

4700 Series

2000 WOG Three Piece Ball Valves

The 4700 Series represents the leading technology in three piece ball valves. This versatile 2000 WOG rated valve is standard with API 607 4th Edition fire test qualification and ISO 5211 mounting with an integral locking lever.

- Sizes 1/2" through 4"
- Full Port ball valve
- Fire tested to API 607 4th Edition with standard RPTFE seats, graphite packing and graphite body seals
- ISO 5211 direct mount top with slide lock lever in one design for automation flexibility or manual operation
- Self pressure-relieving design by means of a pressure balance hole in the ball slot to equalize cavity pressure when the ball is open
- NPT threaded and socket weld ends
- Blow-out proof stem
- Live loaded packing plus lower stem O-ring seals
- High integrity tongue & groove body seals
- Enclosed bolting
- Anti-static design
- PED available, consult factory

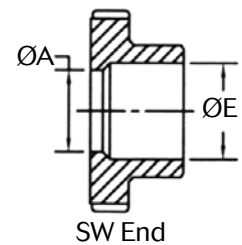
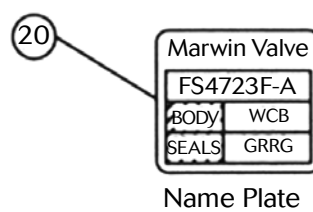
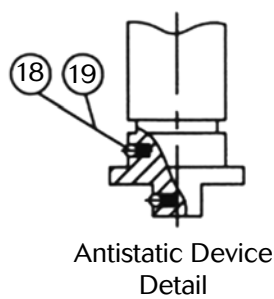
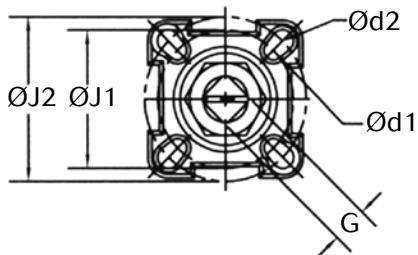
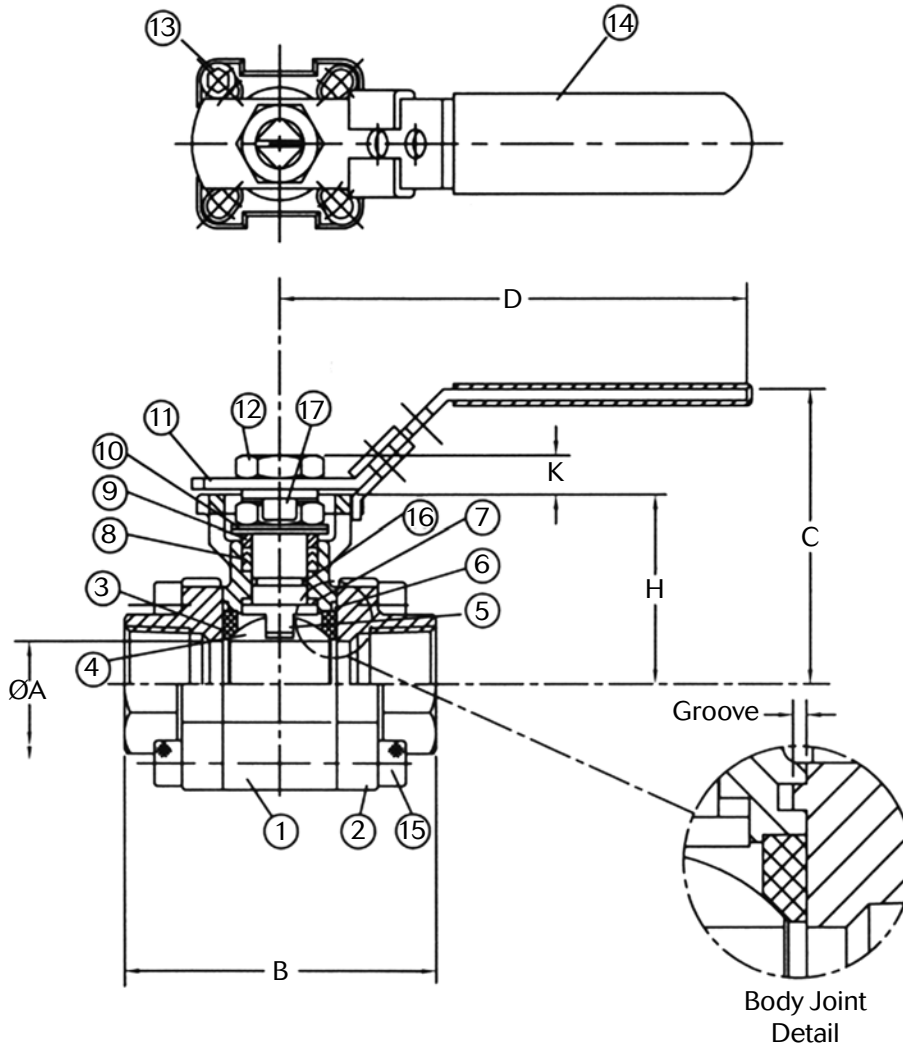


Applications

- Power and utilities
- Industrial Applications
- Chemical
- Petrochemical
- Oil and Gas
- Refinery
- Energy

Marwin Valve 4700 Series – Dimensions

Dimensions 1/2" – 2"



Marwin Valve 4700 Series – Specifications

Dimensions 1/2" – 2" (inches)

Size	A	B	C	D	E	G Sq.	H	ØJ1 (BC)	Ød1	ISO Pattern	ØJ2 (BC)	Ød2	ISO Pattern	K	Weight lb
1/2"	0.63	2.95	2.79	4.4	0.86	0.354	1.67	1.42	0.236	F03	1.65	0.236	F04	0.32	1.9
3/4"	0.79	3.15	2.89	4.4	1.07	0.354	1.76	1.42	0.236	F03	1.65	0.236	F04	0.32	2.3
1"	0.96	3.54	3.31	5.3	1.34	0.433	2.13	1.65	0.236	F04	1.97	0.276	F05	0.40	3.8
1-1/4"	1.26	4.33	3.52	5.3	1.68	0.443	2.33	1.65	0.236	F04	1.97	0.276	F05	0.40	5.7
1-1/2"	1.50	4.72	4.31	6.5	1.92	0.551	2.89	1.97	0.276	F05	2.76	0.354	F07	0.58	8.2
2"	1.97	5.51	4.68	6.5	2.41	0.551	3.26	1.97	0.276	F05	2.76	0.354	F07	0.58	14.6

Dimensions 1/2" – 2" (mm)

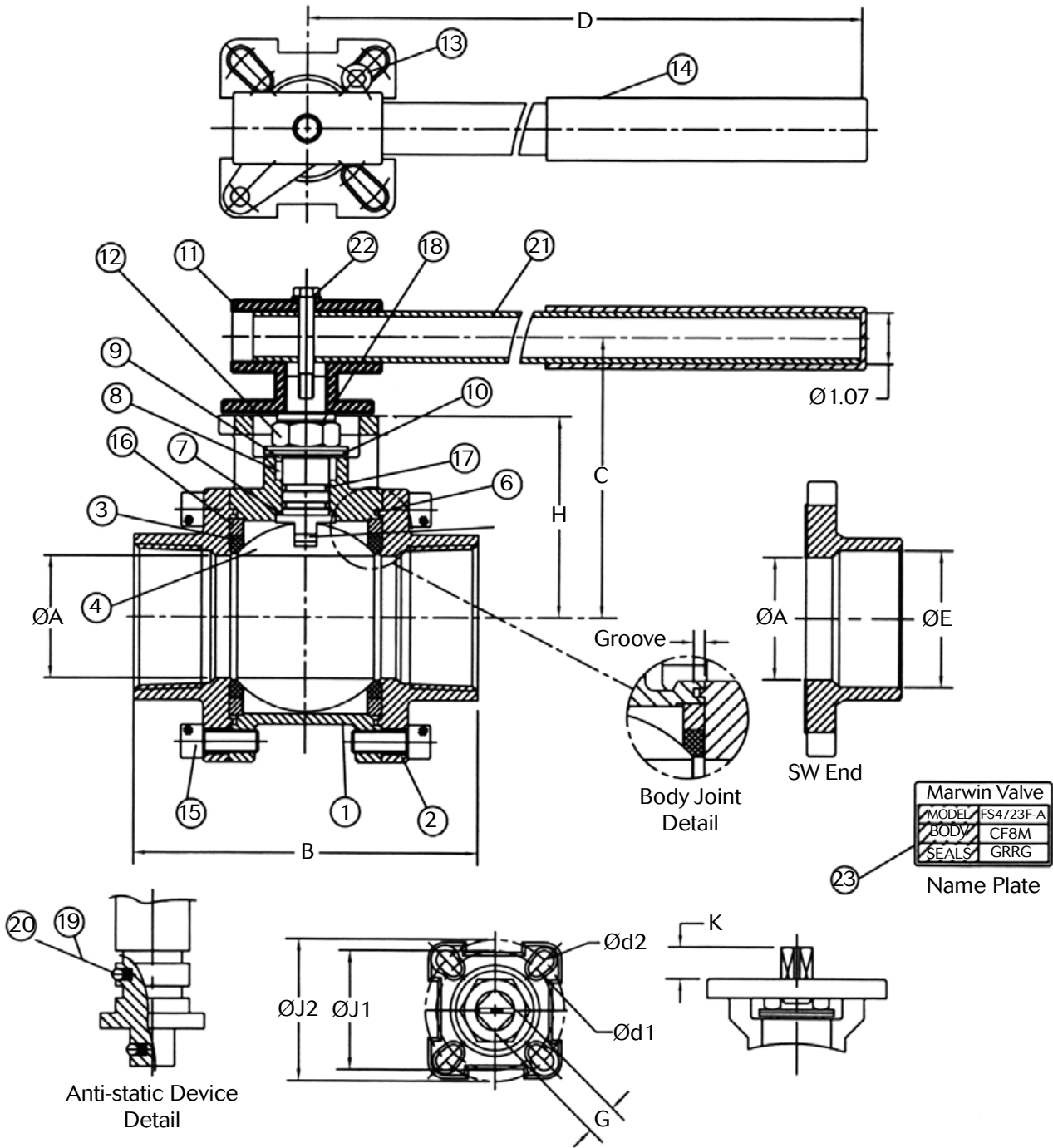
Size	A	B	C	D	E	G Sq.	H	ØJ1 (BC)	Ød1	ISO Pattern	ØJ2 (BC)	Ød2	ISO Pattern	K	Weight kg
DN15	16,0	74,9	71	110	21,8	9	42,4	36,1	6,0	F03	41,9	6	F04	8,0	0,9
DN20	20,1	80,0	74	110	27,2	9	44,7	36,1	6,0	F03	41,9	6	F04	8,0	1,0
DN25	24,4	89,9	84	135	34,0	11	54,1	41,9	6,0	F04	50,0	7	F05	10,0	1,7
DN32	32,0	110,0	90	135	42,7	11	59,2	41,9	6,0	F04	50,0	7	F05	10,0	2,6
DN40	38,1	119,9	110	165	48,8	14	73,4	50,0	7,0	F05	70,1	9	F07	14,8	3,7
DN50	50,0	140,0	119	165	61,2	14	82,8	50,0	7,0	F05	70,1	9	F07	14,8	6,6

Bill of Materials

Item	Part	Quantity	SST Material	CS Material
1	Body	1	CF8M	WCB
2	End Cap	2	CF8M	WCB
3	Seat	2	RPTFE	RPTFE
4	Ball	1	CF8M/316	CF8M/316
5	Stem	1	AISI 316	AISI 316
6	Seal, Body	2	Graphite	Graphite
7	Thrust Washer	1	RPTFE	RPTFE
8	Packing	1	Grafoil	Grafoil
9	Gland Ring	2	AISI 304	AISI 304
10	Belleville Spring Washer	2	AISI 301	AISI 301
11	Handle, Locking	1	AISI 304	AISI 304
12	Nut, Handle	2	AISI 304	AISI 304
13	Stop Screw	1	AISI 304	AISI 304
14	Cover, Handle	1	Vinyl	Vinyl
15	Bolt, Body	4	A2-70	8.8
16	O-Ring, Stem	1	Viton	Viton
17	Locking Tab	1	AISI 304	AISI 304
18	Anti-static Ball	2	AISI 316	AISI 316
19	Anti-static Spring	2	AISI 316	AISI 316
20	Name Plate	1	SS	SS

Marwin Valve 4700 Series – Dimensions

Dimensions 2-1/2" – 4"



Marwin Valve

4700 Series – Specifications

Dimensions 2-1/2" – 4" (inches)

Size	A	B	C	D	E	G Sq.	H	ØJ1 (BC)	Ød1	ISO Pattern	ØJ2 (BC)	Ød2	ISO Pattern	K	Weight lb
2-1/2"	2.56	7.28	5.9	10.4	3.03	0.669	4.21	2.76	0.354	F07	4.02	0.433	F10	0.67	22.6
3"	3.15	8.07	6.3	14.4	3.54	0.669	4.62	2.76	0.354	F07	4.02	0.433	F10	0.67	35.4
4"	3.94	9.45	6.9	14.4	4.50	0.669	5.21	2.76	0.354	F07	4.02	0.433	F10	0.67	56.7

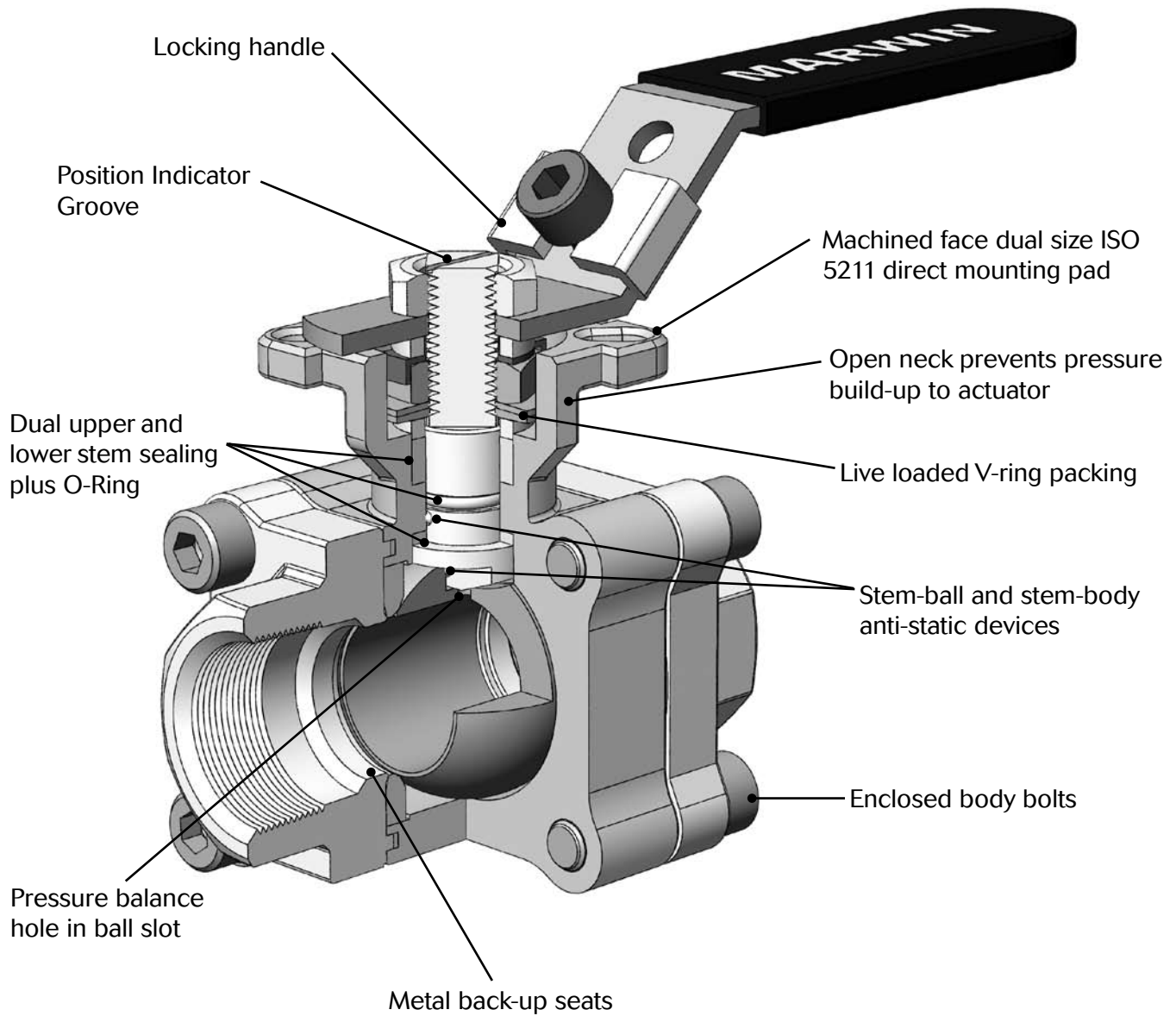
Dimensions 2-1/2" – 4" (mm)

Size	A	B	C	D	E	G Sq.	H	ØJ1 (BC)	Ød1	ISO Pattern	ØJ2 (BC)	Ød2	ISO Pattern	K	Weight kg
DN65	65,0	184,9	150	265	77,0	17	106,9	70,1	9,0	F07	102,1	11,0	F10	17,1	10,3
DN80	80,0	205,0	160	365	89,9	17	117,3	70,1	9,0	F07	102,1	11,0	F0	17,1	16,1
DN100	100,1	240,0	175	365	114,3	17	132,3	70,1	9,0	F07	102,1	11,0	F0	17,1	25,7

Bill of Materials

Item	Part	Quantity	SST Material	CS Material
1	Body	1	CF8M	WCB
2	End Cap	2	CF8M	WCB
3	Seat	2	RPTFE	RPTFE
4	Ball	1	CF8M/316	CF8M/316
5	Stem	1	AISI 316	AISI 316
6	Seal, Body	2	Graphite	Graphite
7	Thrust Washer	1	RPTFE	RPTFE
8	Packing	1	Grafoil	Grafoil
9	Gland Ring	2	AISI 304	AISI 304
10	Belleville Spring Washer	2	AISI 301	AISI 301
11	Adaptor, Handle	1	CF8M	CF8M
12	Stem Nut	2	AISI 304	AISI 304
13	Stop Screw	1	AISI 304	AISI 304
14	Cover, Handle	1	Vinyl	Vinyl
15	Bolt, Body	12	A2-70	8.8
16	Centering Ring, Seat	2	AISI 316	AISI 304
17	O-Ring, Stem	2	Viton	Viton
18	Locking Tab	1	AISI 304	AISI 304
19	Anti-static Ball	2	AISI 316	AISI 316
20	Anti-static Spring	2	AISI 316	AISI 316
21	Handle	1	AISI 304	AISI 304
22	Bolt, Handle	1	AISI 304	AISI 304
23	Name Plate	1	SS	SS

Marwin Valve 4700 Series – Features



Marwin Valve 4700 Series – Technical Information

Operating Torque

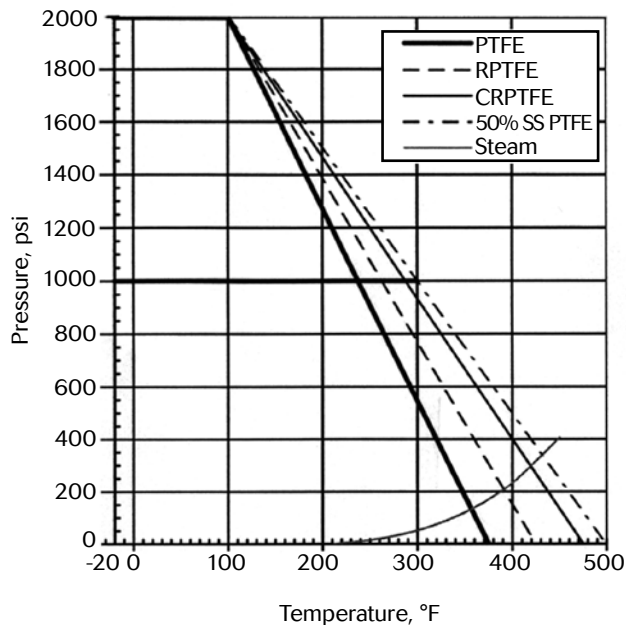
Size	Operating Torque, in-lb (N.m)									
	0 – 750 psi	0 – 51,7 bar	1000 psi	68,9 bar	1250 psi	86,2 bar	1500 psi	103,4 bar	2000 psi	137,9 bar
1/2"	45	5,1	45	5,1	45	5,1	45	5,1	45	5,1
3/4"	70	7,9	70	7,9	70	7,9	70	7,9	70	7,9
1"	130	14,7	130	14,7	130	14,7	130	14,7	130	14,7
1-1/4"	190	21,5	190	21,5	190	21,5	190	21,5	250	28
1-1/2"	250	28	250	28	250	40	350	40,	550	62
2"	400	45	400	45	400	90	800	90	1650	187
2-1/2"	600	68	675	76	–	–	–	–	–	–
3"	800	90	925	105	–	–	–	–	–	–
4"	1450	164	1600	181	–	–	–	–	–	–

Operating torques in table are for RPTFE seats. For PTFE seats, multiply by 0.87; for CRPTFE (15% Glass PTFE) and 50% SS PTFE, multiply by 1.09. Include an appropriate service factor for sizing actuators.

Flow Coefficient

Size	Cv	Kv
1/2"	17	14,6
3/4"	34	29,2
1"	57	49,0
1-1/4"	80	68,8
1-1/2"	143	123,0
2"	245	211
2-1/2"	562	483
3"	700	602
4"	1200	1032

Pressure - Temperature Chart



Seat Materials

Material	Description	Color
PTFE	Virgin Teflon	White
RPTFE	15% Glass Reinforced Teflon	Off-White
CRPTFE	Carbon Reinforced Teflon	Black
50% SS PTFE	50% Stainless Reinforced Teflon	Grey

1	2	–	3	–	4	5	6	7
4700	F	–	10A	–	S6	F	A	HL

1	Series
4700	Standard

2	Port
F	Full Port

3	Size
05A	1/2"
07A	3/4"
10A	1"
12A	1-1/4"
15A	1-1/2"
20A	2"
25A	2-1/2"
30A	3"
40A	4"

4	Body Material
CS	Carbon Steel
S6	Stainless Steel

5	Packing/Seat
F	Grafoil / RPTFE (standard)
A	PTFE / PTFE
B	PTFE / RPTFE
C	PTFE / C-RPTFE
D	PTFE / UHMW-PE
E	Grafoil / PTFE
G	Grafoil / C-RPTFE
H	Grafoil / UHMW-PE
J	UHMW-PE / UHMW-PE
N	Grafoil / 50% SS PTFE

6	Ends
A	FNPT (standard)
B	FSW (standard)

7	Handle
HL	Lever (standard)
NN	None
*DA	Double Acting Pneumatic Actuator
*SR	Spring Return Pneumatic Actuator
*EA	Electric Actuator
*GO	Gear Operator
ZZ	Non-Standard

* These automation codes are general only, and require additional information. Specify type and size of actuator. Provide appropriate operating parameters, such as fail position, air supply pressure, electrical power supply characteristics. NEMA 4 weatherproof or NEMA 7 explosion proof electrical enclosures, etc. Also include any desired accessories. A unique code for the automation specified appears on the order, not these general codes.

Series 4700 valves are suitable for a wide range of automation and accessories, including UT-SR spring return pneumatic actuators, UT-DA double acting pneumatic actuators, ER electric actuators, fusible link, assemblies, etc. Available accessories include solenoid valves, position indicators / limit switches, valve positioners, etc.



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