

DCDALF4A Series

Double Check Detector Assembly

LEAD FREE





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

DESCRIPTION

The 2-1/2" - 12" Double Check Detector Assembly shall be an Apollo® Model DCDALF 4A or DCDA2LF 4A. The assembly shall be manufactured in America and carry a 5-year Apollo® factory warranty. The TriForce™ center-stem guided check valves shall feature reversible silicone rubber seat discs. The check valves shall be held in place by SS snap-in retainers (2-1/2" - 6") or SS studs & nuts (8" - 12"). Access to the check valves shall be by an Apollo® quick-connect SS coupling (2-1/2" - 6") or grooved couplings (8" - 12"). The bodies shall be domestic SS in 22-1/2" - 8" sizes and FDA epoxy-coated ductile iron in 10" & 12" sizes. The assembly consists of a mainline double check valve with a Type 2 bypass (Type 1 optional) 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 while the mainline 2nd check remains closed. Assemblies with the optional Type 1 bypass consist of a lead free* double check valve and meter which bypass both mainline checks and accurately meter all flows up to 2 gpm with the mainline checks closed. The Apollo® lead free* domestic ball valve test cocks shall have SS handles. The pressure drop across the assembly shall be documented by an independent laboratory. The assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards.

FEATURES

- Domestic Stainless steel body: 2-1/2" 8"
- FDA Epoxy-Coated Ductile Iron Body: 10" & 12"
- Easy Maintenance No Special Tools Required
- Snap-In Check Retainers: 2-1/2" 6"
- Bolted-In Checks: 8" 12"
- Low Pressure Loss as Documented by an Independent Laboratory
- Center-Stem Guided Triforce[™] Check Valves
- Approved For Horizontal (2-1/2"-12") and Vertical Flow Up (2-1/2" - 8")
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- Made in the USA (D option)

PERFORMANCE RATING

- · Maximum Working Pressure 175 psi
- Temperature Range 33 ° F 140 ° F
- · Hydrostatic Test Pressure 350 psi

APPROVALS

- Sizes 2-1/2" 12": ASSE 1048*, CSA B64.5, FM, UL*, cUL*
- NSF/ANSI 61 Water Quality (2-1/2" 12")
- NSF/ANSI 372 Lead Free (2-1/2" 12")
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 8" Type 1 & Type 2)

*ASSE, UL, and cUL installations must include indicating-type shut-off valves

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/Stainless Steel
COVERS (8")	304 Stainless Steel
COVERS (10" & 12")	FDA Epoxy Coated Ductile Iron
CHECK VALVES (2 1/2" - 12")	Glass-filled PPO/Bronze (C89836 Lead-Free*)/SS
BYPASS VALVES	Bronze (C89836 Lead-Free*)
SPRINGS	Stainless Steel
SEAT DISCS	Chloramine-resistant Silicone

PART NUMBER MATRIX

4ALF	6 X	X	Х	[X]	Х
	BYPASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (INLET X OUTLET)	SIZE
4ALF - LEAD FREE	0 - TYPE 1 W/ 1/2" DOUBLE CHECK	9 - 2-1/2"	C - CUBIC FEET/MIN	1 - LESS SHUT-OFF VALVES	D - DOMESTIC ASSEMBLY
	2 - TYPE 2 W/1/2" SINGLE CHECK (STD)	0 - 3"	E - GALLONS/MIN	3 - OS&Y FLANGE X OS&Y FLANGE	R1 - RETROFIT*
	3 - TYPE 1 W/ BYPASS ON LEFT*	A - 4"	G - LESS METER	4 - OS&Y FLANGE X MONITORED (MON.) BUTTERFLY VALVE GROOVE	R2 - RETROFIT*
	4 - TYPE 2 W/ BYPASS ON LEFT*	C - 6"		6 - OS&Y FLANGE X POST INDICATOR FLANGE	R3 - RETROFIT*
		E - 8"		7 - OS&Y FLANGE X OS&Y GROOVE	
		G - 10"		8 - OS&Y GROOVE X OS&Y GROOVE	*CUSTOM LENGTH RETROFIT
		H - 12"		9 - MON. BUTTERFLY VALVE GROOVE X MON. BUTTERFLY VALVE GROOVE'	ORDERS MUST BE ACCOM-
				10 - OS&Y FLANGE X POST INDICATOR GROOVE	PANIED WITH SIGNED FROM
				13 - POST INDICATOR FLANGE X MON. BUTTERFLY VALVE GROOVE'	#OFBFRETRO WITH EXACT
				14 - POST INDICATOR FLANGE X POST INDICATOR FLANGE	LENGTH REQUIRED.
				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	
				19 - MON. BUTTERFLY VALVE GROOVE X POST INDICATOR GROOVE	
				20 - POST INDICATOR FLANGE X OS&Y FLANGE	
FXAMPLE: 4ALE	60A E3 = 4" size Lead Free Double	e Check D	etector Assembly	21 - POST INDICATOR GROOVE X OS&Y GROOVE	
	d inlet x OS&Y flanged outlet shut-o		•	22 - POST INDICATOR GROOVE X MON. BUTTERFLY VALVE GROOVE [†]	
With Ood Hange	a milet x OSQT manged oddlet shat o	ii vaives w	, meter in gallons.	23 - MON. BUTTERFLY VALVE GROOVE X OS&Y FLANGE	

*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.

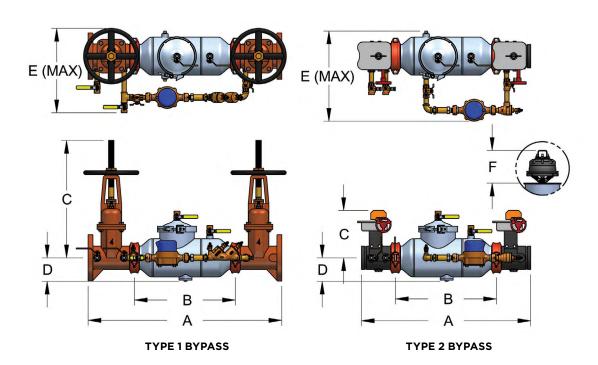




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DIMENSIONS

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances (± 1/8" (3 mm) per joint)

2 1/2"	65 MM	3"	80MM	4"	100MM	6"	150MM	8"	200MM	10"	250MM	12"	300MM
28	711	28.5	724	33.3	846	38.9	988	46.4	1179	56.3	1328	N/A	N/A
31	787	32	813	38	965	45.9	1166	53.4	1356	62.3	1582	65.5	1664
15.9	404	15.9	404	19.6	498	24.5	622	30	762	36	914	37	940
8	203	8.4	213	9.1	231	10.1	257	12	305	13.4	340	N/A	N/A
11.8	300	13	330	14	356	17.8	452	21	533	24.5	622	30	762
18.8	478	20.3	515	22.1	562	29.4	747	36.8	934	45.2	1147	52.2	1326
3.9	99	3.9	99	4.6	117	6	152	8.1	206	11.8	300	12	305
17	432	17	432	17	432	20	508	21.5	546	26.5	673	26.5	673
4.8	122	4.8	122	6.5	165	7.5	191	7.5	191	10	254	10	254
1/2"	13	1/2"	13	1/2"	13	3/4"	20	3/4"	20	3/4"	20	3/4"	20
LB.	KG	LB.	KG	LB.	KG	LB.	KG	LB.	KG	LB.	KG	LB.	KG
64	29	68	31	98	45	158	72	354	161	940	427	N/A	N/A
88	40	92	42	183	83	248	113	502	228	1130	514	N/A	N/A
94	43	109	50	149	68	273	124	540	245	1229	559	1685	766
178	81	193	88	234	106	361	164	688	313	1419	645	1875	852
109	50	125	57	180	82	333	151	615	280	1343	610	1800	818
193	88	209	95	265	120	421	191	763	347	1533	697	1990	905
	28 31 15.9 8 11.8 18.8 3.9 17 4.8 1/2" LB. 64 88 94 178	28 711 31 787 15.9 404 8 203 11.8 300 18.8 478 3.9 99 17 432 4.8 122 1/2" 13 LB. KG 64 29 88 40 94 43 178 81 109 50	28 711 28.5 31 787 32 15.9 404 15.9 8 203 8.4 11.8 300 13 18.8 478 20.3 3.9 99 3.9 17 432 17 4.8 122 4.8 1/2" 13 1/2" LB. KG LB. 64 29 68 88 40 92 94 43 109 178 81 193 109 50 125	28 711 28.5 724 31 787 32 813 15.9 404 15.9 404 8 203 8.4 213 11.8 300 13 330 18.8 478 20.3 515 3.9 99 3.9 99 17 432 17 432 4.8 122 4.8 122 1/2" 13 1/2" 13 LB. KG LB. KG 64 29 68 31 88 40 92 42 94 43 109 50 178 81 193 88 109 50 125 57	28 711 28.5 724 33.3 31 787 32 813 38 15.9 404 15.9 404 19.6 8 203 8.4 213 9.1 11.8 300 13 330 14 18.8 478 20.3 515 22.1 3.9 99 3.9 99 4.6 17 432 17 432 17 4.8 122 4.8 122 6.5 1/2" 13 1/2" 13 1/2" LB. KG LB. KG LB. 64 29 68 31 98 88 40 92 42 183 94 43 109 50 149 178 81 193 88 234 109 50 125 57 180	28 711 28.5 724 33.3 846 31 787 32 813 38 965 15.9 404 15.9 404 19.6 498 8 203 8.4 213 9.1 231 11.8 300 13 330 14 356 18.8 478 20.3 515 22.1 562 3.9 99 3.9 99 4.6 117 17 432 17 432 17 432 4.8 122 4.8 122 6.5 165 1/2" 13 1/2" 13 1/2" 13 LB. KG LB. KG LB. KG 64 29 68 31 98 45 88 40 92 42 183 83 94 43 109 50 149 68 178	28 711 28.5 724 33.3 846 38.9 31 787 32 813 38 965 45.9 15.9 404 15.9 404 19.6 498 24.5 8 203 8.4 213 9.1 231 10.1 11.8 300 13 330 14 356 17.8 18.8 478 20.3 515 22.1 562 29.4 3.9 99 3.9 99 4.6 117 6 17 432 17 432 20 4.8 122 6.5 165 7.5 1/2" 13 1/2" 13 1/2" 13 3/4" LB. KG LB. KG LB. KG LB. 64 29 68 31 98 45 158 88 40 92 42 183 83 248	28 711 28.5 724 33.3 846 38.9 988 31 787 32 813 38 965 45.9 1166 15.9 404 15.9 404 19.6 498 24.5 622 8 203 8.4 213 9.1 231 10.1 257 11.8 300 13 330 14 356 17.8 452 18.8 478 20.3 515 22.1 562 29.4 747 3.9 99 3.9 99 4.6 117 6 152 17 432 17 432 20 508 4.8 122 4.8 122 6.5 165 7.5 191 1/2" 13 1/2" 13 3/4" 20 LB. KG LB. KG LB. KG 64 29 68 31 98	28 711 28.5 724 33.3 846 38.9 988 46.4 31 787 32 813 38 965 45.9 1166 53.4 15.9 404 15.9 404 19.6 498 24.5 622 30 8 203 8.4 213 9.1 231 10.1 257 12 11.8 300 13 330 14 356 17.8 452 21 18.8 478 20.3 515 22.1 562 29.4 747 36.8 3.9 99 3.9 99 4.6 117 6 152 8.1 17 432 17 432 20 508 21.5 4.8 122 4.8 122 6.5 165 7.5 191 7.5 1/2" 13 1/2" 13 1/2" 13 3/4" 20 3/4"	28 711 28.5 724 33.3 846 38.9 988 46.4 1179 31 787 32 813 38 965 45.9 1166 53.4 1356 15.9 404 15.9 404 19.6 498 24.5 622 30 762 8 203 8.4 213 9.1 231 10.1 257 12 305 11.8 300 13 330 14 356 17.8 452 21 533 18.8 478 20.3 515 22.1 562 29.4 747 36.8 934 3.9 99 3.9 99 4.6 117 6 152 8.1 206 17 432 17 432 17 432 20 508 21.5 546 4.8 122 4.8 122 6.5 165 7.5 191 7.5 <td< td=""><td>28 711 28.5 724 33.3 846 38.9 988 46.4 1179 56.3 31 787 32 813 38 965 45.9 1166 53.4 1356 62.3 15.9 404 15.9 404 19.6 498 24.5 622 30 762 36 8 203 8.4 213 9.1 231 10.1 257 12 305 13.4 11.8 300 13 330 14 356 17.8 452 21 533 24.5 18.8 478 20.3 515 22.1 562 29.4 747 36.8 934 45.2 3.9 99 3.9 99 4.6 117 6 152 8.1 206 11.8 17 432 17 432 20 508 21.5 546 26.5 4.8 122 4.8</td><td>28 711 28.5 724 33.3 846 38.9 988 46.4 1179 56.3 1328 31 787 32 813 38 965 45.9 1166 53.4 1356 62.3 1582 15.9 404 15.9 404 19.6 498 24.5 622 30 762 36 914 8 203 8.4 213 9.1 231 10.1 257 12 305 13.4 340 11.8 300 13 330 14 356 17.8 452 21 533 24.5 622 18.8 478 20.3 515 22.1 562 29.4 747 36.8 934 45.2 1147 3.9 99 3.9 99 4.6 117 6 152 8.1 206 11.8 300 17 432 17 432 20 508</td><td>28 711 28.5 724 33.3 846 38.9 988 46.4 1179 56.3 1328 N/A 31 787 32 813 38 965 45.9 1166 53.4 1356 62.3 1582 65.5 15.9 404 15.9 404 19.6 498 24.5 622 30 762 36 914 37 8 203 8.4 213 9.1 231 10.1 257 12 305 13.4 340 N/A 11.8 300 13 330 14 356 17.8 452 21 533 24.5 622 30 18.8 478 20.3 515 22.1 562 29.4 747 36.8 934 45.2 1147 52.2 3.9 99 3.9 99 4.6 117 6 152 8.1 206 11.8 300 12</td></td<>	28 711 28.5 724 33.3 846 38.9 988 46.4 1179 56.3 31 787 32 813 38 965 45.9 1166 53.4 1356 62.3 15.9 404 15.9 404 19.6 498 24.5 622 30 762 36 8 203 8.4 213 9.1 231 10.1 257 12 305 13.4 11.8 300 13 330 14 356 17.8 452 21 533 24.5 18.8 478 20.3 515 22.1 562 29.4 747 36.8 934 45.2 3.9 99 3.9 99 4.6 117 6 152 8.1 206 11.8 17 432 17 432 20 508 21.5 546 26.5 4.8 122 4.8	28 711 28.5 724 33.3 846 38.9 988 46.4 1179 56.3 1328 31 787 32 813 38 965 45.9 1166 53.4 1356 62.3 1582 15.9 404 15.9 404 19.6 498 24.5 622 30 762 36 914 8 203 8.4 213 9.1 231 10.1 257 12 305 13.4 340 11.8 300 13 330 14 356 17.8 452 21 533 24.5 622 18.8 478 20.3 515 22.1 562 29.4 747 36.8 934 45.2 1147 3.9 99 3.9 99 4.6 117 6 152 8.1 206 11.8 300 17 432 17 432 20 508	28 711 28.5 724 33.3 846 38.9 988 46.4 1179 56.3 1328 N/A 31 787 32 813 38 965 45.9 1166 53.4 1356 62.3 1582 65.5 15.9 404 15.9 404 19.6 498 24.5 622 30 762 36 914 37 8 203 8.4 213 9.1 231 10.1 257 12 305 13.4 340 N/A 11.8 300 13 330 14 356 17.8 452 21 533 24.5 622 30 18.8 478 20.3 515 22.1 562 29.4 747 36.8 934 45.2 1147 52.2 3.9 99 3.9 99 4.6 117 6 152 8.1 206 11.8 300 12

Internal body connections are grooved on 2-1/2" to 10" sizes.

Internal body connections are flanged on 12" size.



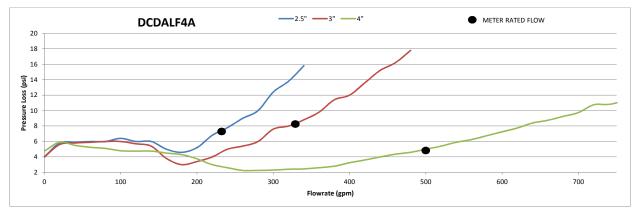


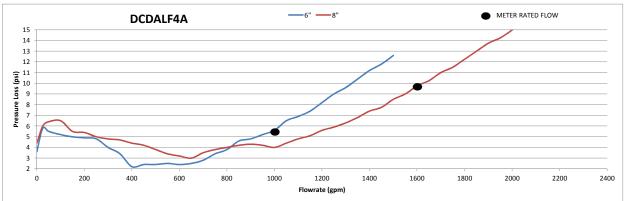
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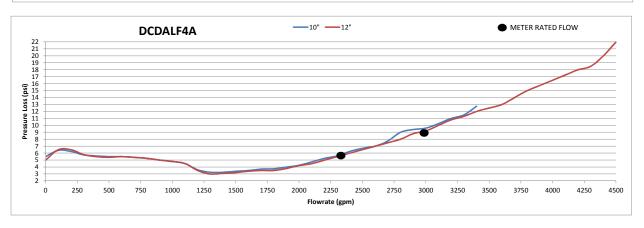
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FLOW CURVES







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.

