

'Apollo' Valves

SUBMITTAL SHEET

LEAD FREE

Model DCDALF4 AN

Model DCDA2LF4 AN

Double Check Detector Assembly



SPECIFICATIONS

The 2 1/2" – 12" Double Check Detector Assembly shall be an Apollo® Model DCDALF4AN or DCDA2LF4AN. 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 drop-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 2 1/2" – 8" sizes and FDA epoxy-coated ductile iron in 10" & 12" sizes. The assembly is a mainline double check valve 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* double check valve 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 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 laboratory
- Center-stem guided TriForce™ check valves

- Small installation space required – small footprint
- Approved for n-flow
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- **Made in the USA**

PERFORMANCE RATING

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

APPROVALS

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (Model DCDALF 4AN, 2-1/2" – 8")
- Sizes 2 1/2" – 12": ASSE* 1048, CSA B64.5, FM, UL*, and cUL*

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

FACTORY CODE

4AnLF	6 X	X	X [X]
	BY-PASS SUB-ASSEMBLY OPTIONS	SIZE	SHUT-OFF VALVES (Inlet X Outlet)
4AnLF = Lead Free	<input type="checkbox"/> 0= Type 1 w/ 1/2" Double Check <input type="checkbox"/> 2= Type 2 w/ 1/2" Single Check (Standard) <input type="checkbox"/> 3= Type 1 w/ bypass on left* <input type="checkbox"/> 4= Type 2 w/ bypass on left*	<input type="checkbox"/> 9= 2-1/2" <input type="checkbox"/> 0= 3" <input type="checkbox"/> A= 4" <input type="checkbox"/> C= 6" <input type="checkbox"/> E= 8" <input type="checkbox"/> G= 10" <input type="checkbox"/> H= 12"	<input type="checkbox"/> C= Cubic feet/min <input type="checkbox"/> E= Gallons/min <input type="checkbox"/> G= Less meter
	* Orientation of bypass looking downstream. Standard is right hand side. Left hand is on opposite side ** Post indicator with plate & nut option not available in 2-1/2" size. † Butterfly valves not available in 12" size.		
			<input type="checkbox"/> 1 = Less Shut-off Valves <input type="checkbox"/> 3 = OS&Y Flg x OS&Y Flg <input type="checkbox"/> 4 = OS&Y Flg x Monitored (Mon.) Butterfly Vlv Grv† <input type="checkbox"/> 6 = OS&Y Flg x Post indicator Flg** <input type="checkbox"/> 7 = OS&Y Flg x OS&Y Grv <input type="checkbox"/> 8 = OS&Y Grv x OS&Y Grv <input type="checkbox"/> 9 = Mon. Butterfly Vlv Grv x Mon. Butterfly Vlv Grv† <input type="checkbox"/> 10 = OS&Y Flg x Post Indicator Grv** <input type="checkbox"/> 13 = Post Indicator Flg x Mon. Butterfly Vlv Grv† <input type="checkbox"/> 14 = Post Indicator Flg x Post Indicator Flg <input type="checkbox"/> 16 = Mon Butterfly Vlv Grv x Post Indicator Flg† <input type="checkbox"/> 17 = Post Indicator Flg x OS&Y Grv <input type="checkbox"/> 18 = OS&Y Grv x Post Indicator Grv <input type="checkbox"/> 19 = Mon. Butterfly Vlv Grv x Post Indicator Grv <input type="checkbox"/> 20 = Post Indicator Flg x OS&Y Flg

* 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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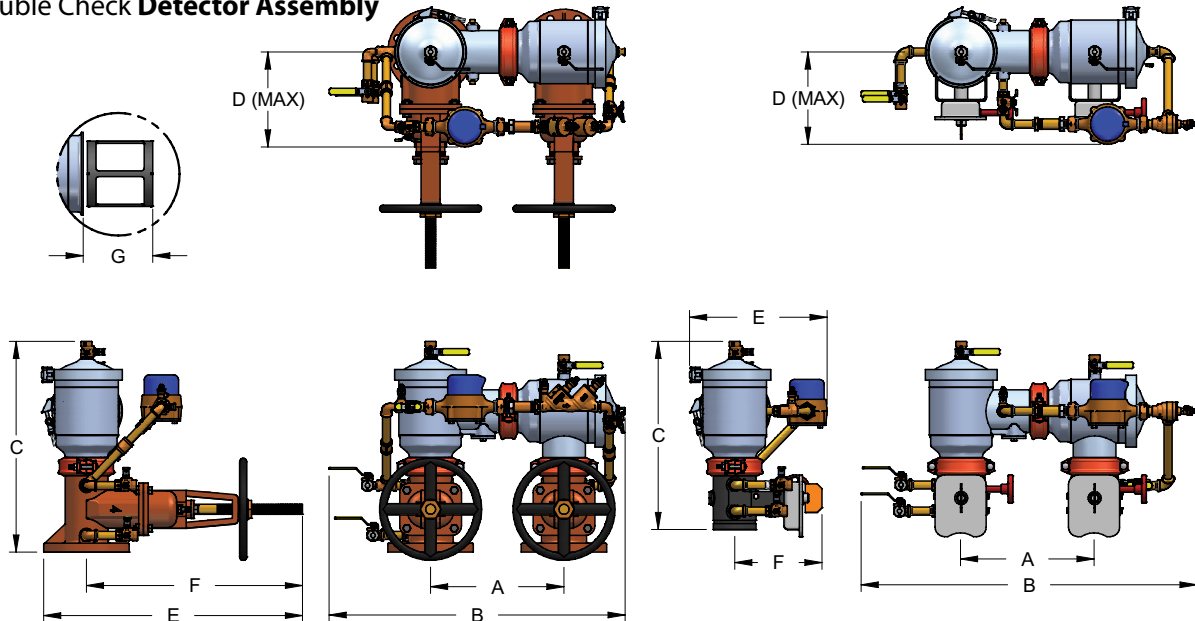
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—Model DCDALF4 AN— Model DCDA2LF4 AN—

Double Check **Detector** Assembly



Type 1 Bypass

Type 2 Bypass

DIMENSIONS

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

DIMENSIONS	2-1/2"	60mm	3"	75mm	4"	100mm	6"	150mm	8"	200mm	10"	250mm	12"	300mm
A (Centerline to Centerline)	12-1/2 \pm	318 \pm	12-1/2 \pm	318 \pm	14 \pm	356 \pm	16 \pm	406 \pm	18-1/2 \pm	470 \pm	21 \pm	533 \pm	26-3/4 \pm	679 \pm
B (Butterfly Valves)	32-3/4 \pm	832 \pm	32-3/4 \pm	832 \pm	35-1/4 \pm	895 \pm	40 \pm	1016 \pm	44 \pm	1118 \pm	54 \pm	1372 \pm	N/A	N/A
B (Gate Valves)	31 \pm	787 \pm	31 \pm	787 \pm	31-3/4 \pm	806 \pm	36-1/4 \pm	921 \pm	41-1/2 \pm	1054 \pm	49 \pm	1245 \pm	55-3/4 \pm	1416 \pm
C (Butterfly Valves)	18-1/4	464	18-1/2	470	20	508	24-3/4	629	28-1/2	724	35	889	N/A	N/A
C (Gate Valves)	19-5/8	498	20	508	22-1/2	572	27-3/4	705	32-1/8	816	40	1016	44	1118
D (Centerline to max bypass)	10	254	10	254	10-1/8	257	11-1/4	286	12-1/2	318	14-3/8	365	15-1/4	387
E (Butterfly Valves)	11-1/2	292	12-1/8	308	12-7/8	327	15-7/8	403	22-1/4	565	23-1/8	591	N/A	N/A
E (OS&Y Open)	19-7/8	505	24-1/4	616	27-1/4	692	32-3/4	832	44-1/2	1130	54	1372	62-3/4	1594
E (NRS/PI)	14-7/8	378	16-1/8	410	19-1/4	489	24-1/2	622	29-1/4	743	36-3/8	924	40	1016
F (OS&Y)	16-3/8	416	20-1/2	521	22-3/4	578	28	711	37-3/4	959	46	1168	53-1/8	1349
F (Butterfly Valves)	8	203	8-3/8	213	9	229	10-7/8	276	12-7/8	327	13-1/2	343	N/A	N/A
F (NRS/PI)	11-3/8	289	12-3/8	314	14-3/4	375	19	483	22-1/2	572	26-1/2	673	30	762
G (Check Removal Clearance)	6	152	6	152	6	152	8	203	8-1/2	206	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. (Less Shut-offs)	45	20	45	20	54	25	89	40	320	145	805	365	930	422
Net Wt. (w/ Butterfly Valves)	72	33	75	34	99	45	157	71	451	205	983	446	N/A	N/A
Net Wt. (w/ OS&Y Gate Valves)	141	64	166	75	209	95	338	153	797	362	1473	668	2121	962

Notes:

1. Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances.
2. Internal body connections are grooved on 2 1/2" – 10" sizes.
3. Internal body connections are flanged on 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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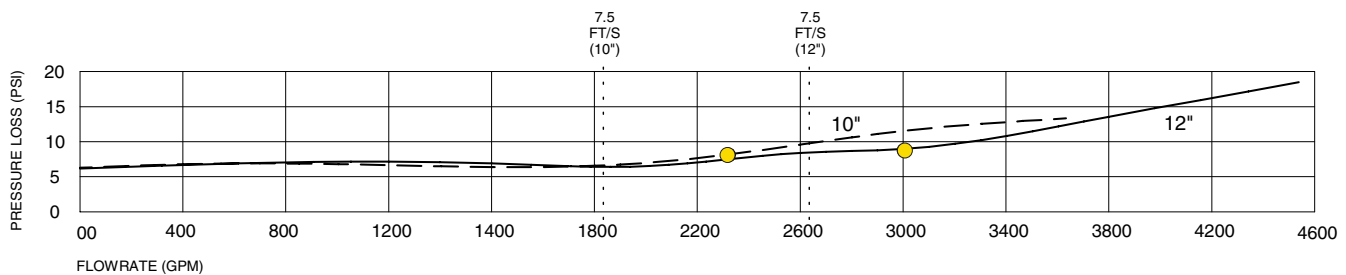
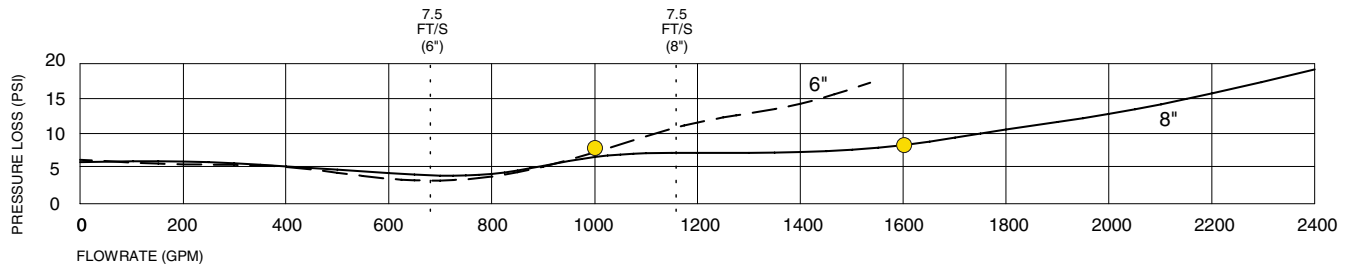
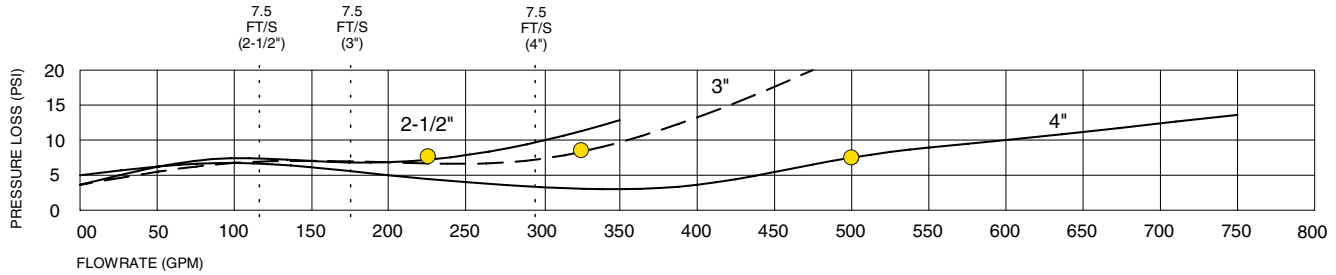
Double Check Detector Assembly

STANDARD MATERIALS LIST

Part Name	Material
Mainline Body (2 1/2" – 8")	Domestic Stainless Steel
Mainline Body (10" & 12")	FDA Epoxy Coated Ductile Iron
Bypass DC	Bronze (C89836 Lead Free*)
Covers (2 1/2" – 6")	Glass-filled PPO/Stainless steel
Cover (8")	Domestic Stainless Steel
Covers (10" & 12")	FDA Epoxy Coated Ductile Iron
Check Valves (2 1/2" – 12")	Glass-filled PPO/Bronze (C89836 Lead Free*)/SS
Springs	Stainless Steel
Seat Discs	Chloramine-resistant Silicone

FLOW CURVES

● Meter Rated Flow



Notes:

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

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Model DCDA2LF4 AN

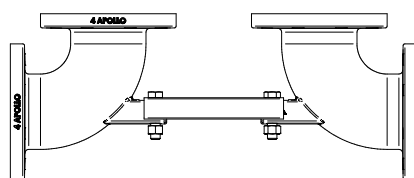
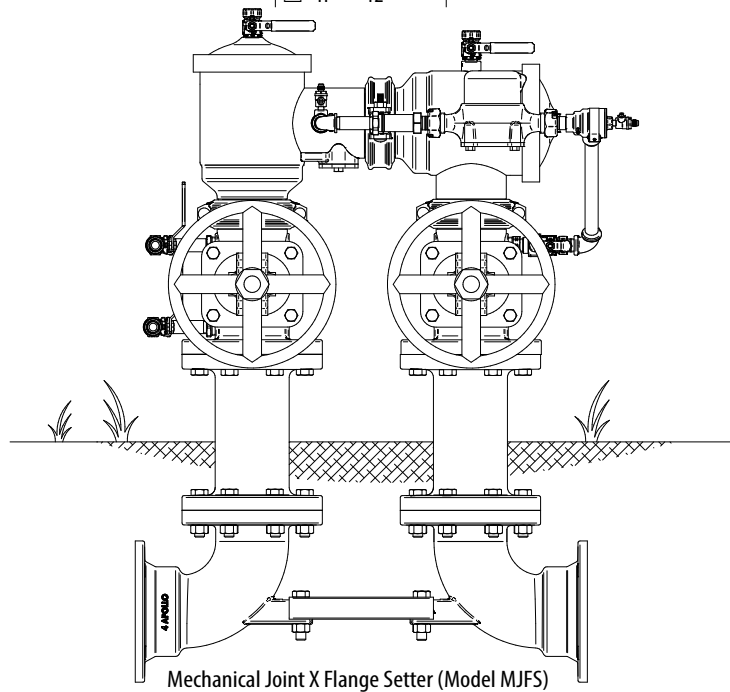
Double Check **Detector Assembly**

OPTIONAL VALVE SETTERS – Ordered Separately

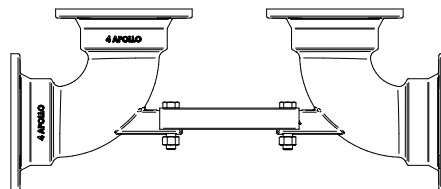
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FACTORY CODE

4An		- 00X	- X
	SIZE	TYPE	
4An	<input type="checkbox"/> 9 = 2-1/2" <input type="checkbox"/> 0 = 3" <input type="checkbox"/> A = 4" <input type="checkbox"/> C = 6" <input type="checkbox"/> E = 8" <input type="checkbox"/> G = 10" <input type="checkbox"/> H = 12"	<input type="checkbox"/> F = Flange x Flange <input type="checkbox"/> MJF = Mechanical Joint X Flange <input type="checkbox"/> MJ = Mech. Joint X Mech. Joint	



Flange X Flange Setter (Model FS)



Mechanical Joint X Mechanical Joint Setter (Model MJS)

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