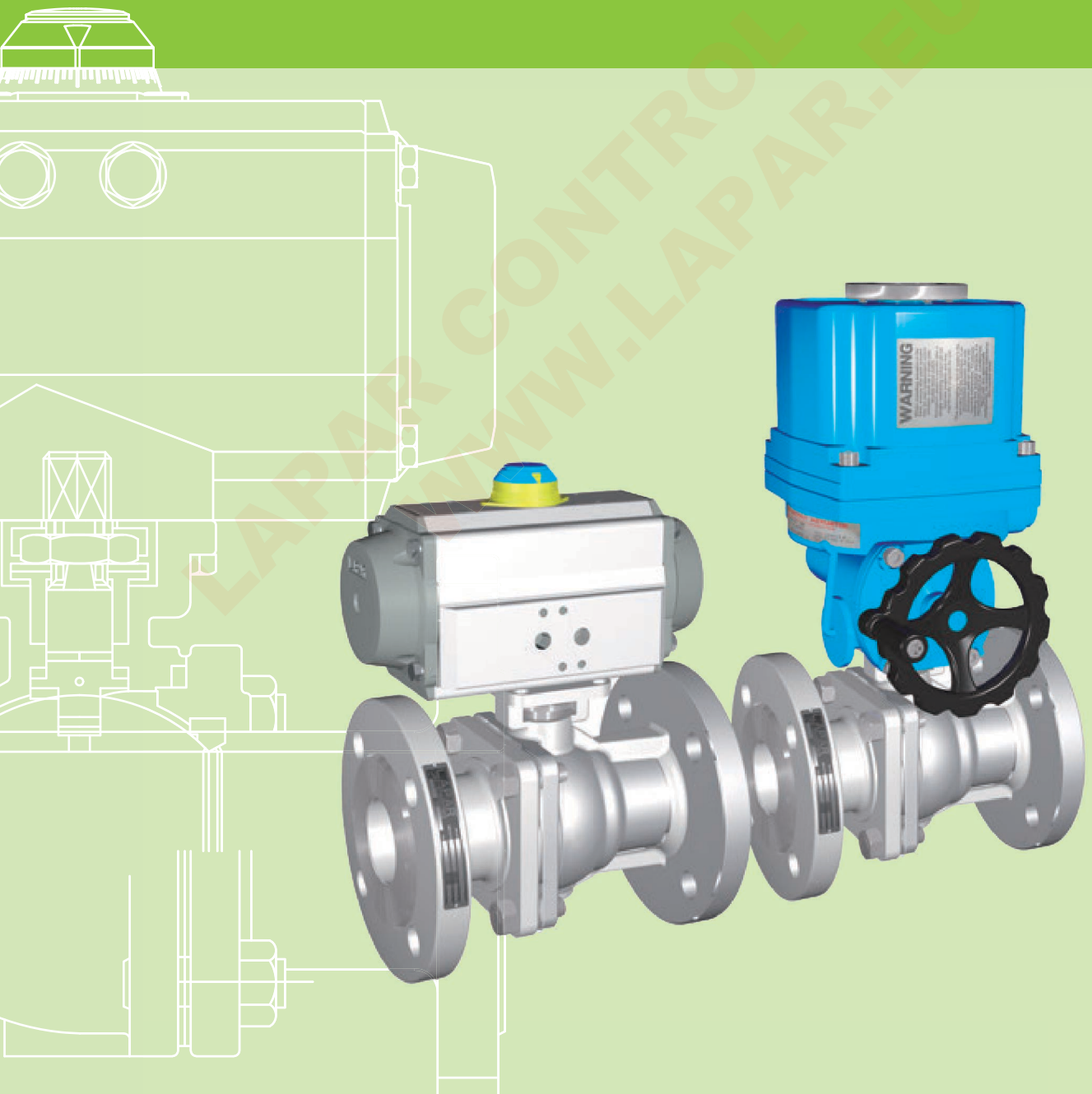
LAPAR

LPA11 Series

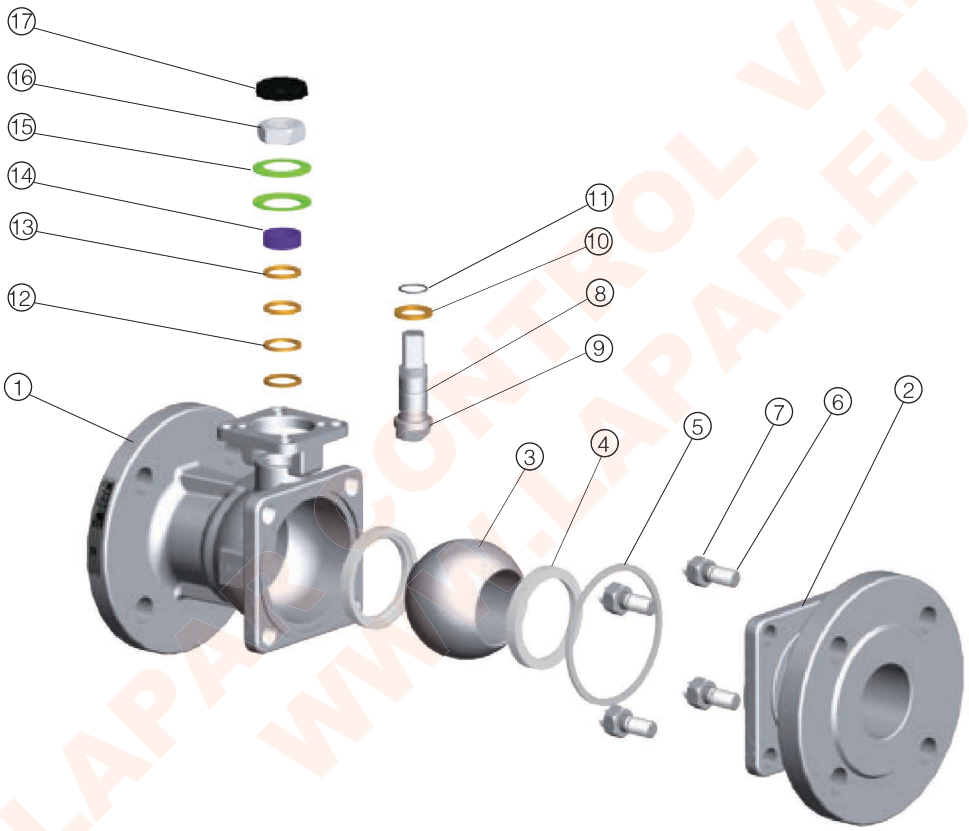
Flanged Ball Valve



LAPAR CONTROL VALVE
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Design Standard

Standard	GB	ASME	DIN	JIS
Pressure Rating	GB 1224 GB12237 PN16–PN40	B16.34 CLASS 150(BS5351 CLASS150) B16.34 CLASS 300(BS5351 CLASS300)	DIN 3357 PN10–PN40 EN 12516–1	B2001 10K B2001 20K
Face to Face	GB 12221	B16.10	DIN 3202 F4/F18 DIN 3202 F1/F17	B2002 10K Form 6 B2002 20K Form 10
Connection Facing	GB 9113.1	B16.5RF Serrated Finish(AARH200)	DIN 2501 PN10–PN40 Facing DIN 2526 Form C	B2212 10k B2214 20K
Inspection & Testing	GB/T13927,API 598	API 598,API 6D	DIN 3230/3,EN 12266	JIS B2003
Quality Assurance	ISO 9001,QS9000 AD2000–Merkblatt W0 PED 97/23/EC CE0036 API 6D	ISO 9001,QS9000 AD2000–Merkblatt W0 PED 97/23/EC CE0036 API 6D	ISO 9001,QS9000 AD2000–Merkblatt W0 PED 97/23/EC CE0036 API 6D	ISO 9001,QS9000 AD2000–Merkblatt W0 PED 97/23/EC CE 0036 API 6D



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No.	Part	Material		
		ANSI / JIS / DIN	ANSI/ JIS/ DIN	ANSI / JIS / DIN
1	Body	A351–CF8M / SCS14A / 1.4408	A351–CF8 / SCS13A / 1.4308	A216–WCB / SCPH2 / 1.0619
2	End Cap	A351–CF8M / SCS14A / 1.4408	A351–CF8 / SCS13A / 1.4308	A216–WCB / SCPH2 / 1.0619
3	Ball	A351–CF8M / SCS14A / 1.4408	A351–CF8 / SCS13A / 1.4308	
4	Ball Seat	PTFE / RTFE		
5	Body Gasket	PTFE/ TFM1600 / 316 SPIRAL WOUND+GRAFOIL		
6	Bolting	A193–B8		A193–B7
7	Bolt Nut	A194–8		A194–2H
8	Stem	SUS316	SUS304	
9	Anti–static Device	SUS316	SUS304	
10	Thrust Washer	PTFE		
11	O–ring	FKM(VITON)		
12	Stem Packing	PTFE / GRAFOIL		
13	Bushing	50%SS+50%PTFE / SUS304		
14	Gland	SUS316		
15	Belleville Washer	SUS301		
16	Stem Nut	A194–8		
17	Stop–lock–cap	SUS304		

Note:Red words for fire safe models

Fire Protection Design

LAPAR soft–seated ball valves (2–PC Body,Flange Ends,LPA11) conform to fire safe tests of API 607 fifth edition and ISO 10497.Our products can seal properly during the fire and after the accident,reduce inside and outside leakage of pipeline fluids,and prevent environmental pollution (even on fire) resulted from flammable or other fiuids in the pipeline.

Design Feature

1. During the fire,soft seats (such as TFM1600,PTFE,RTFE...) will burn up and lose supporting and sealing functions. Then,the ball moves free downstream due to pressure from upstream,and contacts secondary metal seats of body or end cap,which comes to a leakage prevention (see figures #1 & #2).

2. Grafoil body gaskets can endure high temperature and remain unaffected during the fire,and eventually prevent fluid leakage to the exterior. Moreover,the connection of body and end cap flange maintains metal to metal contact by stud bolts screwed into body(see figures #3 & #4).

3. Grafoil packing can endure high temperature and remain unaffected during the fire and prevent fluid leakage to the exterior (see figures #5 & #6).

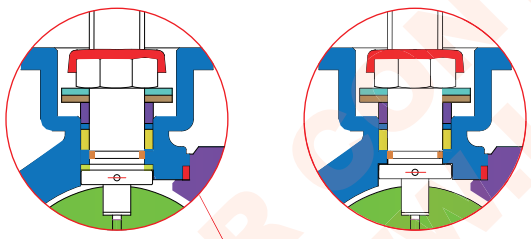


Figure #5 Before Fire

Figure #6 After Fire

Grafoil Packing

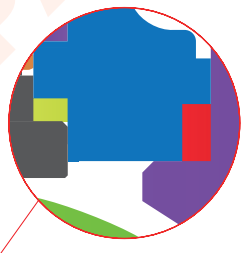
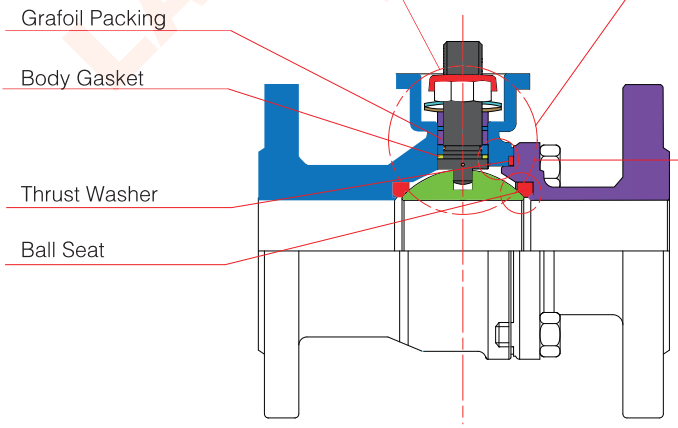


Figure #3 Before Fire



Figure #4 After Fire

Grafoil Body Gasket



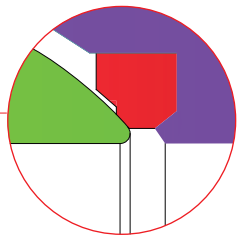


Figure #1 Before Fire

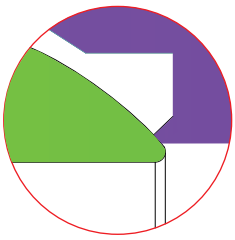


Figure #2 After Fire

Secondary Metal Seat to Ball Contact

LAPAR CONTROL VALVE
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LPA11–
Flanged Ball Valve

LAPAR
Lapar Control Valve

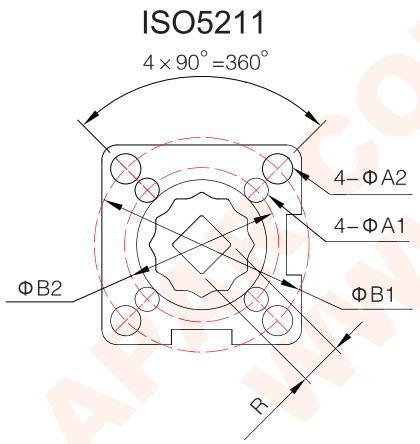
Code	Actuator	Action	Air Fail Position	Control	Structure	Body	Sealing	Ball	Connection	DN	PN
LPA11-	1 Pneumatic	D Double-acting	1 Normally Open	A On-off	6 Two Pieces	A 316L	P PTFE	A 316L	1 Flange		
	2 Pneumatic & Handwheel	S Single-acting	2 Normally Closed	B Control	0 Others	B 316	Q TFM1600	B 316			
	3 Electric DC24V	0 Others	3 Flexible	C Intelligent		C 304	T EK	C 304			
	4 Electric AC220V		4 Held	0 Others		I 304L	R BODY	I 304L			
	5 Electric AC380V		0 Others			D WCB	S STL	L CE3MN			
	7 Handle					L CE3MN	0 Others	0 Others			
	8 Turbine					0 Others					
	0 Others										

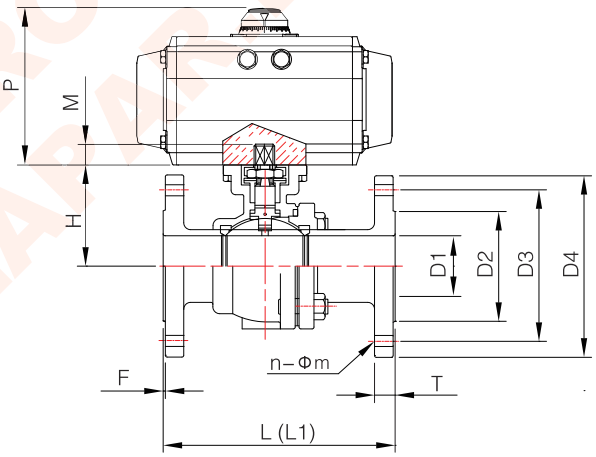
Design Feature

- Lost–wax precision casting
- Fire safe design approved
- Built–in ISO 5211 direct mounting pad for easy automation
- Anti–static devices for ball–stem–body
- Blow–out proof stem
- Pressure balance hole in ball slot
- TA–LUFT design approved

Parameter

- Fire Safe:
  API 607 5th 2005,IOS 10497
- Applicable Temperature:
  - PTFE、TFM1600: –29℃ ~ 178℃
  - EK: –29℃ ~ 250℃
  - BODY、STL: –40℃ ~ 425℃





* P: Please refer to the actuator configuration table
* L1 For the fire safe models

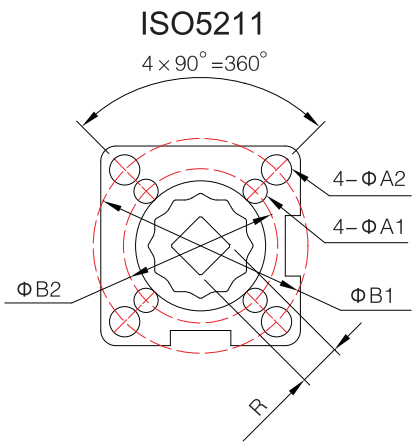
GB PN16/25/40

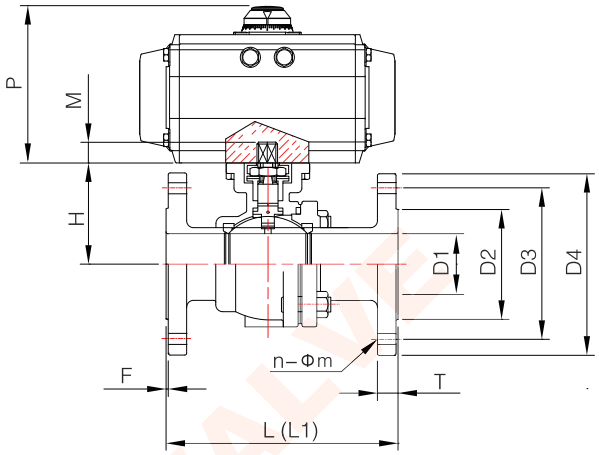
Unit:mm

SIZE		PN	L	L1	D1	D2	D3	D4	T	F	n	Φm	H	M	R	A1	A2	B1	B2	IS05211	LT–DA	LT–SR	LU	LH
DN15	1/2″	16	130	130	15	46	65	95	14	2	4	14	48	9	9	6	6	36	42	F03–F04	LT 50	LT 50	LU 50	LH 006
DN20	3/4″		130	150	20	56	75	105	16	2	4	14	53	9	9	6	6	36	42	F03–F04	LT 50	LT 63	LU 50	LH 006
DN25	1″	25	140	160	25	65	85	115	16	3	4	14	58.5	11	11	6	7	42	50	F04–F05	LT 50	LT 75	LU 50	LH 006
DN32	1-1/4″		165	180	32	76	100	140	18	3	4	18	71	11	11	6	7	42	50	F04–F05	LT 63	LT 75	LU 50	LH 006
DN40	1-1/2″	40	165	200	38	84	110	150	18	3	4	18	76	14	14	7	9	50	70	F05–F07	LT 63	LT 88	LU 160	LH 006
DN50	2″		203	230	50	99	125	165	20	3	4	18	85	14	14	7	9	50	70	F05–F07	LT 75	LT 100	LU 160	LH 008
DN65	2-1/2″	16 25/40	222	290	65	118	145	185	20 22	3	4 8	18	101.5	17	17	9	11	70	102	F07–F10	LT 88	LT 115	LU 250	LH 010
DN80	3″	16 25/40	241	310	76	132	160	200	20 24	3	8	18	111.5	17	17	9	11	70	102	F07–F10	LT 100	LT 125	LU 250	LH 015
DN100	4″	16 25/40	305	350	100	156	180 190	220 235	22 24	3	8	18 22	140	22	22	N/A	11	N/A	102	F10	LT 125	LT 145	LU 500	LH 030
DN125	5″	16 25/40	356	400	125	184	210 220	250 270	22 26	3	8	18 26	183	27	27	14	N/A	125	N/A	F12	LT 145	LT 180	LU 500	LH 050
DN150	6″	16 25/40	394	480	150	211	240 250	285 300	24 28	3	8	22 26	204	27	27	14	N/A	125	N/A	F12	LT 160	LT 200	LU 1000	LH 050
DN200	8″	16 25 40	457	600	200	266 274 284	295 310 320	340 360 375	24 30 34	3	12	22 26 30	252.5	27	27	14	N/A	125	N/A	F12	LT 200	LT 240	LU 1000	LH 080

Note: D3 is designed to meet GB9113.1

LAPAR CONTROL VALVE WWW.LAPAR.EU





* P: Please refer to the actuator configuration table
* L1 For the fire safe models

DIN PN16/25/40

Unit:mm

SIZE		PN	L	L1	D1	D2	D3	D4	T	F	n	Φm	H	M	R	A1	A2	B1	B2	IS05211	LT–DA	LT–SR	LU	LH
DN15	1/2″	16	115	130	15	45	65	95	16	2	4	14	48	9	9	6	6	36	42	F03–F04	LT 50	LT 50	LU 50	LH 006
DN20	3/4″		120	150	20	58	75	105	18	2	4	14	53	9	9	6	6	36	42	F03–F04	LT 50	LT 63	LU 50	LH 006
DN25	1″	25	125	160	25	68	85	115	18	3	4	14	58.5	11	11	6	7	42	50	F04–F05	LT 50	LT 75	LU 50	LH 006
DN32	1-1/4″		130	180	32	78	100	140	18	3	4	18	71	11	11	6	7	42	50	F04–F05	LT 63	LT 75	LU 50	LH 006
DN40	1-1/2″	40	140	200	38	88	110	150	18	3	4	18	76	14	14	7	9	50	70	F05–F07	LT 63	LT 88	LU 50	LH 006
DN50	2″		150	230	50	102	125	165	20	3	4	18	85	14	14	7	9	50	70	F05–F07	LT 75	LT 100	LU 160	LH 008
DN65	2-1/2″	16 25/40	170	290	63.5	122	145	185	18 22	3	4 8	18	101.5 107	17	17	9	11	70	102	F07–F10	LT 88	LT 115	LU 160	LH 010
DN80	3″	16 25/40	180	310	76	138	160	200	20 24	3	8	18	111.5 117	17	17	9	11	70	102	F07–F10	LT 100	LT 125	LU 160	LH 015
DN100	4″	16 25/40	190	350	100	158 162	180 190	220 235	20 24	3	8	18 22	140	22	22	N/A	11	N/A	102	F10	LT 125	LT 145	LU 250	LH 030
DN125	5″	16 25/40	325	400	125	188	210 220	250 270	22 26	3	8	18 26	183	27	27	14	N/A	125	N/A	F12	LT 145	LT 180	LU 500	LH 050
DN150	6″	16 25/40	350	450	150	212 218	240 250	285 300	22 28	3	8	22 26	204	27	27	14	N/A	125	N/A	F12	LT 160	LT 200	LU 500	LH 050
DN200	8″	16 25 40	400	550	200	268 278 285	295 310 320	340 360 375	24 30 34	3	12	22 26 30	252.5	27	27	14	N/A	125	N/A	F12	LT 200	LT 240	LU 1000	LH 080

Note: D3 is designed to meet DIN EN1092–1

ASME CLASS150

Unit:mm

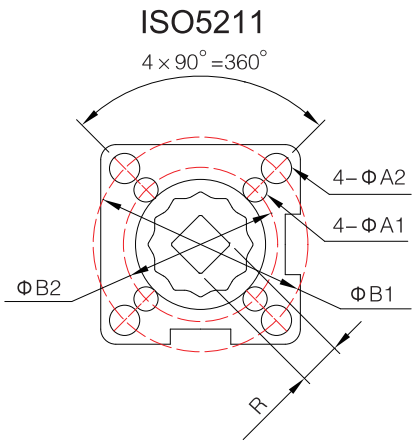
SIZE	L	D1	D2	D3	D4	T	F	n	Φm	H	M	R	A1	A2	B1	B2	IS05211	LT–DA	LT–SR	LU	LH
1/2″	108	15	35	60.5	89	10.1	2	4	16	48	9	9	6	6	36	42	F03–F04	LT 50	LT 50	LU 50	LH 006
3/4″	117	20	43	70	98.6	10.9	2	4	16	53	9	9	6	7	36	50	F03–F04	LT 50	LT 63	LU 50	LH 006
1″	127	25	51	79.2	108	11.6	2	4	16	58.5	11	11	6	7	42	50	F04–F05	LT 50	LT 75	LU 50	LH 006
1-1/4″	140	32	63.5	88.9	117	13.1	2	4	16	71	11	11	6	9	42	70	F04–F05	LT 63	LT 75	LU 50	LH 006
1-1/2″	165	38	73.2	98.6	127	14.6	2	4	16	76	14	14	7	9	50	70	F05–F07	LT 63	LT 88	LU 50	LH 006
2″	178	50	92	120.7	152.5	16.3	2	4	19	81	14	14	7	9	50	70	F05–F07	LT 75	LT 100	LU 160	LH 008
2-1/2″	190	63	104.7	139.7	177.8	17.9	2	4	19	101.5	17	17	9	11	70	102	F07–F10	LT 88	LT 115	LU 160	LH 010
3″	203	76	127	152.4	190.5	19.5	2	4	19	111.5	17	17	9	11	70	102	F07–F10	LT 100	LT 125	LU 160	LH 015
4″	229	100	157.2	190.5	228.6	24.3	2	8	19	140	22	22	N/A	11	N/A	102	F10	LT 125	LT 145	LU 250	LH 030
5″	356	125	186	216	254	24.4	2	8	22.3	183	27	27	14	N/A	125	N/A	F12	LT 145	LT 180	LU 500	LH 050
6″	394	150	216	241.3	279.4	25.8	2	8	22.3	204	27	27	14	N/A	125	N/A	F12	LT 160	LT 200	LU 500	LH 050
8″	457	200	270	298.5	342.9	28.9	2	8	22.3	252.5	27	27	14	N/A	125	N/A	F12	LT 200	LT 240	LU 1000	LH 080
10″	533	250	324	362	406	30.5	2	8	26	306	36	36	–	N/A	–	N/A	F14	LT 240	LT 330	LU 2000	LH 200

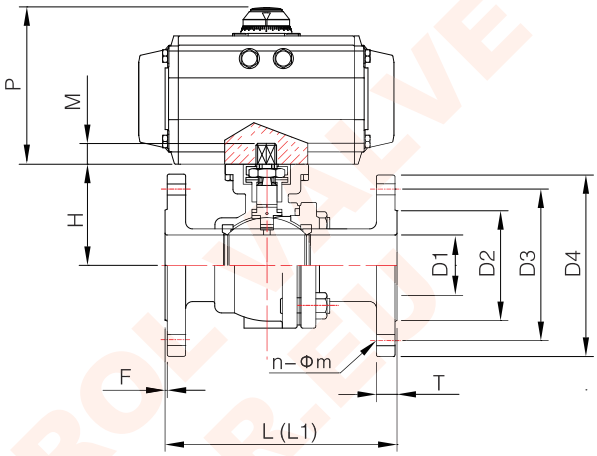
ASME CLASS300 (1/2″–4″ please refer to ASME150LB)

Unit:mm

SIZE	L	D1	D2	D3	D4	T	F	n	Φm	H	M	R	A1	A2	B1	B2	IS05211	LT–DA	LT–SR	LU	LH
5″	381	125	186	235	279.4	35	2	8	22.3	183	27	27	14	N/A	125	N/A	F12	LT 145	LT 180	LU 500	LH 050
6″	403	150	216	269.8	317.5	36.6	2	12	22.3	204	27	27	14	N/A	125	N/A	F12	LT 160	LT 200	LU 500	LH 050
8″	502	200	270	330.2	381	41.2	2	12	25.4	252.5	27	27	14	N/A	125	N/A	F12	LT 200	LT 240	LU 1000	LH 080

Note: D3 is designed to meet ANSI 150 B16.5





* P: Please refer to the actuator configuration table
* L1 For the fire safe models

JIS 10K

Unit:mm

SIZE		L	D1	D2	D3	D4	T	F	n	Φm	H	M	R	A1	A2	B1	B2	IS05211	LT-DA	LT-SR	LU	LH
15A	1/2″	108	15	51	70	95	12	1	4	15	48	9	9	6	6	36	42	F03-F04	LT 50	LT 50	LU 50	LH 006
20A	3/4″	117	20	56	75	100	14	1	4	15	53	9	9	6	7	36	50	F03-F04	LT 50	LT 63	LU 50	LH 006
25A	1″	127	25	67	90	125	14	1	4	19	64	11	11	6	7	42	50	F04-F05	LT 50	LT 75	LU 50	LH 006
32A	1-1/4″	140	32	76	100	135	16	2	4	19	70	11	11	6	9	42	70	F04-F05	LT 63	LT 75	LU 50	LH 006
40A	1-1/2″	165	38	81	105	140	16	2	4	19	71	14	14	7	9	50	70	F05-F07	LT 63	LT 88	LU 50	LH 006
50A	2″	178	50	96	120	155	16	2	4	19	80	14	14	7	9	50	70	F05-F07	LT 75	LT 100	LU 160	LH 008
65A	2-1/2″	190	63.5	116	140	175	18	2	4	19	101.5	17	17	9	11	70	102	F07-F10	LT 88	LT 115	LU 160	LH 010
80A	3″	203	76	126	150	185	18	2	8	19	111.5	17	17	9	11	70	102	F07-F10	LT 100	LT 125	LU 160	LH 015
100A	4″	229	100	151	175	210	18	2	8	19	140	22	22	N/A	11	N/A	102	F10	LT 125	LT 145	LU 250	LH 030
125A	5″	356	125	182	210	250	20	2	8	23	183	27	27	14	N/A	125	N/A	F12	LT 145	LT 180	LU 500	LH 050
150A	6″	394	150	212	240	280	22	2	8	23	204	27	27	14	N/A	125	N/A	F12	LT 160	LT 200	LU 500	LH 050
200A	8″	457	200	262	290	330	22	2	12	23	252.5	27	27	14	N/A	125	N/A	F12	LT 200	LT 240	LU 1000	LH 080

JIS 20K (15A-100A please refer to JIS10K)

Unit:mm

SIZE		L	D1	D2	D3	D4	T	F	n	Φm	H	M	R	A1	A2	B1	B2	IS05211	LT-DA	LT-SR	LU	LH
125A	5″	381	125	195	225	270	26	2	8	25	183	27	27	14	N/A	125	N/A	F12	LT 145	LT 180	LU 500	LH 050
150A	6″	403	150	230	260	305	28	2	12	25	204	27	27	14	N/A	125	N/A	F12	LT 160	LT 200	LU 500	LH 050
200A	8″	502	200	275	305	350	30	2	12	25	252.5	27	27	14	N/A	125	N/A	F12	LT 200	LT 240	LU 1000	LH 080

Note: D3 is designed to meet JIS B2238

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