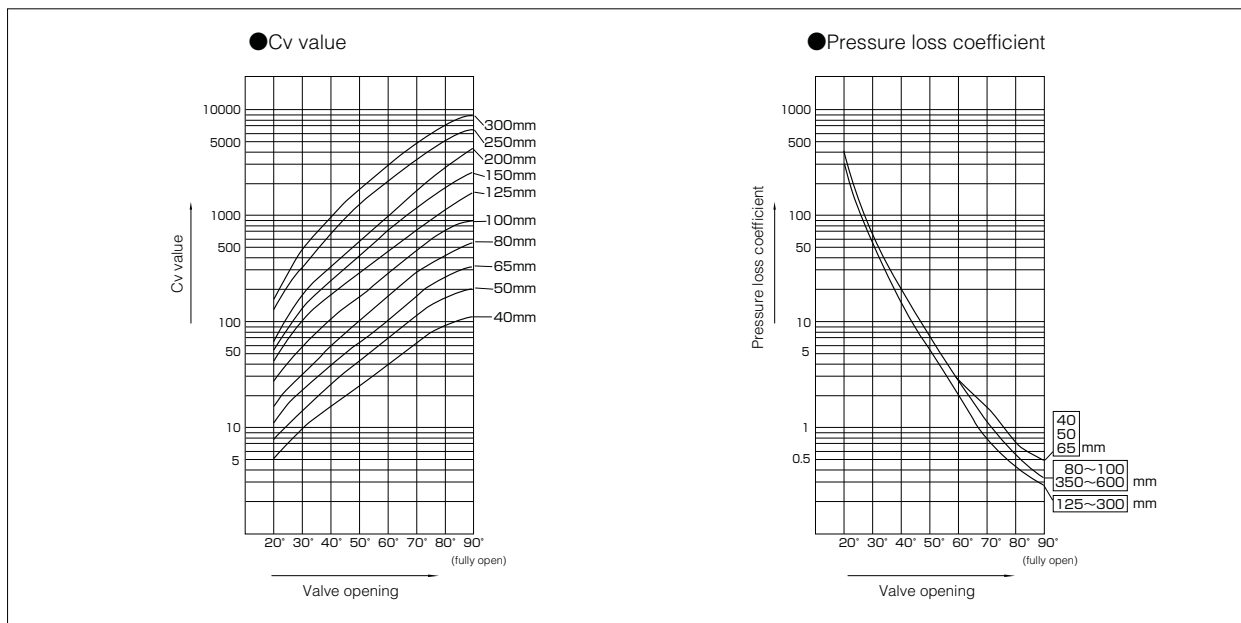
KRV

227P

907H/908H (MKT)

903C

700GB Cv value / pressure loss coefficient



700GB Cv value

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
40	1 1/2	5	9	16	25	39	61	95	121
50	2	8	15	25	40	64	103	160	200
65	2 1/2	12	25	41	64	102	162	260	320
80	3	15	33	57	95	163	271	450	580
100	4	27	58	100	162	269	444	749	880
125	5	45	109	189	295	453	719	1144	1590
150	6	60	148	262	423	685	1147	1897	2800
200	8	67	188	347	576	969	1698	2902	4300
250	10	130	351	675	1225	2125	3375	5091	6200
300	12	194	487	972	1764	3011	4966	7412	8900

700GB Pressure loss coefficient

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
40	1 1/2	264	72	26	10	4	2	1.0	0.4
50	2	257	68	25	10	4	2	1.0	0.4
65	2 1/2	310	75	28	11	4	2	1.0	0.4
80	3	394	83	27	10	3	1	0.4	0.2
100	4	350	78	26	10	4	1	0.4	0.3
125	5	316	53	18	7	3	1	0.4	0.2
150	6	348	57	18	7	3	1	0.3	0.1
200	8	849	106	31	11	4	1	0.4	0.2
250	10	528	72	20	6	2	1	0.3	0.2
300	12	488	78	20	6	2	1	0.3	0.2

700GB Applicable Flange Standard

Nominal size		JIS		ASME B16.1 ASME B16.5		BS4504 DIN2632, DIN2633 GB/T9113.1			BS 10
mm	inch	5K	10K	Class125	Class150	PN6 PN0.6	PN10 PN1.0	PN16 PN1.6	Table E
40	1 1/2	○	○	○	○	○	○	○	○
50	2	○	○	○	○	○	○	○	○
65	2 1/2	○	○	○	○	○	○	○	△
80	3	○	○	◎	◎	◎	◎	◎	○
100	4	○	○	◎	◎	◎	◎	◎	○
125	5	○	○	◎	◎	○	◎	◎	○
150	6	○	○	○	○	×	○	○	○
200	8	○	○	◎	◎	○	◎	◎	○
250	10	○	○	○	○	×	○	×	○
300	12	○	○	◎	◎	○	◎	×	○

- : Applicable without additional flange machining.
 ◎ : Applicable without additional flange machining. (Use ANSI body.)
 △ : Applicable with additional flange machining.
 × : Not applicable.

Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
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700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

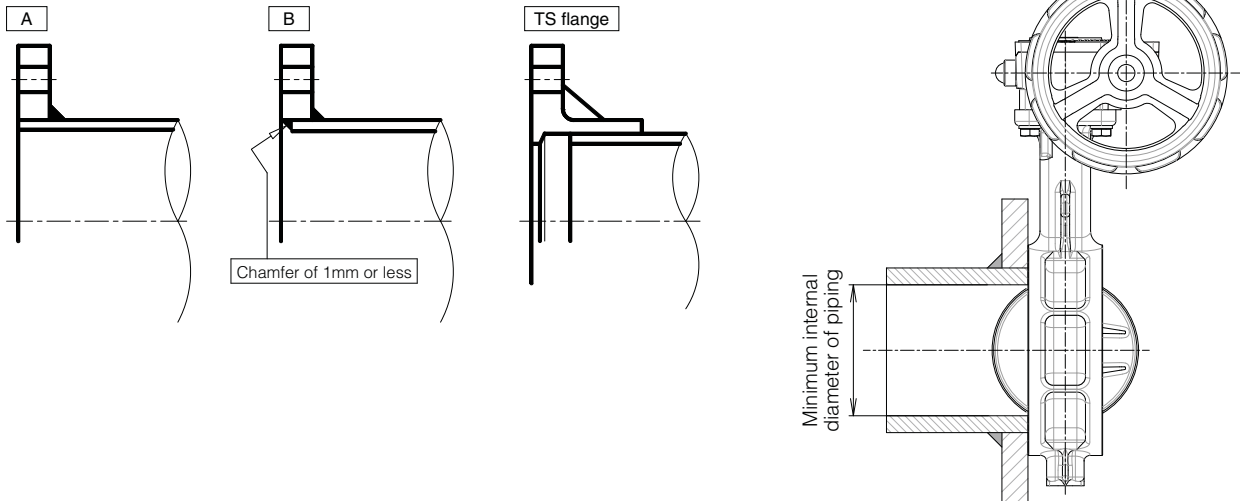
700GB

700GB Applicable pipe list

Nominal size		SGP	Sch20	Sch40	VP (TS flange)	Sch10S	Sch20S	Minimum internal diameter of piping (mm)
mm	inch							
40	1 1/2	○	—	○	○	○	○	25
50	2	○	○	○	○	○	○	34
65	2 1/2	○	○	○	○	○	○	51
80	3	○	○	○	○	○	○	70
100	4	○	○	○	○	○	○	91
125	5	○	○	○	○	○	○	118
150	6	○	○	○	○	○	○	144
200	8	○	○	○	○	○	○	194
250	10	○	○	○	○	○	○	246
300	12	○	○	○	○	○	○	295

Remark: The symbols above mean the following.

○: Applicable —: Not standardized



700GB Piping bolt and nut sizes

Hexagon bolt & nut

Nominal size		JIS 5K	JIS 10K
mm	inch	Hexagon bolts and nuts	Hexagon bolts and nuts
40	1 1/2	4-M12× 75×30	4-M16× 90×38
50	2	4-M12× 90×30	4-M16×100×38
65	2 1/2	4-M12× 90×30	4-M16×105×38
80	3	4-M16× 95×38	8-M16×105×38
100	4	8-M16×105×38	8-M16×110×38
125	5	8-M16×110×38	8-M20×125×46
150	6	8-M16×115×38	8-M20×130×52
200	8	8-M20×130×52	12-M20×130×52
250	10	12-M20×140×52	12-M22×150×60
300	12	12-M20×150×52	16-M22×160×60

Long bolt & nut

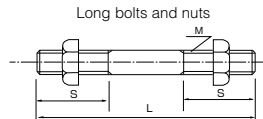
Nominal size		JIS 5K	JIS 10K	ASME Class 125/150
mm	inch	Long bolts and nuts	Long bolts and nuts	Long bolts and nuts
40	1 1/2	4-M12× 95×25	4-M16×110×25	4-U1/2 ×110×32
50	2	4-M12×105×25	4-M16×120×30	4-U5/8 ×140×38
65	2 1/2	4-M12×110×25	4-M16×125×30	4-U5/8 ×140×38
80	3	4-M16×120×30	8-M16×125×30	4-U5/8 ×140×38
100	4	8-M16×130×30	8-M16×130×30	8-U5/8 ×150×38
125	5	8-M16×130×30	8-M20×150×40	8-U3/4 ×160×51
150	6	8-M16×140×35	8-M20×155×40	8-U3/4 ×165×51
200	8	8-M20×155×40	12-M20×155×40	8-U3/4 ×175×51
250	10	12-M20×165×40	12-M22×175×45	12-U7/8 ×195×58
300	12	12-M20×175×40	16-M22×185×45	12-U7/8 ×205×58

Remarks:

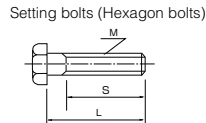
1. Please use a hexagon nut with 80% threading. (For ANSI, use heavy nut.)
2. A unified screw should have 8 threads per inch if its nominal diameter exceeds 1 inch.
3. The bolt lengths are in accordance with thickness of steel flanges. In case of cast iron, plastic or lining flange, length of bolt may differ.

Example

Long bolts: 12 - M22 × 185 × 45
 | | | |
 N M L S



Setting bolts: 4 - M30 × 95 × 65
 (Hexagon bolts) | | | |
 N M L S



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

**304M
(HLV)**

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

**731P/732P/
732Q/752W**

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

**907H/908H
(MKT)**

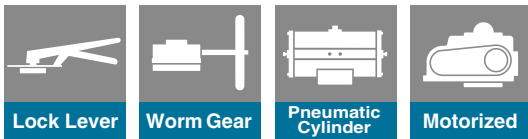
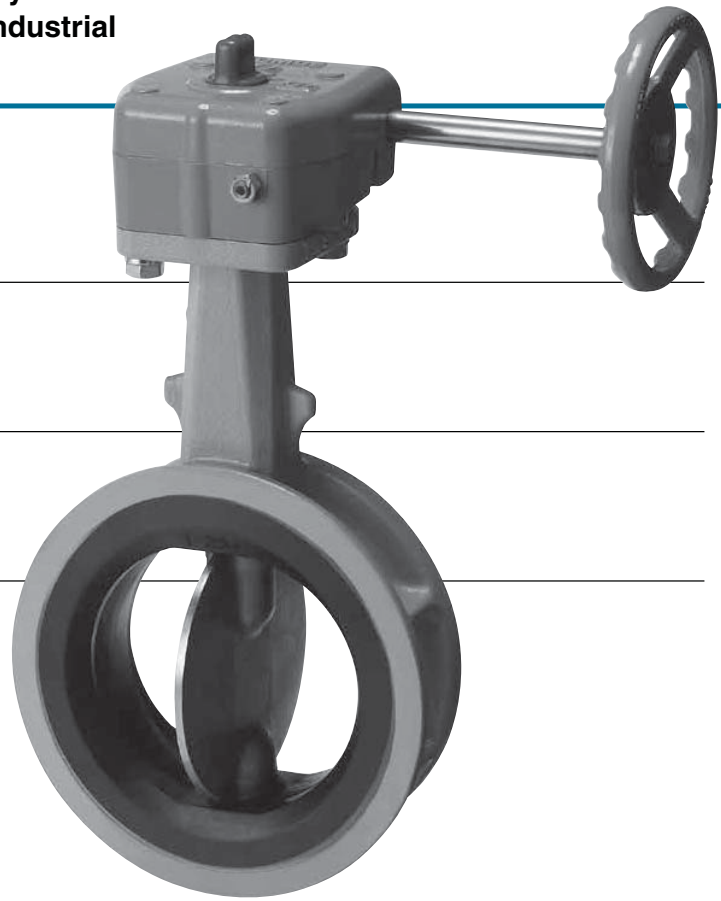
903C

Vulcanized Rubber Lining on The Body for Use in High Pressure, High Velocity and Industrial Vacuum Applications

731P Wafer

732P Wafer

732Q Lugged



Features and Benefits

Vulcanized rubber lining on the body

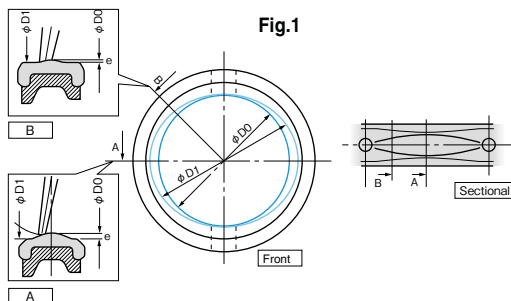
The seat is vulcanized to the body which ensures correct rubber compression and greater strength of the rubber seat. This design is much more effective in high velocity and industrial vacuum applications than soft resilient seated valves.

New cosine-curve seat

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

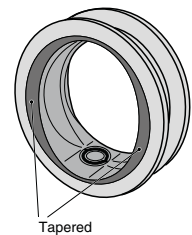
Cubical shape by lowering height

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.



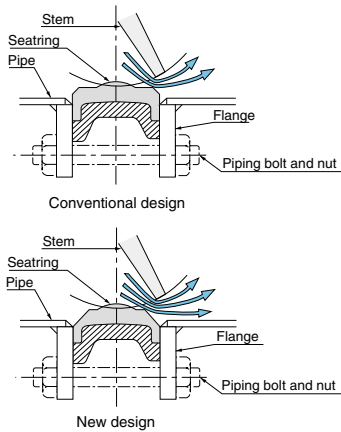
New streamlined shape around stem hole

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.

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

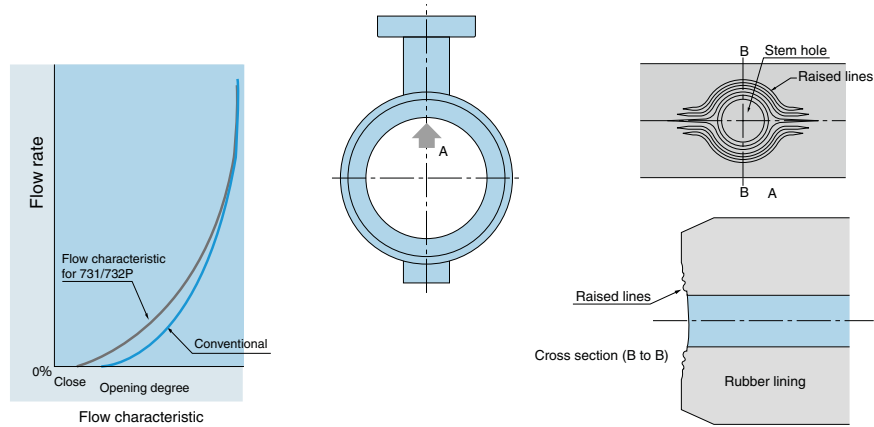
Tapered Finish

Fig. 2



New streamline shape around stem hole

Fig. 3



Standard Specifications

Valve nominal size	1.6MPa (16K) type	2.0MPa (20K) type	1.6MPa (16K) type	2.0MPa (20K) type
	731P (Wafer)	732P (Wafer)	731X (Wafer), 732Q (Lugged)	
Applicable flange standard	50mm to 300mm			
Face-to-face dimensions	JIS 10K /16K /20K ANSI 125 /150lb DIN PN 10 /16 /25 BS 4504 PN 10 /16 /25			
Max. working pressure	1.6MPa	2.0MPa	1.6MPa	2.0MPa
Body shell test (hydraulic)	2.4MPa	3.0MPa	2.4MPa	3.0MPa
Seat leak test	1.76MPa	2.2MPa	1.76MPa	2.2MPa
Velocity range	Max. 6m/sec (when fully open)			
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 70 degrees C			
Standard materials	Body	FCD450	FCD450, SCPH2	
	Disc	SCS14	SCS14/CAC702, CAC703	
	Stem	420J2 S.S	420J2 S.S, MONEL K-500	630 S.S, MONEL K-500
	Seat ring	NBR, *EPDM		
Actuators	Lock lever	50mm to 200mm		100mm to 150mm
	Worm gear			
	Pneumatic Cylinder	50mm to 300mm		100mm to 300mm
	Motorised			
Coating	Epoxy primer (Munsell N7)		Lacquer 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.

* 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.

Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

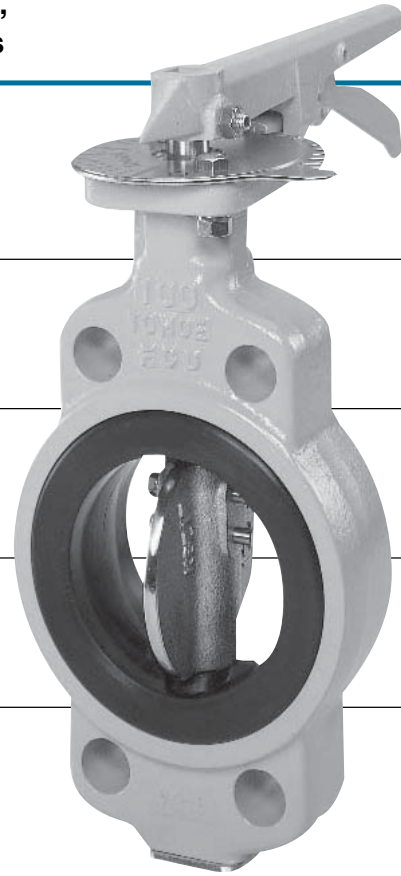
Ideal, Cost Effective Valve for Use in High Velocity,
High Pressure and Industrial Vacuum Applications

731P Wafer

732P Wafer

732Q Lugged

752W Lugged



Features and Benefits

Perfect sealing against high pressure to 1.96MPa

By employing a cosine-curve design seat ring, the disc contacts simultaneously around the entire seat during closure which enables perfect sealing against pressures up to 1.96MPa. Perfect sealing is assured in high differential pressure, high velocity and vacuum applications. The operation torque for the valve is substantially reduced. Also, since the body is covered with the seat ring, it is never exposed to fluid.

No restrictions in direction of flow even for high differential pressures

With a concentric design and low operating torque, 731P/732P can perfectly seal pressures up to 1.96MPa or 1.57MPa for both directions.

Face-to-face dimensions satisfy ISO standards

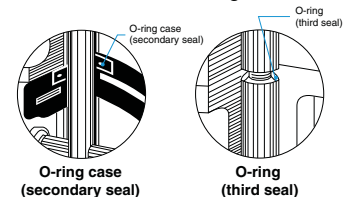
The face-to-face dimensions satisfy BS 5155 and ISO 5752. It is also adaptable to many international flange standards.

Long neck

The long neck enables insulation of up to 50mm after installation of the valve.

O-ring case with self-aligning stem seal function

The stainless steel O-ring case (utility model) counteracts any stem displacement and shaft tilt caused during the operation of the valve under fluid pressure. Because this O-ring is never exposed to the fluid, it never erodes.



The rubber seat is reinforced with a metallic core

Since this reinforced seat ring is clamped in position by the flanges, it is much more effective in high velocity and industrial vacuum applications than a soft resilient seat without a metallic core. Moreover, the seat ring can easily be replaced (100 to 600mm types). The vulcanized seat to the body is used in sizes 50 to 80mm.



Stainless steel disc as a standard material

Stainless steel disc provides excellent corrosion resistance in various applications.

General Description

With applications for high pressure service valves increasing, TOMOE have developed a new 20K type in addition to the traditional 16K type. The 20K type is designed to seal high pressures up to 2.0MPa, while the 16K type can seal up to 1.6MPa. This concentric butterfly valve incorporates a cosine-curve design seat ring reinforced with a metallic core and provides excellent cost advantages.

14" to 24" (350 to 600mm)

■ Parts List (standard)

No.	Parts	Materials
1	Body	Ductile cast Iron
2	Disc	Stainless steel casting
3	Stem	Stainless steel
4	Bush	METALOPLAST
5		
6	Mild steel / ductile cast iron	Bottom cover
8	Taper bolt	Stainless steel
10	Bolt & SP. washer	Mild steel / high carbon steel
12	Seat ring	Elastomer
13	O-ring	Elastomer
14	Packing	Asbestos
15	O-ring	Elastomer
16	Ball	Steel
17	Bolt	Carbon steel
18	Lock nut	Mild steel
22	Core	Mild steel

Standard Specifications

Valve nominal size	1.6MPa (16K) type			2.0MPa (20K) type		
	731P (Wafer) 350mm to 600mm	732Q (Lugged) 350mm to 400mm	752W (Lugged) 450mm to 600mm	731P (Wafer) 350mm to 600mm	732Q (Wafer) 350mm to 400mm	752W (Lugged) 450mm to 600mm
Applicable flange standard	JIS 10K /16K /20K ANSI 125 /150lb DIN PN 10 /16 BS 4504 PN 10 /16					
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 (when fully open)					
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 70 degrees C					
Standard materials	Body	FCD450	FCD450, SCPH2	FCD450	FCD450, SCPH2	
	Disc	SCS13 (SCS14 as an option)	SCS13 (SCS14 as an option), CAC702, CAC703	SCS13 (SCS14 as an option)	SCS13 (SCS14 as an option), CAC702, CAC703	
	Stem	420J2 S.S	420J2 S.S, MONEL K-500	630 S.S	420J2 S.S, MONEL K-500	
	Seat ring	NBR, *EPDM				
Actuators	Worm gear	350mm to 600mm				
	Pneumatic cylinder					
	Motorised					
Coating	Lacquer primer (Munsell N7)					

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

* 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.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

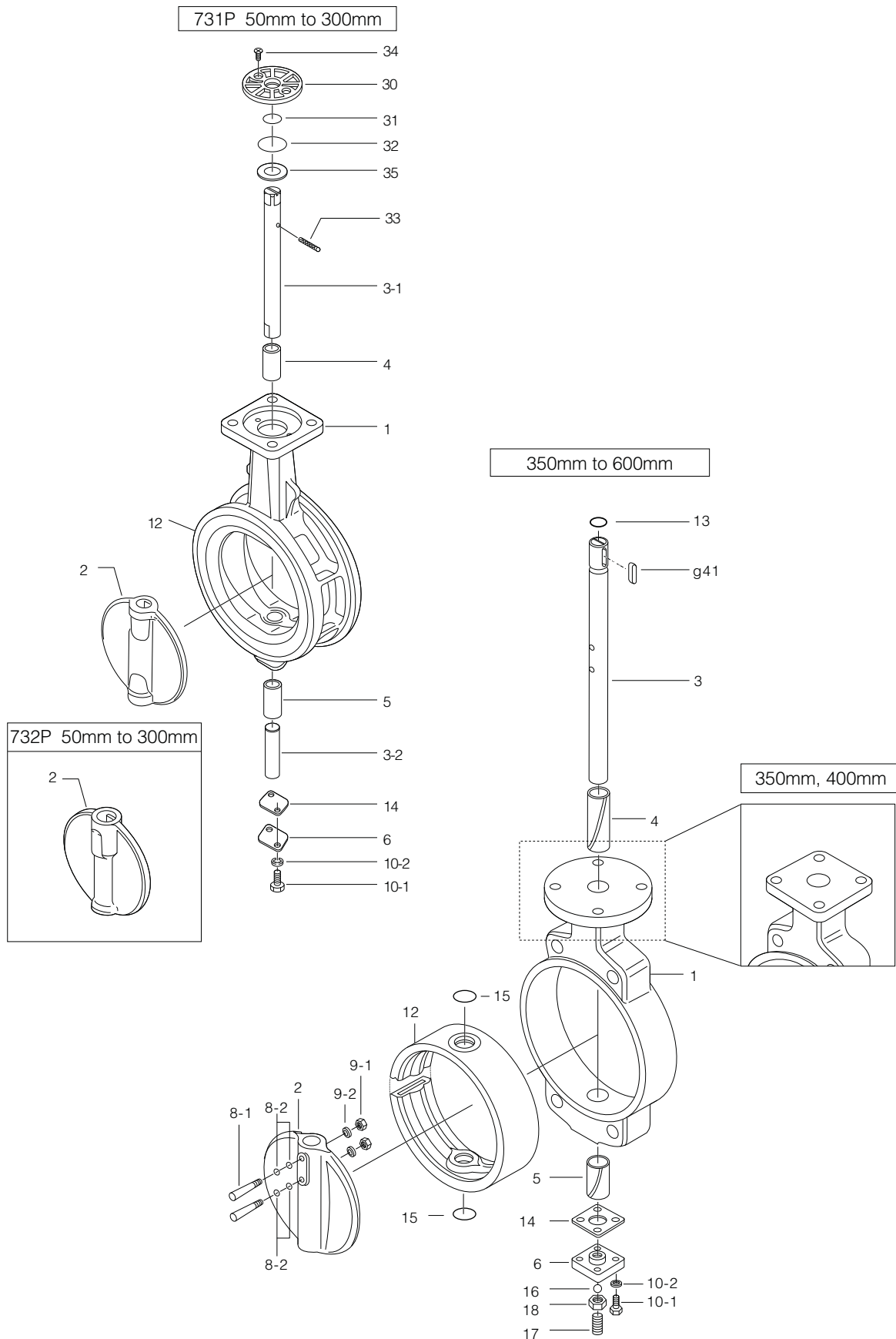
KRV

227P

907H/908H (MKT)

903C

731P/732P Expanded view of components



731P/732P Parts list

■731P Parts list (50mm to 300mm)

No.	Description	Q'ty	Remarks
★ 1	Body	1	
2	Disc	1	
3-1	Upper stem	1	
3-2	Lower stem	1	
★ 4	Bearing	1	
★ 5	Bearing	1	
6	Bottom cover	1	
10-1	Hexagon bolt	2	
10-2	Spring washer	2	
★ 12	Seat ring	1	Vulcanized to body
★ 14	Gasket	1	
★ 30	Bushing	1	
★ 31	O-ring	1	
★ 32	O-ring	1	
33	Spring pin	1	
34	Machine screw	2	
35	Plate	1	

■732P Parts list (50mm to 300mm)

No.	Description	Q'ty	Remarks
★ 1	Body	1	
2	Disc	1	
3-1	Upper stem	1	
3-2	Lower stem	1	
★ 4	Bearing	1	
★ 5	Bearing	1	
6	Bottom cover	1	
10-1	Hexagon bolt	2	
10-2	Spring washer	2	
★ 12	Seat ring	1	Vulcanized to body
★ 14	Gasket	1	
★ 30	Bushing	1	
★ 31	O-ring	1	
★ 32	O-ring	1	
33	Spring pin	1	
34	Machine screw	2	
35	Plate	1	

■731P/732P Parts list (350mm to 600mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
★ 4	Bushing	1	
★ 5	Bushing	1	
6	Bottom cover	1	
★ 8-1	Taper bolt	2	
★ 8-2	O-ring	4	
★ 9-1	Hexagon nut	2	
★ 9-2	Spring washer	2	
10-1	Hexagon bolt	4	
10-2	Stem key	4	
★ 12	Seat ring	1	
★ 13	O-ring	1	
14	Gasket	1	
★ 15	O-ring	2	
16	Ball	1	
17	Hollow bolt	1	
18	Lock nut	1	
g41	Key	1	

Remark: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt (P.17).

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

731P/732P (Wafer) 732Q/752W (Lugged)

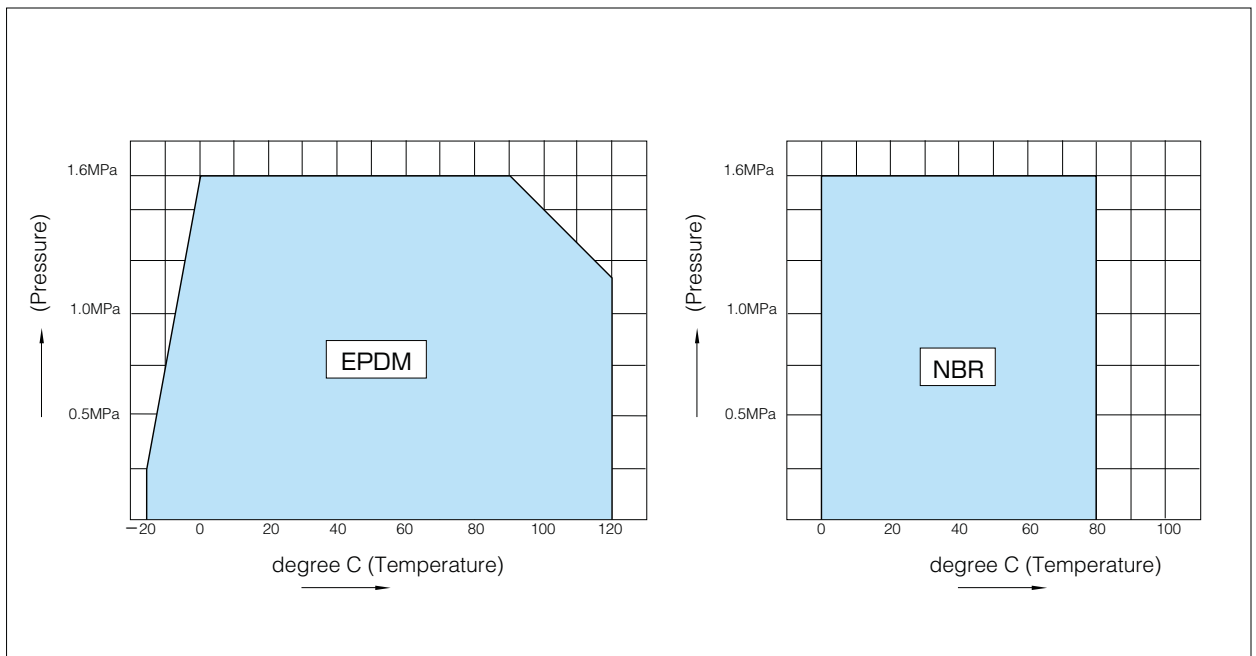
731P Actuator selection chart

731P

Model	Category	Size (mm/inch)															
		50	65	80	100	125	150	200	250	300	350	400	450	500	600		
		2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24		
1T	Standard	1T-1			1T-2			1T-3									
	Heavy duty																
2I,2U 2S	Standard	2I-0		2I-1		2I-2		2I-3		2I-4		2U-5		MGH-3		MGH-4	
	Heavy duty																
7E,3A	Standard	T35		T85		T200		T380		T750		TGA-125		TGA-140	TGA-160	TGA-200	
	Heavy duty																
7G,7F 3U,3K	Standard	T85S		T200S		T380S		T750S		TG-12S		TG-14S		TG-20S			
	Heavy duty																
4I	Standard	4I-00		4I-0		4I-1		4I-2		4I-2.5		4I-3		4I-4			
	Heavy duty																
4J,4L	Standard	SRJ-010			SRJ-020			SRJ-060			LTKD-01 0.2kW /MGH-2		LTKD-01 0.4kW /MGH-3		LTKD-02 0.75kW /MGH-4		LTKD-05 0.75kW /MGH-5
	Heavy duty																

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

731P Pressure-temperature rating



732P Actuator selection chart

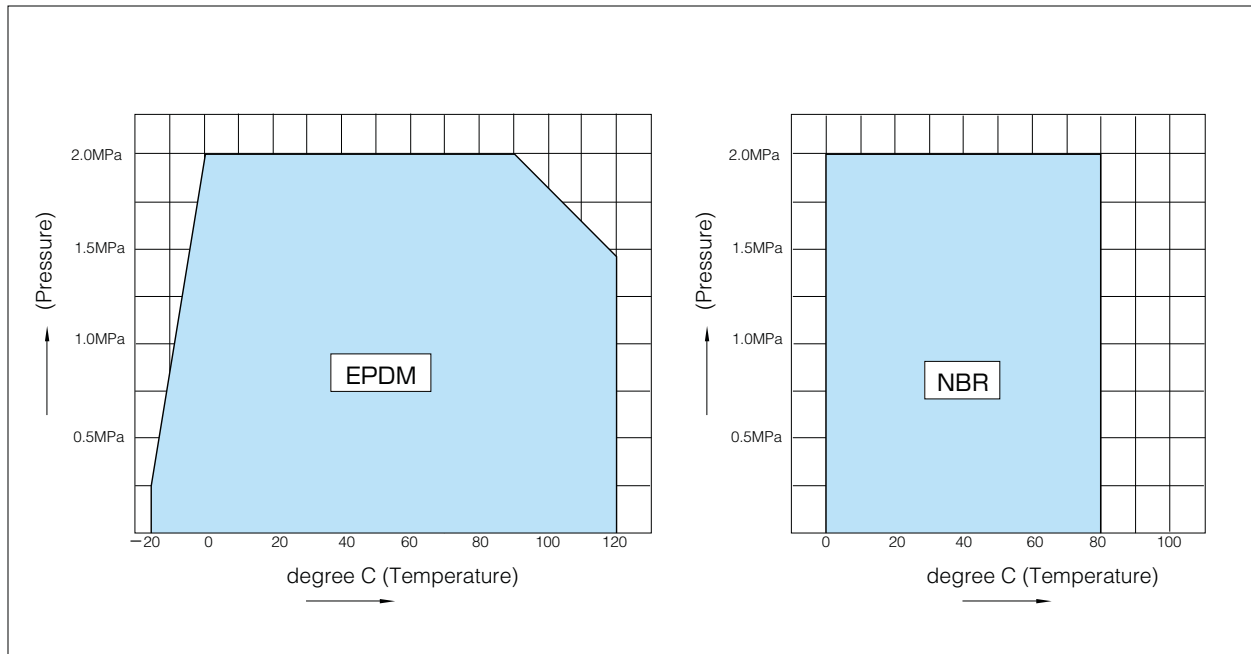
732P

Model	Category	Size (mm) <small>(inch)</small>																					
		50	65	80	100	125	150	200	250	300	350	400	450	500	600								
		2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24								
1T	Standard	1T-1			1T-2			1T-3															
	Heavy duty																						
2I, 2U 2S	Standard	2I-0	2I-1	2I-2	2I-3	2I-4	2U-5	MGH-3	MGH-4														
	Heavy duty																						
7E, 3A	Standard	T35	T85	T200	T380	T750	Please consult us regarding selection of drive parts for 350mm and higher.																
	Heavy duty																						
7G, 7F 3U, 3K	Standard	T85S	T200S	T380S	T750S	TG-10S										TG-12S							
	Heavy duty																						
4I	Standard	4I-00	4I-0	4I-1	4I-2	4I-3																	
	Heavy duty																						
4J, 4L	Standard	SRJ-010			SRJ-020			SRJ-060	LTKD-01 0.2kW /MGH-2														
	Heavy duty																						

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

732P Pressure-temperature rating



731P/732P (Wafer) 732Q/752W (Lugged)

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

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

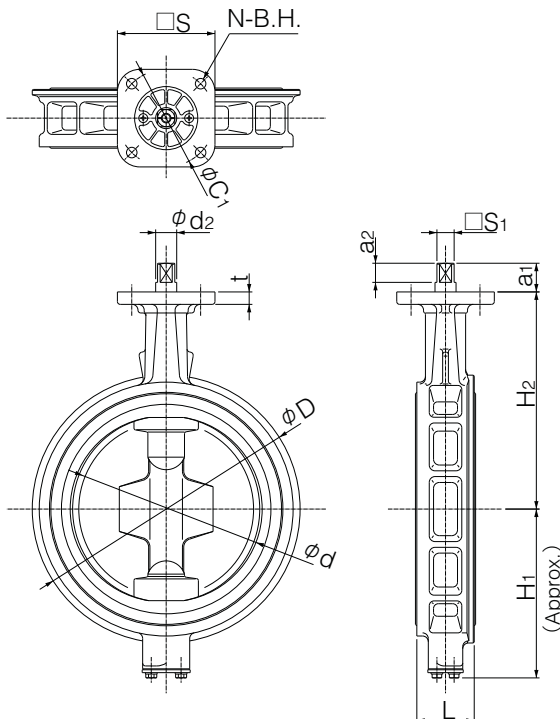
Type	Nominal size		Dimension (mm)													Approx. Mass (kg)	
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	a ₁	a ₂	□S ₁	ϕd_2	b	t ₂	t		Flanges
				JIS10K	JIS16K												
731P	50	2	54	102	102	43	68	138	21.5	10.5	8	10	—	—	11	F07	1.8
	65	2 1/2	67	122	122	46	79	151	21.5	10.5	8	10	—	—	11	F07	2.2
	80	3	82	132	138	46	86	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

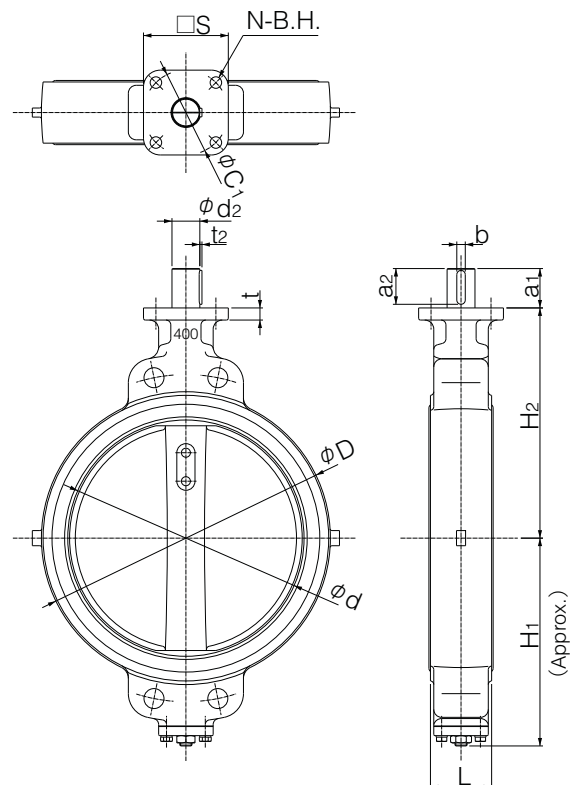
Flange	□S	ϕC_1	N	B.H.
F07	70	70	4	9
F10	102	102	4	11
F12	125	125	4	13
F14	140	140	4	19

Stem design	01: Square
	02: Round with key

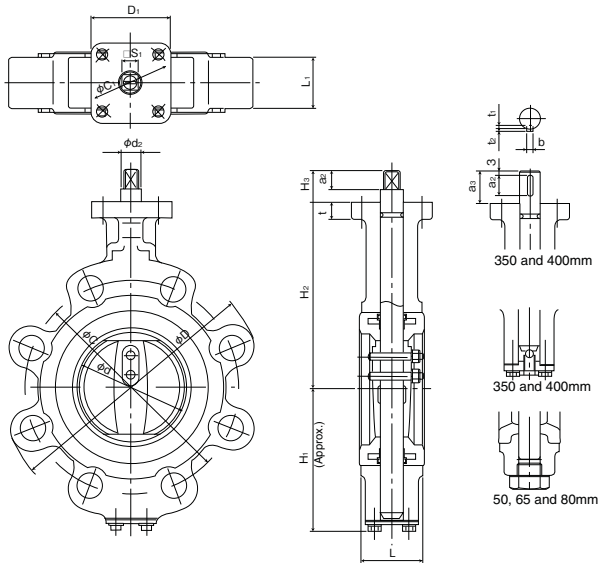
731P (16K) 50mm to 300mm



731P (16K) 350mm, 400mm



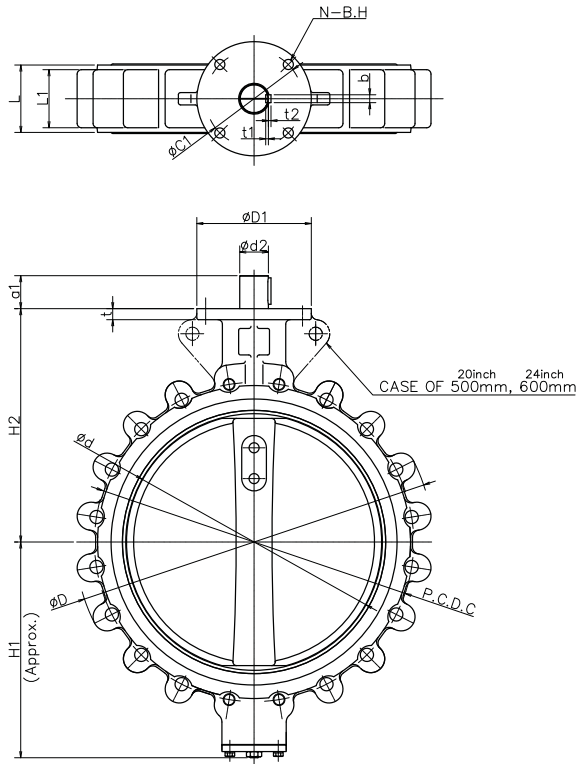
732Q Lugged type



■ Dimensions

Nominal size		Dimension (mm)																	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	L ₁	H ₁	H ₂	H ₃	ϕd_2	a ₂	S ₁	b	t ₁	t ₂	D ₁	t	ϕC_1		
50	2	55	152	43	32	76	120	23	14	12	12	-	-	-	70	12	70	4	
65	2 1/2	70	178	46	36	85	130	23	14	12	12	-	-	-	70	12	70	4.5	
80	3	80	190	46	36	94	140	23	14	12	12	-	-	-	70	12	70	5.5	
100	4	98	229	52	42	125	165	28	18	17	14	-	-	-	70	12	70	12	
125	5	123	254	56	46	148	180	28	18	17	14	-	-	-	102	14	102	15	
150	6	150	279	56	46	166	205	28	18	17	14	-	-	-	102	14	102	17	
200	8	202	343	60	50	190	230	35	28	30	24	-	-	-	102	14	102	24.5	
250	10	254	406	68	58	232	270	35	32	30	24	-	-	-	125	14	125	41	
300	12	304	483	78	68	259	300	35	32	30	24	-	-	-	125	16	125	69.5	
350	14	336	555	78	70	304	340	54	40	45	-	12	5	3	140	20	140	95	
400	16	390	597	102	86	343	380	65	46	56	-	14	5.5	3.5	140	20	140	131	

752W Lugged type



■ Dimensions (ANSI 125/150Lb)

Nominal size		Dimension (mm)																	Approx. Mass (kg)	
mm	inch	ϕd	ϕD	L	L ₁	H ₁	H ₂	ϕd_2	a ₁	a ₂	a ₃	b	t ₁	t ₂	t	ϕD_1	ϕC_1	N		B.H.
450	18	439	635	113	94	379	420	47	60	50	3	12	4.5	3.5	20	200	170	4	19	120
500	20	490	698	126	109	422	450	47	60	50	3	12	4.5	3.5	20	200	170	4	19	170
600	24	583	813	153	132	494	530	65	75	60	5	12	6	6	25	260	220	4	23	255

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

731P/732P (Wafer) 732Q/752W (Lugged)

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

731P-02 (450mm to 600mm)

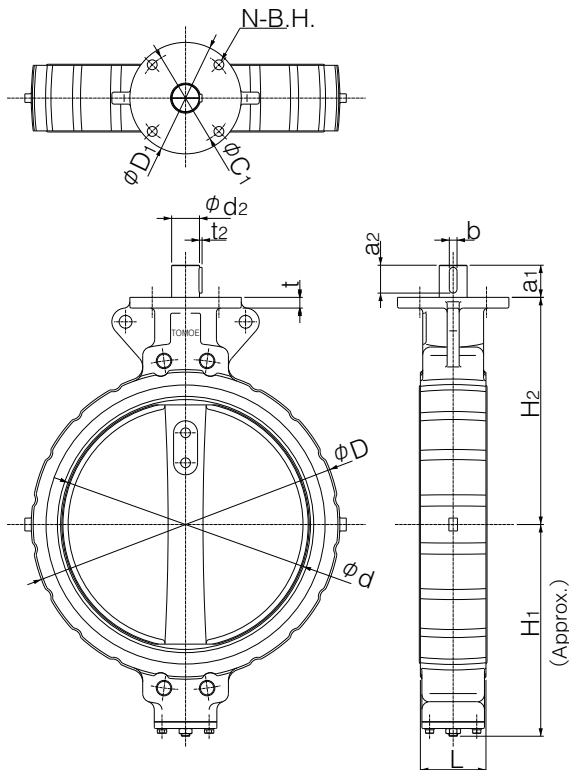
Type	Nominal size		Dimension (mm)															Approx. Mass (kg)	
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	a ₁	a ₂	ϕd_2	b	t ₂	t	D ₁	C ₁	N		B.H.
				JIS10K	JIS16K														
731P	450	18	439	532	532	114	379	420	60	53	47	12	3.5	20	200	170	4	19	137
	500	20	490	610	610	127	422	450	60	53	47	12	3.5	20	200	170	4	19	188
	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.

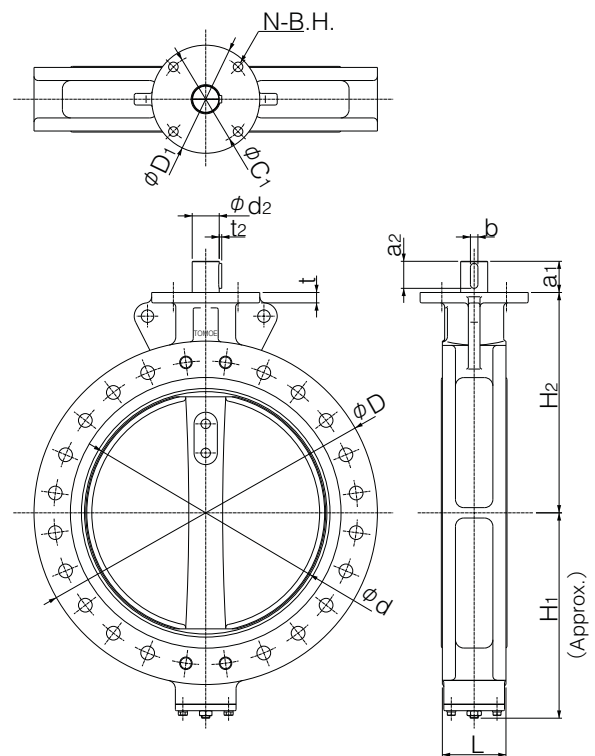
Flange dimensions

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



Bare shaft 732P-01 (50mm to 300mm) / 732P-02 (350mm, 400mm) / 732P-02 (450mm to 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	□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	7.7
	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

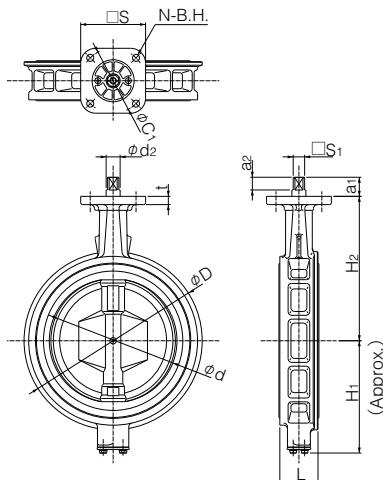
Flange	□S	ϕC_1	N	B.H.
F07	70	70	4	9
F10	102	102	4	11
F12	125	125	4	13
F14	140	140	4	19

Stem design
 01: Square
 02: Round with key

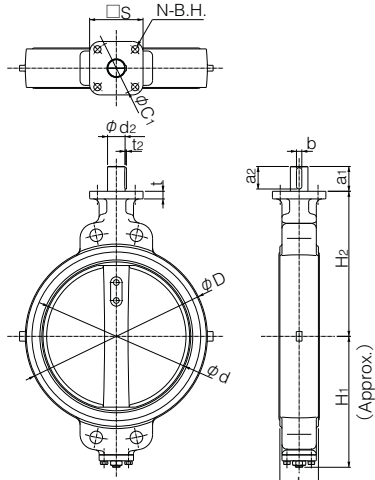
■ 732P-02 (450mm to 600mm)

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

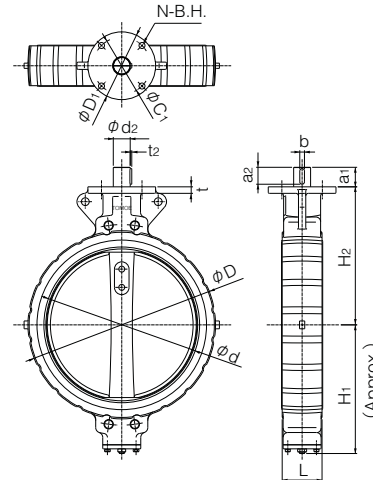
■ 732P (20K)
50mm to 300mm



■ 732P (20K)
350mm, 400mm



■ 732P (20K)
450mm to 600mm



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

731P/732P (Wafer) 732Q/752W (Lugged)

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

732P-1T

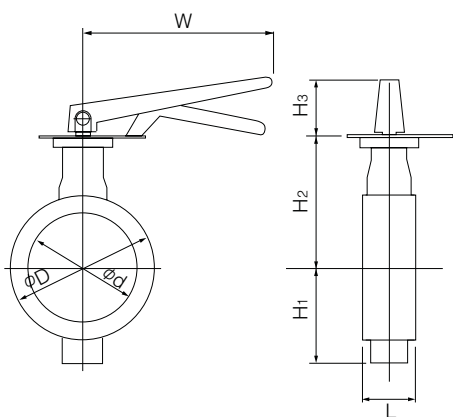
Nominal size		Dimension (mm)							Lever type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	W		
50	2	54	102	43	68	138	66	200	1T-1	2.5
65	2 1/2	67	122	46	79	151	66	200	1T-1	2.9
80	3	82	138	46	86	156	66	200	1T-1	3.6
100	4	103	163	52	103	167	66	200	1T-1	4.4
125	5	129	200	56	118	191	92	300	1T-2	7.4
150	6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

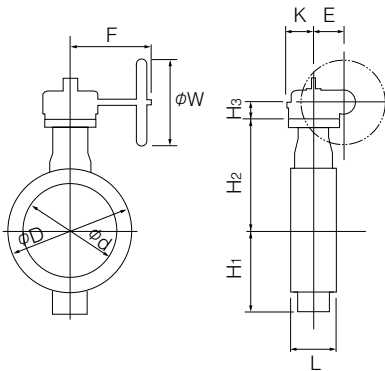


Worm gear type 732P-2I (50mm to 300mm) / 732P-2U (350mm, 400mm) / 732P-2S (450mm to 600mm)

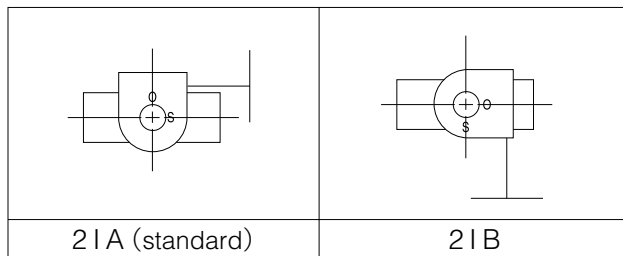
■732P

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		
732P	50	2	54	102	43	68	138	24	28	35	83	70	2I-0	2.4
	65	2 1/2	67	122	46	79	151	24	28	35	83	70	2I-0	2.9
	80	3	82	138	46	86	156	27	46	48	145	100	2I-1	4.2
	100	4	103	163	52	103	167	27	46	48	145	100	2I-1	5
	125	5	129	200	56	118	191	30	53	51	160	125	2I-2	8
	150	6	152	235	56	135	202	30	53	51	160	125	2I-2	9.6
	200	8	198	280	60	177	227	36	71	65	208	200	2I-3	16
	250	10	251	353	68	216	280	36	71	65	208	200	2I-3	25
	300	12	300	403	78	254	312	38.5	71	65	193	200	2I-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	

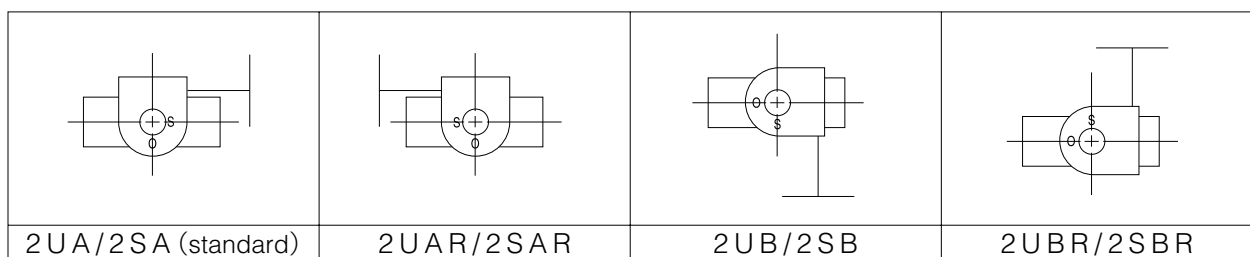
■732P-2 I/2U/2S



■2I Installation direction



■2U/2S Installation direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

731P/732P (Wafer) 732Q/752W (Lugged)

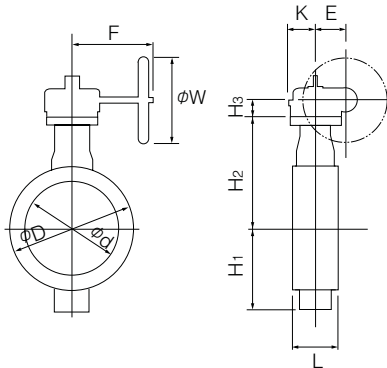
Worm gear type 731P-2I(50mm to 300mm)/731P-2U(350mm, 400mm)/731P-2S(450mm to 600mm)

732P

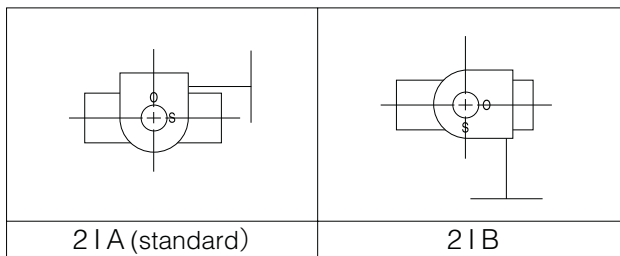
Type	Nominal size		Dimension (mm)											Gear type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	E	K	F	W		
				JIS10K	JIS16K										
731P	50	2	54	102	102	43	68	138	24	28	35	83	70	2I-0	2.4
	65	2 1/2	67	122	122	46	79	151	24	28	35	83	70	2I-0	2.8
	80	3	82	132	138	46	86	156	27	46	48	145	100	2I-1	4.1
	100	4	103	157	163	52	103	167	27	46	48	145	100	2I-1	4.8
	125	5	129	188	200	56	118	191	30	53	51	160	125	2I-2	7.7
	150	6	152	218	235	56	135	202	30	53	51	160	125	2I-2	9.7
	200	8	198	267	280	60	177	227	36	71	65	208	200	2I-3	15.5
	250	10	251	330	353	68	216	280	36	71	65	208	200	2I-3	24.3
	300	12	300	375	403	78	254	312	38.5	71	65	193	200	2I-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.

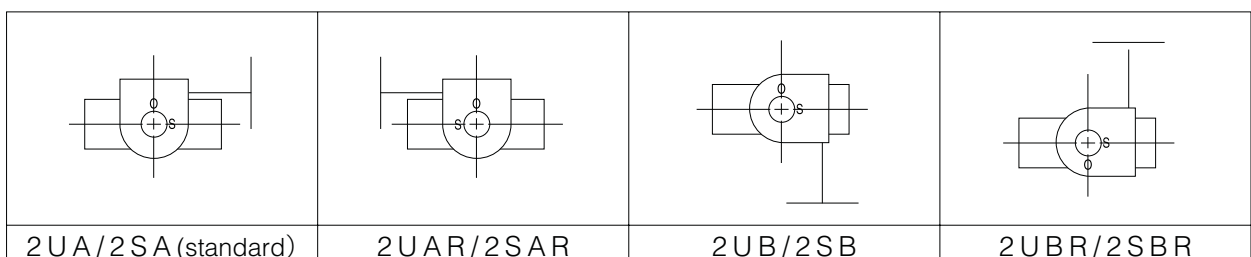
731P-2 I/2U/2S



2I Installation direction



2U/2S Installation direction



Double-acting pneumatic cylinder type 731P-7E (50mm to 300mm)

■Standard

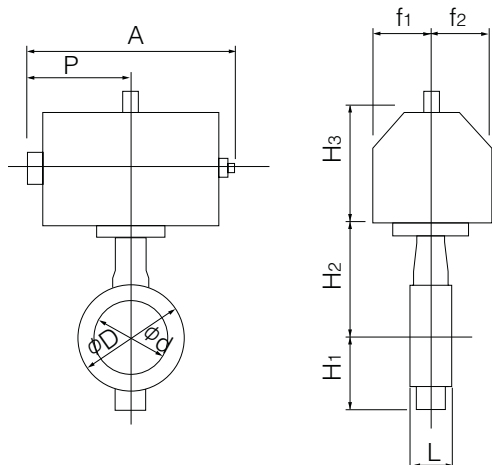
Type	Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
	mm	inch	φd	φD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
				JIS10K	JIS16K										
731P	50	2	54	102	102	43	68	138	125	228	116	57	29	T35	4
	65	2 1/2	67	122	122	46	79	151	125	228	116	57	29	T35	4
	80	3	82	132	138	46	86	156	125	228	116	57	29	T35	5
	100	4	103	157	163	52	103	167	168	276	142	75	47	T85	9
	125	5	129	188	200	56	118	191	203	346	176	79	57	T200	14
	150	6	152	218	235	56	135	202	203	346	176	79	57	T200	16
	200	8	198	267	280	60	177	227	231	423	214	91	69	T380	26
	250	10	251	360	353	68	216	280	231	423	214	91	69	T380	35
300	12	300	375	403	78	254	312	269	546	270	118	85	T750	53	

■Heavy duty

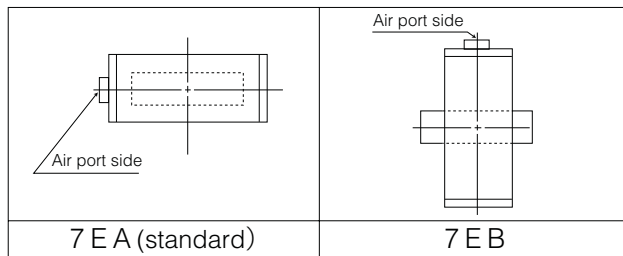
Type	Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
	mm	inch	φd	φD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
				JIS10K	JIS16K										
731P	50	2	54	102	102	43	68	138	125	228	116	57	29	T35	4
	65	2 1/2	67	122	122	46	79	151	168	276	142	75	47	T85	7
	80	3	82	132	138	46	86	156	168	276	142	75	47	T85	8
	100	4	103	157	163	52	103	167	168	276	142	75	47	T85	9
	125	5	129	188	200	56	118	191	203	346	176	79	57	T200	14
	150	6	152	218	235	56	135	202	231	423	214	91	69	T380	22
	200	8	198	267	280	60	177	227	231	423	214	91	69	T380	26
	250	10	251	330	353	68	216	280	269	546	270	118	85	T750	45

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

■731P-7E



■7E Installation direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

731P/732P (Wafer) 732Q/752W (Lugged)

Double-acting pneumatic cylinder type 731P-3A (300mm to 600mm)

Standard

Type	Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
				JIS10K	JIS16K										
731P	350	14	336	415	415	78	304	340	364	743	362	100	164	TGA-125	177
	400	16	390	477	477	102	343	380	364	743	362	100	164	TGA-125	228
	450	18	439	532	532	114	379	420	407	810	417	100	180	TGA-140	194
	500	20	490	610	610	127	422	450	435	939	483	130	202	TGA-160	294
	600	24	583	826	720	154	494	530	570	1163	599	160	253	TGA-200	537(567)

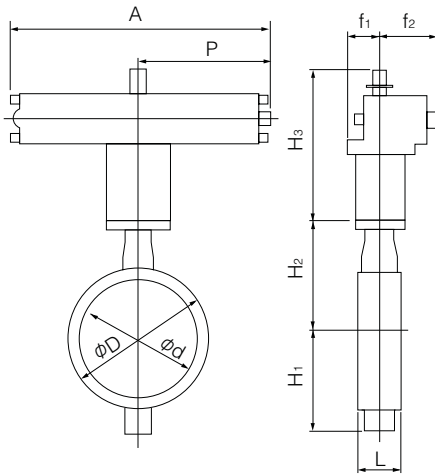
Remark: Value in brackets is for JIS 10K flanges.

Heavy duty

Type	Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
				JIS10K	JIS16K										
731P	300	12	300	375	403	78	254	312	359	743	362	100	164	TGA-125	74
	350	14	336	415	415	78	304	340	412	810	393	100	180	TGA-140	128
	400	16	390	477	477	102	343	380	465	939	456	130	202	TGA-160	208
	450	18	439	532	532	114	379	420	478	1053	543	130	218	TGA-180	289
	500	20	490	610	610	127	422	450	570	1163	599	160	253	TGA-200	402
	600	24	583	826	720	154	494	530	633	1381	707	160	299	TGA-250	635(665)

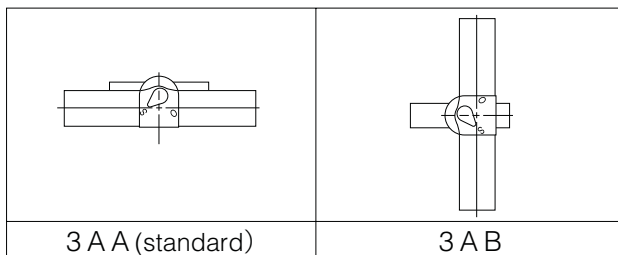
Remark: Value in brackets is for JIS 10K flanges.

731P-3A



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

3A Installation direction



Single-acting pneumatic cylinder type 731P-7G (Air to open: 50mm to 200mm) / 731P-7F (Air to close: 50mm to 200mm)

■ Standard

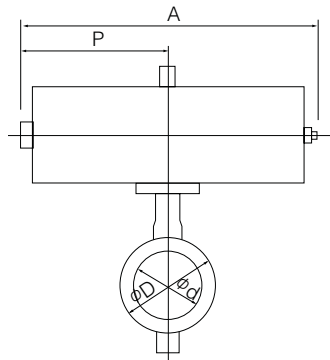
Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
			JIS10K	JIS16K										
50	2	54	102	102	43	68	138	168	364	183	75	47	T85S	8
65	2 1/2	67	122	122	46	79	151	168	364	183	75	47	T85S	9
80	3	82	132	138	46	86	156	168	364	183	75	47	T85S	9
100	4	103	157	163	52	103	167	203	449	226	79	57	T200S	15
125	5	129	188	200	56	118	191	231	550	276	91	69	T380S	25
150	6	152	218	235	56	135	202	269	723	360	118	85	T750S	41
200	8	198	267	280	60	177	227	269	723	360	118	85	T750S	44

■ Heavy duty

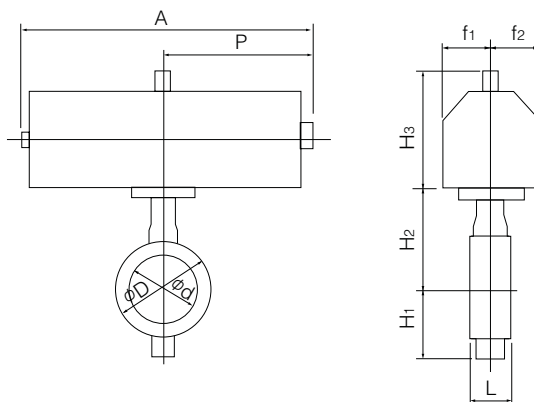
Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
			JIS10K	JIS16K										
50	2	54	102	102	43	68	138	168	364	183	75	47	T85S	8
65	2 1/2	67	122	122	46	79	151	203	449	226	79	57	T200S	13
80	3	82	132	138	46	86	156	203	449	226	79	57	T200S	14
100	4	103	157	163	52	103	167	231	550	276	91	69	T380S	23
125	5	129	188	200	56	118	191	269	723	360	118	85	T750S	39
150	6	152	218	235	56	135	202	269	723	360	118	85	T750S	41

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

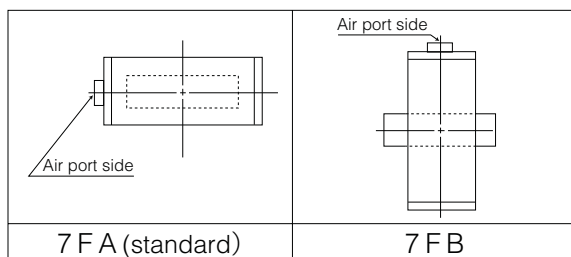
■ 731P-7F



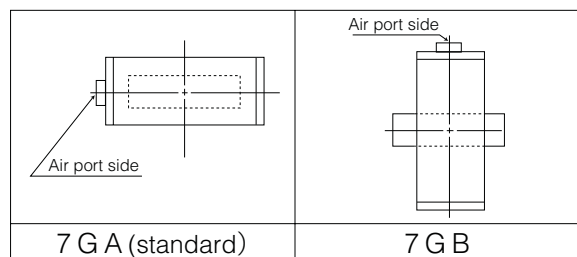
■ 731P-7G



■ 7F Installation direction



■ 7G Installation direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

731P/732P (Wafer) 732Q/752W (Lugged)

Single-acting pneumatic cylinder type 731P-3U (Air to open: 200mm to 600mm) / 731P-3K (Air to close: 200mm to 600mm)

Standard

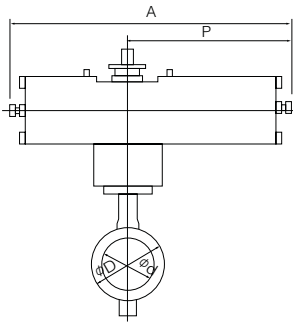
Type	Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
				JIS10K	JIS16K										
731P	200	8	198	267	280	60	177	227	307	945	585	70	165	TG-10S	62
	250	10	251	330	353	68	216	280	307	1080	720	94	206	TG-12S	121
	300	12	300	375	403	78	254	312	307	1080	720	94	206	TG-12S	130
	350	14	336	415	415	78	304	340	340	1255	865	131	257	TG-14S	269
	400	16	390	477	477	102	343	380	340	1255	865	131	257	TG-14S	305
	450	18	439	532	532	114	379	420	474	1655	1095	164	348	TG-20S	555
	500	20	490	610	610	127	422	450	474	1655	1095	164	348	TG-20S	606
	600	24	583	826	720	154	494	530	474	1655	1095	164	348	TG-20S	736 (766)

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

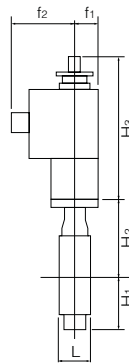
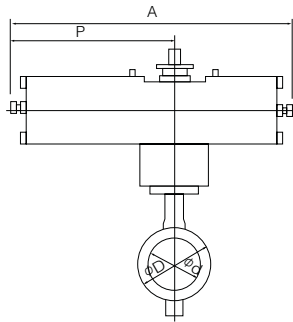
Heavy duty

Type	Nominal size		Dimension (mm)											Cylinder type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
				JIS10K	JIS16K										
731P	200	8	198	267	280	60	177	227	307	1080	720	94	206	TG-12S	107
	250	10	251	330	353	68	216	280	307	1080	720	94	206	TG-12S	116
	300	12	300	375	403	78	254	312	340	1255	865	131	257	TG-14S	226
	350	14	336	415	415	78	304	340	340	1255	865	131	257	TG-14S	269
	400	16	390	477	477	102	343	380	474	1655	1095	164	348	TG-20S	519
	450	18	439	532	532	114	379	420	474	1655	1095	164	348	TG-20S	555
	500	20	490	610	610	127	422	450	474	1655	1095	164	348	TG-20S	606

731P-3U



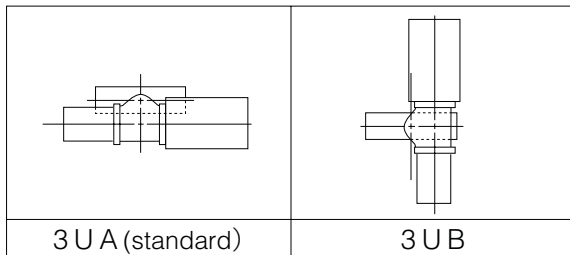
731P-3K



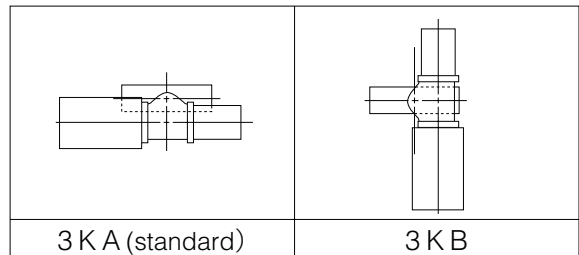
Selection criteria

Standard	Select when none of the following heavy duty items apply.
Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

3U Installation direction



3K Installation direction



Single-acting pneumatic cylinder type 732P-3U (Air to open: 200mm to 300mm) / 732P-3K (Air to close: 200mm to 300mm)

■ Standard

Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
200	8	198	280	60	177	227	307	945	585	70	165	TG-10S	68
250	10	251	353	68	216	280	307	1080	720	94	206	TG-12S	122
300	12	300	403	78	254	312	307	1080	720	94	206	TG-12S	130

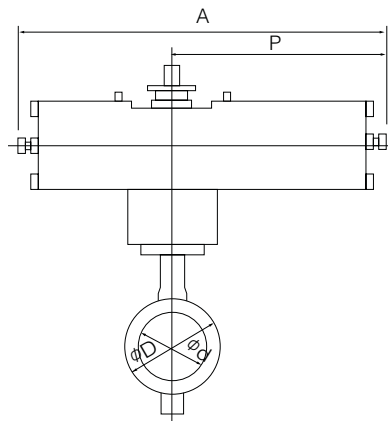
■ Heavy duty

Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
200	8	198	280	60	177	227	307	1080	720	94	206	TG-12S	112
250	10	251	353	68	216	280	340	1255	865	131	257	TG-14S	218
300	12	300	403	78	254	312	340	1255	865	131	257	TG-14S	226

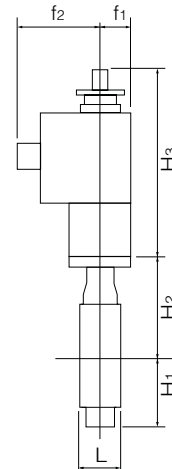
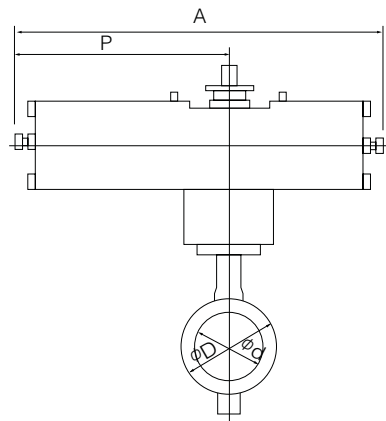
Please consult us regarding selection of drive parts for 350mm and higher.

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

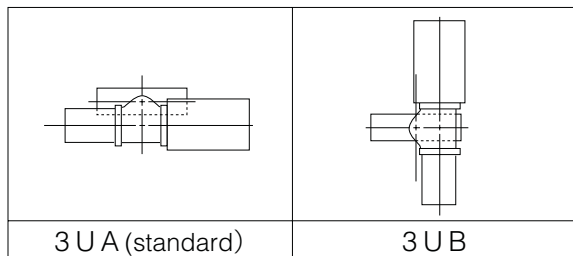
■ 732P-3U



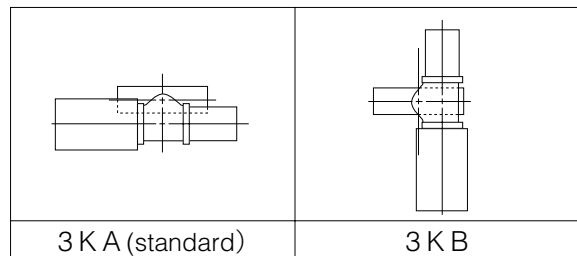
■ 732P-3K



■ 3U Installation direction



■ 3K Installation direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

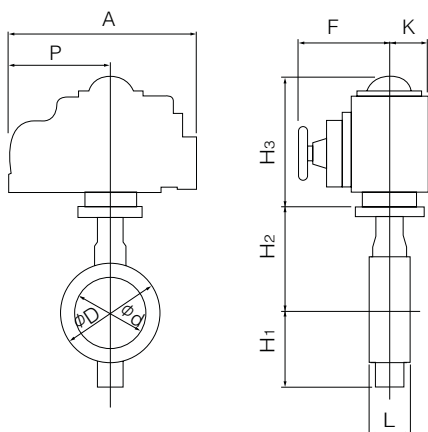
731P/732P (Wafer) 732Q/752W (Lugged)

Single phase electric motor type 731P-4I (50mm to 400mm)

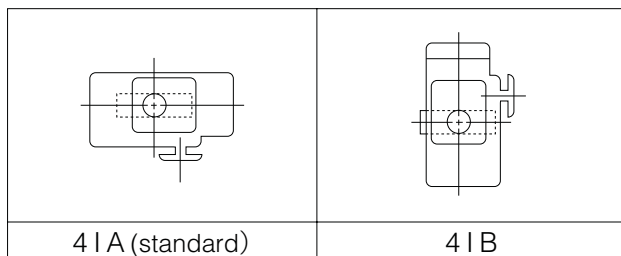
Type	Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	A	P	F	K		
				JIS10K	JIS16K										
731P	50	2	54	102	102	43	68	138	120	161	84	58	45	4I-00	4.3
									150	202	100	85	54	4I-0	6
	65	2 1/2	67	122	122	46	79	151	150	202	100	85	54	4I-0	6.4
	80	3	82	132	138	46	86	156	150	202	100	85	54	4I-0	7
	100	4	103	157	163	52	103	167	165	252	138	126	65	4I-1	10
	125	5	129	188	200	56	118	191	198	310	167	154	85	4I-2	17
	150	6	152	218	235	56	135	202	198	310	167	154	85	4I-2	19
	200	8	198	267	280	60	177	227	198	310	167	154	85	4I-2.5	24.3
	250	10	251	330	353	68	216	280	230	388	223	246	136	4I-3	43.5
	300	12	300	375	403	78	254	312	230	388	223	246	136	4I-3	52.1
350	14	336	415	415	78	304	340	230	388	223	246	136	4I-4	100	
400	16	390	477	477	102	343	380	230	388	223	246	136	4I-4	136	

Note 1: For nominal size 50 mm type (for control), the 4I-0 type should be selected. (The 4I-00 type is only designed for ON-OFF operation.)

731P-4I



4I Installation direction

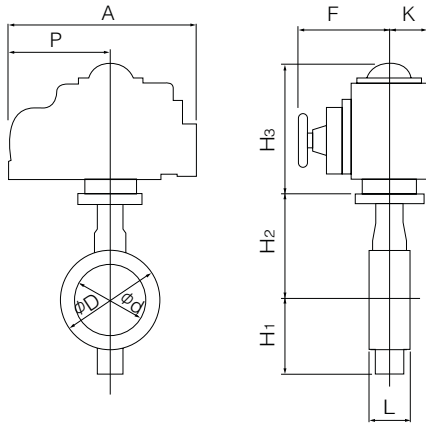


Single phase electric motor type 732P-4I (50mm to 300mm)

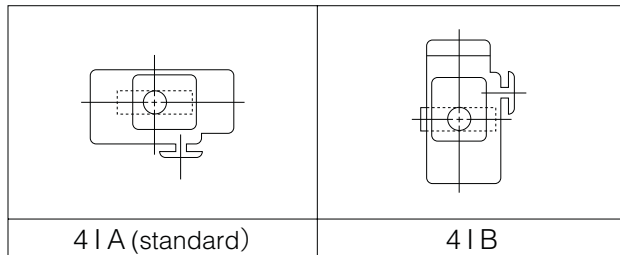
Nominal size		Dimension (mm)										Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	F	K		
50	2	54	102	43	68	138	120	161	84	58	45	4I-00	4.4
							150	202	100	85	54	4I-0	6.1
65	2 1/2	67	122	46	79	151	150	202	100	85	54	4I-0	6.5
80	3	82	138	46	86	156	150	202	100	85	54	4I-0	7.2
100	4	103	163	52	103	167	165	252	138	126	65	4I-1	10.2
125	5	129	200	56	118	191	198	310	167	154	85	4I-2	17.3
150	6	152	235	56	135	202	198	310	167	154	85	4I-2	19.1
200	8	198	280	60	177	227	230	388	223	246	136	4I-3	35.3
250	10	251	353	68	216	280	230	388	223	246	136	4I-3	44.2
300	12	300	403	78	254	312	230	388	223	246	136	4I-3	52.2

Note 1: For nominal size 50 mm type (for control), the 4I-0 type should be selected. (The 4I-00 type is only designed for ON-OFF operation.)
Please consult us regarding selection of drive parts for 350mm and higher.

732P-4I



4I Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

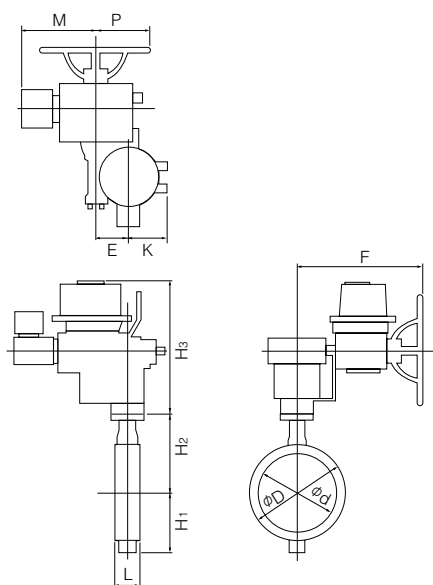
731P/732P (Wafer) 732Q/752W (Lugged)

Three phase motor actuator type 731P-4L (300mm to 600mm)

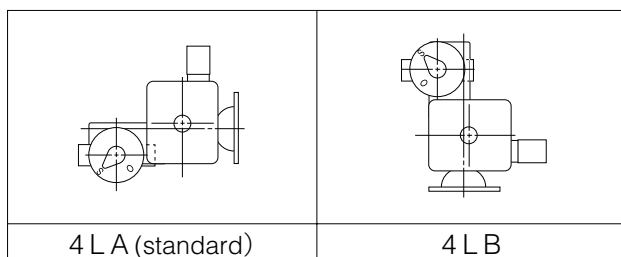
Type	Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)	
	mm	inch	ϕd	ϕD		L	H ₁	H ₂	H ₃	E	K	F	M			P
				JIS10K	JIS16K											
731P	300	12	300	375	403	78	254	312	435	85	126	498	357	230	LTKD-01 0.2kW /MGH-2	112
	350	14	336	415	415	78	304	340	487	117	164	533	373	230	LTKD-01 0.4kW /MGH-3	178
	400	16	390	477	477	102	343	380	487	117	164	533	373	230	LTKD-01 0.4kW /MGH-3	215
	450	18	439	532	532	114	379	420	538	140	198	594	400	230	LTKD-02 0.75kW /MGH-4	297
	500	20	490	610	610	127	422	450	538	140	198	594	400	230	LTKD-02 0.75kW /MGH-4	348
	600	24	583	826	720	154	494	530	604	210	293	748	440	360	LTKD-05 0.75kW /MGH-5	645 (675)

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

731P-4L



4L Installation direction

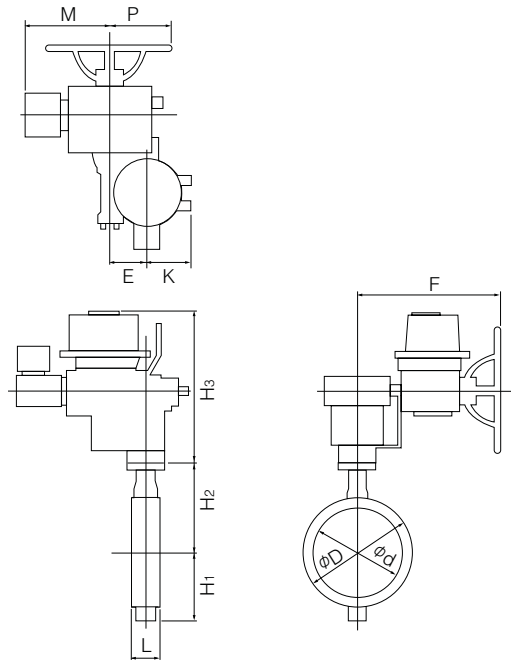


Three phase motor actuator type 732P-4L (250mm, 300mm)

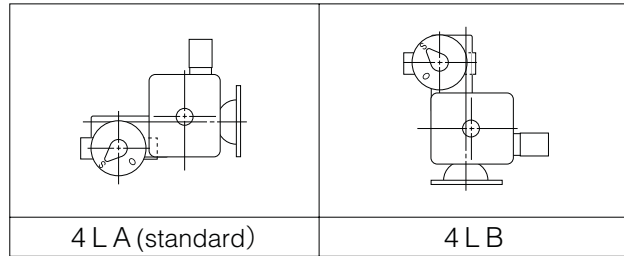
Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	M	P		
250	10	251	353	68	216	280	435	85	126	498	357	230	LTKD-01 0.2kW /MGH-2	99
300	12	300	403	78	254	312	435	85	126	498	357	230	LTKD-01 0.2kW /MGH-2	110

Please consult us regarding selection of drive parts for 350mm and higher.

732P-4L



4L Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

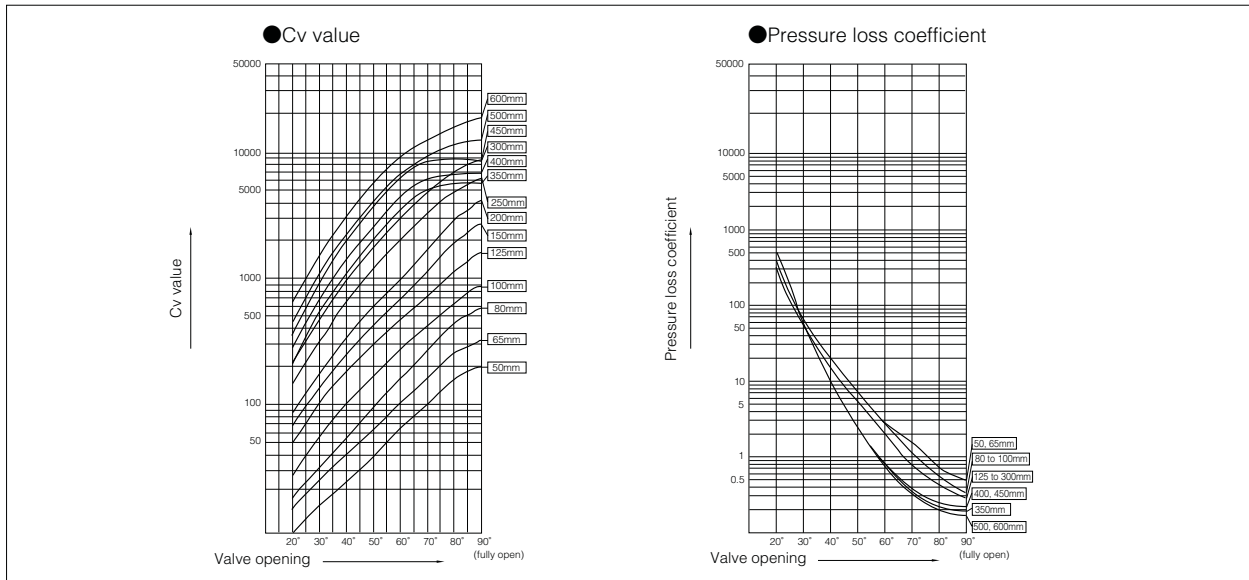
227P

907H/908H (MKT)

903C

731P/732P (Wafer) 732Q/752W (Lugged)

731P Cv value/Pressure loss coefficient



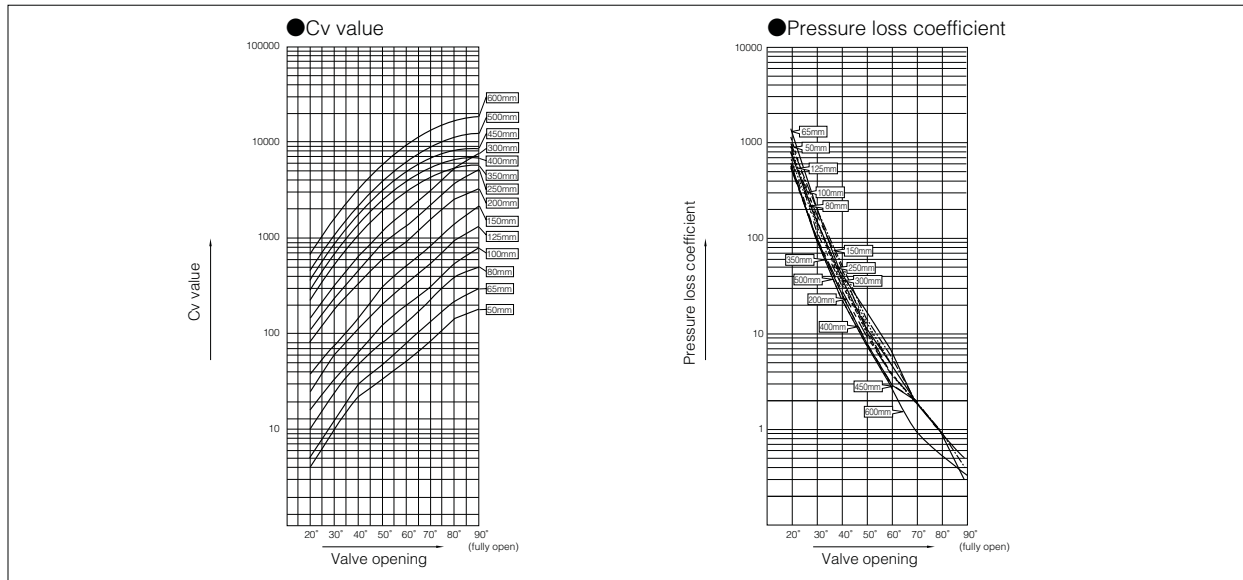
731P (50mm~600mm) Cv value

Type	Nominal size		Valve opening							
	mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
731P	50	2	10	17	25	37	66	102	159	200
	65	2 1/2	16	27	41	64	103	162	260	320
	80	3	20	35	57	97	162	272	450	580
	100	4	32	62	103	164	276	431	628	880
	125	5	55	107	193	297	450	727	1150	1590
	150	6	71	145	264	439	671	1170	1910	2800
	200	8	96	189	344	606	957	1730	2940	4300
	250	10	174	340	707	1240	2160	3330	4880	6200
	300	12	254	491	1000	1780	3020	4910	7180	8900
	350	14	222	548	1101	1930	3080	4431	5451	5770
	400	16	289	717	1429	2515	3924	5482	6586	6920
	450	18	365	911	1807	3182	4953	6896	8262	8670
500	20	457	1123	2265	3975	6395	9311	11571	12300	
600	24	664	1614	3307	5797	9328	13698	17243	18400	

731P (50mm~600mm) Pressure loss coefficient

Type	Nominal size		Valve opening							
	mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
731P	50	2	165	61	26	13	4	2	1	0.4
	65	2 1/2	162	58	24	10	4	2	1	0.4
	80	3	196	67	25	9	3	1	0.4	0.2
	100	4	233	61	22	9	3	1	0.6	0.3
	125	5	181	48	15	6	3	1	0.4	0.2
	150	6	222	53	16	6	2	1	0.3	0.1
	200	8	373	96	29	9	4	1	0.4	0.2
	250	10	270	71	16	5	2	1	0.3	0.2
	300	12	262	70	17	5	2	1	0.3	0.2
	350	14	579	95	24	8	3	1	1	1
	400	16	596	97	24	8	3	2	1	1
	450	18	609	98	25	8	3	2	1	1
500	20	600	99	24	8	3	1	1	1	
600	24	603	102	24	8	3	1	1	1	

732P Cv value/Pressure loss coefficient



732P (50mm~600mm) Cv value

Type	Nominal size		Valve opening							
	mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
731P	50	2	4	10	22	33	51	85	145	179
	65	2 1/2	5	13	30	48	79	129	220	293
	80	3	10	25	49	80	130	225	396	500
	100	4	16	33	65	125	200	311	539	772
	125	5	25	60	112	201	338	535	951	1295
	150	6	37	77	145	303	517	807	1400	2166
	200	8	79	178	335	592	906	1557	2573	3248
	250	10	110	238	460	876	1359	2217	3763	5153
	300	12	146	321	640	1192	1910	3147	5379	7546
	350	14	222	548	1101	1930	3080	4431	5451	5770
	400	16	289	717	1429	2515	3924	5482	6586	6920
	450	18	365	911	1807	3182	4953	6896	8262	8670
	500	20	457	1123	2265	3975	6395	9311	11571	12300
600	24	664	1614	3307	5797	9328	13698	17243	18400	

732P (50mm~600mm) Pressure loss coefficient

Type	Nominal size		Valve opening							
	mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
731P	50	2	1132	170	35	15	6	2	1	0.5
	65	2 1/2	1389	225	45	18	7	2	1	0.5
	80	3	896	124	33	13	5	2	1	0.3
	100	4	971	214	56	15	6	2	1	0.4
	125	5	887	154	44	14	5	2	1	0.3
	150	6	801	189	53	12	4	2	1	0.3
	200	8	549	108	31	10	4	2	1	0.3
	250	10	675	145	39	11	4	2	1	0.3
	300	12	790	164	41	12	5	2	1	0.3
	350	14	579	95	24	8	3	1	1	1
	400	16	596	97	24	8	3	2	1	1
	450	18	609	98	25	8	3	2	1	1
	500	20	600	99	24	8	3	1	1	1
600	24	603	102	24	8	3	1	1	1	

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

731P/732P (Wafer) 732Q/752W (Lugged)

731P Applicable flange standard

Type	Nominal size		JIS		ANSI 150Lb	BS4504		DIN	
	mm	inch	10K	16K		PN10	PN16	NP10	NP16
731P	50	2	○	○	○	○	○	○	○
	65	2 1/2	○	○	○	○	○	○	○
	80	3	△	○	△	○	○	○	○
	100	4	△	○	○	○	○	○	○
	125	5	△	○	△	△	△	△	△
	150	6	△	○	△	△	△	△	△
	200	8	△	○	△	△	△	△	△
	250	10	△	○	△	△	△	△	△
	300	12	△	○	○	△	△	△	△
	350	14	D	D	D	D	D	D	D
	400	16	D	D	D	D	D	D	D
	450	18	D	D	D	D	D	D	D
	500	20	D	D	D	D	D	D	D
600	24	T	T	T	D	T	D	T	

○ : Can be used without flange drilling.
 △ : With additional flange drilling.
 D : With flange drilling.
 T : With flange tapping.

732P Applicable flange standard

Type	Nominal size		JIS 20K	DIN NP25
	mm	inch		
732P	50	2	○	○
	65	2 1/2	○	○
	80	3	○	○
	100	4	○	○
	125	5	○	○
	150	6	○	△
	200	8	○	○
	250	10	○	△
	300	12	○	△
	350	14	D	D
	400	16	D	D
	450	18	D	D
	500	20	D	D
600	24	T	T	

○ : Can be used without flange drilling.
 △ : With additional flange drilling.
 D : With flange drilling.
 T : With flange tapping.

731P Applicable pipe list in case of **A**

Type	Nominal size		SGP	STPY	Sch20	Sch40	Sch10S	Sch20S	Minimum internal diameter of piping (mm)
	mm	inch							
731P	50	2	○	—	○	○	○	○	34
	65	2 1/2	○	—	○	○	○	○	51
	80	3	○	—	○	○	○	○	70
	100	4	○	—	○	○	○	○	91
	125	5	○	—	○	○	○	○	118
	150	6	○	—	○	○	○	○	144
	200	8	○	—	○	○	○	○	194
	250	10	○	—	○	○	○	○	246
	300	12	○	—	○	○	○	○	294
	350	14	○	○	○	○	—	—	332
	400	16	○	○	○	○	—	—	379
	450	18	○	○	○	○	—	—	428
	500	20	○	○	○	○	—	—	477
600	24	—	○	○	○	—	—	569	

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

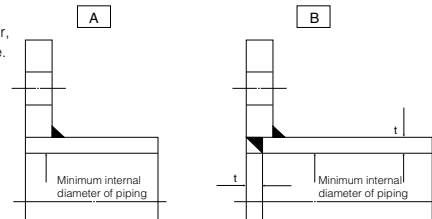
903C

731P Applicable pipe list in case of **B**

Type	Nominal size		SGP	STPY	Sch20	Sch40	Sch10S	Sch20S
	mm	inch						
731P	50	2	○	—	○	○	○	○
	65	2 1/2	○	—	○	○	○	○
	80	3	○	—	○	○	○	○
	100	4	○	—	○	○	○	○
	125	5	○	—	○	○	○	○
	150	6	○	—	○	○	○	○
	200	8	○	—	○	○	○	○
	250	10	○	—	○	○	○	○
	300	12	○	—	○	○	○	○
	350	14	○	○	○	○	—	—
	400	16	○	○	○	○	—	—
	450	18	○	○	○	○	—	—
	500	20	○	○	○	○	—	—
600	24	—	○	○	○	—	—	

Remark 1: ○=Applicable

Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open. In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange. For details, please consult us.



731P/732P (Wafer) 732Q/752W (Lugged)

732P Applicable pipe list in case of **A**

Type	Nominal size		SGP	STPY	Sch20	Sch40	Sch20S	Minimum internal diameter of piping (mm)
	mm	inch						
732P	50	2	○	—	○	○	○	34
	65	2 1/2	○	—	○	○	○	51
	80	3	○	—	○	○	○	70
	100	4	○	—	○	○	○	91
	125	5	○	—	○	○	○	118
	150	6	○	—	○	○	○	144
	200	8	○	—	○	○	○	194
	250	10	○	—	○	○	○	246
	300	12	○	—	○	○	○	294
	350	14	○	○	○	○	—	332
	400	16	○	○	○	○	—	379
	450	18	○	○	○	○	—	428
	500	20	○	○	○	○	—	477
600	24	—	○	○	○	—	569	

732P Applicable pipe list in case of **B**

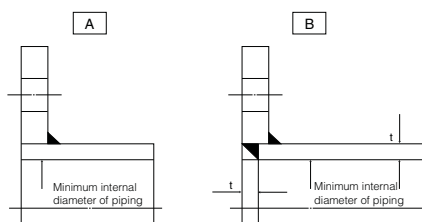
Type	Nominal size		SGP	STPY	Sch20	Sch40	Sch20S
	mm	inch					
732P	50	2	○	—	○	○	○
	65	2 1/2	○	—	○	○	○
	80	3	○	—	○	○	○
	100	4	○	—	○	○	○
	125	5	○	—	○	○	○
	150	6	○	—	○	○	○
	200	8	○	—	○	○	○
	250	10	○	—	○	○	○
	300	12	○	—	○	○	○
	350	14	○	○	○	○	—
	400	16	○	○	○	○	—
	450	18	○	○	○	○	—
	500	20	○	○	○	○	—
600	24	—	○	○	○	—	

Remark 1: ○=Applicable

Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.

In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange.

For details, please consult us.



731P Piping bolt and nut sizes

Hexagon bolt & nut

Type	Nominal size		JIS 10K		JIS 16K	
	mm	inch	Hexagon bolts	Setting bolts	Hexagon bolts	Setting bolts
731P	50	2	4-M16×105×40	—	8-M16× 95×35	—
	65	2 1/2	4-M16×105×40	—	8-M16×105×35	—
	80	3	8-M16×110×40	—	8-M20×110×35	—
	100	4	8-M16×110×40	—	8-M20×120×35	—
	125	5	8-M20×120×50	—	8-M22×130×40	—
	150	6	8-M20×130×50	—	12-M22×130×40	—
	200	8	12-M20×135×50	—	12-M22×140×40	—
	250	10	12-M22×150×60	—	12-M24×155×50	—
	300	12	16-M22×160×60	—	16-M24×170×50	—
	350	14	16-M22×160×60	—	16-M30(P3)×180×55	—
	400	16	16-M24×190×45	—	16-M30(P3)×215×55	—
	450	18	20-M24×205×45	—	20-M30(P3)×230×55	—
	500	20	20-M24×215×45	—	20-M30(P3)×245×55	—
	600	24	20-M30×260×50	8-M30× 70×60	20-M36(P3)×285×65	8-M36(P3)×85

Long bolt & nut

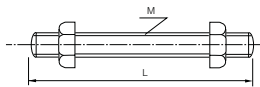
Type	Nominal size		JIS 10K		JIS 16K	
	mm	inch	Long bolts and nuts	Setting bolts	Long bolts and nuts	Setting bolts
731P	50	2	4-M16×120×30	—	8-M16×125	—
	65	2 1/2	4-M16×125×30	—	8-M16×125	—
	80	3	8-M16×125×30	—	8-M20×135	—
	100	4	8-M16×130×30	—	8-M20×150	—
	125	5	8-M20×150×40	—	8-M22×165	—
	150	6	8-M20×150×40	—	12-M22×165	—
	200	8	12-M20×160×40	—	12-M22×170	—
	250	10	12-M22×170×45	—	12-M24×190	—
	300	12	16-M22×185×45	—	16-M24×210	—
	350	14	16-M22×185×45	—	16-M30(P3)×225	—
	400	16	16-M24×220×50	—	16-M30(P3)×260	—
	450	18	20-M24×235×50	—	20-M30(P3)×280	—
	500	20	20-M24×250×50	—	20-M30(P3)×295	—
	600	24	20-M30×300×60	8-M30×70×65	20-M36(P3)×340	8-M36(P3)×85

Example

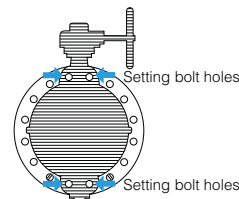
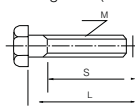
Long bolts: 12 - M22 × 185 × 45
 | | | |
 N M L S

Setting bolts: 4 - M30 × 95 × 65
 (Hexagon bolts) | | | |
 N M L S

Long bolts and nuts (full thread)



Setting bolts (Hexagon bolts)



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

732P Piping bolt and nut sizes

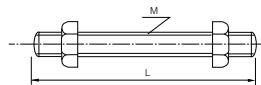
Type	Nominal size		JIS 20K	
	mm	inch	Long bolts and nuts	Setting bolts
732P	50	2	8-M16×125	—
	65	2 1/2	8-M16×125	—
	80	3	8-M20×135	—
	100	4	8-M20×150	—
	125	5	8-M22×165	—
	150	6	12-M22×165	—
	200	8	12-M22×170	—
	250	10	12-M24×190	—
	300	12	16-M24×210	—
	350	14	16-M30(P3)×225	—
	400	16	16-M30(P3)×260	—
	450	18	20-M30(P3)×280	—
	500	20	20-M30(P3)×295	—
600	24	20-M36(P3)×340	8-M36(P3)×90	

Example

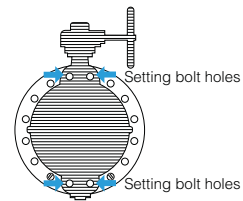
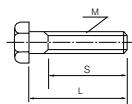
Long bolts: 12 - M22 × 185
 | | |
 M L S

Setting bolts: 4 - M30 × 95 × 65
 (Hexagon bolts) | | | |
 N M L S

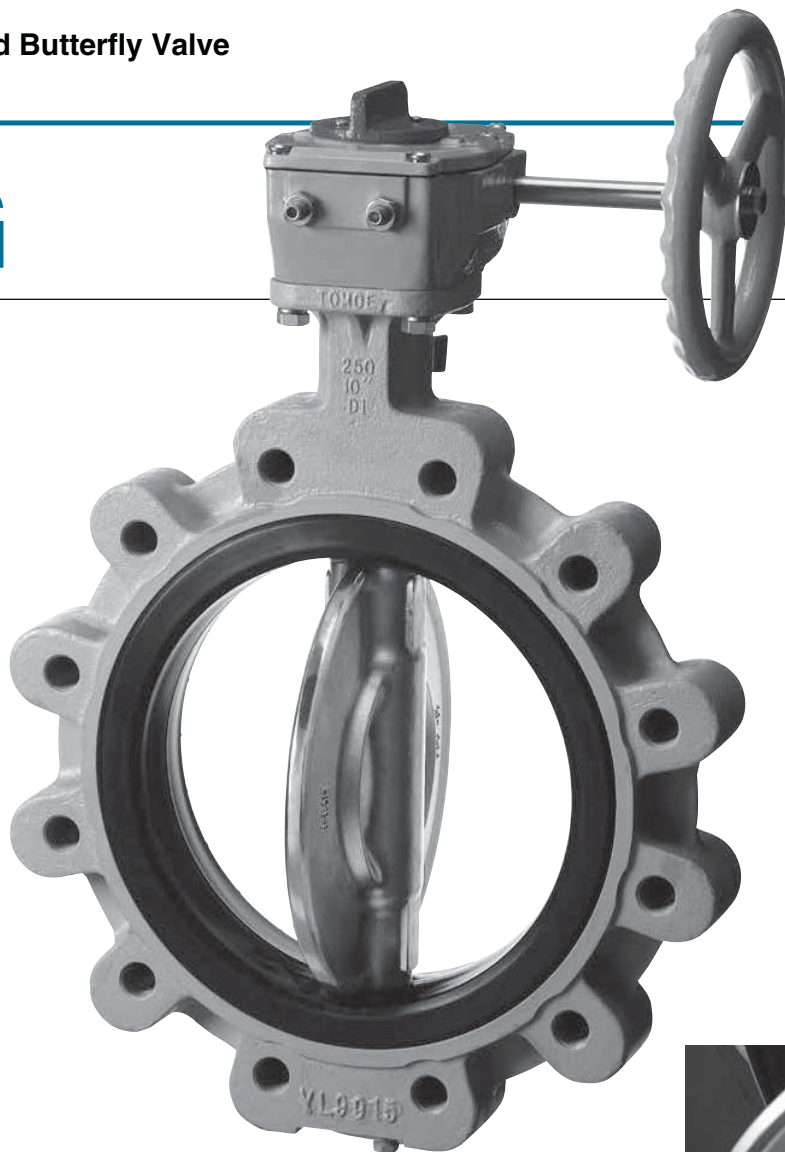
Long bolts and nuts (full thread)



Setting bolts (Hexagon bolts)



71LG



Worm Gear



Features and Benefits

Lightweight disc design

The new disc design provides an ultra strong but lightweight disc, providing considerable weight reductions over competitive products.

Higher Cv values achieved

By minimising the thickness of the disc and keeping its surface smooth, higher Cv values are obtained. Pressure loss figures at the fully open position are significantly lower than those of our competitors.

Less torque

The disc edge design ensures reliable sealing and less torque properties.

Multi layered stem bearings

The multi layered stem bearings ensure that optimum torque figures are delivered and maintained.

Consistent sealing properties

The renowned TOMOE cosine seat design ensures reliable and consistent sealing at a fully rated 16 bar pressure application.

Ease of maintenance

The field replaceable seat ring makes maintenance easy and reduces maintenance costs.

General Description

16 bar rated lugged butterfly valve.

Standard Specifications

Valve Type	Concentric Rubber Seated Butterfly Valve	
Model	71LG	
Body Style	Full Lugged	
Valve Nominal Size	inch	10, 12, 14, 16, 18, 20, 24
	mm	250, 300, 350, 400, 450, 500, 600
Applicable Standards	Face-to-Face Dimensions	API 609 Category A, ISO 5752 (20 series)
	Applicable Flange Accommodation	BS4504 PN16/PN10, DIN2633 PN16, DIN2632 PN10, GB/T9113.1 PN1.6/1.0, ASME B16.5 Class 150, ASME B16.1 Class 125, JIS10/16K
	Top Flange Mounting	ISO5211-1
Standard Materials	Body	Ductile iron, ASTM A536 65-45-12
	Disc	Stainless steel, ASTM A351CF8, ASTM A536 65-45-12+HALAR® Coating
	Shaft	SUS420J2
	Seat ring	NBR, EPDM
Max. Working Pressure	1.6MPa	
Seat Leakage Rate	ISO5208 RateA (Zero leakage), API598	
Flow Direction	Bi-directional	
Working Temperature Range	Maximum	NBR: 0~60°C, EPDM: -10~80°C
	Continuous Use	NBR: 0~50°C, EPDM: 0~70°C
Test Pressures	Shell Test	2.4MPa
	Seat Leakage Test	1.76MPa
Operators	Worm gear	
Coating	Epoxy Primer Finish (Munsell N7)	

※ 1 Wafer type is available upon request

* 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.

※ Please consult us for 200mm and under.

Option: Anti-condensation column



The anti-condensation column is available as option. It is made of engineering plastic and prevent condensation occurred by transmission of cool temperature form flow media. No insulation is necessary around the gearbox.

Compared to the conventional stainless steel column, the anti-condensation column is:

- **Lighter weight**
- **Better anti-heat-transmission results in better anti-condensation and smaller size**
- **Simple shape**
- **Easy installation**

With this column, valve operation would be much easier even if the pipe is covered with thick insulation material.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

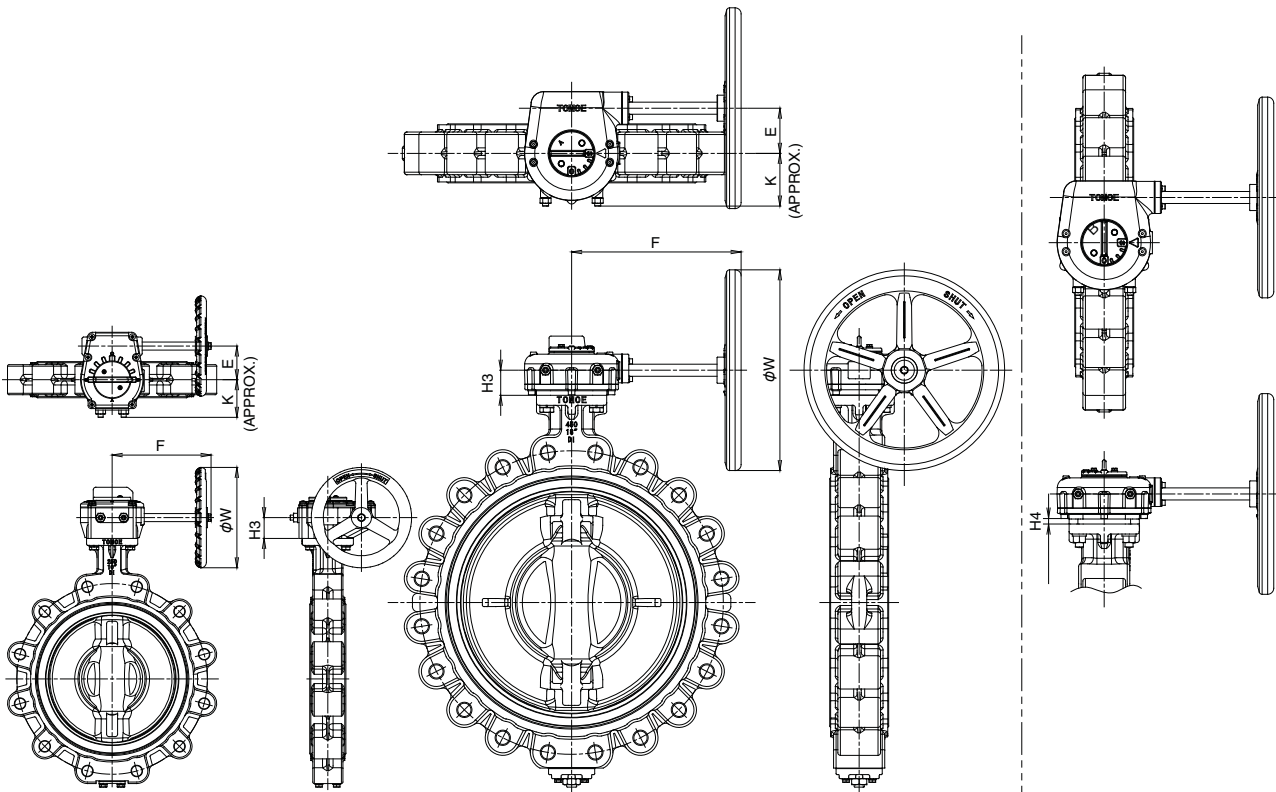
907H/908H (MKT)

903C

Dimensions - Gear Operated Valve

Nominal size		H3	H4*	E	K	F	W	Gear Model	Approx Weight (kg)			
									Standard	Installation Direction of B	Gear box	
mm	inch											
Please consult us for 200mm and under.												
250	10	41.5	-	67	75	198	200	2U-3	44	-	8	
300	12	48	-	87.5	90	222.5	200	2U-4	63/64	-	13	
350	14	48	-	87.5	90	222.5	280	2U-4	80/84	-	15	
400	16	50	-	90	105	331	280	2U-5S	120	-	15	
450	18	50	10	90	105	337	400	2U-5S	139/164	140/165	15	
500	20	50	-	90	105	337	400	2U-5S	201	-	15	
600	24	61	10	113	140	400	500	2U-6S	317/340	319/342	26	

* Must use spacer to 450mm and 600mm in the installation direction of B.



● 250 to 350mm
10 to 14inch

● 400 to 600mm
16 to 14inch

※
● 450mm, 600mm
18inch, 24inch

Installation direction of B

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

Applicable Flange Accommodation

Nominal size		BS4504 PN16							BS4504 PN10						
mm	inch	L2	D	C	n	Tr bolt	Dp		L2	D	C	n	Tr bolt	Dp	
							DEP1	DEP2						DEP1	DEP2
Please consult us for 200mm and under.															
250	10	60	430	355	8	M24	27	27	60	430	350	8	M20	27	27
300	12	64	485	410	8	M24	31	29	64	485	400	8	M20	31	29
350	14	66	540	470	12	M24	33	31	66	540	460	12	M20	33	31
400	16	80	605	525	12	M27	42	37	80	605	515	12	M24	42	37
450	18	85	675	585	16	M27	48	40	85	675	565	16	M24	48	40
500	20	90	730	650	16	M30	54	42	90	730	620	16	M24	54	42
600	24	115	840	770	16	M33	63	50	115	840	725	16	M27	63	50

Nominal size		DIN2633 PN16							DIN2632 PN10						
mm	inch	L2	D	C	n	Tr bolt	Dp		L2	D	C	n	Tr bolt	Dp	
							DEP1	DEP2						DEP1	DEP2
Please consult us for 200mm and under.															
250	10	60	430	355	8	M24	27	27	60	430	350	8	M20	27	27
300	12	64	485	410	8	M24	31	29	64	485	400	8	M20	31	29
350	14	66	540	470	12	M24	33	31	66	540	460	12	M20	33	31
400	16	80	605	525	12	M27	42	37	80	605	515	12	M24	42	37
450	18	85	675	585	16	M27	48	40	85	675	565	16	M24	48	40
500	20	90	730	650	16	M30	54	42	90	730	620	16	M24	54	42
600	24	115	840	770	16	M33	63	50	115	840	725	16	M27	63	50

Nominal size		ASME B 16.5 Class150							ASME B 16.1 Class125						
mm	inch	L2	D	C	n	Tr bolt	Dp		L2	D	C	n	Tr bolt	Dp	
							DEP1	DEP2						DEP1	DEP2
Please consult us for 200mm and under.															
250	10	60	430	362	8	7/8-9UNC	27	27	60	430	362	8	7/8-9UNC	27	27
300	12	64	485	431.8	8	7/8-9UNC	31	29	64	485	431.8	8	7/8-9UNC	31	29
350	14	66	533	476.3	8	1-8UNC	33	31	66	533	476.3	8	1-8UNC	33	31
400	16	80	605	539.8	12	1-8UNC	42	37	80	605	539.8	12	1-8UNC	42	37
450	18	85	635	577.9	12	1 1/8-UN	48	40	85	635	577.9	12	1 1/8-UN	48	40
500	20	90	730	635.0	16	1 1/8-UN	54	42	90	730	635.0	16	1 1/8-UN	54	42
600	24	115	840	749.3	16	1 1/4-8UN	63	50	115	840	749.3	16	1 1/4-8UN	63	50

Applicable Flange Accommodation

Nominal size		GB/T9113.1 PN1.6							GB/T9113.1 PN1.0						
mm	inch	L2	D	C	n	Tr bolt	Dp		L2	D	C	n	Tr bolt	Dp	
							DEP1	DEP2						DEP1	DEP2
Please consult us for 200mm and under.															
250	10	60	430	355	8	M24	27	27	60	430	350	8	M20	27	27
300	12	64	485	410	8	M24	31	29	64	485	400	8	M20	31	29
350	14	66	540	470	12	M24	33	31	66	540	460	12	M20	33	31
400	16	80	605	525	12	M27	42	37	80	605	515	12	M24	42	37
450	18	85	675	585	16	M27	48	40	85	675	565	16	M24	48	40
500	20	90	730	650	16	M30	54	42	90	730	620	16	M24	54	42
600	24	115	840	770	16	M33	63	50	115	840	725	16	M27	63	50

Nominal size		JIS 16K							JIS 10K						
mm	inch	L2	D	C	n	Tr bolt	Dp		L2	D	C	n	Tr bolt	Dp	
							DEP1	DEP2						DEP1	DEP2
Please consult us for 200mm and under.															
250	10	60	430	380	8	M24	27	27	60	430	355	8	M22	27	27
300	12	64	480	430	12	M24	31	29	64	480	400	12	M22	31	29
350	14	66	540	480	12	M30×3	33	31	66	540	445	12	M22	33	31
400	16	80	605	540	12	M30×3	42	37	80	605	510	12	M24	42	37
450	18	85	675	605	16	M30×3	48	40	85	675	565	16	M24	48	40
500	20	90	730	660	16	M30×3	54	42	90	730	620	16	M24	54	42
600	24	130	845	770	20	M36×3	45	45	130	845	730	20	M30	45	45

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

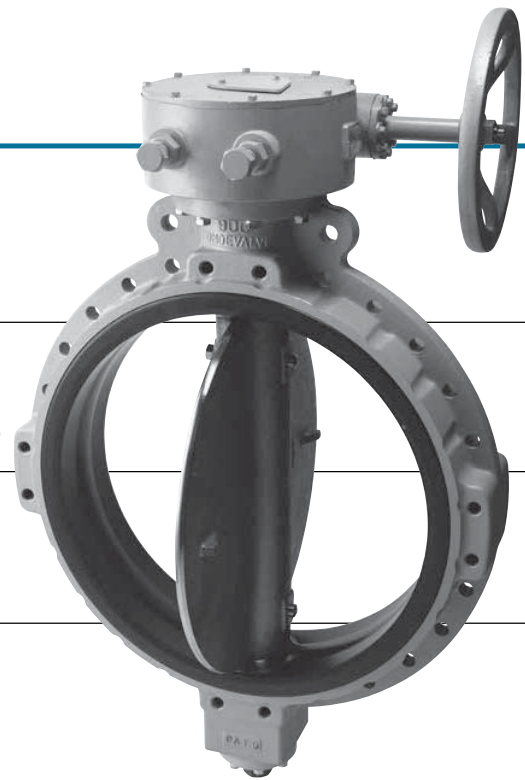
903C

Large Diameter Rubber Seat Butterfly Valves for General Use

700E Wafer with support lugs

700K Wafer with support lugs

700S Wafer with support lugs



Features and Benefits

Simple structure and low cost. Many years of proven reliable performance in various industries.

Concentric design raised center seat

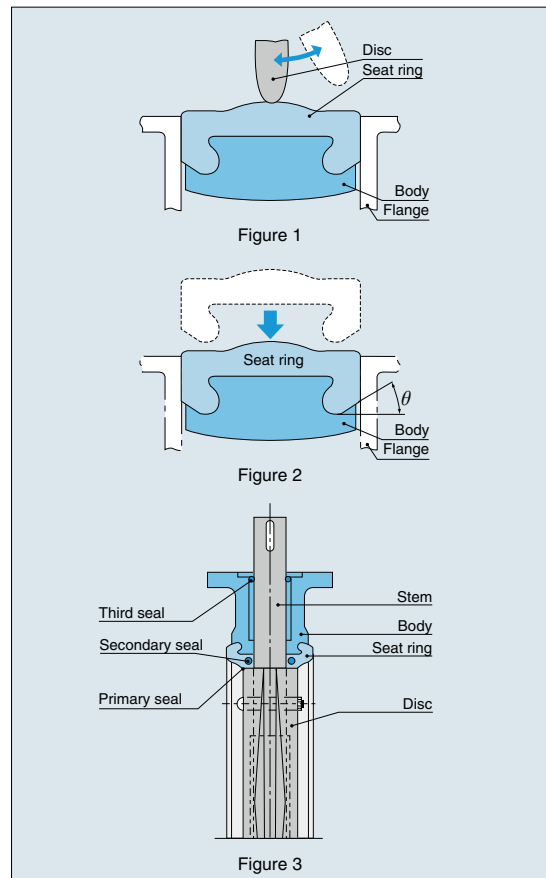
Figure 1 shows the TOMOE sealing design between the disc and seat. The raised section of the seat reduces and minimises the operating torque while ensuring a tight seal between disc and seat.

Rounded dove-tail design

Figure 2 shows the self-gripping seat ring design firmly in place inside the body. This design ensures the seat cannot be displaced during the bolting up of the adjoining flange. The seat also acts as the gasket between the valve and the pipe flange.

Triple-sealing system

Figure 3 shows the triple stem seal. The primary seal is created from the initial compression between the flat surface of the seat and the flat hub of the disc. When the valve is subject to normal operating conditions this seals the shaft and body from any contact with the flowing medium. The secondary seal is accomplished by an O-ring fitted into a stainless steel cartridge which is moulded into the seat ring. There is a secondary seal at each end of the stem where it penetrates the seat. The third seal is to prevent dirt and other foreign materials within the environment from getting into any of the working valve parts.



Discs and seats come in various materials to meet a wide range of needs. These are the ultimate general purpose valves and they provide excellent cost performance.

General Description

TOMOE butterfly valves are used worldwide for various applications in water treatment, shipbuilding, air conditioning, petrochemical, power generation and other industries. Among the various types of TOMOE rubber seated butterfly valves, there are three types – 700E, 700K and 700S – that are particularly suitable for large diameter applications.

Standard Specifications

Type	700E	700K	700S
Size	650mm to 1350mm		
Max. Working Pressure MPa	1.0MPa		
Body shell test	1.5MPa		
Seat leak test	1.1MPa		
Flange standard ※1	JIS 5K/10K	ASME B16.1 Class 125 ISO PN 10 ASME B 16.47 Series A Class 150lb	ASME B16.47 Series B Class 150lb API 605 Class 150
Working temperature range	NBR : -10 to 80 degrees C, *EPDM : -20 to 120 degrees C		
Working temperature in continuous use ※3	NBR : 0 to 60 degrees C, *EPDM : 0 to 70 degrees C		
Standard materials	Body	Cast iron	Cast iron, Ductile iron, Carbon steel
	Disc	Stainless steel Ductile iron with hard Cr plated stainless steel casting Aluminium bronze	
	Stem	Stainless steel, K-MONEL	
	Seat ring ※2	NBR, *EPDM	
Coating	Lacquer Primer (Munsell N7)		

※1 Other flange standards may be available on request. Consult us.

※2 The seat ring of 1000mm and over for 700E/S/K and 720F are vulcanized to the body.

※3 'Working temperature in continuous use' stands for the temperature continuously kept exceeding one hour.

※ Clean face disc (2 shaft design) is available for 700E/S/K and 720F.

※ Please refer to 700G, 704G, 705G in case of 600mm or below.

* 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.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

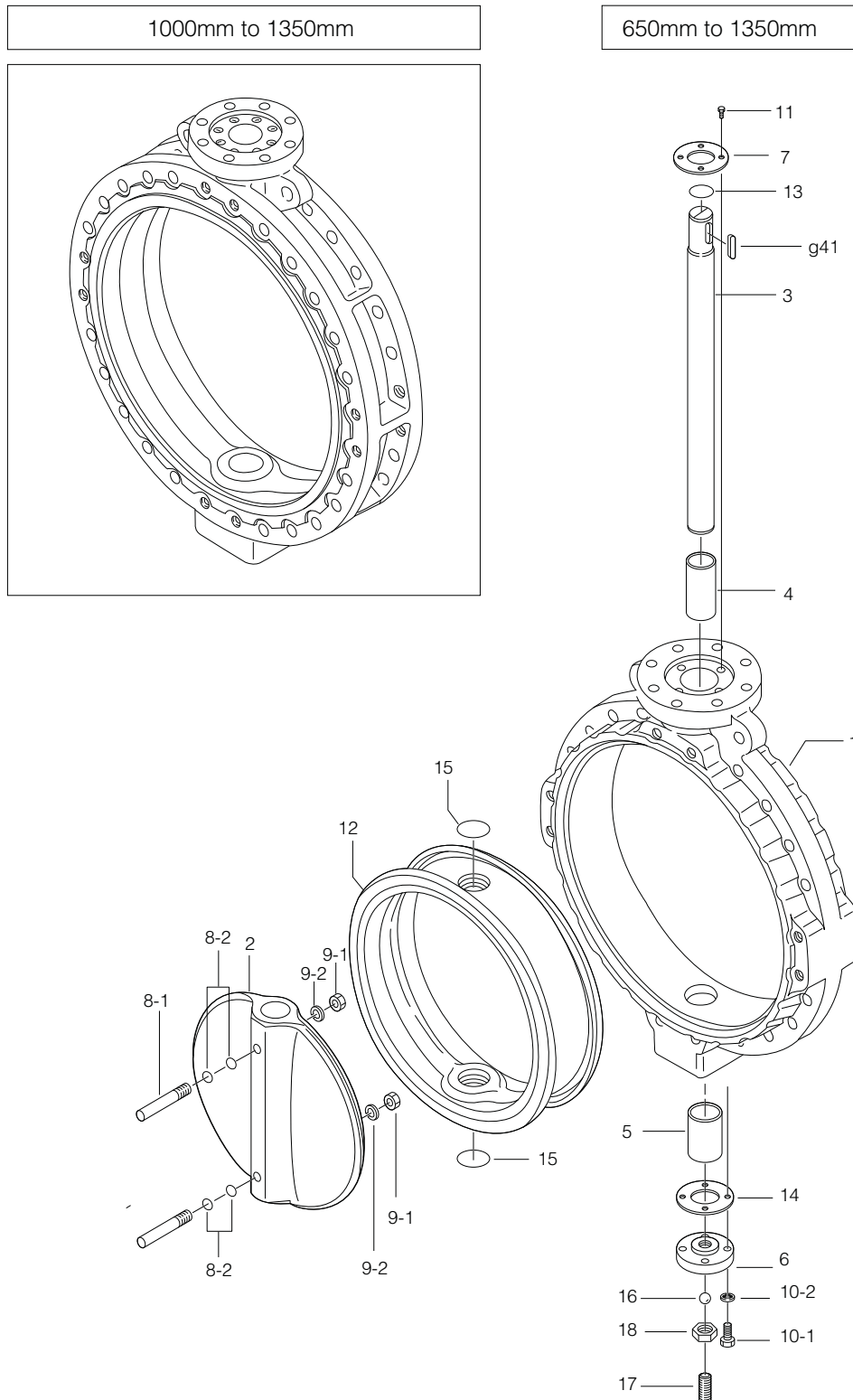
227P

907H/908H (MKT)

903C

700E/700K/700S

700E / 700K / 700S Expanded View of Component



700E / 700K / 700S Parts List

■700E / 700K / 700S Parts List (650mm to 1350mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
4	Bushing	1	
5	Bushing	1	
6	Bottom cover	1	
7	Retainer plate	1	
★ 8-1	Taper bolt	2	650mm to 900mm
		4	1000mm to 1350mm
★ 8-2	O-ring	4	650mm to 900mm
		8	1000mm to 1350mm
★ 9-1	Hexagon nut	2	650mm to 900mm
		4	1000mm to 1350mm
★ 9-2	Spring washer	2	650mm to 900mm
		4	1000mm to 1350mm
10-1	Hexagon bolt	4	650mm to 850mm
		8	900mm to 1350mm
10-2	Spring washer	4	650mm to 850mm
		8	900mm to 1350mm
11	Hexagon bolt	4	650mm to 850mm
		8	900mm to 1350mm
★ 12	Seat ring	1	1000mm to 1350mm:Vulcanized to the body
★ 13	O-ring	1	See Remark 2.
14	Gasket	1	
★ 15	O-ring	2	See Remark 2.
16	Ball	1	
17	Hollow bolt	1	
18	Lock nut	1	
g41	Key	1	

Remark 1: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt (P.17).

Consult us when repairing the seating on 1000 to 1350mm types as it is vulcanized to the body.

Remark 2: The O-ring material (item numbers 13 and 15) should be the same as the seating (item number 12).

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

700E/700K/700S

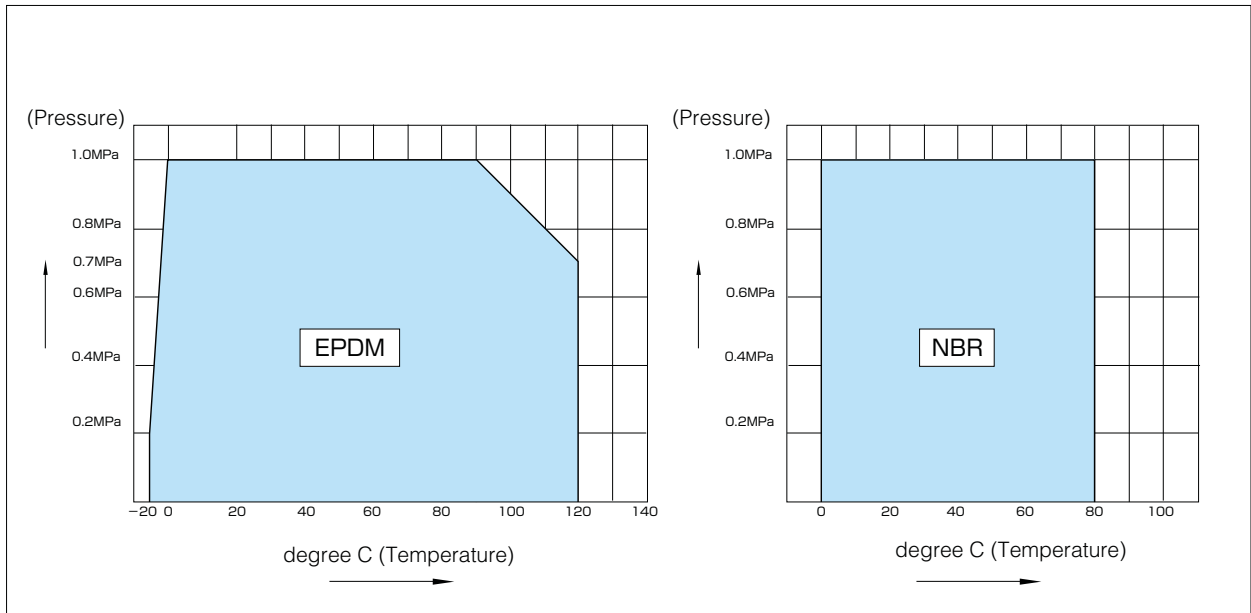
700E / 700K / 700S Actuator Selection Chart

700E / 700K / 700S

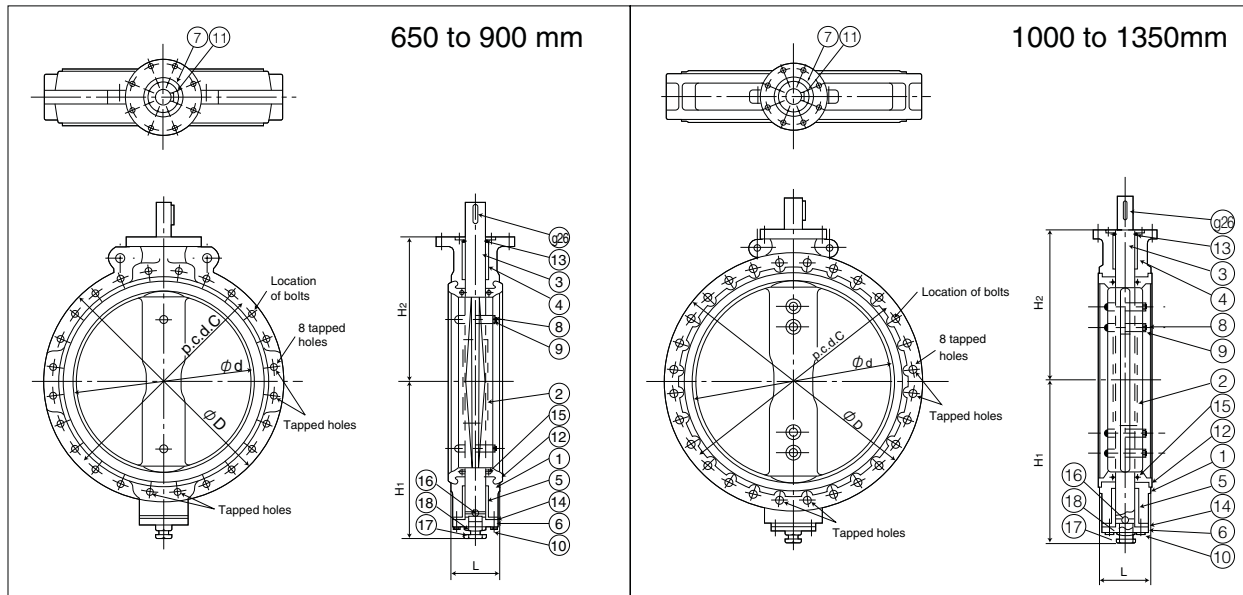
Model	Category	Size <small>(mm / inch)</small>									
		650	700	750	800	850	900	1000	1100	1200	1350
		26	28	30	32	34	36	40	44	48	54
2S	Standard	MGH-4	MGH-4 1/2			MGH-5		MGH-6		MGH-7	
	Heavy duty										
3A	Standard	TGA-180	TGA-200		TGA-220		TGA-250				
	Heavy duty	TGA-220		TGA-250							
4L	Standard	LTKD-05 0.75kW /MGH-4	LTKD-05 0.75kW /MGH-5	LTKD-05 1.5kW /MGH-5	LTKD-01 1.5kW /MGH-5		LTKD-01 1.5kW /MGH-6		LTKD-1 2.2kW /MGH-7		
	Heavy duty										

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

700E / 700K / 700S Pressure-Temperature Rating



Wafer with Support Lugs



■ Dimensions (700E / 700K / 700S)

Nominal size	Dimension (mm)						Weight (kg)	Flange Rating ^{*1}								
	mm	inch	Dimension (mm)		L	H ₁		H ₂	JIS 5K ^{*2}		JIS 10K ^{*2}		ASME B 16.47 Series A		BS 4504 NP10, DIN PN10	
			Ød	ØD ^{*1}					Long bolts & Nuts	Hex. bolts	Long bolts & Nuts	Hex. bolts	Long bolts & Nuts	Hex. bolts	Long bolts & Nuts	Hex. bolts
650	26	627	845	170	558	510	360	16-M24×285×50	16-M24×65×54	16-M30×310×60	16-M30×80×66	16-U1 1/4×390×70	16-U1 1/4×110×70	16-M20×200×45	—	
700	28	670	905	180	629	560	490	16-M24×295×50	16-M24×65×54	16-M30×320×60	16-M30×80×66	20-U1 1/4×410×70	16-U1 1/4×110×70	16-M24×210×50	—	
750	30	723	970	190	659	590	540	16-M30×320×60	16-M30×75×66	16-M30×335×60	16-M30×80×66	20-U1 1/4×425×70	16-U1 1/4×125×70	20-M24×250×50	—	
800	32	772	1020	200	679	620	710	16-M30×335×60	16-M30×75×66	20-M30×345×60	16-M30×80×66	20-U1 1/2×460×80	16-U1 1/4×125×80	16-M27×280×60	8-M27×60×50	
850	34	822	1070	210	709	650	800	16-M30×345×60	16-M30×75×66	20-M30×360×60	16-M30×80×66	24-U1 1/2×475×80	16-U1 1/4×135×80	16-M27×305×60	16-M27×65×54	
900	36	858	1120	230	759	685	870	16-M30×360×60	16-M30×75×66	20-M30×385×65	16-M30×85×66	24-U1 1/2×510×80	16-U1 1/4×145×80	16-M30×335×60	16-M30×65×54	
1000	40	975	1235	250	819	745	1200	20-M30×385×65	16-M30×85×66	20-M36×420×75	16-M36×100×78	28-U1 1/2×530×80	16-U1 1/4×145×80	20-M30×370×65	16-M30×75×66	
1100	44	1070	1345	280	874	820	1350	20-M30×420×65	16-M30×85×66	20-M36×450×80	16-M36×100×78	32-U1 1/2×580×80	16-U1 1/4×155×80	20-M33×400×65	16-M33×90×72	
1200	48	1168	1465	300	949	880	1700	24-M30×445×65	16-M30×85×66	24-M36×475×80	16-M36×100×78	36-U1 1/2×615×80	16-U1 1/4×160×80	24-M36×475×80	16-M36×100×78	
1350	54	1314	1630	330	1030	960	2300	24-M30×475×65	16-M30×85×66	28-M42×525×80	16-M42×100×90	—	—	—	—	

*700S dimensions for ASME B16-47, series B class finish are available upon request.

*1 "D" dimension shows for 700E, JIS 10 K.

*2 Nut is 80% of bolt diameter.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

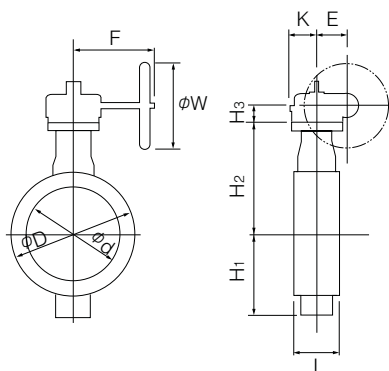
700E/700K/700S

Worm Gear Type 700E / 700K / 700S-2S (650mm to 1350mm)

700E / 700K / 700S-2S

Nominal size		Dimension (mm)										Gear type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	W		
650	26	627	845	170	558	510	65	140	198	400	450	MGH-4	363
700	28	670	905	180	629	560	75	185	267	457	500	MGH-41/2	487
750	30	723	970	190	659	590	75	185	267	457	500	MGH-41/2	547
800	32	772	1020	200	679	620	75	185	267	457	500	MGH-41/2	617
850	34	822	1070	210	709	650	100	210	293	490	500	MGH-5	780
900	36	858	1120	230	759	685	100	210	293	490	500	MGH-5	855
1000	40	975	1235	250	819	745	100	210	293	490	500	MGH-6	1384
1100	44	1070	1345	280	874	820	100	210	293	490	500	MGH-6	1584
1200	48	1170	1465	300	948	880	100	210	293	490	500	MGH-6	1984
1350	54	1314	1630	330	1030	960	151	280	293	675	600	MGH-7	2330

700E / 700K / 700S-2S



2S Installation Direction

2S A (standard)	2S AR
2S B	2S BR

Double-acting Pneumatic Cylinder Type 700E / 700K / 700S-3A (650mm to 900mm)

Standard

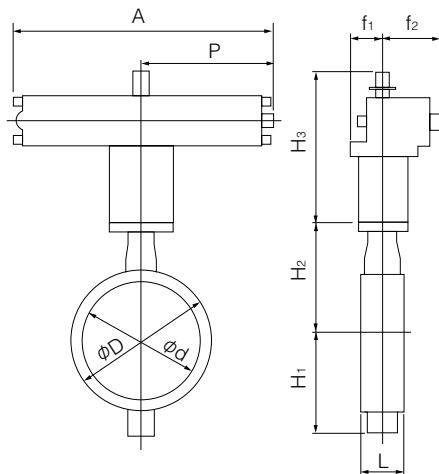
Nominal size		Dimension (mm)										Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
650	26	627	845	170	558	510	478	1053	543	130	218	TGA-180	456
700	28	670	905	180	629	560	570	1163	599	160	253	TGA-200	607
750	30	723	970	190	659	590	570	1163	599	160	253	TGA-200	667
800	32	772	1020	200	679	620	600	1248	642	160	270	TGA-220	761
850	34	822	1070	210	709	650	600	1248	642	160	270	TGA-220	881
900	36	858	1120	230	759	685	633	1381	707	160	299	TGA-250	1022

Heavy Duty

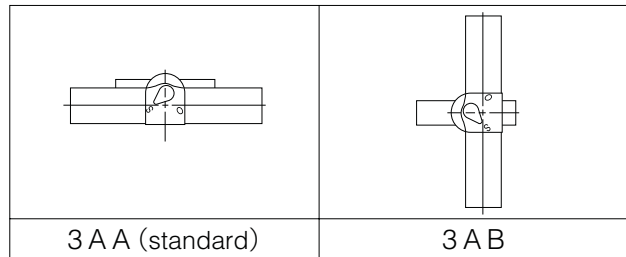
Nominal size		Dimension (mm)										Cylinder type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
650	26	627	845	170	558	510	600	1248	642	160	270	TGA-220	562
700	28	670	905	180	629	560	600	1248	642	160	270	TGA-220	637
750	30	723	970	190	659	590	633	1381	707	160	299	TGA-250	756
800	32	772	1020	200	679	620	633	1381	707	160	299	TGA-250	826

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.) ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve ④ Air or Gas

700E / 700K / 700S-3A



3A Installation Direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

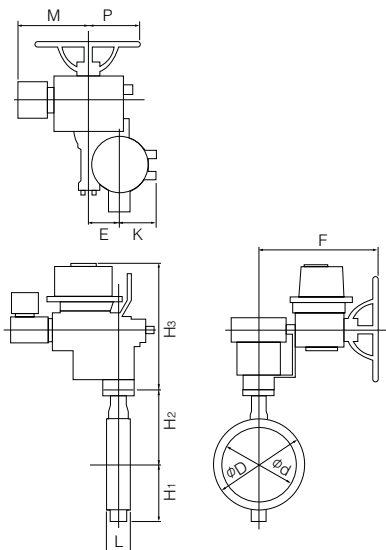
903C

700E/700K/700S

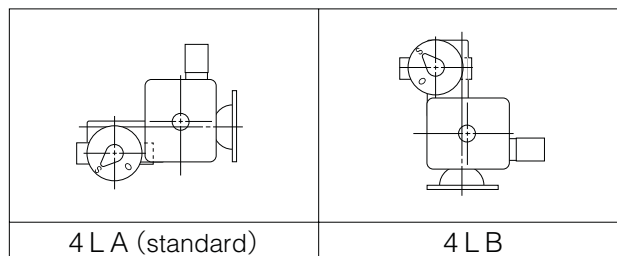
Three Phase Motor Actuator Type 700E / 700K / 700S-4L (650mm to 1350mm)

Nominal size		Dimension (mm)											Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	M	P		
650	26	627	845	170	558	510	570	140	198	637	440	375	LTKD-05 0.75kW /MGH-4	515
700	28	670	905	180	629	560	640	210	293	747	440	375	LTKD-05 0.75kW /MGH-5	710
750	30	723	970	190	659	590	640	210	293	747	477	375	LTKD-05 1.5kW /MGH-5	770
800	32	772	1020	200	679	620	680	210	293	797	537	425	LTKD-1 1.5kW /MGH-5	905
850	34	822	1070	210	709	650	680	210	293	797	537	425	LTKD-1 1.5kW /MGH-5	1025
900	36	858	1120	230	759	685	680	210	293	797	537	425	LTKD-1 1.5kW /MGH-5	1100
1000	40	975	1235	250	819	745	700	210	293	762	537	425	LTKD-1 1.5kW /MGH-6	1670
1100	44	1070	1345	280	874	820	700	210	293	762	537	425	LTKD-1 1.5kW /MGH-6	1870
1200	48	1170	1465	300	948	880	700	210	293	762	537	425	LTKD-1 1.5kW /MGH-6	2270
1350	54	1314	1630	330	1030	960	700	280	293	810	540	410	LTKD-1 2.2kW /MGH-7	2650

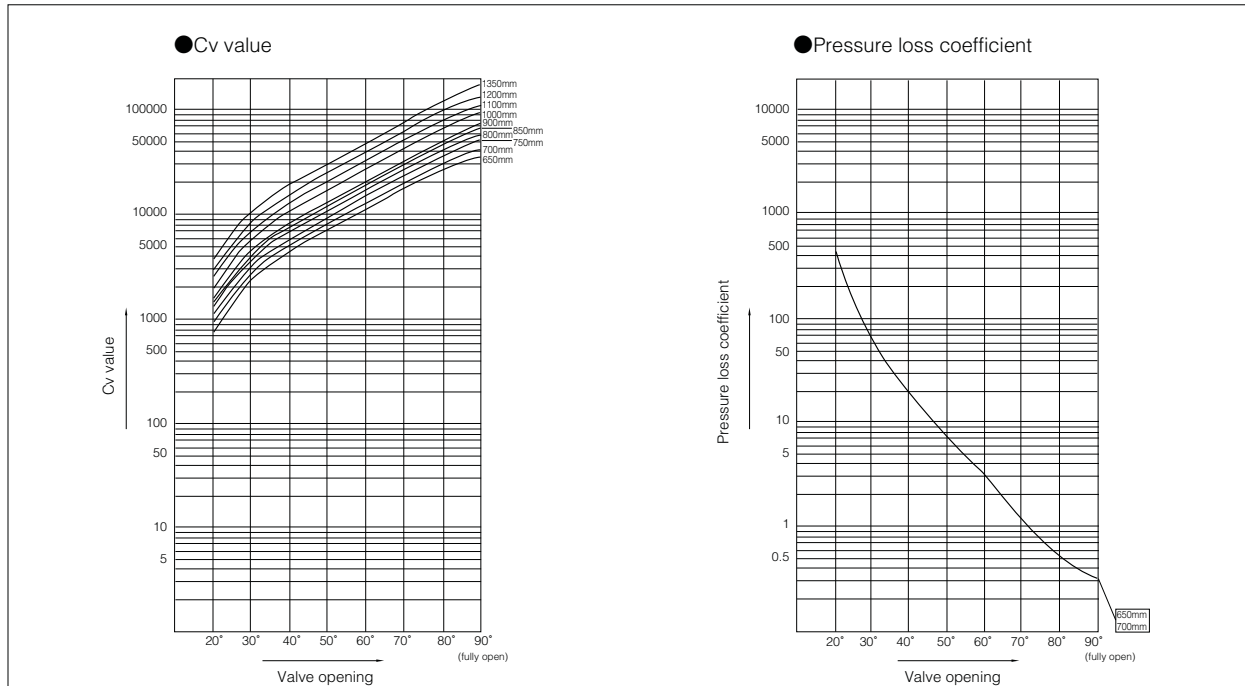
700E / 700K / 700S-4L



4L Installation Direction



700E / 700K / 700S Cv Value/Pressure Loss Coefficient



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

700E / 700K / 700S Cv Value

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
650	26	817	2441	4473	7159	11013	17254	26972	32500
700	28	934	2807	5122	8152	12511	19728	30929	39000
750	30	935	3220	5965	9450	14328	22687	38260	52000
800	32	1200	3721	6791	10771	16553	26976	43316	59000
850	34	1164	4018	7516	12063	18567	29284	46350	66000
900	36	1358	4497	8298	13177	20139	32362	53126	73000
1000	40	1784	5835	10740	17060	26110	42070	68860	95000
1100	44	2075	7030	13020	20680	31530	50420	83340	114000
1200	48	2570	8520	15710	24900	37930	60280	98640	138000
1350	54	3385	10180	18810	30490	47840	75750	119000	173000

700E / 700K / 700S Pressure Loss Coefficient

Nominal size		Valve opening							
mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
650	26	553	62	18	7	3	1	1	0.4
700	28	573	63	19	8	3	1	1	0.3
750	30	758	64	19	7	3	1	0.5	0.3
800	32	599	62	19	7	3	1	0.5	0.3
850	34	815	68	20	8	3	1	0.5	0.3
900	36	756	69	20	8	3	1	0.5	0.3
1000	40	645	60	18	7	3	1	0.4	0.2
1100	44	701	61	18	7	3	1	0.4	0.2
1200	48	658	60	18	7	3	1	0.4	0.2
1350	54	611	68	20	8	3	1	0.5	0.2

700E/700K/700S

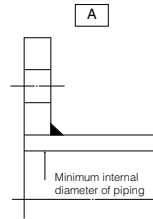
700E / 700K / 700S Applicable Flange Standard

Nominal size		JIS			ANSI		BS4504	DIN	BS10
mm	inch	5K	10K	G5527	125Lb	150Lb	PN10	NP10	Table E
650	26	T	T	Consult us if flange standard is not JIS 5K/10K.					
700	28	T	T						
750	30	T	T						
800	32	T	T						
850	34	T	T						
900	36	T	T						
1000	40	T	T						
1100	44	T	T						
1200	48	T	T						
1350	54	T	T						

○ : Can be used without flange drilling.
 D/T : With drill hole or tapping.
 T : With flange tapping.
 - : No nominal diameter.

700E / 700K / 700S Applicable Pipe List in Case of **A**

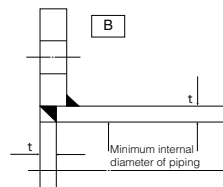
Nominal size		STPY	Sch20	Sch40	Minimum internal diameter of piping (mm)
mm	inch				
650	26	○	○	○	612
700	28	○	-	-	653
750	30	○	-	-	705
800	32	○	-	-	754
850	34	○	-	-	803
900	36	○	-	-	834
1000	40	○	-	-	950
1100	44	○	-	-	1040
1200	48	○	-	-	1138
1350	54	○	-	-	1277



Remark 1: ○=Applicable
 Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.
 In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange.
 For details, please consult us.

700E / 700K / 700S Applicable Pipe List in Case of **B**

Nominal size		STPY	Sch20	Sch40
mm	inch			
650	26	○	○	○
700	28	○	-	-
750	30	○	-	-
800	32	○	-	-
850	34	○	-	-
900	36	○	-	-
1000	40	○	-	-
1100	44	○	-	-
1200	48	○	-	-
1350	54	○	-	-

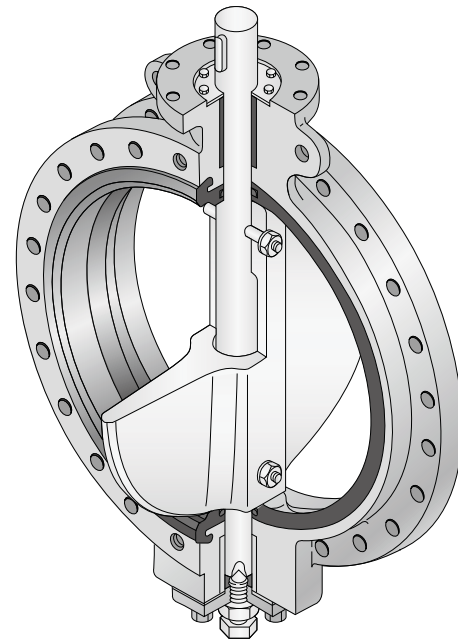
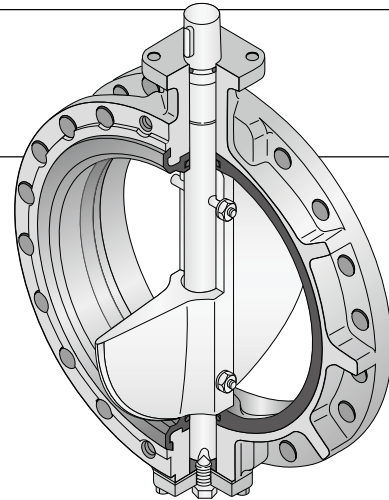
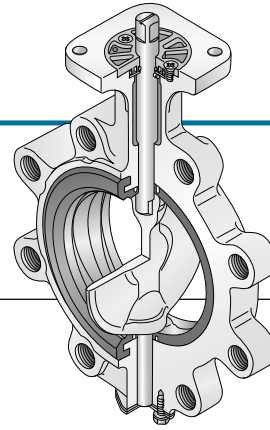


Remark 1: ○=Applicable
 Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.
 In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange.
 For details, please consult us.

704G Lugged

722F Double flanged

720F Double flanged



Today's ships have to work hard. With the extensive use of automated systems, minimum manning levels, extended journeys and quick turn round times, maintenance time is at a premium. Equipment must be ultra reliable and also meet the latest standards.

Features and Benefits

Long life and leak tight

The 704G/722F/720F are designed to meet all of these requirements. They are tough valves made to international standards with worldwide marine approvals. Long term leak tightness was achieved through attention to detail in the spindle sealing and seat design.

Low cost maintenance

The seat and disc can easily be replaced under a planned maintenance schedule. This ease of replacement does not affect the valve's function as the seat is positively located in machined grooves in the valve body.

Certification/Approval

Satisfies requirements of the major certification/approval bodies such as:

- Lloyd's Register of Shipping (LR)
- American Bureau of Shipping (ABS)
- Nippon Kaiji Kyokai (NK)
- Bureau Veritas (BV)
- Korean Register of Shipping (KR)

Standard Specifications

Type	704G	722F	720F
	Lugged type	Flanged type	
Valve nominal size	50mm to 100mm ※1	125mm to 800mm	850mm to 1350mm
Applicable flange standard ※2	JIS 10K, (JIS 5K, ANSI 125/150, BS 4504 PN10)		
Max. working pressure	1.0MPa		
Body shell test	1.5MPa		
Seat leak test	1.1MPa		
Working temperature range	NBR : -10 to 80 degrees C, *EPDM : -20 to 120 degrees C		
Working temperature in continuous use ※3	NBR : 0 to 60 degrees C, *EPDM : 0 to 70 degrees C		
Standard materials ※4	Body	Cast steel, SCPH2	
	Disc	SCS 14 (316SS)	SCS 13 (304SS)
	Stem	SUS 420J2	SUS 403
	Seat ring ※5	NBR, *EPDM	
Coating	Lacquer primer (Munsell N7)		

※1 Available up to 600mm.

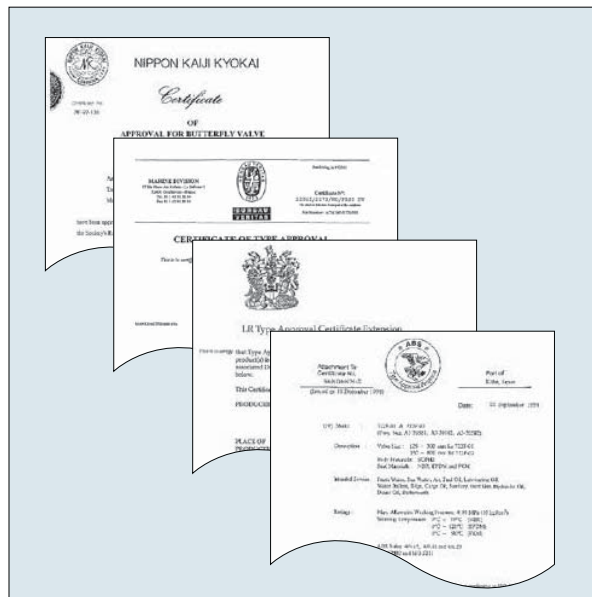
※2 Semi-standard. Consult us.

※3 'Working temperature in continuous use' stands for the temperature continuously kept exceeding one hour.

※4 Other materials, such as ductile iron body, aluminium bronze disc, etc. are also available. Consult us.

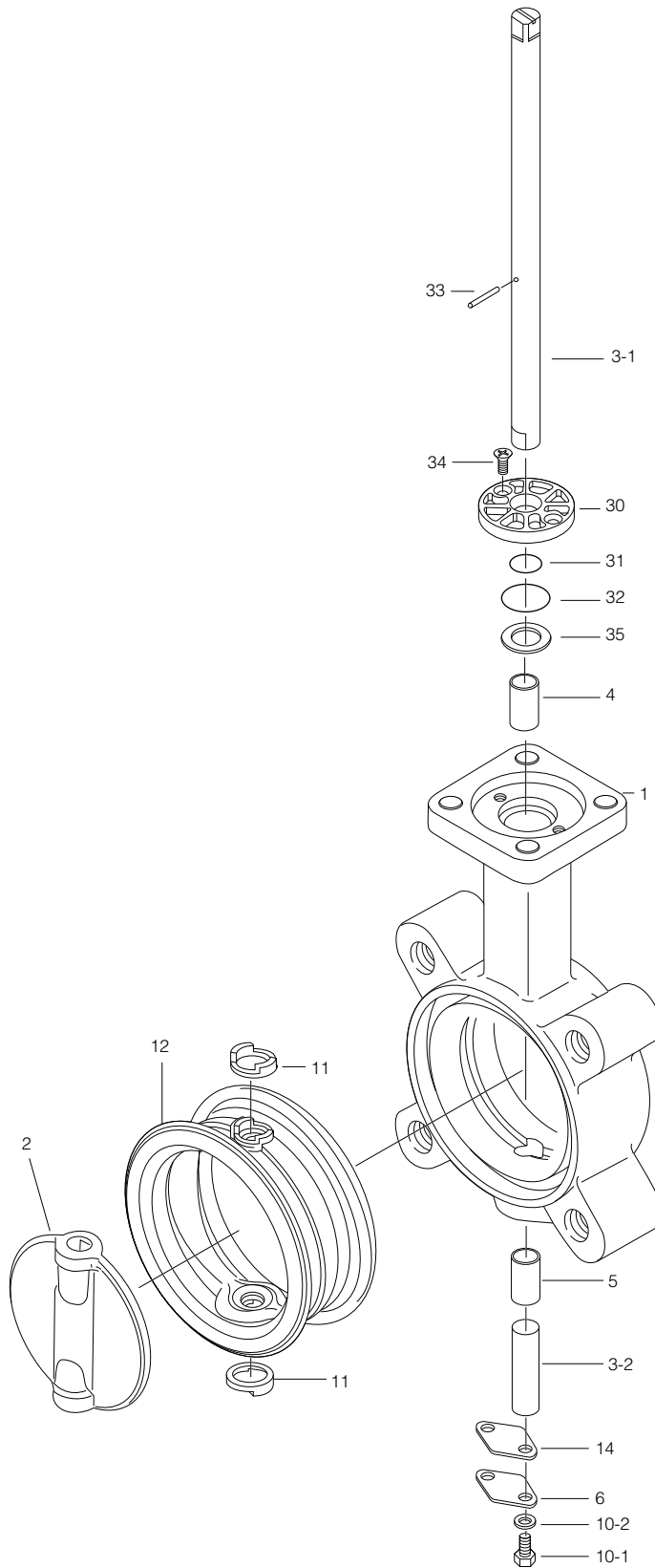
※5 Seating on 1000mm types and above are vulcanized to the body.

* 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.



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

704G Expanded View of Components



704G Parts list

■ 704G Parts list (50mm to 100mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3-1	Upper stem	1	
3-2	Lower stem	1	
4	Bearing	1	
5	Bearing	1	
6	Bottom cover	1	
10-1	Hexagon bolt	2	
10-2	Spring washer	2	
★ 11	Secondary ring	2	
★ 12	Seat ring	1	
★ 14	Gasket	1	
★ 30	Bushing	1	
★ 31	O-ring	1	
★ 32	O-ring	1	
33	Spring pin	1	
34	Machine screw	2	
35	Plate	1	

Remark: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove set screws.

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

**731P/732P/
732Q/752W**

71LG

700E/700K/700S

704G/722F/720F

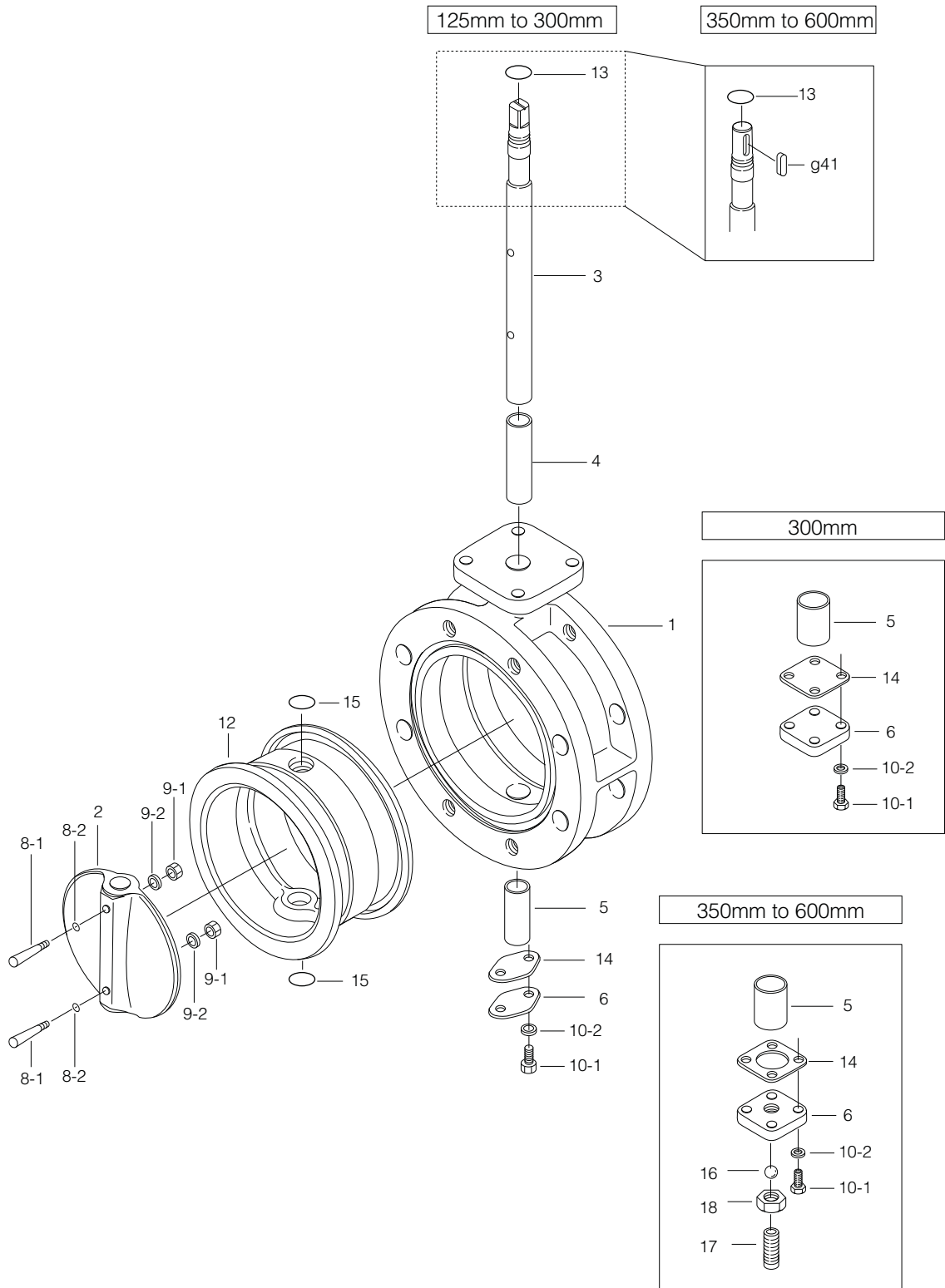
KRV

227P

907H/908H (MKT)

903C

722F Expanded View of Components



722F Parts list

■722F Parts list (125mm to 300mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
4	Bushing	1	
5	Bushing	1	
6	Bottom cover	1	
★ 8-1	Taper bolt	1	125mm
		2	150mm to 300mm
★ 8-2	O-ring	4	Only 300mm
★ 9-1	Hexagon nut	1	125mm
		2	150mm to 300mm
★ 9-2	Spring washer	1	125mm
		2	150mm to 300mm
10-1	Hexagon bolt	2	125mm to 250mm
		4	300mm
10-2	Spring washer	2	125mm to 250mm
		4	300mm
★ 12	Seat ring	1	
★ 13	O-ring	1	
14	Gasket	1	
★ 15	O-ring	2	See Remark 2.

■722F Parts list (350mm to 600mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
4	Bushing	1	
5	Bushing	1	
6	Bottom cover	1	
★ 8-1	Taper bolt	2	
★ 8-2	O-ring	4	
★ 9-1	Hexagon nut	2	
★ 9-2	Spring washer	2	
10-1	Hexagon bolt	4	
10-2	Spring washer	4	
★ 12	Seat ring	1	
★ 13	O-ring	1	
14	Gasket	1	
★ 15	O-ring	2	See Remark 2.
16	Ball	1	
17	Hollow bolt	1	
18	Lock nut	1	
g41	Key	1	

Remark 1: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt (P.17).

Remark 2: The O-ring material (item number 15) should be the same as the sea tring (item number 12).

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

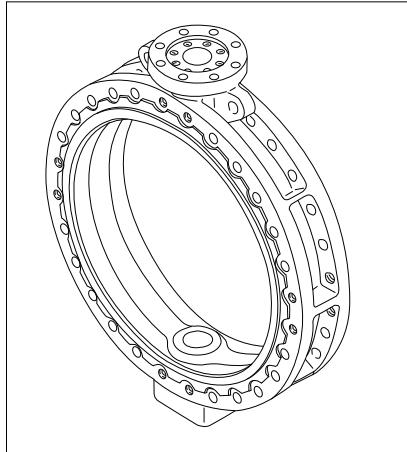
227P

907H/908H (MKT)

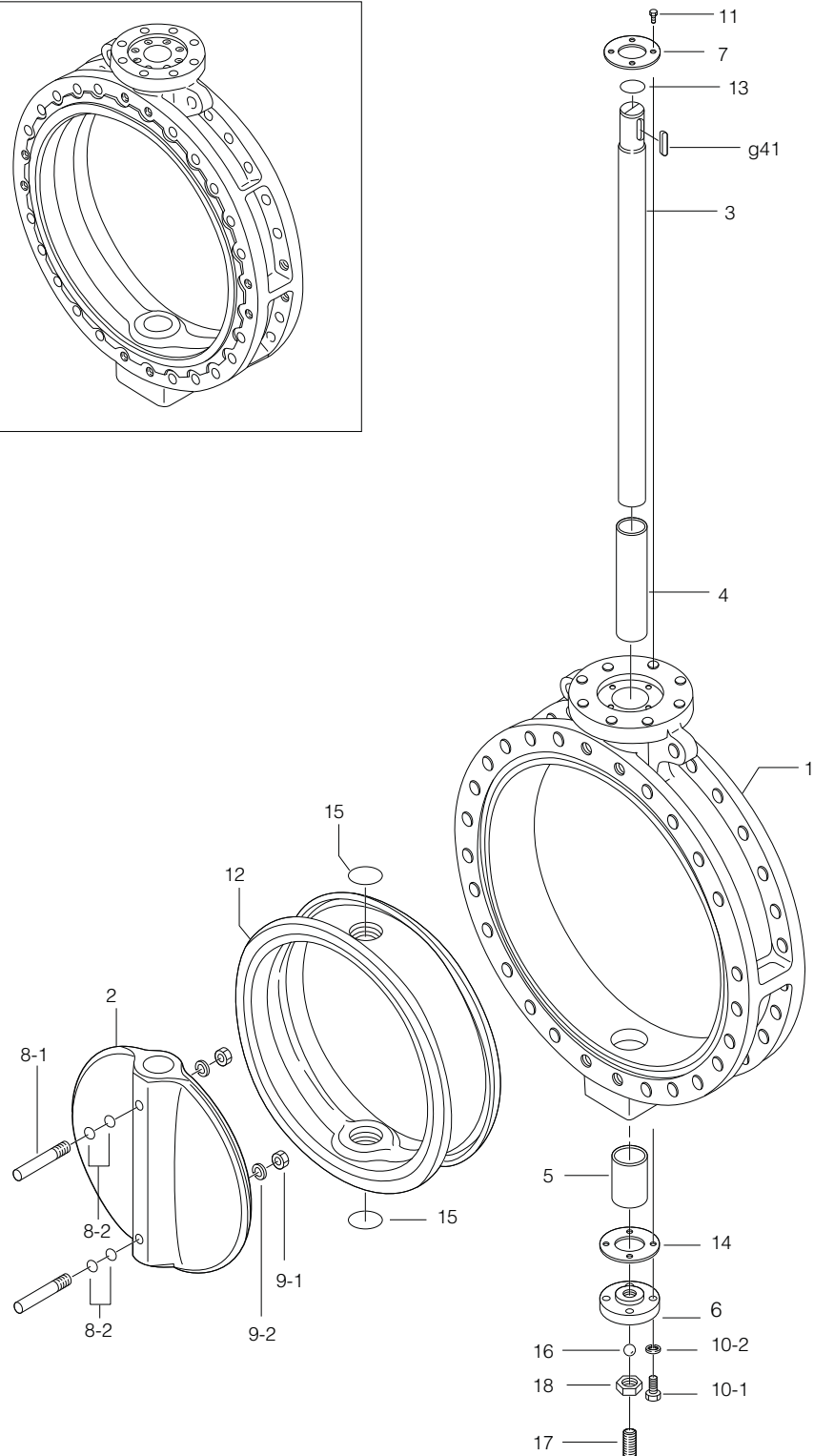
903C

722F · 720F Expanded View of Components

1000mm to 1350mm



722F and 720F, 650mm to 1350mm



722F·720F Parts list

■722F and 720F Parts list(722F: 650mm to 800mm / 720F: 850mm to 1350mm)

No.	Description	Q'ty	Remarks
1	Body	1	
2	Disc	1	
3	Stem	1	
4	Bushing	1	
5	Bushing	1	
6	Bottom cover	1	
7	Retainer plate	1	
★ 8-1	Taper bolt	2	650mm to 900mm
		4	1000mm to 1350mm
★ 8-2	O-ring	4	650mm to 900mm
		8	1000mm to 1350mm
★ 9-1	Hexagon nut	2	650mm to 900mm
		4	1000mm to 1350mm
★ 9-2	Spring washer	2	650mm to 900mm
		4	1000mm to 1350mm
10-1	Hexagon bolt	4	650mm to 850
		8	900mm to 1350mm
10-2	Spring washer	4	650mm to 850mm
		8	900mm to 1350mm
11	Hexagon bolt	4	650mm to 850mm
		8	900mm to 1350mm
★ 12	Seat ring	1	Vulcanized on 1000mm to 1350mm types.
★ 13	O-ring	1	See Remark 2.
14	Gasket	1	
★ 15	O-ring	2	See Remark 2.
16	Ball	1	
17	Hollow bolt	1	
18	Lock nut	1	
g41	Key	1	

Remark 1: The ★ indicates recommended spare parts. They are supplied as "Seat ring set" with a small hexagonal spanner to remove hollow bolt (P.17).

Since the seat ring is vulcanized to the body of types 1000mm to 1350mm, please consult us if you wish to replace it.

Remark 2: The O-ring material (item numbers 13 and 15) should be the same as the seatring (item number 12).

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

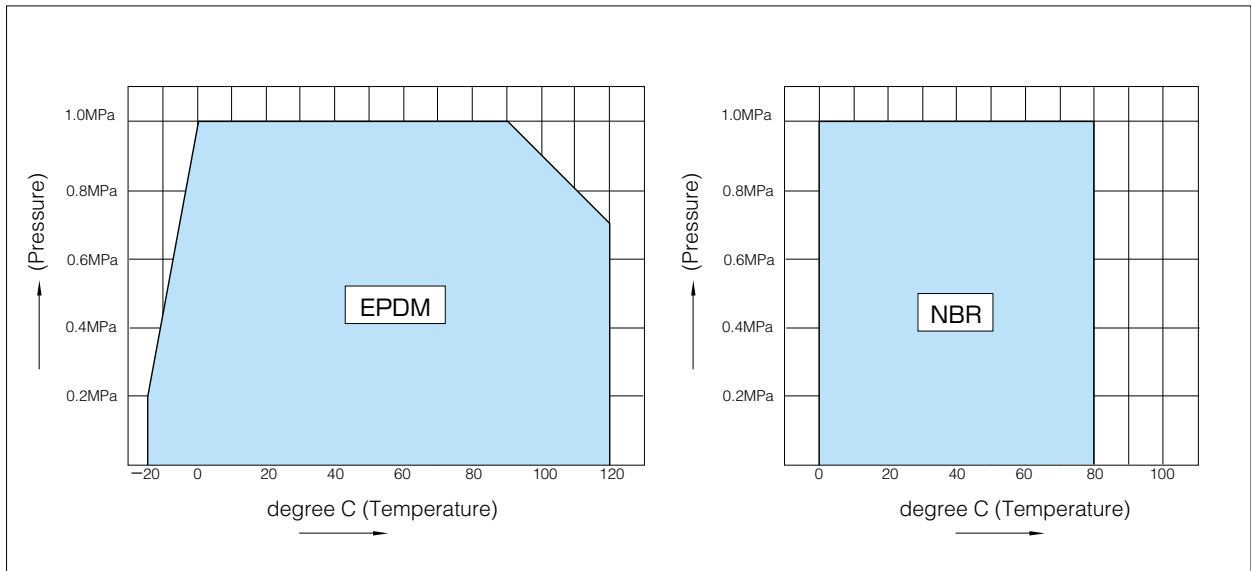
704G Actuator Selection Chart

■ **704G**

Model	Category	Size ($\frac{mm}{inch}$)			
		50	65	80	100
		2	2 1/2	3	4
1T	Standard	1T-1			
	Heavy duty				
2U	Standard	2U-0	2U-1		
	Heavy duty				
2G	Standard	2G-1			
	Heavy duty				
7E	Standard	T35	T85	T200	
	Heavy duty				
7G,7F	Standard	T85S	T200S		T380S
	Heavy duty				
4I	ON-OFF	4I-00	4I-0	4I-1	
	Control				
4J	Standard	SRJ-010			
	Heavy duty				

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

704G/722F/720F Pressure-Temperature Rating



722F Actuator selection chart

722F

Model	Category	Size (mm / inch)																		
		125	150	200	250	300	350	400	450	500	550	600	650	700	750	800				
		5	6	8	10	12	14	16	18	20	22	24	26	28	30	32				
1T	Standard	1T-2		1T-3																
	Heavy duty	1T-2		1T-3																
2U,2S	Standard	2U-2		2U-3		2U-4		2U-5			2U-6		MGH-4	MGH-4 1/2						
	Heavy duty	2U-2		2U-3		2U-4		2U-5			2U-6		MGH-4	MGH-4 1/2						
2G,2R	Standard	2G-2		2G-3		2G-4		2R-3			2R-4									
	Heavy duty	2G-2		2G-3		2G-4		2R-3			2R-4									
7E,3A	Standard	T200		T380		T750		TGA-125		TGA-140		TGA-180		TGA-200		TGA-220				
	Heavy duty	T200		T380		T750		TGA-125		TGA-140		TGA-160		TGA-180		TGA-200		TGA-250		
7G,7F 3U,3K	Standard	T380S		T750S		TG-10S		TG-12S			TG-14S		TG-20S							
	Heavy duty	T380S		T750S		TG-10S		TG-12S			TG-14S		TG-20S							
4I	ON-OFF	4I-2		4I-2.5		4I-3			4I-4											
	Control	4I-2		4I-2.5		4I-3			4I-4											
4J,4L	Standard	SRJ-020		SRJ-060		LTKD-01 0.2kW/MGH-3		LTKD-01 0.4kW/MGH-3		LTKD-02 0.75kW/MGH-4		LTKD-05 0.75kW/MGH-5		LTKD-05 1.5kW/MGH-5		LTKD-1 1.5kW/MGH-5				
	Heavy duty	SRJ-020		SRJ-060		LTKD-01 0.2kW/MGH-3		LTKD-01 0.4kW/MGH-3		LTKD-02 0.75kW/MGH-4		LTKD-05 0.75kW/MGH-5		LTKD-05 1.5kW/MGH-5		LTKD-1 1.5kW/MGH-5				

Remark: For the 400mm type with the accessories below, type 4I-4 should be selected.

- Micom unit
- Servo unit
- Speed control unit
- Potentiometer

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

720F Actuator selection chart

720F

Model	Category	Size (mm / inch)						
		850	900	1000	1100	1200	1350	
		34	36	40	44	48	54	
2S	Standard	MGH-5		MGH-6			MGH-7	
	Heavy duty	MGH-5		MGH-6			MGH-7	
3A	Standard	TGA-220		TGA-250				
	Heavy duty	TGA-220		TGA-250				
4L	Standard	LTKD-1 1.5kW/MGH-5		LTKD-1 2.2kW/MGH-5		LTKD-1 1.5kW/MGH-6		LTKD-1 2.2kW/MGH-7
	Heavy duty	LTKD-1 1.5kW/MGH-5		LTKD-1 2.2kW/MGH-5		LTKD-1 1.5kW/MGH-6		LTKD-1 2.2kW/MGH-7

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

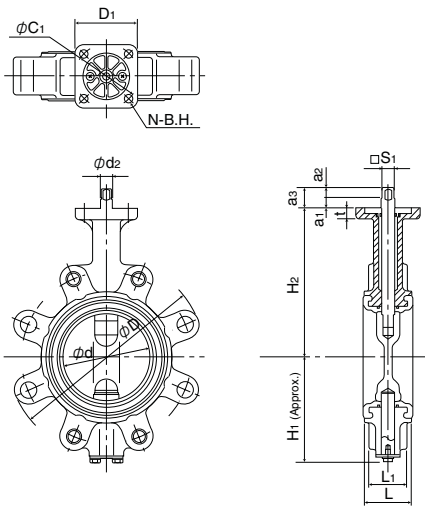
227P

907H/908H (MKT)

903C

704G / 722F / 720F Dimension List

704G

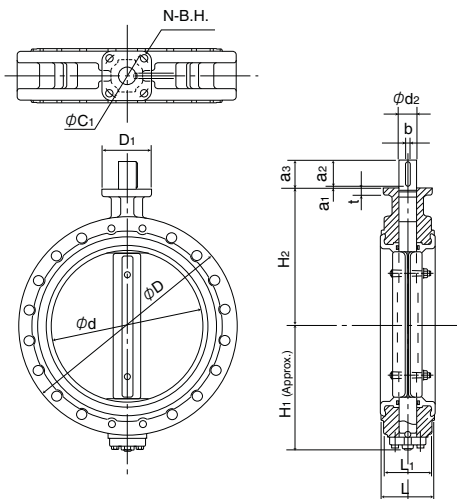


704G Dimensions

Nominal size		Dimension (mm)																Approx. Weight (kg)
mm	inch	ϕd	L	L_1	ϕD	H_1	H_2	d_2	a_1	a_2	a_3	S_1	D_1	t	ϕC_1	N	BH	
50	2	56	43	33	155	67	138	10	11	10.5	21.5	8	70	12	70	4	9	3.4
65	2 1/2	69	46	36	175	78	151	10	11	10.5	21.5	8	70	12	70	4	9	4.4
80	3	84	46	36	187	85(109)	156	12	11	11.5	22.5	10	70	12	70	4	9	5
100	4	104	52	42	220	117	167	14	11	11.5	22.5	12	70	12	70	4	9	7.7

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

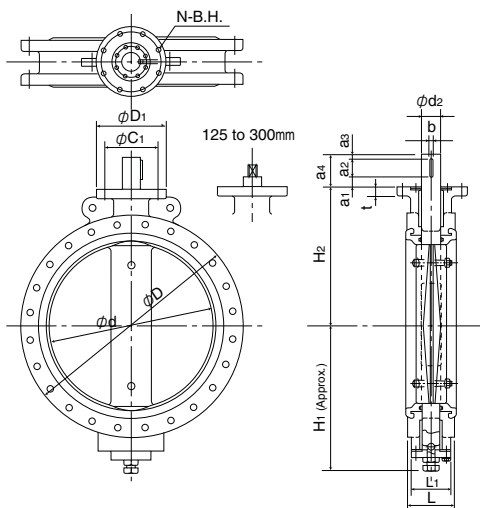
722F



722F Dimensions

Nominal size		Dimension (mm)																Approx. Weight (kg)	
mm	inch	ϕd	L	L_1	ϕD	H_1	H_2	ϕd_2	a_1	a_2	a_3	S_1	b	D_1	t	ϕC_1	N		BH
125	5	129	100	—	250	139	165	18	11	16.5	27.5	14	—	102	14	102	—	11	18
150	6	154	100	—	280	157	180	18	11	16.5	27.5	14	—	102	14	102	—	11	19
200	8	194	100	—	330	181	210	22	10	20	30	18	—	102	14	102	—	11	37
250	10	250	110	—	400	221	250	30	5	30	35	24	—	102	14	102	—	11	43
300	12	296	110	—	445	251	280	32	5	30	35	24	—	125	16	125	—	13	52
350	14	334	120	110	490	298	320	40	6	45	54	—	12	140	20	140	4	19	70
400	16	384	130	116	560	334	360	46	6	56	65	—	14	140	20	140	4	19	93
450	18	435	150	134	620	356	390	50	6	70	79	—	14	140	20	140	4	19	132
500	20	482	160	140	675	382	420	50	6	70	79	—	14	140	25	140	4	19	182
550	22	531	170	156	745	418	460	55	6	70	79	—	16	165	25	165	4	23	225
600	24	581	170	156	795	476	490	55	6	70	79	—	16	165	25	165	4	23	270
650	26	627	170	156	845	586	510	65	10	60	75	—	18	260	32	220	4	23	415
700	28	670	180	160	905	629	560	75	10	80	95	—	20	320	35	280	8	23	585
750	30	723	190	170	970	659	590	75	10	80	95	—	20	320	35	280	8	23	680
800	32	772	200	180	1020	679	620	75	10	80	95	—	20	320	35	280	8	23	810

720F



720F Dimensions

Nominal size		Dimension (mm)																Approx. Weight (kg)	
mm	inch	ϕd	L	L_1	ϕD	H_1	H_2	ϕd_2	a_1	a_2	a_3	a_4	b	ϕD_1	t	ϕC_1	N		BH
850	34	822	210	—	1070	709	650	75	10	80	5	95	20	320	40	280	8	23	※
900	36	858	230	—	1120	759	685	75	10	80	5	95	20	320	40	280	8	23	※
1000	40	975	250	210	1235	819	745	95	10	100	10	120	24	320	45	280	8	23	※
1100	44	1070	280	210	1345	874	820	95	10	100	10	120	24	320	45	280	8	23	※
1200	48	1170	300	225	1465	948	880	95	10	100	10	120	24	320	45	280	8	23	※
1350	54	1314	330	300	1630	1030	960	120	60	140	10	210	32	320	45	280	8	23	※

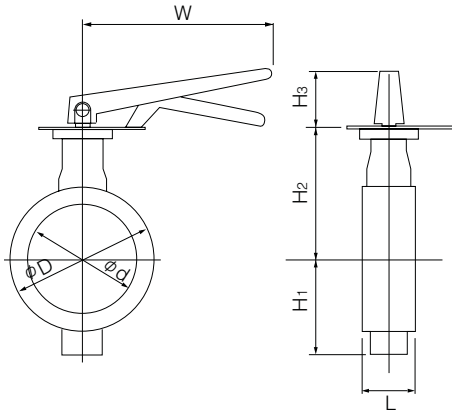
※Please consult us.

Lock lever type 704G-1T(50mm to 100mm) / 722F-1T(125mm to 200mm)

Type	Nominal size		Dimension (mm)							Lever type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	W		
704G	50	2	56	155	43	67	138	66	200	1T-1	4
	65	2 1/2	69	175	46	78	151	66	200	1T-1	5
	80	3	84	187	46	85 (109)	156	66	200	1T-1	5.6 (6.1)
	100	4	104	220	52	117	167	66	200	1T-1	8.3
722F	125	5	129	250	100	139	165	92	300	1T-2	19.3
	150	6	154	280	100	157	180	92	300	1T-2	20.3
	200	8	194	330	100	181	210	97	350	1T-3	38.7

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

704G / 722F-1T



1T Installation direction

1T LS (standard)	1T LR	1T RS	1T RR
1T XS	1T XR	1T VS	1T VR

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

704G (Lugged) / 722F (Double Flanged) / 720F (Double Flanged)

Worm Gear Type 704G-2U(50mm to 100mm) / 722F-2U(125mm to 600mm) / 722F-2S(650mm to 800mm) / 720F-2S(850mm to 1350mm)

704G-2U (50mm to 100mm)

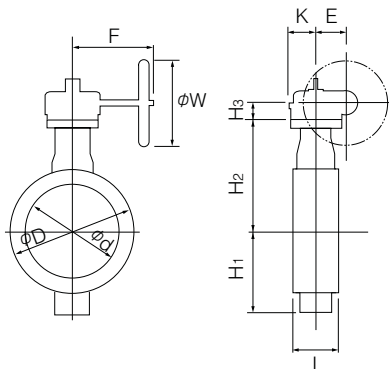
Type	Nominal size		Dimension (mm)										Gear type	Approx. Weight (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	ϕW		
704G	50	2	56	155	43	67	138	29.5	36	46	160	100	2U-0	5.7
	65	2 1/2	69	175	46	78	151	29.5	36	46	160	100	2U-0	6.7
	80	3	84	187	46	85 (109)	156	29.5	36	46	160	100	2U-1	7.3(7.8)
	100	4	104	220	52	117	167	29.5	36	46	160	100	2U-1	10

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

722F-2U (125mm to 600mm) / 722F-2S (650mm to 800mm) / 720F-2S (850mm to 1350mm)

Type	Nominal size		Dimension (mm)										Gear type	Approx. Weight (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	ϕW		
722F	125	5	129	250	100	139	165	34.5	44	53	173.5	160	2U-2	22.2
	150	6	154	280	100	157	180	34.5	44	53	173.5	160	2U-2	23.2
	200	8	194	330	100	181	210	41.5	67	75	198	200	2U-3	45
	250	10	250	400	110	221	250	41.5	67	75	198	200	2U-3	51
	300	12	296	445	110	251	280	48	87.5	90	222.5	200	2U-4	66
	350	14	334	490	120	298	320	50	90	105	266	280	2U-5	84
	400	16	384	560	130	334	360	50	90	105	266	280	2U-5	107
	450	18	435	620	150	356	390	50	90	105	266	280	2U-5	146
	500	20	482	675	160	382	420	50	90	105	266	280	2U-5	196
	550	22	531	745	170	418	460	61	113	140	352	400	2U-6	256
	600	24	581	795	170	476	490	61	113	140	352	400	2U-6	301
	650	26	627	845	170	586	510	65	140	198	400	450	MGH-4	463
	700	28	670	905	180	629	560	75	185	267	457	500	MGH-4 1/2	692
	750	30	723	970	190	659	590	75	185	267	457	500	MGH-4 1/2	782
800	32	772	1020	200	679	620	75	185	267	457	500	MGH-4 1/2	907	
720F	850	34	822	1070	210	709	650	100	210	293	490	500	MGH-5	1050
	900	36	858	1120	230	759	685	100	210	293	490	500	MGH-5	1150
	1000	40	975	1235	250	819	745	100	210	293	490	500	MGH-6	1384
	1100	44	1070	1345	280	874	820	100	210	293	490	500	MGH-6	1584
	1200	48	1168	1465	300	949	880	100	210	293	490	500	MGH-6	1984
	1350	54	1314	1630	330	1030	960	151	280	293	675	600	MGH-7	2330

704G / 722F / 720F-2U / 2S



2U / 2S Installation Direction

2U A / 2S A (standard)	2U A R / 2S A R
2U B / 2S B	2U B R / 2S B R

Center handle type 704G-2G (50mm to 100mm) / 722F-2G (125mm to 300mm) / 722F-2R (350mm to 600mm)

■704G-2G (50mm to 100mm)

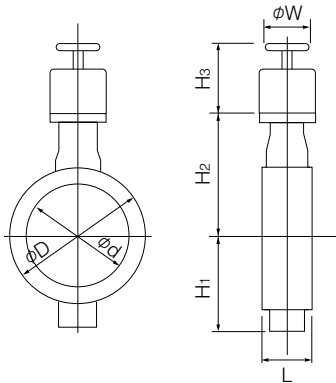
Nominal size		Dimension (mm)							Center handle type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	ϕW		
50	2	56	155	43	67	138	136	100	2G-1	6.3
65	2 1/2	69	175	46	78	151	136	100	2G-1	7.3
80	3	84	187	46	85 (109)	156	136	100	2G-1	7.9(8.4)
100	4	104	220	52	117	167	136	100	2G-1	10.6

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

■722F-2G (125mm to 300mm) / 722F-2R (350mm to 600mm)

Nominal size		Dimension (mm)							Center handle type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	ϕW		
125	5	129	250	100	139	165	136	100	2G-2	22
150	6	154	280	100	157	180	136	100	2G-2	23
200	8	194	330	100	181	210	151	200	2G-3	45
250	10	250	400	110	221	250	151	200	2G-3	51
300	12	296	445	110	251	280	161	200	2G-4	60
350	14	334	490	120	298	320	409	355	2R-3	106
400	16	384	560	130	334	360	409	355	2R-3	128
450	18	435	620	150	356	390	409	355	2R-3	168
500	20	482	675	160	382	420	409	355	2R-3	218
550	22	531	745	170	418	460	498	450	2R-4	283
600	24	581	795	170	476	490	498	450	2R-4	328

■704G / 722F-2G / 2R



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

Double-acting Pneumatic Cylinder Type 704G-7E (50mm to 100mm) / 722F-7E (125mm to 350mm)

■ **Standard**

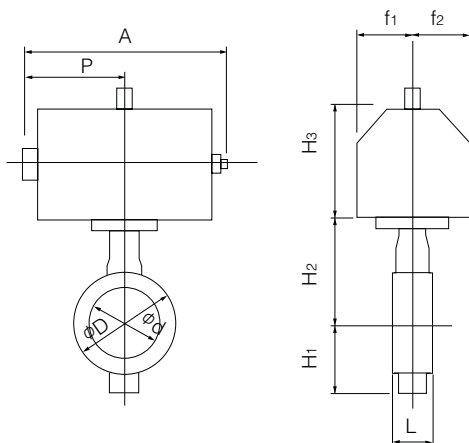
Type	Nominal size		Dimension (mm)										Cylinder type	Approx. Weight (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
704G	50	2	56	155	43	67	138	125	228	116	57	29	T35	5
	65	2 1/2	69	175	46	78	151	125	228	116	57	29	T35	6
	80	3	84	187	46	85 (109)	156	168	276	142	75	47	T85	10 (11)
	100	4	104	220	52	117	167	168	276	142	75	47	T85	13
722F	125	5	129	250	100	139	165	203	346	176	79	57	T200	27
	150	6	154	280	100	157	180	203	346	176	79	57	T200	28
	200	8	194	330	100	181	210	203	346	176	79	57	T200	46
	250	10	250	400	110	221	250	231	423	214	91	69	T380	58
	300	12	296	445	110	251	280	269	546	270	118	85	T750	77
	350	14	334	490	120	298	320	269	546	270	118	85	T750	103

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

■ **Heavy duty**

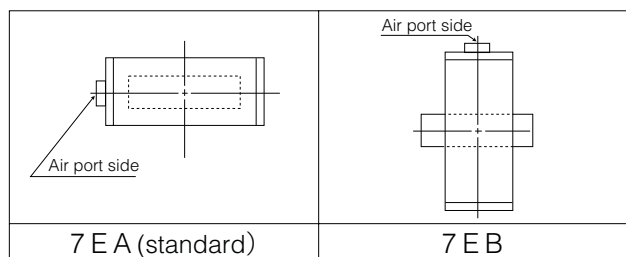
Type	Nominal size		Dimension (mm)										Cylinder type	Approx. Weight (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
704G	50	2	56	155	43	67	138	125	228	116	57	29	T35	5
	65	2 1/2	69	175	46	78	151	125	228	116	57	29	T35	6
	80	3	84	187	46	85 (109)	156	168	276	142	75	47	T85	10 (11)
	100	4	104	220	52	117	167	203	346	176	79	57	T200	16
722F	125	5	129	250	100	139	165	203	346	176	79	57	T200	27
	150	6	154	280	100	157	180	203	346	176	79	57	T200	28
	200	8	194	330	100	181	210	231	423	214	91	69	T380	52
	250	10	250	400	110	221	250	269	546	270	118	85	T750	68
	300	12	296	445	110	251	280	269	546	270	118	85	T750	77

■ **704G / 722F-7E**



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

■ **7E Installation Direction**



Double-acting pneumatic cylinder type 722F-3A (350mm to 800mm) / 720F-3A (850mm, 900mm)

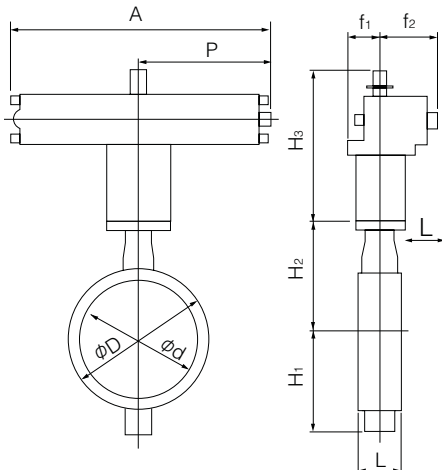
■Standard

Type	Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
722F	400	16	384	560	130	334	360	364	743	381	100	164	TGA-125	134
	450	18	435	620	150	356	390	437	810	417	100	180	TGA-140	192
	500	20	482	675	160	382	420	465	939	483	130	202	TGA-160	289
	550	22	531	745	170	418	460	465	939	483	130	202	TGA-160	331
	600	24	581	795	170	476	490	478	1053	543	130	218	TGA-180	408
	650	26	627	845	170	586	510	478	1053	543	130	218	TGA-180	566
	700	28	670	905	180	629	560	570	1163	599	160	253	TGA-200	812
	750	30	723	970	190	659	590	570	1163	599	160	253	TGA-200	907
720F	850	34	822	1070	210	709	650	600	1248	642	160	270	TGA-220	1151
	900	36	858	1120	230	759	685	633	1381	707	160	299	TGA-250	1317

■Heavy duty

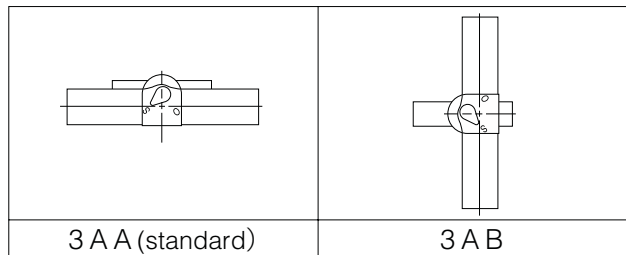
Type	Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
722F	350	14	334	490	120	298	320	364	743	381	100	164	TGA-125	111
	400	16	384	560	130	334	360	412	810	417	100	180	TGA-140	147
	450	18	435	620	150	356	390	465	939	483	130	202	TGA-160	239
	500	20	482	675	160	382	420	465	939	483	130	202	TGA-160	289
	550	22	531	745	170	418	460	478	1053	543	130	218	TGA-180	363
	600	24	581	795	170	476	490	525	1163	599	160	253	TGA-200	464
	650	26	627	845	170	586	510	600	1248	642	160	270	TGA-220	672
	700	28	670	905	180	629	560	600	1248	642	160	270	TGA-220	842
	750	30	723	970	190	659	590	633	1381	707	160	299	TGA-250	996
	800	32	772	1020	200	679	620	633	1381	707	160	299	TGA-250	1126

■722F / 720F-3A



Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

■3A Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

704G (Lugged) / 722F (Double Flanged) / 720F (Double Flanged)

Single-acting Pneumatic Cylinder Type 704G-7G (Air to open: 50mm to 100mm) / 722F-7G (Air to open: 125mm to 200mm)
704G-7F (Air to close: 50mm to 100mm) / 722F-7F (Air to close: 125mm to 200mm)

Standard

Type	Nominal size		Dimension (mm)										Cylinder type	Approx. Weight (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
704G	50	2	56	155	43	67	138	168	364	183	75	47	T85S	10
	65	2 1/2	69	175	46	78	151	203	449	226	79	57	T200S	16
	80	3	84	187	46	85 (109)	156	203	449	226	79	57	T200S	16 (17)
	100	4	104	220	52	117	167	203	449	226	79	57	T200S	19
722F	125	5	129	250	100	139	165	231	550	276	91	69	T380S	38
	150	6	154	280	100	157	180	231	550	276	91	69	T380S	39
	200	8	194	330	100	181	210	269	723	360	118	85	T750S	70

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

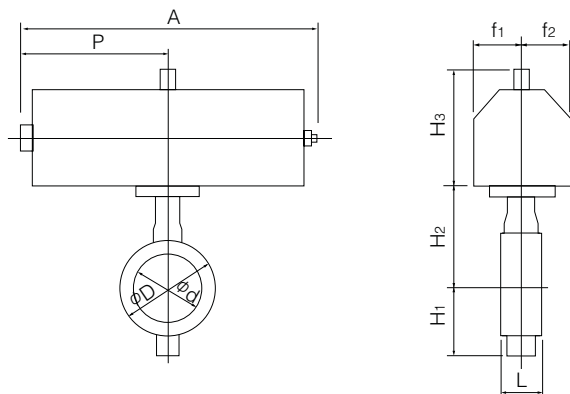
Heavy Duty

Type	Nominal size		Dimension (mm)										Cylinder type	Approx. Weight (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
704G	50	2	56	155	43	67	138	168	364	183	75	47	T85S	10
	65	2 1/2	69	175	46	78	151	203	449	226	79	57	T200S	16
	80	3	84	187	46	85 (109)	156	203	449	226	79	57	T200S	16 (17)
	100	4	104	220	52	117	167	231	550	276	91	69	T380S	27
722F	125	5	129	250	100	139	165	231	550	276	91	69	T380S	38
	150	6	154	280	100	157	180	231	550	276	91	69	T380S	39
	200	8	194	330	100	181	210	269	723	360	118	85	T750S	70

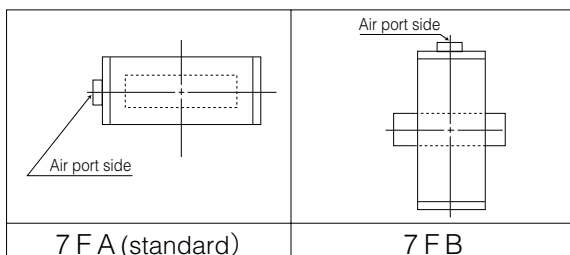
Remark: Value in brackets is for JIS 10K flanges.

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

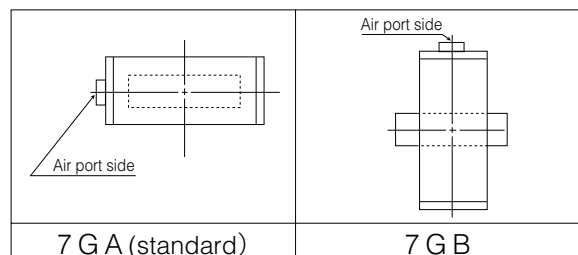
704G / 722F-7G / 7F



7F Installation Direction



7G Installation Direction



Single-acting pneumatic cylinder type 722F-3U (Air to open: 200mm to 600mm) / 722F-3K (Air to close: 200mm to 600mm)

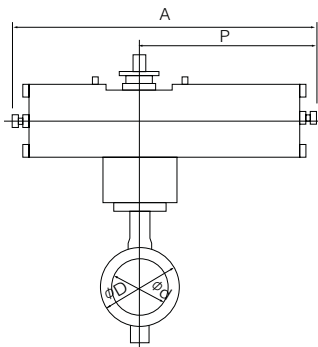
■Standard

Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
250	10	250	400	110	221	250	307	945	585	70	165	TG-10S	99
300	12	296	445	110	251	280	307	1080	720	94	206	TG-12S	153
350	14	334	490	120	298	320	307	1080	720	94	206	TG-12S	171
400	16	384	560	130	334	360	340	1255	865	131	257	TG-14S	291
450	18	435	620	150	356	390	340	1255	865	131	257	TG-14S	330
500	20	482	675	160	382	420	474	1655	1095	164	348	TG-20S	593
550	22	531	745	170	418	460	474	1655	1095	164	348	TG-20S	636
600	24	581	795	170	476	490	474	1655	1095	164	348	TG-20S	681

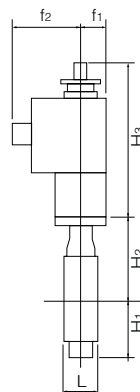
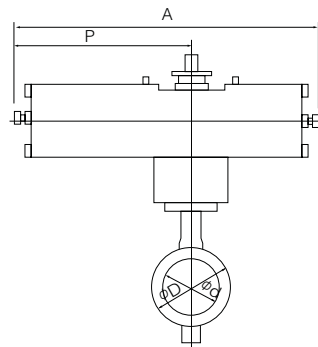
■Heavy duty

Nominal size		Dimension (mm)										Cylinder type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	f ₁	f ₂		
200	8	194	330	100	181	210	307	945	585	70	165	TG-10S	93
250	10	250	400	110	221	250	307	1080	720	94	206	TG-12S	144
300	12	296	445	110	251	280	307	1080	720	94	206	TG-12S	153
350	14	334	490	120	298	320	340	1255	865	131	257	TG-14S	267
400	16	384	560	130	334	360	340	1255	865	131	257	TG-14S	291
450	18	435	620	150	356	390	474	1655	1095	164	348	TG-20S	543
500	20	482	675	160	382	420	474	1655	1095	164	348	TG-20S	593
550	22	531	745	170	418	460	474	1655	1095	164	348	TG-20S	636
600	24	581	795	170	476	490	474	1655	1095	164	348	TG-20S	681

■722F-3U

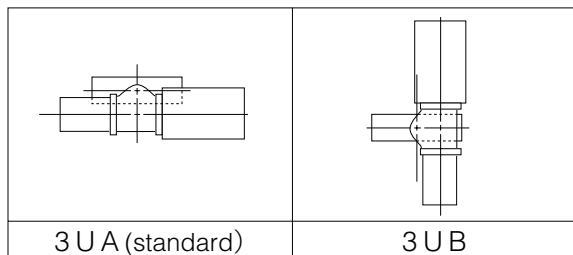


■722F-3K

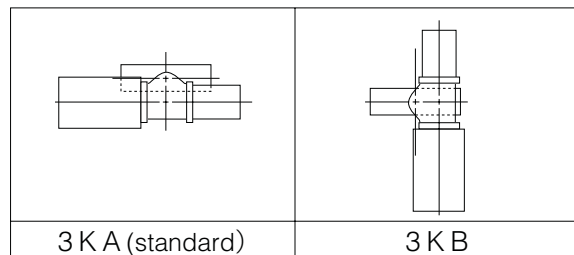


Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

■3U Installation direction



■3K Installation direction



Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

704G (Lugged) 722F (Double Flanged) / 720F (Double Flanged)

Single Phase Motor Type 704G-4I (50mm to 100mm) / 722F-4I (125mm to 500mm)

704G-4I

Nominal size		Dimension (mm)										Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	F	K		
50	2	56	155	43	67	138	150	202	100	85	54	4I-0	7.6
65	2 1/2	69	175	46	78	151	150	202	100	85	54	4I-0	8.6
80	3	84	187	46	85 (109)	156	150	202	100	85	54	4I-0	9.2(11.9)
100	4	104	220	52	117	167	165	252	138	126	65	4I-1	14.1

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

722F-4I

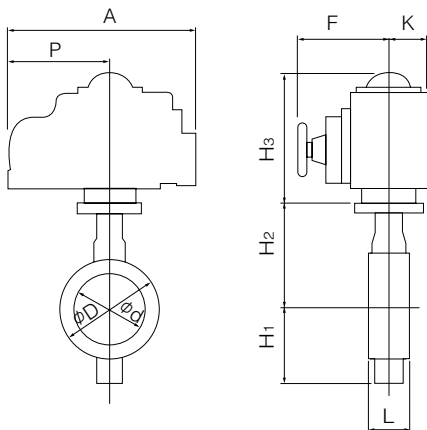
Nominal size		Dimension (mm)										Motor type	Approx. Weight (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	A	P	F	K		
125	5	129	250	100	139	165	198	310	167	154	85	4I-2	30
150	6	154	280	100	157	180	198	310	167	154	85	4I-2	31
200	8	194	330	100	181	210	198	310	167	154	85	4I-2.5	51
250	10	250	400	110	221	250	230	388	223	246	136	4I-3	67
300	12	296	445	110	251	280	230	388	223	246	136	4I-3	76
350	14	334	490	120	298	320	230	388	223	246	136	4I-3	93
400	16	384	560	130	334	360	230	388	223	246	136	4I-3	116
							255	388	223	246	136	4I-4	122
450	18	435	620	150	356	390	230	388	223	246	136	4I-4	161
500	20	482	675	160	382	420	230	388	223	246	136	4I-4	211

Remark: For the 400mm type with the accessories below, type 4I-4 should be selected.

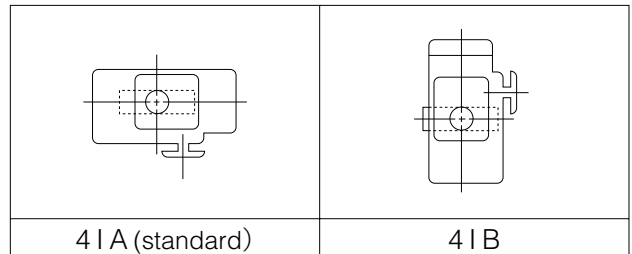
- Micom unit
- Servo unit
- Speed control unit
- Potentiometer

Selection criteria	Standard	Select when none of the following heavy duty items apply.
	Heavy duty	Select when any of the following items apply. ① Powder or high viscosity fluid (crude oil, etc.), slurry ② Control specification (with positioner) ③ Emergency open valve or pipe dead end valve

704G / 722F-4I



4I Installation Direction



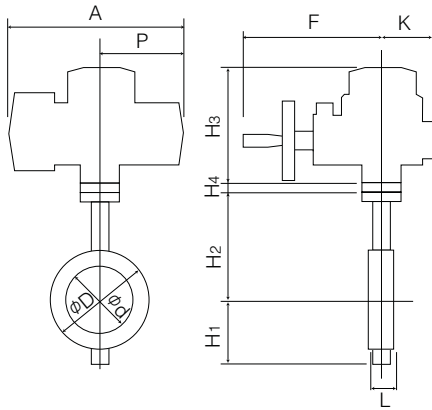
Three phase motor actuator type 704G-4J (50mm to 100mm)

■704G-4J

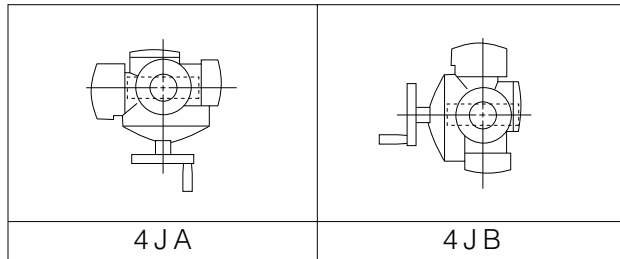
Nominal size		Dimension (mm)											Motor type	Approx. Mass (kg)
mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	H ₄	A	P	F	K		
50	2	56	155	43	67	138	218	3.2	353	167	286	104	SRJ-010	17.1
65	2 1/2	69	175	46	78	151	218	3.2	353	167	286	104	SRJ-010	18.1
80	3	84	187	46	85 (109)	156	218	3.2	353	167	286	104	SRJ-010	18.7(19.2)
100	4	104	220	52	117	167	218	3.2	353	167	286	104	SRJ-010	21.2

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

■704G-4J



■4J Installation direction



Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

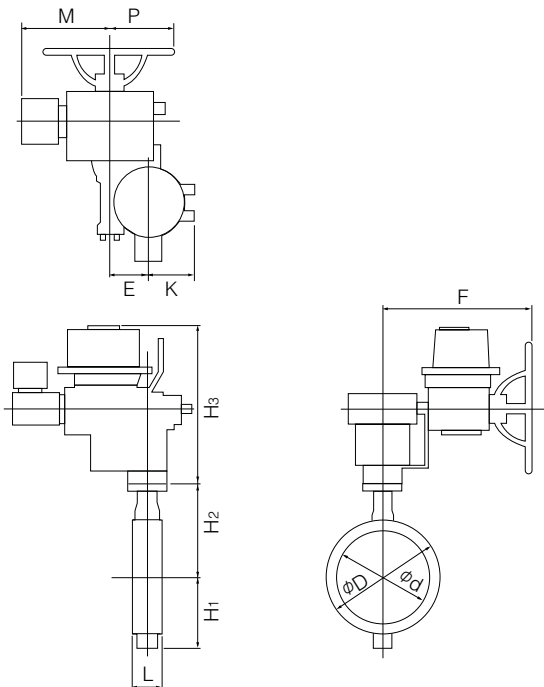
907H/908H (MKT)

903C

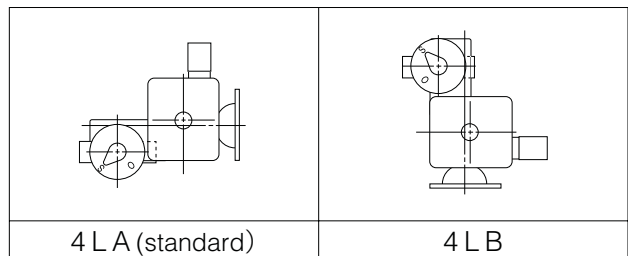
Three Phase Motor Actuator Type 722F-4L (350mm to 800mm) / 720F-4L (850mm to 1350mm)

Type	Nominal size		Dimension (mm)											Cylinder type	Approx. Weight (kg)
	mm	inch	ϕd	ϕD	L	H ₁	H ₂	H ₃	E	K	F	M	P		
722F	350	14	334	490	120	298	320	488	117	164	533	363	230	LTKD-01 0.2kW/MGH-3	213
	400	16	384	560	130	334	360	488	117	164	533	363	230	LTKD-01 0.2kW/MGH-3	230
	450	18	435	620	150	356	390	488	117	164	533	373	230	LTKD-01 0.4kW/MGH-3	268
	500	20	482	675	160	382	420	488	117	164	533	373	230	LTKD-01 0.4kW/MGH-3	303
	550	22	531	745	170	418	460	558	140	198	592	400	230	LTKD-02 0.75kW/MGH-4	411
	600	24	581	795	170	476	490	590	140	198	637	440	360	LTKD-05 0.75kW/MGH-4	500
	650	26	627	845	170	586	510	569	140	198	637	440	360	LTKD-05 0.75kW/MGH-4	600
	700	28	670	905	180	629	560	639	210	293	748	440	360	LTKD-05 0.75kW/MGH-5	885
	750	30	723	970	190	659	590	639	210	293	748	477	360	LTKD-05 1.5kW/MGH-5	980
	800	32	772	1020	200	679	620	679	210	293	799	537	410	LTKD-1 1.5kW/MGH-5	1180
720F	850	34	822	1070	210	709	650	680	210	293	799	537	410	LTKD-1 1.5kW/MGH-5	1192
	900	36	858	1120	230	759	685	680	210	293	799	537	410	LTKD-1 1.5kW/MGH-5	1269
	1000	40	975	1235	250	819	745	700	210	293	762	537	425	LTKD-1 1.5kW/MGH-6	1670
	1100	44	1070	1345	280	874	820	700	210	293	762	537	425	LTKD-1 1.5kW/MGH-6	1870
	1200	48	1170	1465	300	948	880	700	210	293	762	537	425	LTKD-1 1.5kW/MGH-6	2270
	1350	54	1314	1630	330	1030	960	700	280	293	1042	540	425	LTKD-1 2.2kW/MGH-7	2650

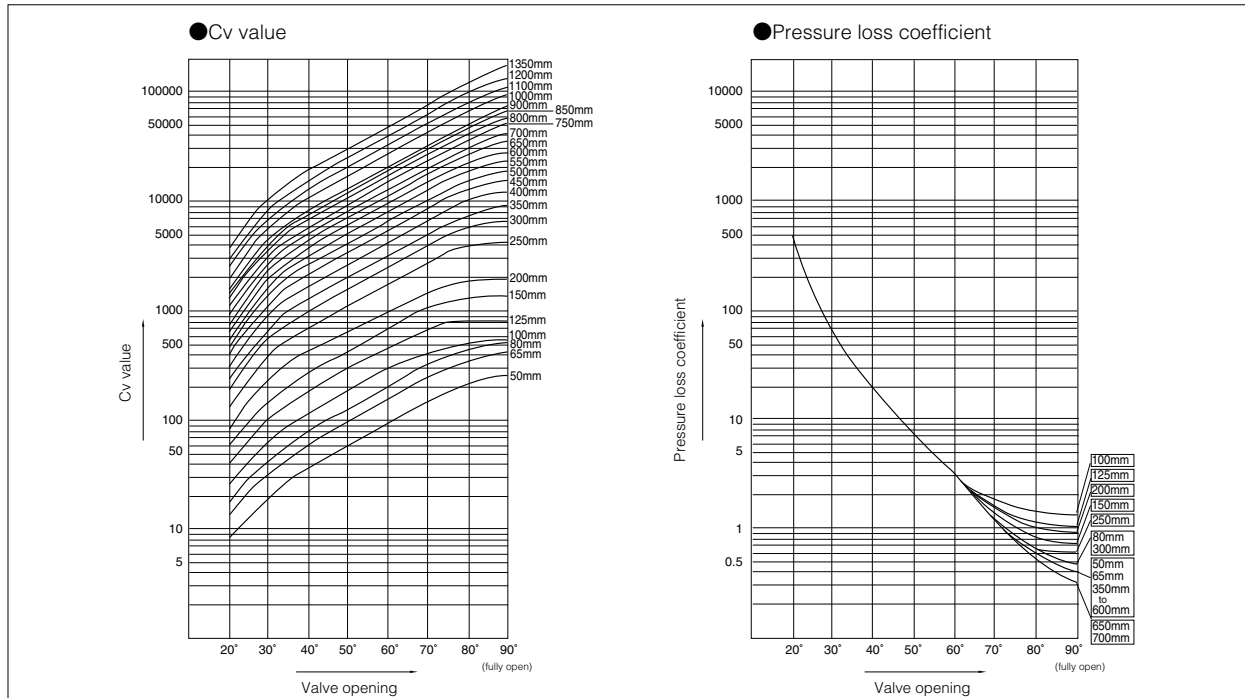
■ 722F / 720F-4L



■ 4L Installation Direction



704G / 722F / 720F Cv value / Pressure loss coefficient



704G / 722F / 720F Cv value

Nominal size	Nominal size		Valve opening							
	mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
704G	50	2	8	15	25	40	64	103	160	200
	65	2 1/2	12	25	41	64	102	162	260	320
	80	3	15	33	57	95	163	271	450	580
722F	100	4	27	58	100	162	269	444	749	880
	125	5	40	102	180	297	457	692	767	800
	150	6	61	146	272	429	710	1039	1295	1350
	200	8	71	239	417	646	969	1457	1836	1950
	250	10	139	375	693	1135	1746	2724	3855	4200
	300	12	184	544	995	1593	2461	3909	5571	6400
	350	14	215	678	1248	1982	3028	4827	7054	9000
	400	16	304	905	1656	2649	4094	6460	9782	12000
	450	18	381	1158	2136	3433	5274	8120	12430	15000
	500	20	496	1440	2631	4209	6434	10085	15436	17500
	550	22	571	1765	3234	5141	7833	12066	17999	22500
	600	24	688	2074	3815	6126	9433	14595	21897	26500
	650	26	817	2441	4473	7159	11013	17254	26972	32500
	700	28	934	2807	5122	8152	12511	19728	30929	39000
	750	30	935	3220	5965	9450	14328	22687	38260	52000
800	32	1200	3721	6791	10771	16553	26976	43316	59000	
720F	850	34	1164	4018	7516	12063	18567	29284	46350	66000
	900	36	1358	4497	8298	13177	20139	32362	53126	73000
	1000	40	1784	5835	10740	17060	26110	42070	68860	95000
	1100	44	2075	7030	13020	20680	31530	50420	83340	114000
	1200	48	2570	8520	15710	24900	37930	60280	98640	138000
1350	54	3385	10180	18810	30490	47840	75750	119000	173000	

Butterfly Valve

TRITEC

TT2

334A

302A/303Q

304A/304Q

302Y/304Y

304M (HLV)

507V/508V

DTM

846T/847T/847Q

841T/842T

700Z

700G/704G/705G

700GB

731P/732P/732Q/752W

71LG

700E/700K/700S

704G/722F/720F

KRV

227P

907H/908H (MKT)

903C

704G / 722F / 720F Pressure Loss Coefficient

Nominal size	Nominal size		Valve opening							
	mm	inch	20°	30°	40°	50°	60°	70°	80°	90°
704G	50	2	257	68	25	10	4	2	1	0.4
	65	2 1/2	310	75	28	11	4	2	1	0.4
	80	3	394	83	27	10	3	1	0.4	0.2
	100	4	350	78	26	10	4	1	0.4	0.3
722F	125	5	399	61	19	7	3	1	1	1
	150	6	336	58	17	7	2	1	1	1
	200	8	745	65	22	9	4	2	1	1
	250	10	464	63	19	7	3	1	1	1
	300	12	545	62	19	7	3	1	1	0.4
	350	14	615	62	18	7	3	1	1	0.3
	400	16	540	61	18	7	3	1	1	0.3
	450	18	560	61	18	7	3	1	1	0.3
	500	20	510	61	18	7	3	1	1	0.4
	550	22	571	60	18	7	3	1	1	0.3
	600	24	561	62	18	7	3	1	1	0.3
	650	26	553	62	18	7	3	1	1	0.4
	700	28	573	63	19	8	3	1	1	0.3
	750	30	758	64	19	7	3	1	0.5	0.3
800	32	599	62	19	7	3	1	0.5	0.3	
720F	850	34	815	68	20	8	3	1	0.5	0.3
	900	36	756	69	20	8	3	1	0.5	0.3
	1000	40	645	60	18	7	3	1	0.4	0.2
	1100	44	701	61	18	7	3	1	0.4	0.2
	1200	48	658	60	18	7	3	1	0.4	0.2
	1350	54	611	68	20	8	3	1	0.5	0.2

704G / 722F / 720F Applicable flange standard

Type	Nominal size		JIS		ANSI		BS4504 PN10	DIN NP10
	mm	inch	5K	10K	125Lb	150Lb		
704G	50	2	○	○	○	○	○	○
	65	2 1/2	○	○	○	○	○	○
	80	3	◎	○	◎	◎	○	○
	100	4	○	○	○	○	○	○
722F	125	5	○	○	◎	◎	○	○
	150	6	○	○	◎	◎	○	○
	200	8	○	○	◎	◎	◎	◎
	250	10	○	○	◎	◎	○	○
	300	12	○	○	◎	◎	○	○
	350	14	○	○	◎	◎	◎	◎
	400	16	○	○	◎	◎	○	○
	450	18	○	○	◎	◎	○	—
	500	20	○	○	◎	◎	◎	◎
	550	22	○	○	—	—	—	—
	600	24	○	○	◎	◎	◎	◎
	650	26	○	○	Consult us if the flange standard is not JIS 5K/10K in 650mm type and over.			
	700	28	○	○				
	750	30	○	○				
800	32	○	○					
850	34	○	○					
900	36	○	○					
1000	40	○	○					
720F	1100	44	○	○				
	1200	48	○	○				
	1350	54	○	○				

Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

○ : Can be used without flange drilling.
 ◎ : Tapped holes only. (ANSI body only)

704G (Lugged) 722F (Double Flanged) / 720F (Double Flanged)

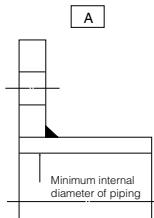
704G / 722F / 720F Applicable Pipe List in Case of **A**

Type	Nominal size		SGP	STPY	Sch20	Sch40	Sch10S	Sch20S	Minimum internal diameter of piping (mm)
	mm	inch							
704G	50	2	○	—	○	○	○	○	34
	65	2 1/2	○	—	○	○	○	○	51
	80	3	○	—	○	○	○	○	70
	100	4	○	—	○	○	○	○	91
722F	125	5	○	—	○	○	○	○	118
	150	6	○	—	○	○	○	○	143
	200	8	○	—	○	○	○	○	187
	250	10	○	—	○	○	○	○	240
	300	12	○	—	○	○	○	○	286
	350	14	○	○	○	○	—	—	322
	400	16	○	○	○	○	—	—	372
	450	18	○	○	○	○	—	—	421
	500	20	○	○	○	○	—	—	463
	550	22	—	○	○	○	—	—	509
	600	24	—	○	○	○	—	—	566
	650	26	—	○	○	○	—	—	612
	700	28	—	○	—	—	—	—	653
	750	30	—	○	—	—	—	—	705
720F	800	32	—	○	—	—	—	—	754
	850	34	—	○	—	—	—	—	803
	900	36	—	○	—	—	—	—	834
	1000	40	—	○	—	—	—	—	950
	1100	44	—	○	—	—	—	—	1040
	1200	48	—	○	—	—	—	—	1138
	1350	54	—	○	—	—	—	1277	

Remark 1: ○=Applicable

Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.

In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange. For details, please consult us.



704G / 722F / 720F Applicable pipe list in case of **B**

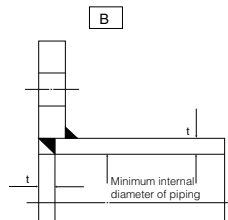
Type	Nominal size		SGP	STPY	Sch20	Sch40	Sch10S	Sch20S
	mm	inch						
704G	50	2	○	—	○	○	○	○
	65	2 1/2	○	—	○	○	○	○
	80	3	○	—	○	○	○	○
	100	4	○	—	○	○	○	○
722F	125	5	○	—	○	○	○	○
	150	6	○	—	○	○	○	○
	200	8	○	—	○	○	○	○
	250	10	○	—	○	○	○	○
	300	12	○	—	○	○	○	○
	350	14	○	○	○	○	—	—
	400	16	○	○	○	○	—	—
	450	18	○	○	○	○	—	—
	500	20	○	○	○	○	—	—
	550	22	—	○	○	○	—	—
	600	24	—	○	○	○	—	—
	650	26	—	○	○	○	—	—
	700	28	—	○	—	—	—	—
	750	30	—	○	—	—	—	—
720F	800	32	—	○	—	—	—	—
	850	34	—	○	—	—	—	—
	900	36	—	○	—	—	—	—
	1000	40	—	○	—	—	—	—
	1100	44	—	○	—	—	—	—
	1200	48	—	○	—	—	—	—
	1350	54	—	○	—	—	—	—

Butterfly Valve
TRITEC
TT2
334A
302A/303Q
304A/304Q
302Y/304Y
304M (HLV)
507V/508V
DTM
846T/847T/847Q
841T/842T
700Z
700G/704G/705G
700GB
731P/732P/732Q/752W
71LG
700E/700K/700S
704G/722F/720F
KRV
227P
907H/908H (MKT)
903C

Remark 1: ○=Applicable

Remark 2: Butterfly valves are inserted into a pipe that was fitted with the disc when fully open.

In cases where you are using a pipe or flange that is less than the minimum inner pipe diameter, use is still possible if means are taken such as inserting a spacer between the valve and flange. For details, please consult us.



704G / 722F / 720F Piping Bolts Sizes

Type	Nominal size		JIS 5K		JIS 10K	
	mm	inch	Hexagon Bolts and Nuts	Hexagon Bolts	Hexagon Bolts and Nuts	Hexagon Bolts
704G	50	2	—	8-M12×30×25	—	8-M16×35×30
	65	2 1/2	—	8-M12×35×30	—	8-M16×35×30
	80	3	—	8-M16×35×30	—	16-M16×35×30
	100	4	—	16-M16×40×35	—	16-M16×40×35
722F	125	5	8-M16×60×38	8-M16×40×35	8-M20×65×46	8-M20×45×37
	150	6	8-M16×60×38	8-M16×40×35	8-M20×70×46	8-M20×50×42
	200	8	8-M20×65×46	8-M20×50×42	16-M20×70×46	8-M20×50×42
	250	10	16-M20×70×46	8-M20×50×42	16-M22×75×50	8-M22×50×42
	300	12	16-M20×70×46	8-M20×50×42	24-M22×75×50	8-M22×50×42
	350	14	16-M22×80×50	8-M22×55×47	24-M22×80×50	8-M22×55×47
	400	16	24-M22×85×50	8-M22×55×47	24-M24×90×54	8-M24×60×50
	450	18	24-M22×90×50	8-M22×60×50	32-M24×100×54	8-M24×65×54
	500	20	32-M22×90×50	8-M22×60×50	32-M24×100×54	8-M24×70×54
	550	22	32-M24×100×54	8-M24×65×54	32-M30×110×66	8-M30×70×54
	600	24	32-M24×100×54	8-M24×65×54	40-M30×110×66	8-M30×70×54
	650	26	40-M24×100×54	8-M24×70×54	40-M30×110×66	8-M30×80×66
	700	28	40-M24×100×54	8-M24×70×54	40-M30×110×66	8-M30×80×66
	750	30	40-M30×110×66	8-M30×80×66	40-M30×115×66	8-M30×80×66
800	32	40-M30×110×66	8-M30×80×66	48-M30×115×66	8-M30×80×66	
720F	850	34	40-M30×110×66	8-M30×80×66	48-M30×115×66	8-M30×80×66
	900	36	32-M30×115×66	16-M30×75×66	40-M30×120×66	16-M30×80×66
	1000	40	40-M30×130×72	16-M30×90×66	40-M36×145×84	16-M36×110×78
	1100	44	40-M30×130×72	16-M30×90×66	40-M36×145×84	16-M36×110×78
	1200	48	48-M30×130×72	16-M30×90×66	48-M36×150×84	16-M36×110×78
	1350	54	56-M30×135×72	16-M30×90×66	56-M42×165×96	16-M42×110×90

Remarks:

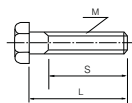
1. The bolt for valve positioning uses the screw hole.
2. The hexagon bolt is used in the screw hole part for valve positioning.
3. Please use a hexagon nut with 80% threading.
4. For uses other than marine, use SS400 as the bolt (and nut) material.

Example

Hexagon bolts: 4 - M30 × 95 × 65



Hexagon bolts



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