

# 'Apollo' Valves

## SUBMITTAL SHEET

### LEAD FREE

## Model DCDALF 4A

## Model DCDA2LF 4A

### Double Check Detector Assembly



Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO Number:	
Representative:	
Wholesale Distributor:	



### SPECIFICATIONS

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 2 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 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\*
- \* ASSE, UL, and cUL installations must include indicating-type shut-off valves
- NSF 372 (2 1/2" – 12")
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (Model DCDALF 4A, 2-1/2" – 8")

### FACTORY CODE

4ALF	6 X	X	X	[X]	XX
	BY-PASS SUB-ASSEMBLY OPTIONS	SIZE (IN.)	METER OPTION	SHUT-OFF VALVES (Inlet X Outlet)	OPTIONS
4ALF = 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	<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 <input type="checkbox"/> 21 = Post Indicator Grv x OS&Y Grv <input type="checkbox"/> 22 = Post Indicator Grv x Mon. Butterfly Vlv Grv† <input type="checkbox"/> 23 = Mon. Butterfly Vlv Grv x OS&Y Flg	<input type="checkbox"/> D = Domestic <input type="checkbox"/> R1 = Retrofit* <input type="checkbox"/> R2 = Retrofit* <input type="checkbox"/> R3 = Retrofit* *Custom length retrofit orders must be accompanied with signed form #OBFRETRO with exact length required

\* 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. NSF 372 ANSI 3rd party approved and listed.

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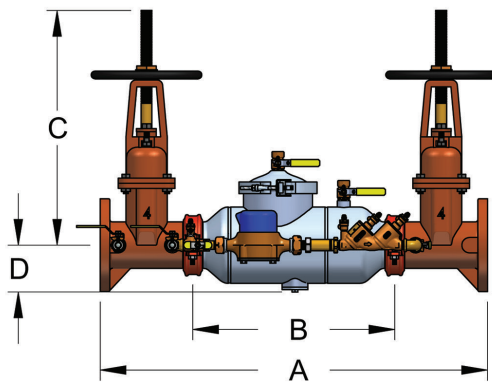
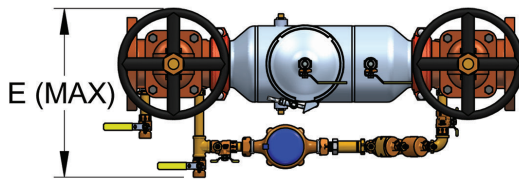
— 'Apollo' Valves —

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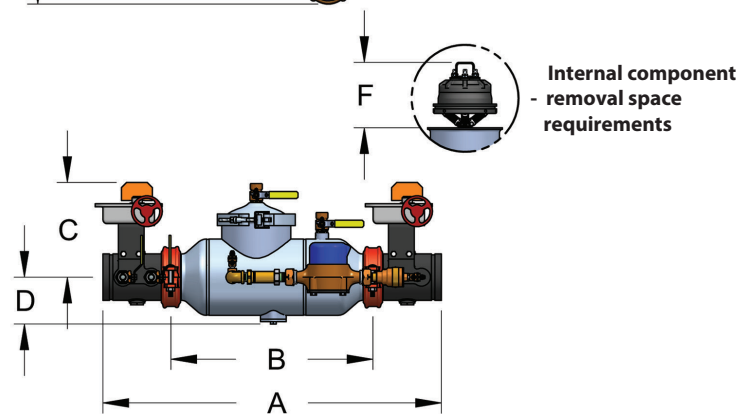
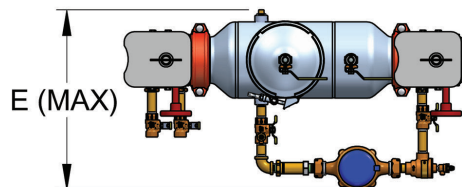
LEAD FREE

— Model DCDALF 4A —  
Model DCDA2LF 4A

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"	65mm	3"	80mm	4"	100mm	6"	150mm	8"	200mm	10"	250mm	12"	300mm
A (Butterfly Valves)	28 ±	711 ±	28-1/2 ±	724 ±	33-1/4 ±	845 ±	38-7/8 ±	987 ±	46-3/8 ±	1178 ±	56-1/4 ±	1429 ±	N/A	N/A
A (Gate Valves)	31 ±	787 ±	32 ±	813 ±	38 ±	965 ±	45-7/8 ±	1165 ±	53-3/8 ±	1356 ±	62-1/4 ±	1581 ±	65-1/2 ±	1664 ±
B (Less Shut-off Valves)	15-7/8 ±	403 ±	15-7/8 ±	403 ±	19-5/8 ±	498 ±	24-1/2 ±	622 ±	30 ±	762 ±	36 ±	914 ±	37 ±	940 ±
C (Butterfly Valves)	8	203	8-3/8	213	9-1/8	233	10-1/8	257	12	306	13-3/8	340	N/A	N/A
C (NRS/PI Gate Valves)	11-3/4	298	13	330	14	356	17-3/4	451	21	573	24-1/2	622	30	762
C (OS&Y Open)	18	457	20	508	21	533	29-1/2	749	37	940	45	1143	53-1/8	1348
D (Centerline to bottom)	3-7/8	98	3-7/8	98	4-5/8	117	6	152	8-1/8	206	11-3/4	298	12	305
E (Width Max)	17	432	17	432	17	432	20	508	21-1/2	546	26-1/2	673	26-1/2	673
F (Check Removal Clearance)	4-3/4	121	4-3/4	121	6-1/2	165	7-1/2	191	7-1/2	191	10	254	10	254
Test Cocks (NPT)	1/2"	13	1/2"	13	1/2"	20	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)	37	17	38	17	54	25	90	41	223	101	722	327	825	374
Net Wt. (w/ Butterfly Valves)	64	29	68	31	98	45	158	72	354	161	940	426	N/A	N/A
Net Wt. (w/ OS&Y Gate Valves)	133	60	159	72	209	95	339	154	700	318	1608	729	2017	915

### Notes:

- Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances (1/8" per joint).
- Internal body connections are grooved on 2 1/2" – 10" sizes.
- 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. NSF 372 ANSI 3rd party approved and listed.

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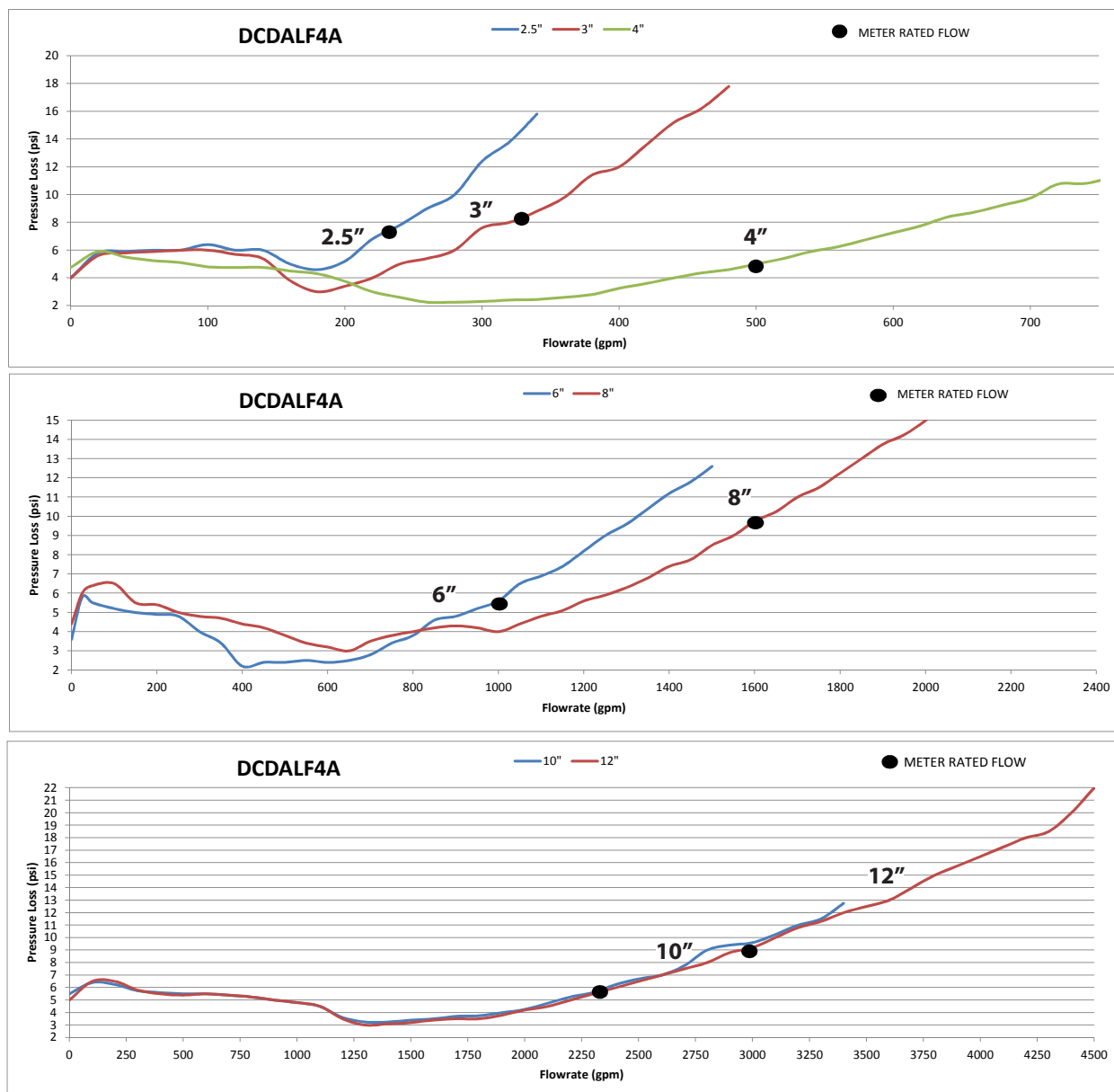
### Double Check Detector Assembly

### STANDARD MATERIALS LIST

Part Name	Material
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
Cover (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

### FLOW CURVES

● Meter Rated Flow



#### Notes:

1. Flow curves directly reflect data collected by an independent laboratory.
2. Flow curves shown were recorded with gate shut-off valves. 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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