



submittal sheet

# DCLF 4AN

double check valve backflow preventer

**lead free**



USC-FCCCHR



job name:	
job location:	
engineer:	
contractor:	
tag:	
po#:	
rep:	
wholesale dist.:	

## description

the 2-1/2" - 12" backflow preventer shall be an Apollo model DCLF4AN lead free\* double check valve. 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 lead free\* Apollo 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 approval laboratory
- center stem guided triforce™ check valves
- lead free standard
- small installation space required - small footprint
- chloramine-resistant elastomers
- optional valve setters eliminate need for thrust blocks
- US patent Nos.: 6,443,184; 7,025,085; 7,533,699
- 5 year warranty
- made in the USA (D Option)

## approvals

- approved by the foundation for cross-connection control and hydraulic research at the university of southern california (2-1/2" - 12")
- ASSE 1015-2011
- AWWA C-510 (2-1/2" - 12")
- UL, ULC classified
- FM approved
- CSA B64.5
- NSF/ANSI 61 water quality (2-1/2" - 12")
- NSF/ANSI 372 lead free (2-1/2" - 12")

## performance rating

- maximum working pressure: 175 psi
- temperature range: 33°F - 140°F, 180°F intermittent

## standard materials list

<b>body (2-1/2" - 8")</b>	304 stainless steel
<b>body (10" &amp; 12")</b>	FDA epoxy coated ductile iron
<b>covers (2-1/2" - 6")</b>	glass filled PPO/SS
<b>covers (8")</b>	304 stainless steel
<b>covers (10" &amp; 12")</b>	FDA epoxy coated ductile iron
<b>check valves</b>	bronze/glass-filled PPO/SS
<b>springs</b>	stainless steel
<b>seat discs</b>	chloramine-resistant silicone
<b>test cocks</b>	lead free bronze w/ SS handles

## part number matrix

4ANLF	1 X	X	OX	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES (INLET X OUTLET)	OPTIONS
4ANLF - LEAD FREE STANDARD	0 - STANDARD 1 - W/ Y-STRAINER (SHIPPED LOOSE)	9 - 2-1/2" 0 - 3" A - 4" C - 6" E - 8" G - 10" H - 12"	1 - LESS SHUT-OFF VALVES 2 - NRS FLANGE X NRS FLANGE 3 - OS&Y FLANGE X OS&Y FLANGE 4 - OS&Y FLANGE X MONITORED (MON.) BUTTERFLY VALVE GROOVE† 6 - OS&Y FLANGE X POST INDICATOR FLANGE 7 - OS&Y FLANGE X OS&Y GROOVE 8 - OS&Y GROOVE X OS&Y GROOVE 9 - MON. BUTTERFLY VALVE GROOVE X MON. BUTTERFLY VALVE GROOVE † 10 - OS&Y FLANGE X POST INDICATOR GROOVE 11 - NRS GROOVE X NRS GROOVE 12 - NRS FLANGE X NRS 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†	D - DOMESTIC ASSEMBLY
<b>EXAMPLE: 4ANLF 10A O3 = 4" size lead free double check valve assembly with OS&amp;Y flanged inlet x OS&amp;Y flanged outlet shut-off valves (shown above)</b>				

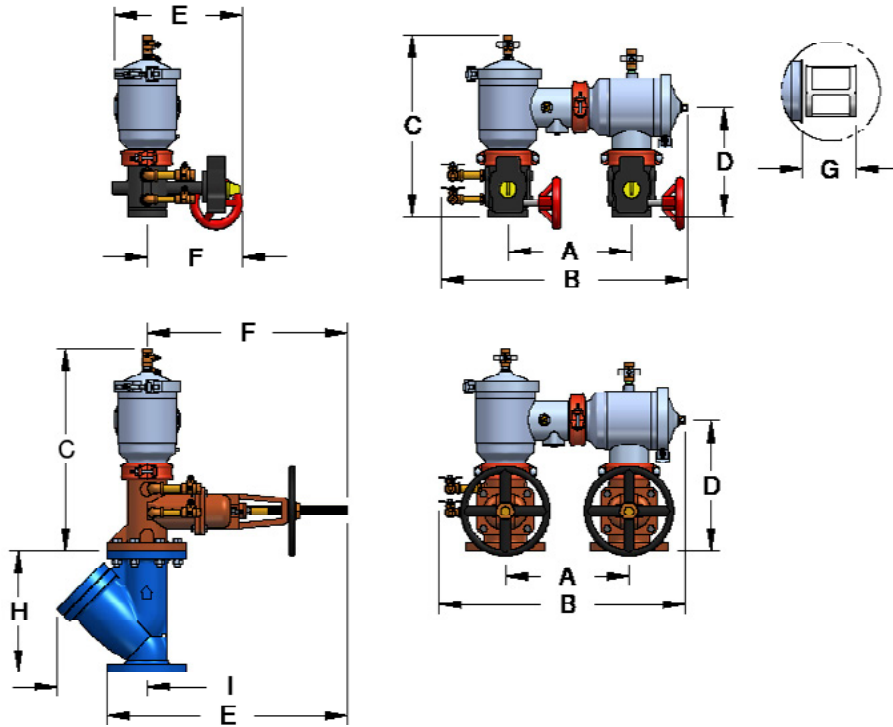
\*butterfly valves not available in 12" size.

\*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 ( $\pm 1/8"$  (3 mm) per joint)

SIZE	2 1/2"	65 MM	3"	80MM	4"	100MM	6"	150MM	8"	200MM	10"	250MM	12"	300MM
A (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)	25.5	648	25.6	651	28.1	714	33.3	845	38.1	968	46.0	1168	N/A	N/A
B (Lay Length Space - Gate Valves)	24.5	622	24.5	622	27	686	32	813	40.8	1036	49	1245	55.8	1417
C (Butterfly Valves - Flange to Top)	18.8	476	19.0	483	20.8	527	25.0	635	29.5	749	34.8	883	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	298	12.5	318	14.6	371	17.9	454	19.8	502	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)	12.1	308	13.1	333	14.8	375	18.3	465	25.9	657	29.3	745	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)	22.3	575	24.2	614	26.6	679	34.4	875	44.9	1140	57.0	1447	61.9	1572
F (Centerline to Width - Butterfly Valves)	8.6	219	9.6	244	10.9	276	12.5	318	16.5	419	18.1	460	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 (Check Removal Clearance)	6	152	6	152	6	152	8	203	8.5	216	12	305	12	305
H (Strainer Length)	10.9	277	11.6	295	14	356	18.6	472	25.5	648	26.1	663	30.1	765
I (Strainer Clearance)	8	203	8.8	224	9.5	241	12.6	320	16.4	417	19	483	22	559
Test Cocks (NPT)	1/2"	13	1/2"	13	1/2"	13	3/4"	20	3/4"	20	3/4"	20	3/4"	20
<b>WEIGHTS</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>	<b>LB.</b>	<b>KG</b>
Net Wt. (Less Shutoff Valves)	30	14	30	14	39	18	74	34	305	139	785	357	910	413
Ship Wt. (Less Shutoff Valves)	60	27	60	27	79	36	134	61	405	184	975	443	1100	413
Net Wt. (w/ Butterfly Valves)	91.0	41	95.0	43	120.0	54	163.0	74	471.0	214	945.0	429	N/A	N/A
Ship Wt. (w/ Butterfly Valves)	152.0	69	156.0	71	181.0	82	243.0	110	606.0	275	1135.0	515	N/A	N/A
Net Wt. (w/ NRS/Post Indicator Valves)	84	38	101	46	134	61	257	117	757	344	1292	587	1770	805
Ship Wt. (w/ NRS/Post Indicator Valves)	145	66	162	74	192	87	337	153	892	405	1482	674	1960	891
Net Wt. (w/ OS&Y Valves)	102	46	117	53	165	75	316	144	697	317	1407	640	1885	857
Ship Wt. (w/ OS&Y Valves)	163	74	178	81	226	103	396	180	832	378	1597	726	2075	943

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

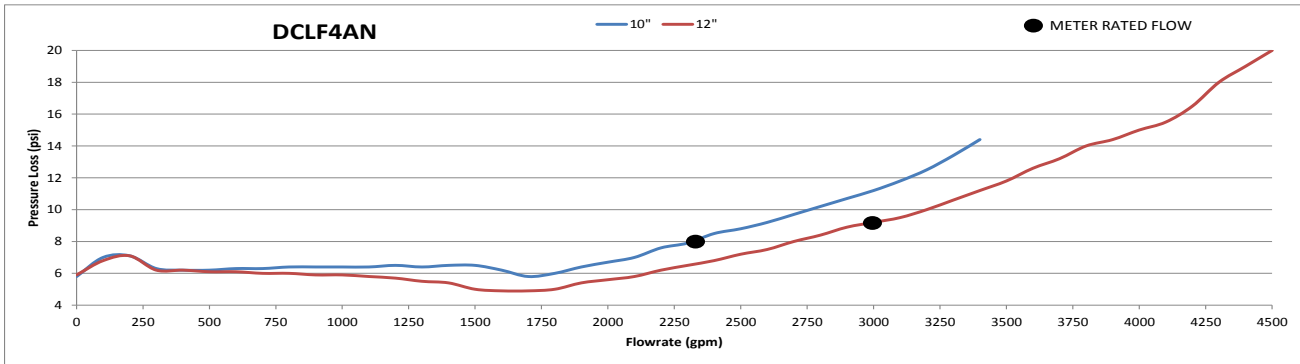
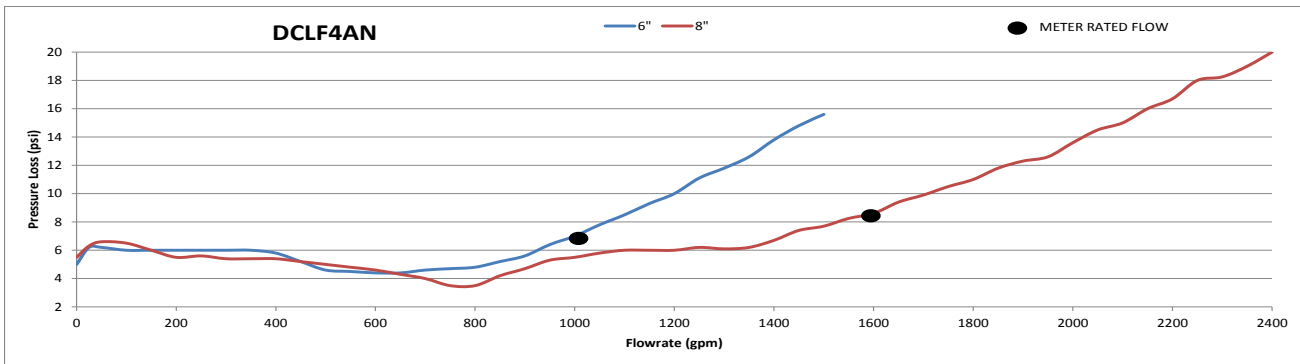
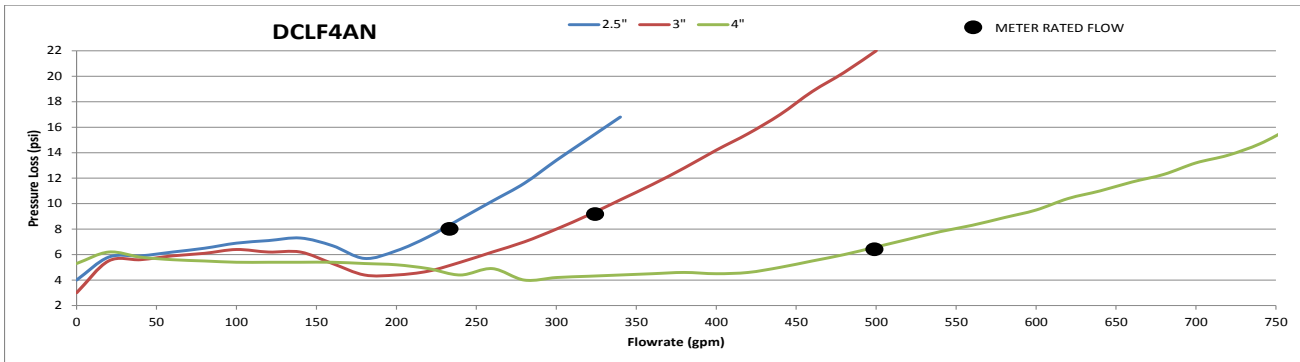


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## flow curves



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.