

DCDALF 4A / DCDA2LF 4A SERIES

DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY



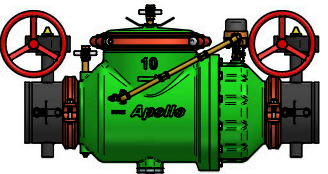
TYPE 1 BYPASS
2-1/2" - 8"
304 STAINLESS
STEEL BODY



TYPE 2 BYPASS
2-1/2" - 8"
304 STAINLESS
STEEL BODY



TYPE 2 BYPASS
10" - 12"
FDA EPOXY
COATED DUCTILE
IRON BODY



The Apollo Model DCDALF 4A / DCDA2LF 4A Double Check Detector Assembly is designed to prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are objectionable, but non-health hazards. The TriForce™ center stem guided check valves feature replaceable and reversible silicone seat discs. The bypass assembly serves to measure accurate water use of up to 2 GPM. Available in a wide variety of shut-off options.

Available in both Type 1 and Type 2 bypass configurations. The Type 2 bypass uses the first check of the mainline assembly as the first check of the bypass. The second check of the bypass is a single check valve with a model number and serial number for test recording. This arrangement complies with the National Backflow Standards. The arrangement provides the same level of protection as the Type 1 bypass and the testing procedure is the same.

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
- Approved for Horizontal and Vertical Up Flow
- Chloramine-Resistant Elastomers
- Lead-Free Standard
- US Patent Nos.: 6,443,184; 7,025,085; 7,533,699
- Designed, Assembled and Tested in the USA
- 5 Year Warranty
- Optional Mounting of Bypass on Either Side for Ease of Installation

PERFORMANCE RATING

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

APPROVALS

- ASSE 1048*, CSA B64.5, FM, UL*, cUL*
 - NSF/ANSI/CAN - 61 Water Quality
 - NSF/ANSI 372 - Lead Free
 - 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, 10" & 12" + type 2 bypass only)
- *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/SS
COVERS (8")	304 Stainless Steel
COVERS (10" & 12")	FDA Epoxy Coated Ductile Iron
CHECK VALVES	Bronze/Glass-Filled PPO/SS
SPRINGS	Stainless Steel
SEAT DISCS	Chloramine-Resistant Silicone

**TRIFORCE™
CHECK**



Flow Curves - Page 59

PART NUMBER MATRIX

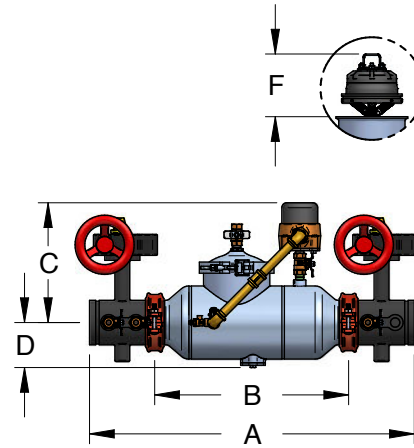
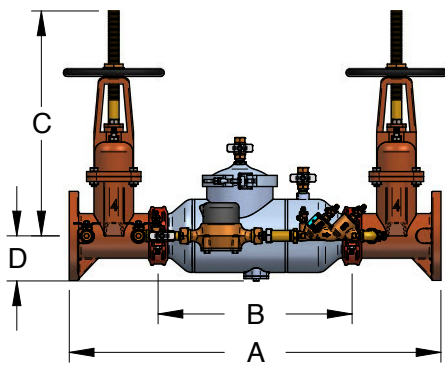
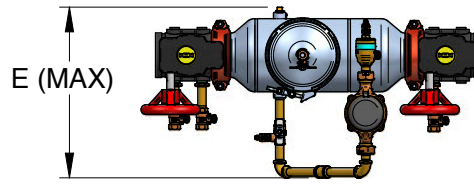
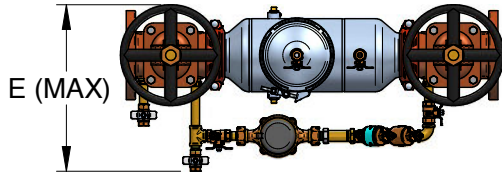
4ALF	6 X	X	X	X X	X
	BYPASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4ALF - Lead Free	0 - Type 1 w/ 1/2" Double Check	9 - 2-1/2"	C - Cubic ft/min	03 - OS&Y Flange x OS&Y Flange	D - Domestic Assembly
	2 - Type 2 w/ 1/2" Single Check (STD)	0 - 3"	E - Gallons/min	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove†	
	3 - Type 1 w/ Bypass on Left*	A - 4"	G - Less Meter	06 - OS&Y Flange x Post indicator Flange	
	4 - Type 2 w/ Bypass on Left*	C - 6"		07 - OS&Y Flange x OS&Y Groove	
		E - 8"		08 - OS&Y Groove x OS&Y Groove	
	Type 2 & 4 only	G - 10"		09 - Mon. Butterfly Valve Groove x Mon. Butterfly Valve Groove†	
	Type 2 & 4 only	H - 12"		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	
				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	
				21 - Post Indicator Groove x OS&Y Groove	
				22 - Post Indicator Groove x Mon. Butterfly Valve Groove†	
				23 - Mon. Butterfly Valve Groove x OS&Y Flange	

EXAMPLE: 4ALF 60A E3 = 4" size lead free double check detector assembly with OS&Y flanged inlet x OS&Y flanged outlet shut-off valves w/ meter in gallons.

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

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DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY



Internal Component
Removal Space
Requirements

TYPE 1 BYPASS

4" DCDALF4A W/ OS&Y GATES SHOWN

TYPE 2 BYPASS

4" DCDA2LF4A W/ BUTTERFLY VALVES SHOWN

DRAWING SHOWN DEPICTS 2-1/2" - 8" ASSEMBLIES.
SEE SUBMITTAL SS1328 FOR DETAILED DRAWINGS FOR EACH SIZE.

DIMENSIONS

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

SIZE	2 1/2"	65 MM	3"	80MM	4"	100MM	6"	150MM	8"	200MM	10"	250MM	12"	300MM
A (Butterfly Valves)	28	711	28.5	724	33	838	38.5	978	46	1168	52	1321	N/A	N/A
A (Gate Valves)	31	787	32	813	37.6	955	45.5	1156	53.1	1349	62.3	1582	65.4	1661
B (Less Shut-off Valves)	16	406	16	406	19.8	503	24.5	622	30	762	36	914	37	940
C (Butterfly Valves - Type 1)	8.6	218	9.6	244	10.9	277	13	330	16.5	419	N/A	N/A	N/A	N/A
C (Butterfly Valves - Type 2)	13.3	338	13.3	338	12.1	307	13.8	351	16.5	419	19	483	N/A	N/A
C (NRS/PI Gate Valves - Type 1)	11.8	300	13	330	14	356	17.8	452	21	533	N/A	N/A	N/A	N/A
C (NRS/PI Gate Valves - Type 2)	13.3	338	13.3	338	14	356	17.8	452	21	533	24.5	622	30	762
C (OS&Y Open)	16.4	417	20.5	521	22.8	579	27.3	693	37.8	960	45.8	1163	53.1	1349
D (Centerline to Bottom)	3.9	99	3.9	99	4.6	117	5.9	150	8.3	211	11.1	282	11.4	290
E (Max w/Gate or Butterfly Valves - Type 1)	15.5	394	15.5	394	16.6	422	19.4	493	22.4	569	N/A	N/A	N/A	N/A
E (Max w/Gate or Butterfly Valves - Type 2)	14.1	358	14.1	358	17.4	442	18.4	467	22	559	24.9	632	25	635
F (Check Removal Clearance)	4.8	122	4.8	122	6.5	165	7.5	191	7.5	191	10	254	10	254
Test Cocks (NPT)	1/2"	15	1/2"	15	1/2"	15	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 Valves)	22	10	23	10	39	18	75	34	208	94	702	318	805	365
Net Wt. (w/ Butterfly Valves)**	96	44	102	46	128	58	189	86	399	181	985	447	N/A	N/A
Net Wt. (w/ NRS Gate Valves)**	94	43	109	49	149	68	273	124	540	245	1229	557	1685	764
Net Wt. (w/ OS&Y Gate Valves)**	109	49	125	57	180	82	333	151	615	279	1343	609	1800	816

Internal body connections are grooved on 2-1/2" to 10" sizes.
Internal body connections are flanged on 12" size.