

OVERVIEW

PFA Lined Piston Check Valve (PCV)

Amresist fully lined piston check valves offer a reliable solution in demanding corrosive and ultrapure applications where prevention of backflow of process media within the piping system is required

Amresist fully lined piston check valves offer unsurpassed resistance to corrosion, permeation and microbial contamination for maximum purity and reliability with minimal maintenance.

SPECIFICATIONS

Design Parameters	Standard
Shell Design	ASME B 16.34
Face To Face Dimensions	ASME B 16.10 Short Pattern UP TO 4" 6" and larger MFR'S STANDARD ¹ Long Pattern (Industry Standard), 1/2" to 8"
Flange Connection Rating	ASME B 16.5 150# / DIN PN 10
Testing Standard	BS EN 12266-1
Connection	FLANGED, RF

Pressure / Temperature Ratings

1/2" - 4"	225 psig at 104°F 85 psig at 400°F
6" - 8"	85 psig at 140°F 28 psig at 400°F

Temperature Range

ASTM A216 WCB	-20°F to +400°F
ASTM A351 CF8M	-49°F to +400°F

Tests Performed	EN 12266-1	
Sizes	1/2"- 4"	6"- 8"
High Pressure Shell Test Hydro	340 PSI	128 PSI
High Pressure Seat Test Hydro	250 PSI	94 PSI
Low Pressure Seat Test Pneumatic	45 PSI	45 PSI

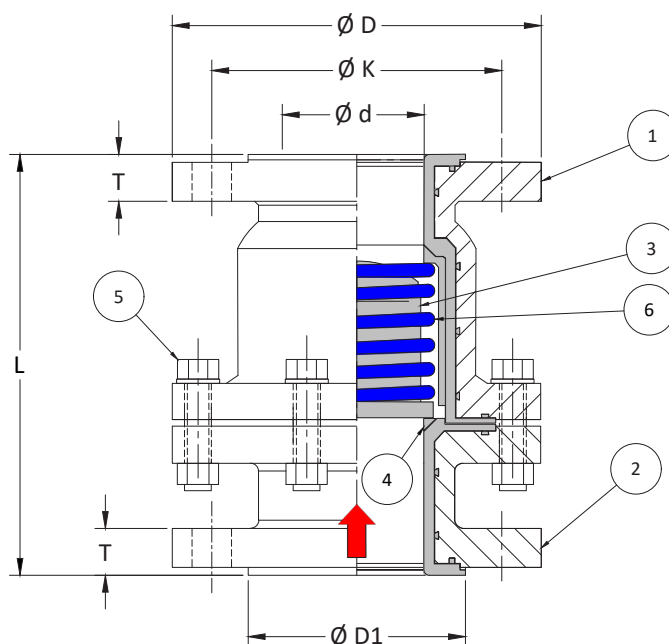
Spark Test	KVDC
Testing Done At	20 KVDC

Notes:

1 3/4, 1 1/4, 2 1/2, 6 and 8 inch per manufacturers standard face to face.



Part No.	Description	Materials of Construction	Qty
1	Body	ASTM A 216 GR. WCB or A351 CF8M PFA LINED, 3mm minimum thickness	1
2	Side Piece	ASTM A 216 GR. WCB or A351 CF8M PFA LINED, 3mm minimum thickness	1
3	Piston	SOLID PTFE / MPTE	1
4	Seat	INTEGRAL PFA	1
5	Fasteners	ASTM A 193 GR. B7 / 2H STD; 18-8 SS, Alloy 20 optional	4-12
6	Spring	Hastelloy C276 Halar Coated	1

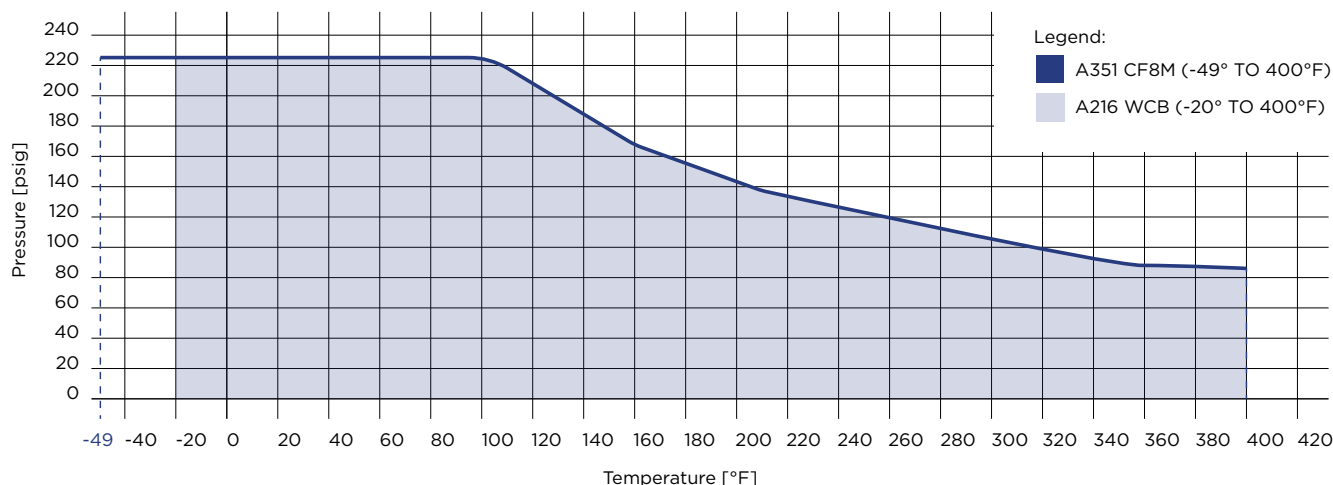


DIMENSIONS (in)/TECHNICAL INFORMATION

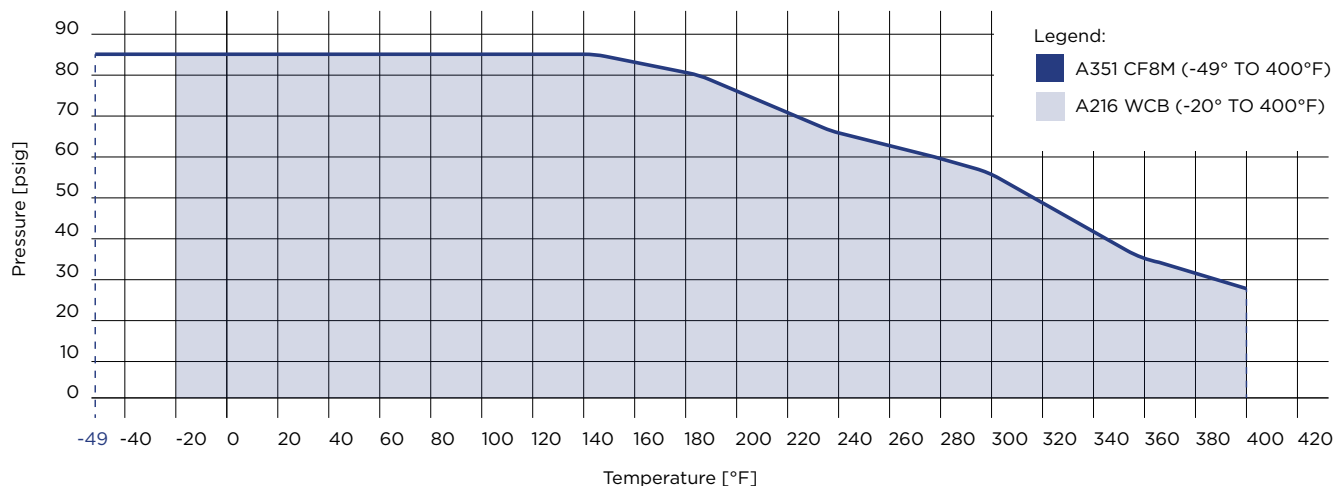
Size	Short Pattern	Long Pattern	d ±0.04	D ±0.03	D1 ±0.03	T +0.11 / -0.00	K ±0.06	Bolt Hole Ø	n	Cv	Cracking Pressure (PSIG)	Weight (lbs)
½ in	4.25	5.12	0.49	3.54	1.38	0.47	2.36	⅝	4	5	0.49	5.2
¾ in	5.00	5.90	0.70	4.25	1.69	0.59	2.71	⅝	4	15	0.55	6.7
1 in	5.00	6.00	0.90	4.25	2.00	0.59	3.11	⅝	4	15	0.55	8.2
1 ½ in	6.49	7.00	1.49	5.00	2.87	0.74	3.86	⅝	4	44	0.70	14.6
2 in	7.00	8.00	1.96	5.98	3.62	0.80	4.76	¾	4	64	0.73	25.5
2 ½ in	7.99	—	2.55	7.51	4.13	0.98	5.51	¾	4	105	0.92	36.5
3 in	7.99	9.50	2.95	7.51	5.00	0.98	5.98	¾	4	139	0.86	49.6
4 in	9.01	11.50	3.93	9.00	6.18	0.98	7.51	¾	8	250	0.92	68.8
6 in	11.90	14.00	5.90	11.02	8.50	0.98	9.48	⅞	8	562	0.86	143.8
8 in	16.70	18.00	7.87	14.60	10.60	1.10	11.70	⅞	8	999	1.10	230.0

P-T GRAPH | BALL CHECK VALVE (BCV) & PISTON CHECK VALVE (PCV)

½" - 4"



6" - 8"



PISTON CHECK ORDER INFORMATION

MODEL	SIZE	BODY STYLE	FLANGE CONNECTION	FACE TO FACE
PCV	½ to 8 in	F Flanged	A ASME B16.5 Class 150 D DIN PN10	S ASME B16.10 Short (¾, 1 ¼, 6 8 inch Manufacturer's Standard) D Long Pattern (Industry Standard)
BODY MATERIAL		PISTON MATERIAL	SPRING MATERIAL	BOLTING MATERIAL
1f	Carbon Steel (A216 WCB) PFA Lined, Epoxy Coated	P PTFE T MPTFE	H Hastelloy C276 - Halar Coated	B7 ASTM A193 B7 Bolts / A194 2H Nuts SS 18-8 SS Bolts / Nuts A20 Alloy 20 Bolts / Nuts
6Mf	316 SS (A351 CF8M) PFA Lined			

EXAMPLE

- > **4 inch PCV-F-A-L-1f-P-H-B7** = 4 inch Piston Check Valve, ASME Class 150 Flanges, Long Pattern (Industry Standard) Face to Face, Carbon Steel Body - PFA Lined, PTFE Piston, Hastelloy Spring / Halar Coated, B7 Body Bolts / 2H Nuts

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