"Apollo"® Valves
SUBMITTAL SHEET

RPDALF4AN

Reduced Pressure Detector Assembly

LEAD FREE



NSF/ANSI 61-8 & 372

Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO#:	
Rep:	
Wholesale Dist.:	

DESCRIPTION

The 2-1/2" – 12" Reduced Pressure Detector Assembly shall be an Apollo® Model RPDALF4AN or RPDA2LF4AN. The assembly shall be manufactured in America and carry a 5-year Apollo® factory warranty. The normally vertical up / vertical down oriented body shall incorporate an internal swivel connection providing the ability to pivot the second check 180°, producing a vertical up RPDA assembly (2-1/2" – 8" only). The TriForceTM center-stem guided check valves shall feature reversible silicone rubber seat discs. The check valves shall be held in place by drop-in retainers (2 1/2" – 6") or SS studs & nuts (8" – 12"). Access to the check valves and relief valve internals shall be by an Apollo® quick-connect SS coupling (2-1/2" – 6") or grooved couplings (covers) and SS bolts (relief valves) (8" – 12"). The bodies shall be domestic SS in 2-1/2" – 8" sizes and FDA epoxy-coated ductile iron in 10" & 12" sizes. The assembly is a mainline RP with a Type 2 bypass consisting of a lead free* single check (SCV) and meter bypassing the mainline second check to prevent backflow while accurately measuring all flows up to 2 gpm with the mainline 2nd check remaining closed. Assemblies with the optional Type 1 bypass consist of a lead free* RP and meter which bypasses both mainline checks and accurately meters all flows up to 2 gpm with both mainline checks closed. The Apollo® domestic ball valve test cocks shall have SS handles. The assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are health and non-health hazards. The pressure drop across the assembly shall be documented by an independent laboratory.

FEATURES

- Domestic Stainless Steel Body: 2-1/2"-8"
- FDA Epoxy Coated Ductile Iron Body: 10" & 12"
- Easy Maintenance: No Special Tools Required
- Drop-In Check Retainers: 2-1/2"-6"
- Bolted-In Checks: 8"-12"
- Low Pressure Loss as Documented by an Independent Approval Laboratory
- Center Stem Guided TriForce™ Check Valves
- Modular Captured Spring Relief Valve
- Optional Air Gap Drains
- Small Installation Space Required - Small Footprint
- Approved for n-Flow and Vertical Up Flow
- Chloramine-Resistant Elastomers
- Made in the USA (D Option)
- Lead Free Standard
- Optional Valve Setters Eliminate Need for Thrust Blocks Below Grade
- US Patent Nos.: 6,443,184; 7,025,085; 7,533,699
- 5 Year Warranty
- Optional Mounting of Bypass on Either Side for Ease of Installation

PERFORMANCE RATING

- Maximum Working Pressure: 175 psi
- Temperature Range: 33°F - 140°F, 180°F intermittent

APPROVALS

- CSA B64.4
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 8" Type 1 Bypass)
- ASSE 1047 (with Meter)
- UL, ULC Classified
- FM Approved
- NSF/ANSI 61 Water Quality (2-1/2" - 12")
- NSF/ANSI 372 Lead Free (2-1/2" - 12")

STANDARD MATERIALS LIST

BODY (2-1/2"-8")	304 Stainless Steel
BODY (10 & 12")	FDA Epoxy Coated Ductile Iron
COVERS (2-1/2"-6")	Glass Filled PPO/SS
COVERS (8")	304 Stainless Steel
COVERS (10" & 12")	FDA Epoxy Coated Ductile Iron
RELIEF VALVE	Bronze (LF C89836)
CHECK VALVES	Bronze/Glass-Filled PPO/SS
SPRINGS	Stainless Steel
SEAT DISCS	Chloramine-Resistant Silicone

PART NUMBER MATRIX

4ANLF	7 X	X	X	[X]	X
	BYPASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (INLET X OUTLET)	OPTIONS
4ANLF - LEAD FREE (STANDARD)	0 - TYPE 1 W/ 1/2" REDUCED PRESSURE	9 - 2-1/2"	C - CUBIC FEET/MIN	1 - LESS SHUT-OFF VALVES	D - DOMESTIC ASSEMBLY
	2 - TYPE 2 W/1/2" SINGLE CHECK	0 - 3"	E - GALLONS/MIN	3 - OS&Y FLANGE X OS&Y FLANGE	
	3 - TYPE 1 W/ BYPASS ON LEFT*	A - 4"	G - LESS METER	4 - OS&Y FLANGE X MONITORED (MON.) BUTTERFLY VALVE GROOVE†	
	4 - TYPE 2 W/ BYPASS ON LEFT*	C - 6"		6 - OS&Y FLANGE X POST INDICATOR FLANGE	
		E - 8"		7 - OS&Y FLANGE X OS&Y GROOVE	
		G - 10"		8 - OS&Y GROOVE X OS&Y GROOVE	
		H - 12"		9 - MON. BUTTERFLY VALVE GROOVE X MON. BUTTERFLY VALVE GROOVE†	
				10 - OS&Y FLANGE X POST INDICATOR GROOVE	
				13 - POST INDICATOR FLANGE X MON. BUTTERFLY VALVE GROOVE†	
				14 - POST INDICATOR FLANGE X POST INDICATOR FLANGE	
EXAMPLE: 4ANLF 70A E3 = 4" size Lead Free Reduced Pressure Detector Assembly with meter in GPM and OS&Y flanged inlet x OS&Y flanged outlet shut-off valves.				16 - MON BUTTERFLY VALVE GROOVE X POST INDICATOR FLANGE†	
				17 - POST INDICATOR FLANGE X OS&Y GROOVE	
				18 - OS&Y GROOVE X POST INDICATOR GROOVE	

*Orientation of bypass looking downstream. Standard is right hand side. Left hand is on opposite side
†Butterfly valves not available in 12" size.

*LEAD FREE: The wetted surfaces of this product shall contain no more than 0.25% lead by weighted average. Complies with Federal Public Law 111-380. ANSI 3rd party approved and listed.

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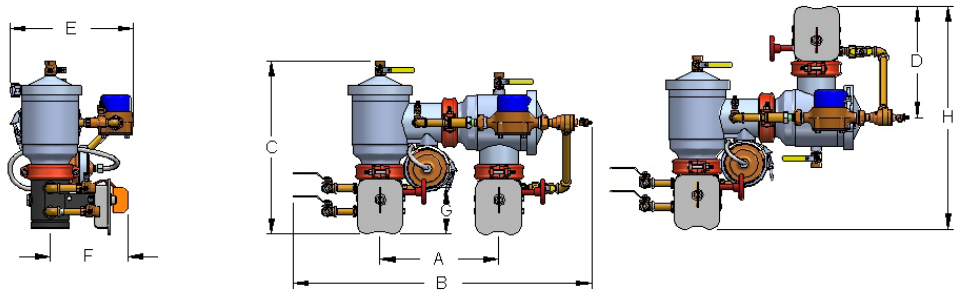
aalberts integrated piping systems

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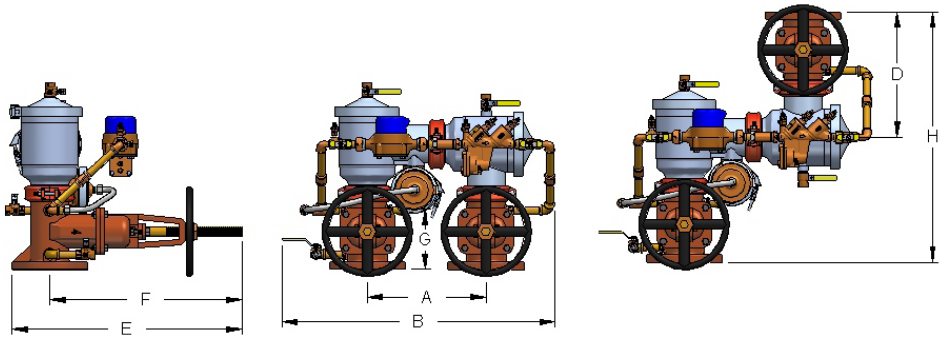
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TYPE 2 BYPASS



TYPE 1 BYPASS



DIMENSIONS

DIMENSIONS	2-1/2"	60MM	3"	75MM	4"	100MM	6"	150MM	8"	200MM	10"	250MM	12"	300MM
A (Centerline to Centerline)	12.5	318	12.5	318	14	356	16	406	18.5	470	21	533	26.8	681
B (Lay Length Space - Butterfly Valves)	32.8	833	32.8	833	35.5	902	40	1016	44	1118	54	1372	N/A	N/A
B (Lay Length Space - Gate Valves)	31	787	31	787	31.8	808	36.8	935	41.5	1054	49	1245	55.8	1417
C (Butterfly Valves - Flange to Top)	18.3	465	18.5	470	20	508	24.8	630	28.5	724	37	940	N/A	N/A
C (Gate Valves - Flange to Top)	19.6	498	20	508	22.5	572	27.8	706	32.1	815	40	1016	44	1118
D (Centerline to bottom Butterfly Valves)	11.5	292	11.8	300	13.3	338	15.6	396	17.9	455	19.8	503	N/A	N/A
D (Centerline to bottom Gate Valves)	13	330	13.5	343	14.9	378	18	457	21.4	544	24.8	630	28.8	732
E (Maximum Width - Butterfly Valves)	11.5	292	12.1	307	12.9	328	15.9	404	22.3	566	23.1	587	N/A	N/A
E (Maximum Width - NRS/PI Gate Valves)	15.6	396	16.9	429	18.6	472	23.8	605	29.1	739	36.3	922	40	1016
E (Maximum Width - OS&Y Valves Open)	22.7	575	24.2	614	26.6	679	34.4	875	44.9	1140	57.9	1471	61.9	1572
F (Centerline to Width - Butterfly Valves)	8	203	8.4	213	9	229	10.9	277	12.9	328	13.5	343	N/A	N/A
F (Centerline to Width - NRS/PI Gate Valves)	11.8	300	13	330	14	356	17.8	452	21	533	24.5	622	30	762
F (Centerline to Width - OS&Y Valves Open)	18.8	478	20.3	515	22.1	562	29.4	747	36.8	934	45.2	1147	52.2	1326
G(Relief Valve to SOV Flange - Butterfly Valves)	4.1	104	4.5	114	4.4	112	6.5	165	5.3	135	4	102	N/A	N/A
G(Relief Valve to SOV Flange - Gate Valves)	5.5	140	6	152	6	152	9	229	9	229	9	229	N/A	N/A
H(Flange to flange Vertical Up Butterfly Valves)	23	584	23.5	597	25	635	29	737	35.8	909	N/A	N/A	N/A	N/A
H(Flange to flange Vertical Up Gate Valves)	26	660	27	686	29.8	757	36	914	42.8	1087	N/A	N/A	N/A	N/A
I (Check Removal Clearance)	6	152	6	152	6	152	8	203	8.5	216	12	305	12	305
Test Cocks (NPT)	1/2"	13	1/2"	13	1/2"	13	3/4"	20	3/4"	20	3/4"	20	3/4"	20
WEIGHTS	**LB.**	**KG**	**LB.**	**KG**	**LB.**	**KG**	**LB.**	**KG**	**LB.**	**KG**	**LB.**	**KG**	**LB.**	**KG**
Net Wt. (W/ Butterfly Valves)	85	39	88	40	92	42	151	69	456	207	1039	472	N/A	N/A
Ship Wt. (W/ Butterfly Valves)	146	66	149	68	153	70	231	105	591	269	1229	559	N/A	N/A
Net Wt. (W/ NRS/Post Indicator Valves)	112	51	129	59	155	70	266	121	642	292	1368	622	1847	840
Ship Wt. (W/ NRS/Post Indicator Valves)	173	79	190	86	216	98	346	157	777	353	1558	708	2137	971
Net Wt. (W/ OS&Y Valves)	130	59	142	65	186	85	326	148	717	326	1483	674	1962	892
Ship Wt. (W/ OS&Y Valves)	191	87	203	92	247	112	406	185	852	387	1673	760	2152	978

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances (± 1/8" (3 mm) per joint)
Internal body connections are grooved on 2-1/2" to 10" sizes.
Internal body connections are flanged on 12" size.

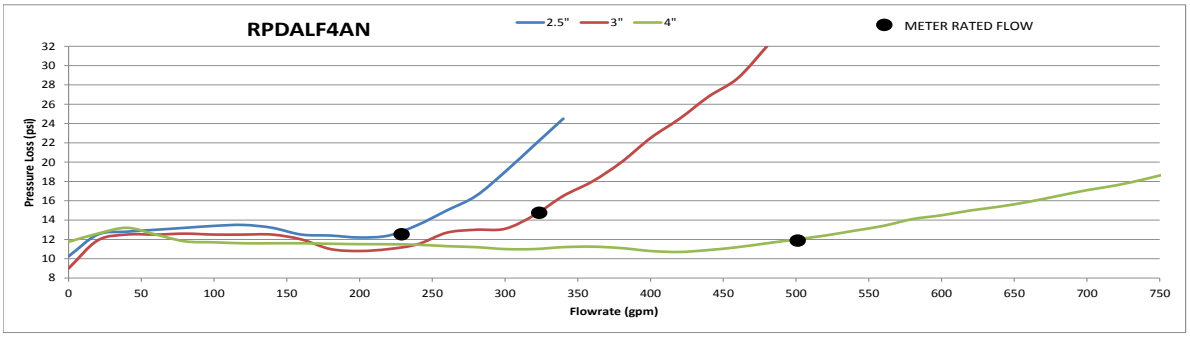
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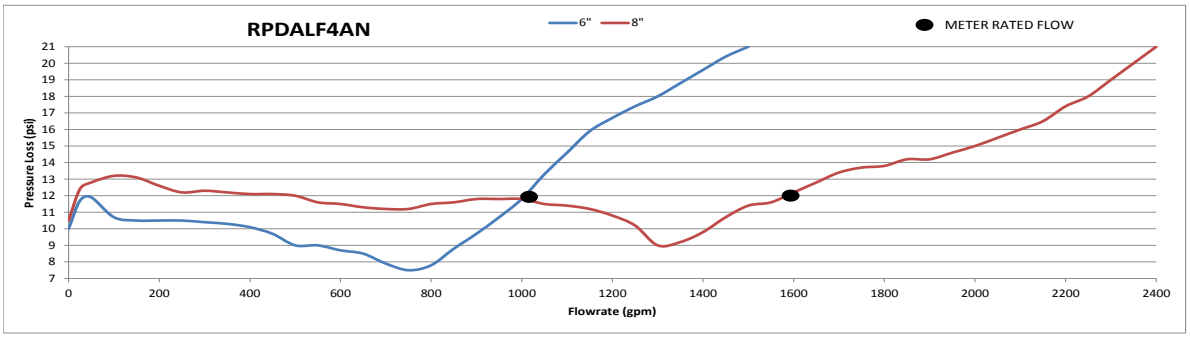
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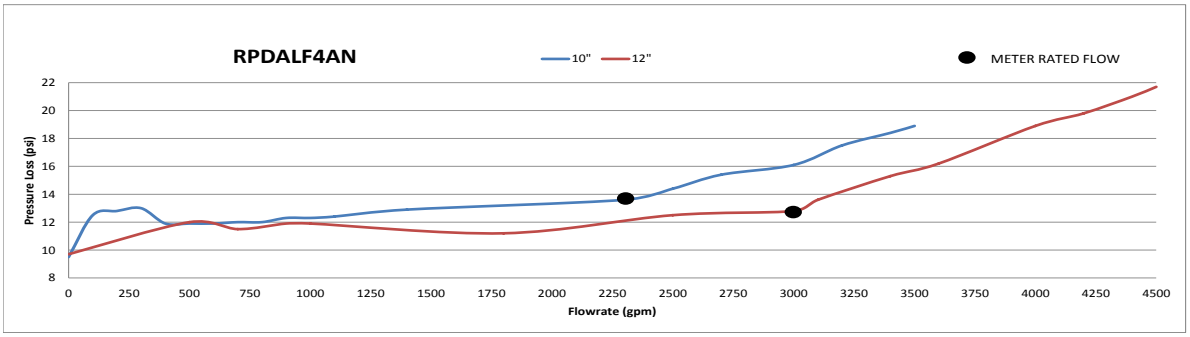
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FLOW CURVES







Notes:
Flow curves directly reflect data collected by an independent laboratory.
Flow curves shown were recorded with gate shut-off valves. Contact factory for more information.
All data points are based on ASSE increasing flow data, from zero GPM to rated flow (opening curve).
For high flow rates/pressure loss information – contact factory.

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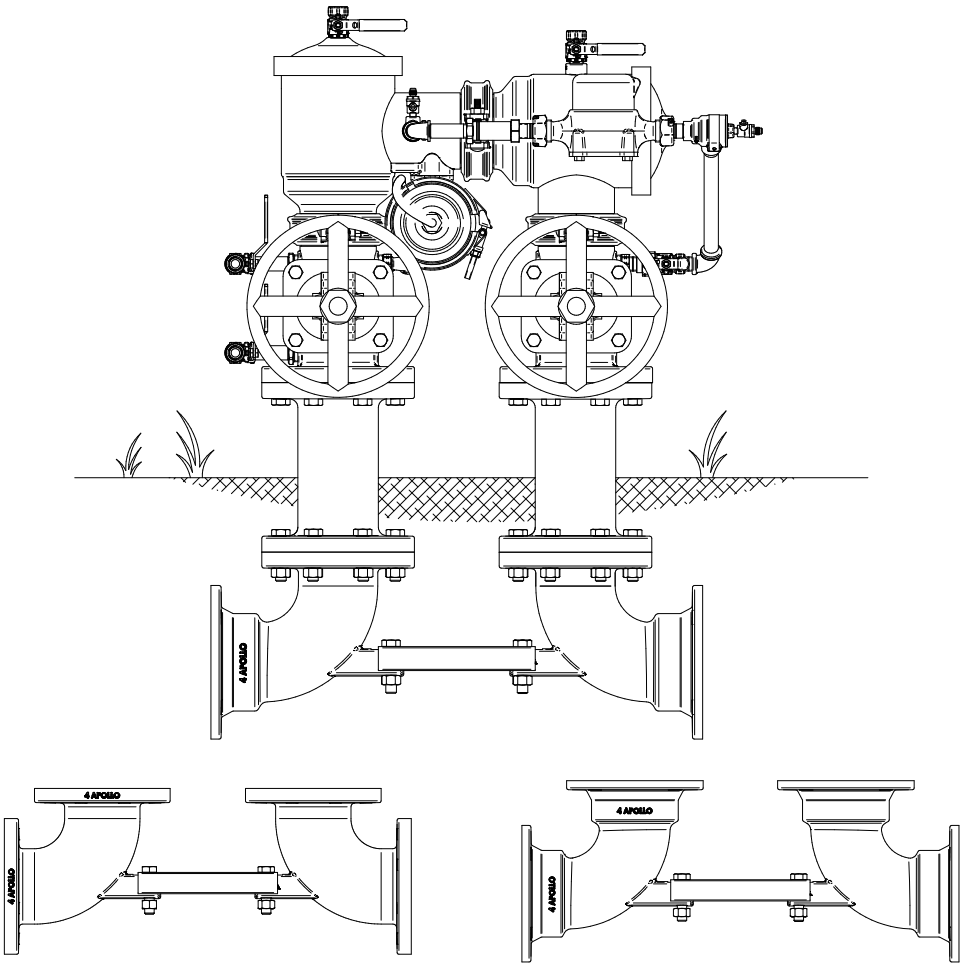
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OPTIONAL VALVE SETTERS – ORDERED SEPARATELY
(See SS1174 Submittal Sheet for details)

FACTORY CODE

4AN	- 00X	- X
	SIZE	TYPE
4AN	9 - 2-1/2"	F - FLANGE X FLANGE (2 ½" - 12")
	0 - 3"	MJF - MECHANICAL JOINT X FLANGE (3" - 8")
	A - 4"	MJ - MECH. JOINT X MECH. JOINT (3" - 8")
	C - 6"	
	E - 8"	
	G - 10"	
	H - 12"	



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