



submittal sheet

DCLF 4AN

double check valve backflow preventer

lead free



| | |
|------------------|--|
| 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

| | |
|-------------------------------|--------------------------------|
| 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 |
| test cocks | 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 |
| EXAMPLE: 4ANLF 10A O3 = 4" size lead free double check valve assembly with OS&Y flanged inlet x OS&Y flanged outlet shut-off valves (shown above) | | | | |

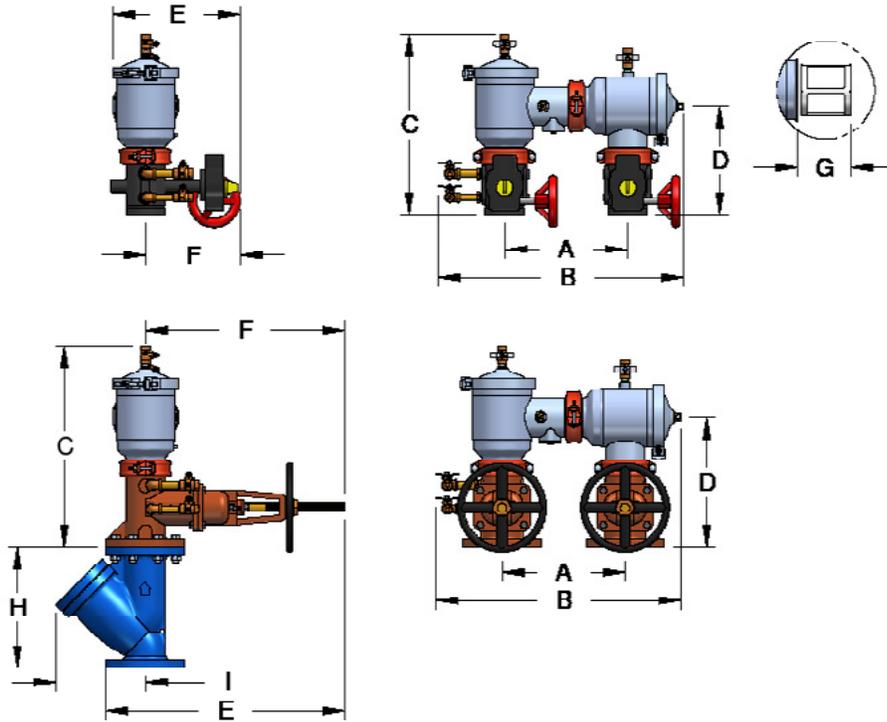
†butterfly valves not available in 12" size.

*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 |
| WEIGHTS | LB. | KG |
| 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.

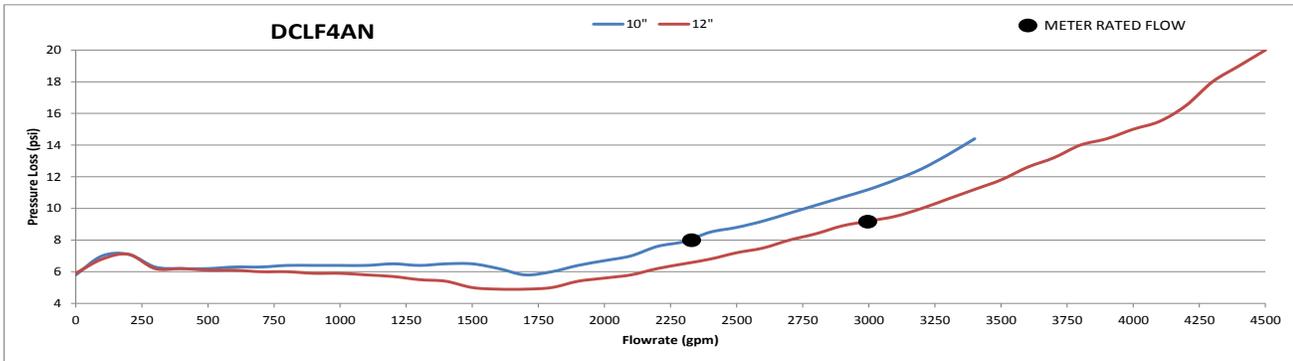
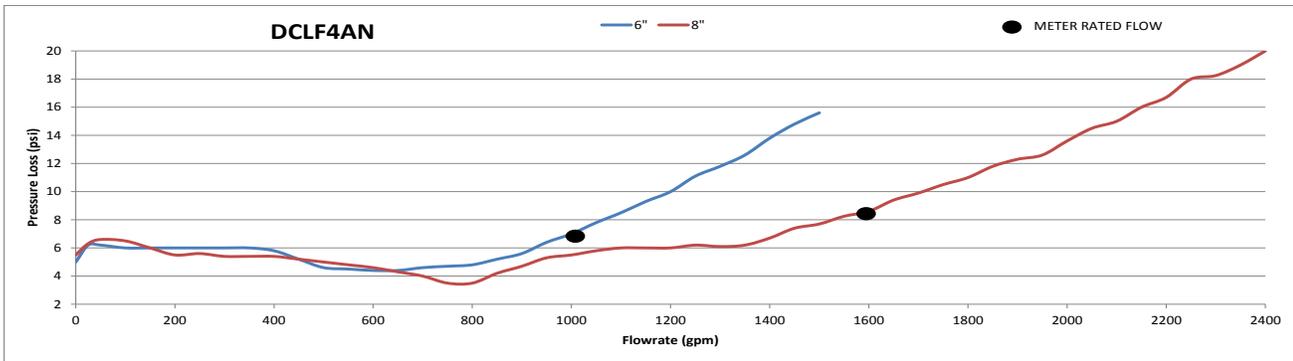
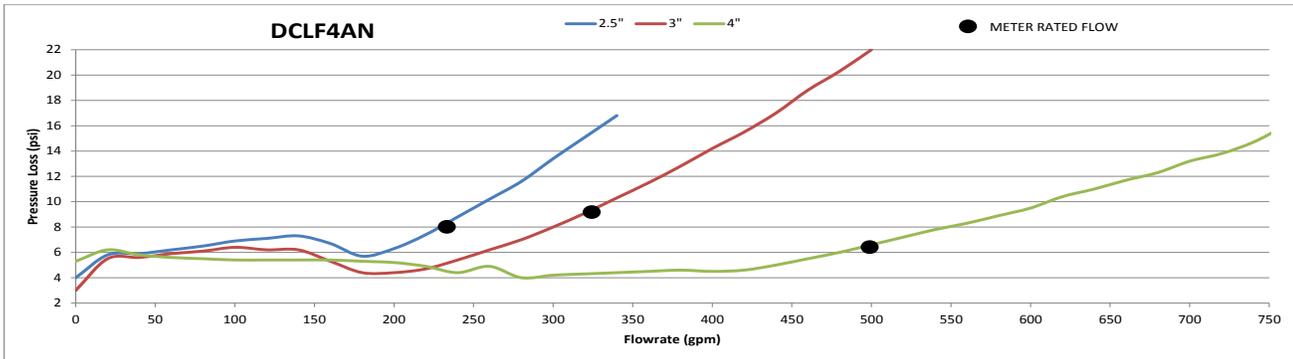


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flow curves



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.