

VALVE CONFIGURATION ORDERING INFORMATION

Number(s) in parentheses indicate valve configuration part number position

PRODUCT (1-2)		MATERIAL (3-4)		SIZE - " (5)		SERIES (6)		END CONNECTION (7-8)		SEAT & SEAL / FILLER / O-RING ³ (9)		
INDUSTRIAL	AF	Angle Stem	A-	Aluminum	A	1/4	1	ANSI, AF, Bronze	A-	Acme Bevel	A	RTFE / - / Viton "A"
	AN	ANSI	B-	836 Bronze	B	3/8		And Iron MP	B-	Sch 40 butt weld	B	RTFE / VTFE / Viton "A"
	CP	Cryogenic	C-	Hastelloy C-276	C	1/2	3	Fire-safe ANSI, AF	D-	Sch 10 butt weld	C	VTFE / - / Viton "A"
	DD	Diverter for steam	C1	Hastelloy B2	D	3/4	4	S/S and C/S	F-	Ext tube butt weld	D	VTFE / VTFE / Viton "A"
	DP	Diverter Port	D-	Iron	E	1		MP, MI	G-	Female CBI ²	G	TFM / - / Viton "A"
	FD	Flush Tank for steam	E-	Carbon Steel	G	1-1/2	5	SP, SD, FT, FD, DP, DD	H-	Male CBI ²	H	S-TEF [®] / - / Viton "A"
	FT	Flush Tank	H-	316 / 316L Stainless	H	2		CP ³ , CI, CN ³ , AN ²	I-	Swagelok TS	I	S-TEF [®] / VTFE / Viton "A"
	MP	Multi-Port	HC	Alloy 20	J	2-1/2	6	Firesafe Series 5	J-	CBQ	J	TFM / VTFE / Viton "A"
	SP	Industrial 2-way	HL	316L Stainless	K	3		FT, SI, SP, AN	K-	Cam Lock	K	UHMWPE / - / Viton "A"
	SD	SP Steam	HF	F316L Forged	L	4	8	Igenix [®] forged ¹	L-	150# Flange	L	UHMWPE / VTFE / Viton "A"
			H2	317L Stainless	M	6	9	Igenix [®] cast ¹	M-	300# Flange	M	UHMWPE / UHMWPE / Viton "A"
	SANITARY	CP	Cryogenic	I-	Inconel 600	N	8	1 Series 8 & 9 are low ferrite - see page 15	N-	600# Flange	N ⁴	PEEK / - / Kalrez
CS		Clean Steam	M-	Monel 400	P	10	2 Series 5 ANSI only available in 316 stainless 1" - 6"		O-	Grooved	O ⁴	PEEK / VTFE / Kalrez
CT		Clean Steam Trap	N-	922 Bronze			3 150# class only	P-	Male NPT	Q ⁴	PEEK / PEEK / Kalrez	
DI		Diverter Port	O-	932 Bronze				Q-	Female NPT	R	Carbon-Graphite	
DC		Diverter for steam	P-	AL6XN				R-	Sil-braze	R	Kynar / - / Viton "A"	
FI		Flush Tank	R-	955 NiAl Bronze				S-	Sil-braze 1 groove	S	Kynar / Kynar / Viton "A"	
MI		Multi-Port	S-	953 NiAl Bronze				SM	Swagelok Compression	T	VTFE / - / EPR	
SI		Sanitary 2-way	T-	Gr. 5 Titanium				T-	Solder joint	U	VTFE / VTFE / EPR	
SM		Steam 2-way	T2	Gr. 2 Titanium				U-	Socket weld	V	RTFE / - / EPR	
			T7	Gr. 7 Titanium				W-	Tri-clamp 1" BPE 09	W	RTFE / VTFE / EPR	
			W-	Nickel 200				X-	Tri-clamp - tube	X	PCTFE / - / Viton "A"	
			X-	958 NiAl Bronze				-Z	No end fittings	Z	TFM / - / EPR	
			Y-	Hastelloy C-22							0	S-TEF [®] / - / EPR
			Z-	70/30 CuNi							1	S-TEF [®] / VTFE / EPR
			1-	90/10 CuNi							2	TFM / VTFE / EPR
			5-	Inconel 625							3	UHMWPE / - / EPR
			9-	954 Al-Bronze							4	UHMWPE / VTFE / EPR
			25	254SMO 6 Mo							5	UHMWPE / UHMWPE / EPR
		21	321 Stainless							6 ⁴	PEEK / - / Viton "A"	
		22	Duplex 2205							7	VTFE / - / Encap Viton "A"	
		76	Super Duplex 32750 / 32760							8	RTFE / - / Encap Viton "A"	
		55	Ferrallium 255							9	TFM / - / Encap Viton "A"	

Other end options, Column 8 Code

- 3 Non Adjust-O-Seal
- 4 Reduce Port
- 5 Reduce Port Non Adjust-O-Seal
- 7 Flat Faced Flanges
- 9 Barstock

³ O-rings are used only in certain valve series (AN, CS, SD, CT, DD, FD & MI & MP Series 4)
⁴ Requires 17-4PH stem

- NOTE - All options are not available on all valve styles. Consult PBM
- NOTE - For valves with 2 different end connections, use both end codes - e.g. - FX = extended butt weld for tube by Tri-Clamp™
- NOTE - For valves with 2 different materials, use the 1st position for body material and the 2nd position for end fitting material
- NOTE - TFM™ is standard for Series 5, 6, 8 & 9
- NOTE - PBM may substitute TFM™ for RTFE at our discretion without notice
- NOTE - TFM™ is a registered trademark of Dyneon™ - a 3M Company
- NOTE - RTFE is standard for Series 1, 3 and 4 - except MI
- NOTE - Viton "A" is 75 durometer

All Carbon Steel Valves will be coated internally and externally with Rust Veto 342, a rust inhibitor. Information on Rust Veto and/or an MSDS is available upon request. If Rust Veto is not acceptable, customer to advise specific coating required. Alternate coatings may impact price and delivery time. In addition, Carbon steel cast products are also painted (black in color) externally prior to Rust Veto coating.

▶ ▶ ▶ ▶ ▶ ▶ ▶ ▶ EXAMPLE CONFIGURATION ◀ ◀ ◀ ◀ ◀ ◀ ◀

Number(s) in parentheses indicate valve configuration part number position

Standard portion of part number						Optional portion of part number ^{1,2}				
(1 & 2)	(3 & 4)	(5)	(6)	(7 & 8)	(9)	(10 & 11)	(12)	(13 & 14)	(15)	
PRODUCT	MATERIAL	SIZE	SERIES	END FITTING	SEAT/SEAL	FLOW PATTERN, PURGE PORTS OR BALL FLATS	BALL / STEM	OPERATOR	POLISH	
SI	HL	H	9	X-	G	--	G	34	A	

SIHLH9X-G- -G34A is the code for a 2" Series 9 low Ferrite (<2%) Igenix[®] Sanitary 2-way ball valve with tri-clamp end fittings, TFM™ seats & seals, 17-4PH stem, 80psig spring return actuator and 20Ra max I.D. polish

¹ NOTE - Position (16) is reserved for LOX cleaning – code "L"

² NOTE - Positions (17-20) are reserved for a special engineering number when standard valve codes above do not adequately describe the valve. Position (17) will be a letter code (H=2007, J=2008, K=2009, L=2010, M=2011, etc.) and positions (18-20) will be a unique 3-digit number

VALVE CONFIGURATION ORDERING INFORMATION - continued

Number(s) in parentheses indicate valve configuration part number position

FLOW PATTERN / TANK PAD / PURGE OPTIONS (10 & 11)	BALL / STEM OPTIONS (12)	OPERATOR OPTIONS (13 & 14)	POLISH OPTIONS (15)
For no flush tank, flow pattern or aseptic options, use "- "- For valves with flow patterns, enter 2-digit flow pattern #	- Standard (no options)	-- w/handle, w/actr prep	- No polish
FLUSH TANK OPTIONS – POSITION 10 & 11	F Internal / external grounding	00 Stainless locking oval handle	A 20Ra ID
- Standard Flush Tank pad	G 17-4PH stem	01 w/o handle	B 32Ra OD
01 No tank pad – w/o ship pad	I Monel ball	02 w/o handle, w/actr prep	C 20Ra ID / 32Ra OD
02 No tank pad – w/ship pad	J 932 Bronze ball	03 w/handle, w/actr prep	D 15Ra ID
04 w/ 316L barstock pad	K Monel stem & followers	04 Locking lever handle	E 10Ra ID
05 w/1" bolt-on tank pad	L Monel ball, stem & followers	05 w/stainless oval handwheel	F 20Ra ID after EP
06 w/1.5" bolt-on tank pad	M Aluminum ball	06 w/manual safety nut	G 15Ra ID after EP
07 w/2" bolt-on tank pad	N 922 Bronze ball	07 w/45° handle	H 10Ra ID after EP
08 w/3" bolt-on tank pad	O Hastelloy C-276 ball	08 w/gear operator	I 5Ra ID
09 w/4" bolt-on tank pad	P C-276 ball, stem & followers	09 w/T-handle	K 5Ra ID / 32Ra OD
10 w/6" bolt-on tank pad	Q 922 Bronze ball w/Monel stem	10 w/man. spring return handle	L 20Ra ID / 32Ra OD after EP
11 w/8" bolt-on tank pad	R Monel stem, followers & bolting	11 w/fusible link spring return handle	M EP ID & OD
ASEPTIC VALVE OPTIONS – POSITION 10	S Monel ball, stem, followers & bolting	12 w/vane actr for 80psig	N 10Ra ID / 32Ra OD
- No purge option(s) selected ¹	T 922 Bronze ball, w/Monel stem & followers, Sil-braze bolting & CuSi fasteners	13 w/N4 electric actuator	O 15Ra ID / 32Ra OD after EP
A (1) ½" Tri-clamp on center 90° from stem	U 922 Bronze ball w/Monel stem & followers	14 w/N7 electric actuator	Q 15Ra ID / 32Ra OD
B (1) ½" Tri-clamp on center opposite stem		15 w/square operating nut	S 10Ra ID / 32Ra OD after EP
C (1) ½" Tri-clamp upstream 90° from stem		16 w/locking handle & actr mount body	
D (1) ½" Tri-clamp downstream opposite stem		17 ¹ w/4" ext lockable oval handwheel	POLISH NOTES ● On ID polished valves, the body, ball, seat retainer (if applicable) and end fittings are polished ● On ID/OD polished valves, the body, ball, seat retainer (if applicable), and end fittings are polished ● On ID+EP polished valves, the body, ball, seat retainer (if applicable), end fittings are polished. Stem is EP'd LOX CLEANING (16) L LOX cleaning per PBM procedure *See note on previous page regarding positions (17-20)
E (2) ½" Tri-clamp (1) on center 90° from stem & (1) opposite stem		18 ¹ w/4" ext lockable lever handle	
F (2) ½" Tri-clamp (1) upstream 90° from stem & (1) downstream opposite stem		71 ³ w/2" ext lockable lever handle	
G (1) ½" BWTE on center 90° from stem		72 ³ w/2" ext lockable oval handwheel	
H (1) ½" BWTE on center opposite stem			
I (1) ½" BWTE upstream 90° from stem		PBM Act, Westlock LS & Asco Sol	
J (1) ½" BWTE downstream opposite stem		20 DA80 psig actr	
K (2) ½" BWTE on center (1) 90° from stem & (1) opposite stem		21 DA80 psig actr & N4 LS	
L (2) ½" BWTE (1) upstream 90° from stem & (1) downstream opposite stem		22 DA80 psig actr & N4 Sol	
M (1) ¼" FNPT on center 90° from stem		23 DA80 psig actr & N4 LS+Sol	
N (1) ¼" FNPT on center opposite stem		24 DA80 psig actr & N7 LS	
O (1) ¼" FNPT upstream 90° from stem		25 DA80 psig actr & N7 Sol	
P (1) ¼" FNPT downstream opposite stem		26 DA80 psig actr & N7 LS+Sol	
Q (2) ¼" FNPT (1) on center 90° from stem & (1) opposite stem		27 DA60 psig actr	
R (2) ¼" FNPT (1) upstream 90° from stem & (1) downstream opposite stem		28 DA60 psig actr & N4 LS	
BALL FLATS & HOLE OPTIONS – POSITION 11		29 DA60 psig actr & N4 Sol	
▼ Use these codes for 2-way & FT aseptic with std pad		30 DA60 psig actr & N4 LS+Sol	
▼ Use these codes for aseptic FT w/ship pad		31 DA60 psig actr & N7 LS	
- U No flats or Holes		32 DA60 psig actr & N7 Sol	
B K Flats closed downstream		33 DA60 psig actr & N7 LS+Sol	
C L Flats closed upstream		34 SR80 psig actr	
D M Flats open upstream		35 SR80 psig actr & N4 LS	
E N Flats open downstream		36 SR80 psig actr & N4 Sol	
F O Flats open upstream & downstream		37 SR80 psig actr & N4 LS+Sol	
G P Holes closed downstream		38 SR80 psig actr & N7 LS	
H Q Holes closed upstream		39 SR80 psig actr & N7 Sol	
I R Holes open upstream		40 SR80 psig actr & N7 LS+Sol	
J S Holes open downstream		41 SR60 psig actr	
K T Holes open upstream & downstream		42 SR60 psig actr & N4 LS	
V 2 Standard width slotted ball		43 SR60 psig actr & N4 Sol	
W 3 30° V-ball		44 SR60 psig actr & N4 LS+Sol	
X 4 45° V-ball		45 SR60 psig actr & N7 LS	
Y 5 60° V-ball		46 SR60 psig actr & N7 Sol	
Z 6 90° V-ball		47 SR60 psig actr & N7 LS+Sol	
1 120° V-ball		51 ² DA80 psig actr & beacon	
8 9 Self-flushing ball		52 ² DA60 psig actr & beacon	
7 Self-flush ball with flats closed downstream		53 ² SR80 psig actr & beacon	
¹ Use only if adding ball flats or drain holes		54 ² SR60 psig actr & beacon	
		PBM Act, Topworx LS & Asco Sol	
		73 DA80 psig actr & N7 LS	
		74 DA80 psig actr, N7 LS+N4 Sol	
		75 DA80 psig actr, N7 LS+N7 Sol	
		76 DA60 psig actr & N7 LS	
		77 DA60 psig actr & N7 LS+N4 Sol	
		78 DA60 psig actr & N7 LS+N7 Sol	
		79 SR80 psig actr & N7 LS	
		80 SR80 psig actr, N7 LS+N4 Sol	
		81 SR80 psig actr, N7 LS+N7 Sol	
		82 SR60 psig actr & N7 LS	
		83 SR60 psig actr & N7 LS+N4 Sol	
		84 SR60 psig actr & N7 LS+N7 Sol	
	PBM Act, Topworx Prox & Asco Sol		
	85 DA80 psig actr & N7 Prox		
	86 DA80 actr, N7 Prox+N7 Sol		
	87 DA60 psig actr & N7 Prox		
	88 DA60 actr, N7 Prox+N7 Sol		
	89 SR80 psig actr & N7 Prox		
	90 SR80 actr, N7 Prox+N7 Sol		
	91 SR60 psig actr & N7 Prox		
	92 SR60 actr, N7 Prox+N7 Sol		

N4 = NEMA 4
 N7 = NEMA 7
 LS = Limit Switch
 Sol = Solenoid - N/C
 DA = Double Acting
 SR = Spring Return

¹ Industrial & Sanitary Series 5, Series 1 AF/AN only
² Add \$95 list for beacon only on actuators
³ Sanitary Series 8 & 9 only through 2"