

"Apollo"®

Valves

COMMERCIAL  
PRODUCTS

## Backflow Prevention



catalog

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customer service 704.841.6000

**BFCA9000**



integrated  
piping systems

DOUBLE CHECK ASSEMBLIES						
SIZE	APOLLO MODEL NO.	APOLLO PART NO.	WATTS	AMES	WILKINS	FEBCO
1/2" - 2"	DC 4A DCLF 4A	4A 10X 4ALF 10X	007, 719, LF 007, LF 719	200B, 2000B	950XL, 950XL2, 950XLT, 950XLT2, 350, 350XL	850
3/4" - 1"	DC 4AY DCLF 4AY	4AY 10X 4AYLF 10X			950XL	
2-1/2" - 12"	DCLF 4A 4SG LF (2 1/2"-6") 4SG (10")	4ALF 10X 4SGLF 10X 4SG 10E	007, 709, 774, 757, LF 007, LF 709	C200, M200, 2000SS, 2000CI	350, 350A, 350AST	850
	DCLF 4An	4An 10X, 4AnLF 10X			450	876
DOUBLE CHECK DETECTOR ASSEMBLIES						
SIZE	APOLLO MODEL NO.	APOLLO PART NO.	WATTS	AMES	WILKINS	FEBCO
2-1/2" - 12"	DCDA 4SG DCDALF 4A, DCDA 4S (10")	4SG 60X 4ALF 62X	007DCDA, 709DCDA, 774DCDA, 757DCDA	C300, M300, 3000CI, 3000SS	350DA, 350ADA, 350ASTDA	856
	DCDALF 4An	4AnLF 62X			450DA	876
REDUCED PRESSURE ASSEMBLY						
SIZE	APOLLO MODEL NO.	APOLLO PART NO.	WATTS	AMES	WILKINS	FEBCO
1/2" - 2"	RP 4A RPLF 4A	4A 20X, 4ALF 20X	009, 909, 919, LF 009, LF 909, LF 919	400B, 4000B	975XL, 975XL2, 375, 375XL	825Y, 860
2-1/2" - 12"	RPLF 4A	4ALF 20X	009, 909, 957, 994, LF 009, LF 909	C400, M400, 4000CI, 4000SS	375, 375A, 375AST	860
	RPLF 4An	4An 20X, 4AnLF 20X			475	880
REDUCED PRESSURE DETECTOR ASSEMBLY						
SIZE	APOLLO MODEL NO.	APOLLO PART NO.	WATTS	AMES	WILKINS	FEBCO
2-1/2" - 12"	RPDALF 4A	4A 72X 4ALF 72X 40 70X	909RPDA, 957RPDA	C500, M500, 5000CI, 5000SS	375DA, 375ADA, 375ASTDA	LF866
	RPDALF 4An	4An 72X 4AnLF 72X			475DA	LF886Y
PRESSURE VACUUM BREAKER						
SIZE	APOLLO MODEL NO.	APOLLO PART NO.	WATTS	AMES	WILKINS	FEBCO
1/2" - 2"	PVB 4A	4A 50X	800M4QT		420, 720A	765, 765FR
3/4" - 1"	PVBLF 4A	4ALF 50X	LF008M4FR, LF008M4QT		420XL, 720AXL	765, 765FR
SPILL RESISTANT VACUUM BREAKER						
SIZE	APOLLO MODEL NO.	APOLLO PART NO.	WATTS	AMES	WILKINS	FEBCO
1/2" - 3/4"	SVB 4W SVBLF 4W (1/4"-1/2")	4W 50X, 4WLF 50X	008PCQT LF008PCQT		460	

## DC 4A / DCLF 4A SERIES DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY



The Apollo Model DC 4A or DCLF 4A Double Check Valves are 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 modular check valve captured spring cartridges have replaceable seats and reversible silicone seat discs. Ball valve shut-offs with stainless steel handles and nuts are standard.

### OPERATION

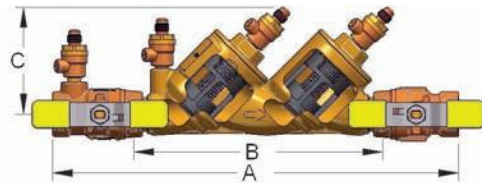
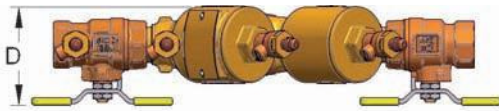
During normal flow conditions, the two check valves are held off their seats, supplying water downstream. Each check valve is designed to maintain a minimum of 1 psi across the valve during normal operation. Should the downstream pressure increase to within 1 psi of supply pressure, both check valves will close to prevent a backflow condition.

### FEATURES

- Low Pressure Loss
- Captured Spring Cartridge Check Valves
- Compact, Yet Easy to Maintain
- Ball Valve Shut-Offs w/ SS Handles & Nuts Standard
- Top Access for Fast Testing & Maintenance
- Threaded Testcock Protectors
- Corrosion Resistant
- No Special Tools Required
- 5 Year Warranty
- Lead-Free Option
- Chloramine-Resistant Elastomers
- **Designed, Cast, Machined, Assembled and Tested in the USA**

### APPROVALS

- Horizontal and Vertical Up Approvals
- AWWA C510
- UL, ULC Classified (T2ST Option or Less Shutoffs)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- ASSE 1015
- IAPMO
- CSA
- NSF/ANSI/CAN 61 - Water Quality (4ALF only)
- NSF/ANSI 372 - Lead Free (4ALF only)



**SLOW CLOSE WITH MONITOR SWITCHES  
T2ST OPTION (1-1/2" AND 2" ONLY)  
SEE SS1396 FOR DIMENSIONS**

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### STANDARD MATERIALS LIST

<b>BODY, CAPS</b>	Bronze C84400/LF C89836
<b>BV SHUT-OFFS TEST COCKS</b>	Bronze C84400 or LF C87800
<b>CHECK VALVES</b>	Glass-Filled PPO
<b>SPRINGS</b>	300 Series Stainless Steel
<b>SEAT DISCS</b>	Chloramine-Resistant Silicone
<b>O-RINGS</b>	Chloramine-Resistant EPDM
<b>BV HANDLES</b>	Stainless Steel

### PERFORMANCE RATING

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

### PART NUMBER MATRIX

4A X	1 X	X	XX	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
4A - Standard	0 - Standard	3 - 1/2"	A2 - w/ Ball Valves (Standard)	F - SAE Threaded Test Cocks (Standard 1/2" -2")
4ALF - Lead Free	1 - w/ Y-strainer (Shipped Loose)	4 - 3/4"	A4 - w/ Union Ball Valves (3/4" -2")	LL - SS Locking Lever Handles
		5 - 1"		PR - Press Connections (Factory Installed)
		6 - 1-1/4"		P - Push Connections (Factory Installed) (3/4" -1")
		7 - 1-1/2"		
		8 - 2"		
EXAMPLE: 4A 104 A4LL = 3/4" double check valve assembly with union ball valves with locking lever handles				

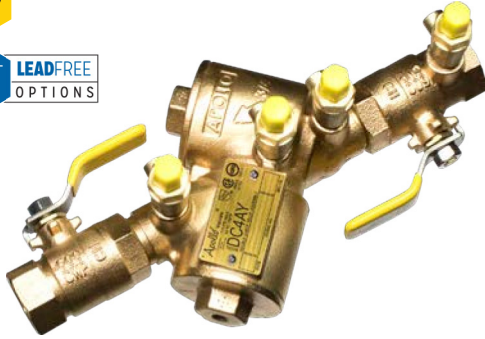
### DIMENSIONS

MODEL NO, PART NO. SIZE	4A 103 A2F DC 4A 12 1/2"	4A 103 A2F DC 4A 12 15 MM.	4A 104 A2F DC 4A 34 3/4"	4A 104 A2F DC 4A 34 20 MM.	4A 105 A2F DC 4A 1 1"	4A 105 A2F DC 4A 1 25MM.	4A 106 A2F DC 4A 114 1-1/4"	4A 106 A2F DC 4A 114 32 MM.	4A 107 A2F DC 4A 112 1-1/2"	4A 107 A2F DC 4A 112 40 MM.	4A 108 A2 DC 4A 2 2"	4A 108 A2 DC 4A 2 50 MM.
A*	10-7/8	276	12-5/8	321	14-5/8	371	17-1/2	445	18	457	20-1/8	511
B	7-3/8	187	8-1/2	215	9-1/2	241	11-3/4	298	11-5/8	295	12-3/4	324
C	3-1/4	83	3-1/2	89	4	100	4-1/2	114	4-1/2	114	5	127
D	2-1/2	64	3	76	3-1/4	83	4-3/4	121	4-3/4	121	5-3/8	136
<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>
Net Wt.	4.1	1.9	5.4	2.5	9.0	4.0	9.1	4.1	12.9	5.9	16.5	7.5

\*For T2ST Option, Union Ball Valve, Press, and Push connection dimensions, see submittal sheets.

**DC 4AY / DCLF 4AY SERIES**

**Y-PATTERN DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY**



The Apollo Model DC 4AY Double Check Valves are designed to prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are objectionable to the potable water supply, but non-health hazards. The modular check valve cartridges provide captured springs, replaceable seats, and reversible silicone seat discs. This Made in America assembly features Apollo ball valves with stainless steel handles and nuts as standard and carries the five-year Apollo factory warranty.

**OPERATION**

During normal flow conditions, the two check valves are held off their seats, supplying water downstream. Each check valve is designed to maintain a minimum of 1 psi across the valve during normal operation. Should the downstream pressure increase to within 1 psi of supply pressure, both check valves will close to prevent a backflow condition.

**FEATURES**

- Low Pressure Loss
- Captured Stainless Steel Springs
- Compact Yet Easy to Maintain
- Ball Valve Shut-offs w/ SS Handles & Nuts Standard
- Threaded Testcock Protectors
- Corrosion Resistant
- No Special Tools Required
- Chloramine-Resistant Elastomers
- 5 Year Warranty
- **Designed, Cast, Machined, Assembled and Tested in the USA**

**PERFORMANCE RATING**

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

**APPROVALS**

- Horizontal and Vertical Up Approvals
- ASSE 1015
- IAPMO
- CSA
- NSF/ANSI/CAN 61 - Water Quality (4AYLF only)

**STANDARD MATERIALS LIST**

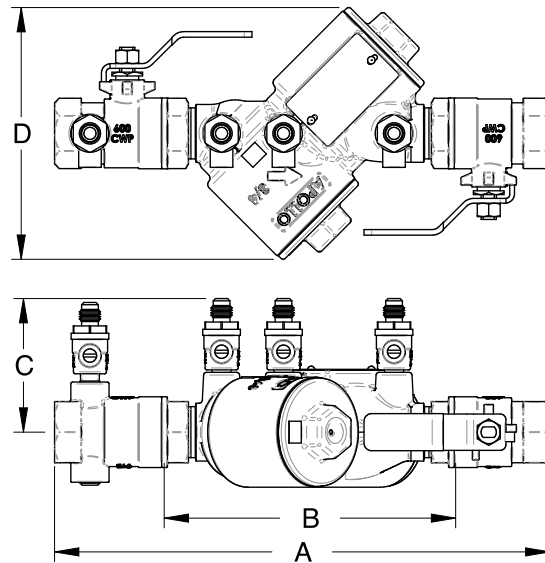
<b>BODY, CAPS</b>	Bronze C84400 or C89836 Lead Free*
<b>BV SHUTOFFS, TEST COCKS</b>	Bronze C84400 or C87800 Lead Free*
<b>CHECK VALVE CARTRIDGES</b>	Glass-Filled PPO
<b>SPRINGS</b>	300 Series Stainless Steel
<b>SEAT DISCS</b>	Chloramine-Resistant Silicone

**DIMENSIONS**

PART NUMBER	SIZE	DIMENSIONS (IN.)				WT. (LB.)
		A	B	C	D	
4AY104A2FB	3/4"	10.2	6	2.8	5.2	6.5
4AY105A2FB	1"	12.2	7.1	3	6.2	8.7



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**PART NUMBER MATRIX**

4A [X]	1X	X	X X	X B
	Y-STRAINER	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
4AY - Standard	0 - Standard	4 - 3/4"	A2 - w/ Ball Valves (Standard)	F - SAE Threaded Test Cocks (Standard 1/2" - 2")
4AYLF - Lead Free	1 - w/ Y-strainer (Shipped Loose)	5 - 1"	A4 - w/ Union Ball Valves (3/4" - 2")	L - Lever Handle (Standard 3/4" & 1" Only)
				PR- Press Connections (Factory Installed)
				P - Push Connections (Factory Installed) (3/4" - 1")

EXAMPLE: 4AY 105 A4FB = 1" Double Check Backflow Preventer, Union Ball Valves and Locking Lever Handles

## DCDA2 4AST / DCDA2LF 4AST SERIES

### DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY



The Apollo Model DCDA2 4AST or DCDA2LF 4AST Lead Free\* 1-1/2"- 2" Double Check Detector Assembly consists of a mainline double check valve with a Type 2 bypass consisting of a 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. The pressure drop across the assembly shall be documented by independent approval agencies. The assembly shall prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards. This Made in America assembly features Apollo UL® Listed, slow-close, full open port, gear operated ball valves with integral tamper switches and carries the five-year Apollo factory warranty.

### STANDARD MATERIALS LIST

<b>BODY, CAPS, BALL VALVE SHUTOFFS, TEST COCKS</b>	Bronze C84400 or C89836 or C87800 (Lead Free*)
<b>CHECK VALVE CARTRIDGES</b>	Glass-Filled PPO
<b>SPRINGS</b>	300 Series Stainless Steel
<b>SEAT DISCS</b>	Chloramine-Resistant Silicone
<b>O-RINGS</b>	Chloramine-Resistant EPDM

### DIMENSIONS

SIZE (IN.)	DIMENSIONS (IN.)				WT. (LB.)
	A	B	C	D	
1-1/2"	22-1/4	2-5/8	9-3/4	7-5/8	35.2
2"	23-3/4	2-5/8	10	8	45.8

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### FEATURES

- Low Pressure Loss Documented By Independent Approval Agencies
- Easily Removable Modular Check Valve Cartridges
- Captured Stainless Steel Springs
- Apollo UL® Listed, Slow-Close, Full Open Port, Gear Operated Ball Valves with Integral Tamper Switches
- Top-Mounted Test Cocks for Easy Testing
- No Special Tools Required
- Chloramine-Resistant Elastomers
- **Designed, Cast, Machined, Assembled and Tested in the USA**
- Short Lay-Length for Small Spaces
- Pre-Wired Tamper (Supervisory) Switches
- 5 Year Warranty

### PERFORMANCE RATING

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

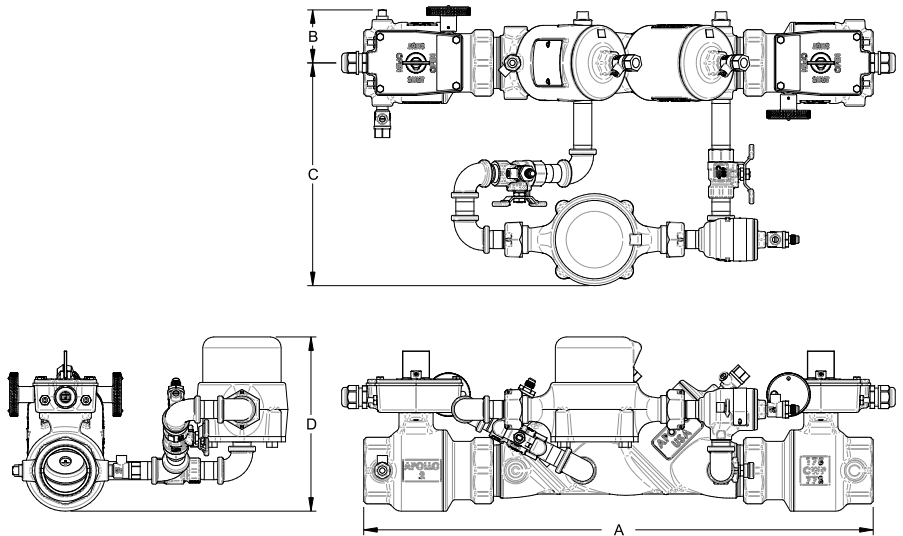
### APPROVALS

- ASSE 1048 (Horizontal & Vertical Up)
- UL® Classified (Horizontal & Vertical Up)
- C-UL® Classified (Horizontal & Vertical Up)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. (Horizontal & Vertical Up)
- NSF/ANSI/CAN 61 - Water Quality (4ALF only)
- NSF/ANSI 372 - Lead Free (4ALF only)

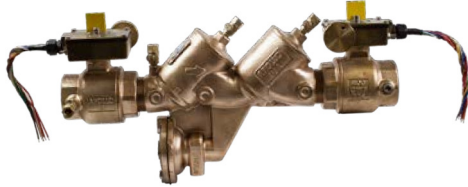
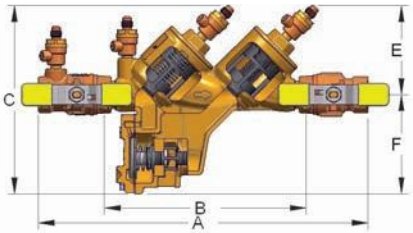
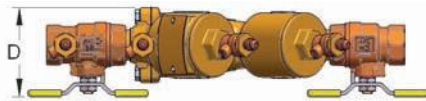
### PART NUMBER MATRIX

4A X	6 X	X	X 2ST F
	BYPASS SIDE	SIZE	METER OPTION
4A - Standard	2 - Bypass Line on Right Side (Standard - as Shown)	7 - 1-1/2"	C - Cubic ft/min
4ALF - Lead Free	4 - Bypass Line on Left Side	8 - 2"	E - GPM
			G - No Meter

EXAMPLE: 4A 62 8 E 2ST = 2" double check detector, right side bypass with GPM meter.



**RP 4A / RPLF 4A SERIES**  
REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY



**SLOW CLOSE WITH MONITOR SWITCHES**  
**T2ST OPTION (1-1/2" AND 2" ONLY)**  
**SEE SS1397 FOR DIMENSIONS**

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**PART NUMBER MATRIX**

4A X	2 X	X	XX	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
4A - Standard	0 - Standard	3 - 1/2"	A2 - w/ Ball Valves (Standard)	F - SAE Threaded Test Cocks (Standard 1/2")
4ALF - Lead Free	1 - w/ Y-Strainer (Shipped Loose)	4 - 3/4"	A4 - w/ Union Ball Valves (3/4" - 2")	L - Lever Handle (3/4" & 1" Only)
		5 - 1"	T2ST - Tamper Gear Operated Ball Valves (1-1/2" - 2")	LL - Locking Lever Handles
		6 - 1-1/4"		P - Push Connection (Factory Installed)
		7 - 1-1/2"		PR - Press Connection (Factory Installed) (3/4" & 1" Only)
		8 - 2"		

EXAMPLE: 4A 215 A4LL = 1" reduced pressure backflow preventer with strainer, union ball valves and locking lever handles

**DIMENSIONS**

MODEL NO. PART NO. SIZE	RP4A12 4A 203 A2F 1/2"	RP4A12 4A 203 A2F 15 MM.	RP4A34 4A 204 A2F 3/4"	RP4A34 4A 204 A2F 20 MM.	RP4A1 4A 205 A2F 1"	RP4A1 4A 205 A2F 25MM.	RP4A114 4A 206 A2F 1-1/4"	RP4A114 4A 206 A2F 32 MM.	RP4A112 4A 207 A2F 1-1/2"	RP4A112 4A 207 A2F 40 MM.	RP4A2 4A 208 A2F 2"	RP4A2 4A 208 A2F 50 MM.
A*	10-7/8	276	12-5/8	321	14-5/8	371	17-1/2	445	18	457	20-1/8	511
B	7-3/8	187	8-1/2	216	9-1/2	241	11-3/4	298	11-5/8	295	12-3/4	324
C	7-1/8	181	7-3/8	187	8	203	9-7/8	251	9-7/8	251	11	279
D	2-7/8	73	3-1/8	79	3-1/4	83	5-1/8	130	5-1/8	130	5-7/8	149
E	3-1/4	83	3-1/2	89	4	100	4-1/2	114	4-1/2	114	5	127
F	3-7/8	98	3-7/8	98	4	100	5-3/8	137	5-3/8	137	6	150
<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>
Net Wt.	6.9	3.1	8.2	3.7	11.7	5.3	13.6	6.2	17.4	7.9	24.5	11.1

\*For T2ST Option, Union Ball Valve, Press, and Push connection dimensions, see submittal sheets.

The Apollo Series RP 4A or RPLF 4A Reduced Pressure Principle Backflow Preventer is designed to give maximum protection against backflow caused by either back-pressure or back-siphonage from substances that are hazardous. The durable but economical device is easily maintained in the line with modular check cartridge assemblies that require no special tools. It consists of two independently acting spring-loaded check valves with an automatic differential relief valve located between the check valves. All test cocks are mounted at the top of the unit to assure easy access during repair and maintenance when unit is installed in tight places.

**FEATURES**

- Maximum Protection Against Back-Pressure/Back-Siphonage
- Modular Check Valve Cartridges w/ Easily Replaced Parts
- Reversible/Removable Chloramine-Resistant Silicone Seat Discs
- Low Head Pressure Loss
- Top Mounted Test Cocks
- Threaded Testcock Protectors
- Internal Sensing Passage
- Modular Captured Spring Relief Valve
- Lead Free Option
- Standard with Full Port Ball Valves with Stainless Steel Handles
- Corrosion Resistant
- Optional Air Gap Drain
- **Designed, Cast, Machined, Assembled and Tested in the USA**
- 5 Year Warranty

**PERFORMANCE RATING**

- Maximum Working Pressure: 175 psi
- Operating Temperature Range: 33° to 180°F

**APPROVALS**

- ASSE 1013
- CSA B64.4
- Federal Public Law 111-380
- AWWA C511
- UL, ULC Classified (T2ST Option or Less Shutoffs)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- Horizontal Installation Approvals on 1/2" thru 2"
- NSF/ANSI/CAN 61 - Water Quality (4ALF only)
- NSF/ANSI 372 - Lead Free (4ALF only)

**STANDARD MATERIALS LIST**

<b>BODY, CAPS</b>	Bronze (C84400/LF C89836)	<b>DIAPHRAGM</b>	Nitrile and Nylon
<b>BV SHUT-OFFS, TEST COCKS</b>	Bronze (C84400/LF C87800)	<b>CHECK MODULES</b>	Glass-Filled PPO
<b>SPRINGS</b>	300 Series SS	<b>O-RINGS</b>	Chloramine-Resistant EPDM
<b>SEAT DISCS</b>	Chloramine-Resistant Silicone	<b>BALL VALVE HANDLES</b>	Stainless Steel

Contact local water authorities for installation/service requirements.

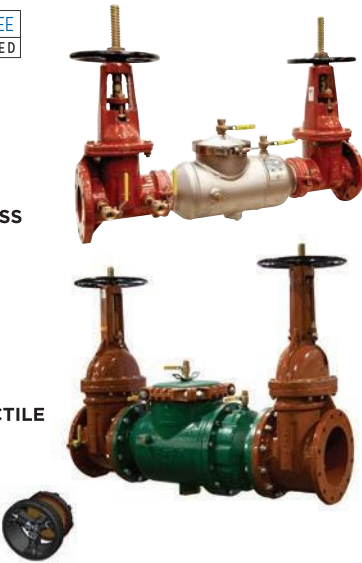
**DCLF 4A SERIES**  
DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY



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

10" - 12"  
FDA EPOXY  
COATED DUCTILE  
IRON BODY

TRIFORCE™  
CHECK



**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

The Apollo Model DCLF 4A Double Check Valves are 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 body is domestic stainless steel from 2-1/2"-8" and FDA epoxy coated ductile iron in the 10" and 12". Available with a wide variety of shutoff valve options.

**OPERATION**

During normal flow conditions, the two check valves are held off their seats, supplying water downstream. Each check valve is designed to maintain a minimum of 1 psi across the valve during normal operation. Should the downstream pressure increase to within 1 psi of supply pressure, both check valves will close to prevent a backflow condition.

**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 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

**PERFORMANCE RATING**

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

**APPROVALS**

- ASSE 1015
- CSA B64.5
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 8")
- AWWA C-510 (2-1/2" - 8")
- IAPMO
- UL, ULC Classified
- FM Approved
- NSF/ANSI/CAN 61 - Water Quality
- NSF/ANSI 372 - Lead Free

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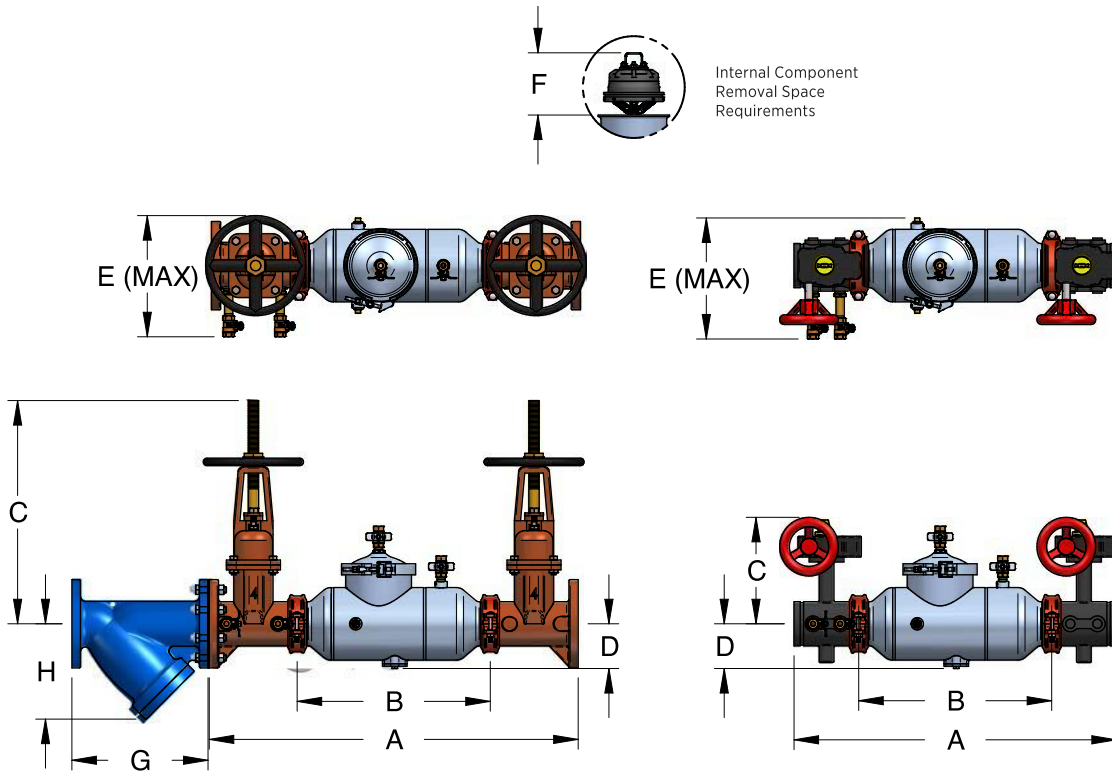
**PART NUMBER MATRIX**

4ALF	1X	X	XX	XX
	Y-STRAINER	SIZE	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4ALF - Lead Free Standard	0 - Standard	9 - 2-1/2"	01 - Less Shut-off Valves	D - Domestic Assembly
	1 - w/ Y-strainer (shipped loose)	0 - 3"	02 - NRS Flange x NRS Flange	R1 - Retrofit*
		A - 4"	03 - OS&Y Flange x OS&Y Flange	R2 - Retrofit*
		C - 6"	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove'	R3 - Retrofit*
		E - 8"	06 - OS&Y Flange x Post indicator Flange**	
		G - 10"	07 - OS&Y Flange x OS&Y Groove	
		H - 12"	08 - OS&Y Groove x OS&Y Groove	
			09 - 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	

EXAMPLE: 4ALF 10A 03 = 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.

## DCLF 4A SERIES DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY



DRAWING SHOWN DEPICTS 2-1/2" - 8" ASSEMBLIES.  
SEE SUBMITTAL SS1271 FOR DETAILED DRAWINGS FOR EACH SIZE.

### DIMENSIONS

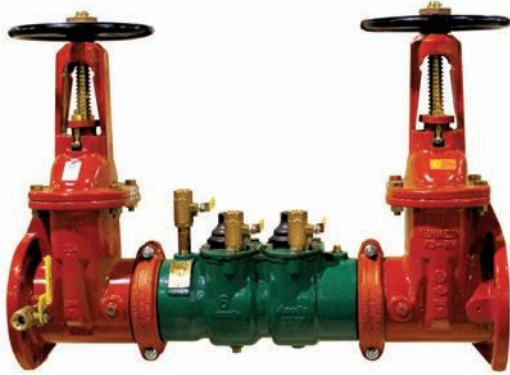
Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances ( $\pm 1/8"$  (3 mm) per joint)

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)	8.6	218	9.6	244	10.9	277	13	330	16.5	419	19	483	N/A	N/A
C (NRS/PI Gate Valves)	11.8	300	13	330	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)	11	279	11.3	287	12.4	315	14.5	368	19.3	490	21.9	556	21.9	556
F (Check Removal Clearance)	4.8	122	4.8	122	6.5	165	7.5	191	7.5	191	10	254	10	254
G (Strainer Length)	10.9	277	11.6	295	14	356	18.6	472	25.5	648	26.1	663	30.1	765
H (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"	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)	84	38	90	41	116	53	176	80	386	175	921	418	N/A	N/A
Net Wt. (w/ NRS Gate Valves)	76	34	94	43	137	62	258	117	525	238	1209	548	1665	755
Net Wt. (w/ OS&Y Gate Valves)	94	43	110	50	165	75	317	144	600	272	1324	601	1780	807

Internal body connections are grooved on 2-1/2" to 10" sizes.  
Internal body connections are flanged on 12" size.  
Strainer option only available for flanged-end shut-off options.



## DC 4SGLF / 4SG / 4S SERIES DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY



The Apollo DC 4SGLF / 4SG / 4S Series Double Check Valve is designed to prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards. The modular check valves have replaceable seats and reversible EPDM seat discs. Grooved connections on an epoxy-coated ductile iron body allow for easy connection to butterfly valves or gate valves (2-1/2" - 8"), flanged (10" only).

### FEATURES

- Lightweight
- Short Lay Length
- Low Pressure Loss
- Modular Check Valves
- Individual Access to Check Valves
- Reversible/Replaceable Seat Discs
- Approved for Vertical (Up) and Horizontal Installations
- Gate Valves Epoxy Coated (FDA)
- Lead-Free (2-1/2" - 6" only)
- Corrosion Resistant Epoxy-Coated Ductile Iron Body
- US Patents Nos.: 5,711,341 and 6,343,618
- 5 Year Warranty
- **Assembled and Tested in the USA**

### PERFORMANCE RATING

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

### APPROVALS

- ASSE 1015
- CSA
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2"-6" Lead Free / 8" & 10" Non-Lead Free Only)
- AWWA C-510
- UL Classified
- FM Approved
- NSF/ANSI 372 - Lead Free (4SGLF only)

### STANDARD MATERIALS LIST

<b>BODY</b>	FDA Epoxy Coated Ductile Iron
<b>COVERS (2-1/2" - 6")</b>	FDA Epoxy Coated Steel
<b>COVERS (8" &amp; 10")</b>	FDA Epoxy Coated Ductile Iron
<b>CHECK VALVES (2-1/2" - 6")</b>	Glass-Filled PPO
<b>CHECK VALVES (8" &amp; 10")</b>	Bronze (C84400/LF C89836)
<b>SPRINGS</b>	Stainless Steel
<b>SEAT DISCS</b>	Chloramine-Resistant EPDM
<b>TEST COCK HANDLES</b>	Stainless Steel

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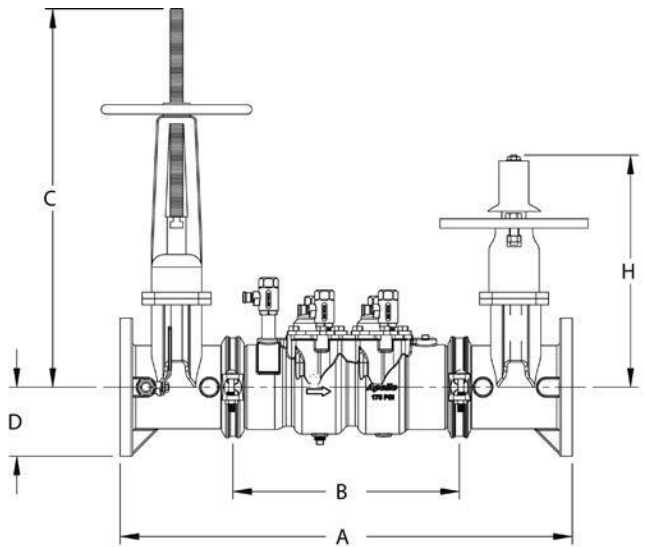
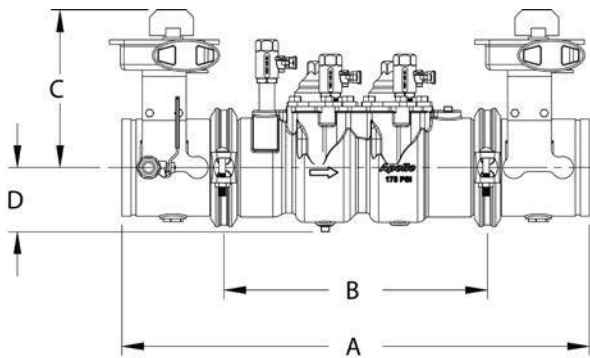
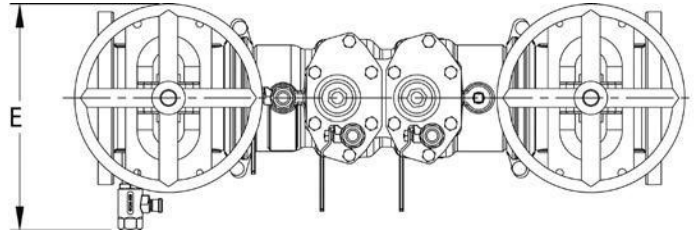
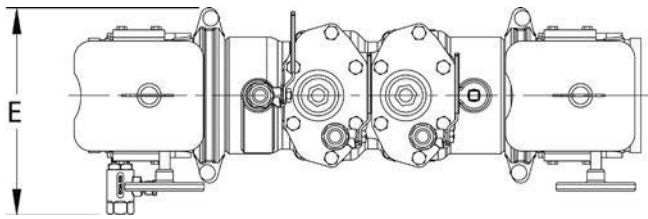
### PART NUMBER MATRIX

4S XXX	1 X	X	XX	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4SG LF - Lead Free (2-1/2"-6" Only)	0 - None (Standard) 1 - With Y-Strainer (Flanged Only, Shipped Loose)	9 - 2-1/2" 0 - 3"	01 - Less Shut-off Valves (grooved-end body) 02 - NRS Flange x NRS Flange	D - Domestic Assembly
4SG - 8" Only		A - 4"	03 - OS&Y Flange x OS&Y Flange	
4S - 10" Only		C - 6" E - 8" G - 10"	04 - OS&Y Flange x Monitored Butterfly Valve Groove 06 - OS&Y Flange x Flange Post Indicator 07 - OS&Y Flange x OS&Y Groove 08 - OS&Y Groove x OS&Y Groove 09 - Mon. Butterfly Valve Groove x Mon. Butterfly Valve Groove 10 - OS&Y Flange x Groove Post Indicator	

EXAMPLE: 4SGLF 10A 07 = 4" size lead free double check valve assembly with OS&Y flanged inlet x OS&Y grooved outlet shut-off valves

\*10" body is flanged internal connections only (Model 4S)

## DC 4SGLF / 4SG / 4S SERIES DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY



### DIMENSIONS

MODEL NUMBER PART NUMBER SIZE	DC4SG212 4SG-109 2 1/2"	DC4SG212 4SG-109 65 MM	DC4SG3 4SG-100 3"	DC4SG3 4SG-100 80 MM	DC4SG4 4SG-10A 4"	DC4SG4 4SG-10A 100 MM	DC4SG6 4SG-10C 6"	DC4SG6 4SG-10C 150 MM	DC4SG8 4SG-10E 8"	DC4SG8 4SG-10E 200 MM	DC4S10 4S-10G 10"	DC4S10 4S-10G 250 MM
A (Butterfly Valves)*	29	737	29-1/2	749	29-3/4	756	32-1/2	815	43	1092	N/A	N/A
A (Gate Valves)*	32	813	33	838	34-1/2	876	39	991	50-1/4	1276	55-3/4	1416
B (Grooved End Body)	17	432	17	432	16-1/2	419	18	457	27	686	29-1/2	750
C (Butterfly Valves)	8	200	8-1/2	216	9-1/4	235	10-1/4	260	12	300	N/A	N/A
C (OS&Y Open)	18.8	478	20.3	515	22.1	562	29.4	747	36.8	934	45.8	1147
D (Butterfly Valves)	4-1/2	114	4-1/2	114	4-1/2	114	4-1/2	114	6-1/2	165	N/A	N/A
D (Gate Valves)	3-1/2	89	3-3/4	95	4-1/2	114	5-1/2	140	6-3/4	171	8.0	203
E (Butterfly Valves)	9	229	9	229	9-1/2	241	12	300	15	381	N/A	N/A
E (Gate Valves)	11.5	292	12	305	12.5	318	14.6	366	17.6	447	21	533
H (Post Indicator Valve)	14.75	375	14.80	376	14.80	376	18.75	476	23.42	595	26.5	673
Test Cocks (NPT)	1/2	13	1/2	13	1/2	13	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>
Net Wt. (Less Shutoff Valves)	53	24	53	24	53	24	60	27	375	170	470	N/A
Ship Wt. (Less Shutoff Valves)	83	38	83	38	83	38	120	55	475	216	570	N/A
Net Wt. (w/ Butterfly Valves)	80	36	83	38	97	44	128	58	506	230	N/A	N/A
Ship Wt. (w/ Butterfly Valves)	164	75	168	76	185	84	216	98	654	297	N/A	N/A
Net Wt. (w/ Post Indicator Valves)	67	30	124	56	148	67	208	95	692	315	997	453
Ship Wt. (w/ Post Indicator Valves)	151	69	209	95	236	107	296	135	840	382	1167	530
Net Wt. (w/ OS&Y Valves)	125	57	140	64	179	81	303	138	767	349	1092	496
Ship Wt. (w/ OS&Y Valves)	209	95	225	102	264	120	391	178	915	416	1282	583

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

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

**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

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**TRIFORCE™ CHECK**



**PART NUMBER MATRIX**

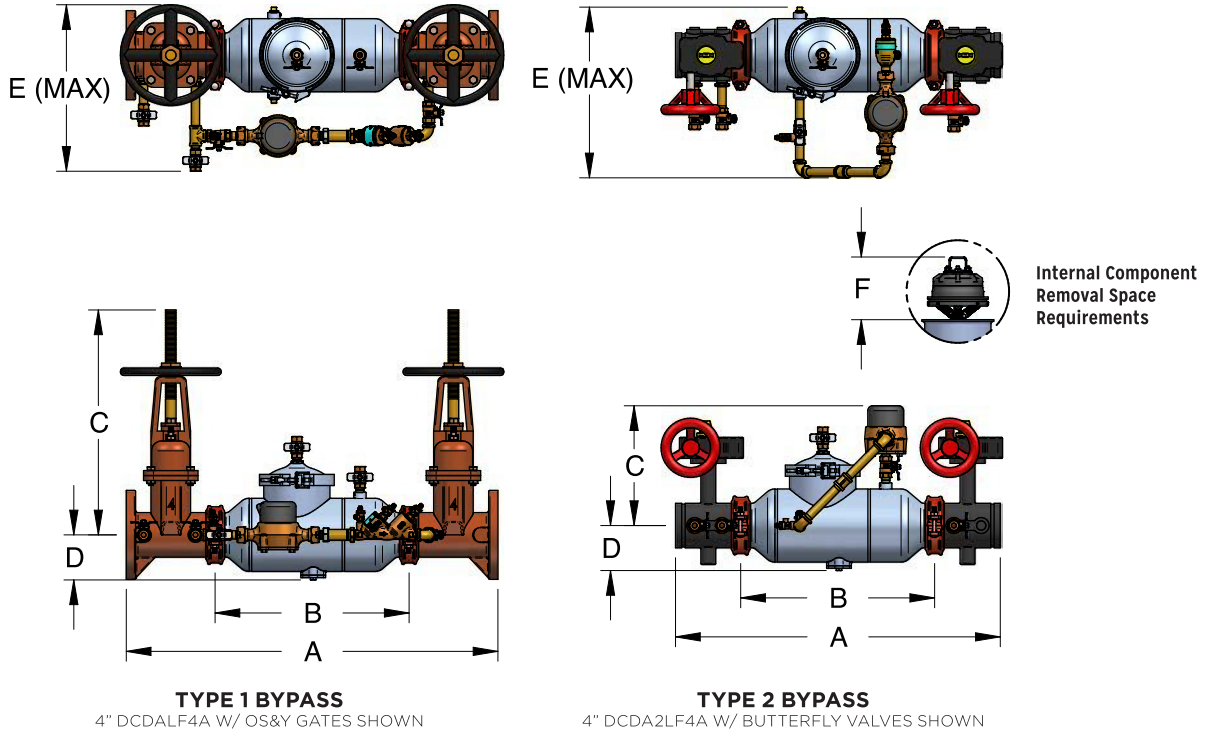
4ALF	6 X	X	X	XX	X
	BYPASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4ALF - Lead Free	0 - Type 1 w/ 1/2" Double Check	9 - 2-1/2"	C - Cubic ft/min	01 - Less Shut-off Valves	D - Domestic Assembly
	2 - Type 2 w/ 1/2" Single Check (STD)	0 - 3"	E - Gallons/min	03 - OS&Y Flange x OS&Y Flange	R1 - Retrofit*
	3 - Type 1 w/ Bypass on Left*	A - 4"	G - Less Meter	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove <sup>1</sup>	R2 - Retrofit*
	4 - Type 2 w/ Bypass on Left*	C - 6"		06 - OS&Y Flange x Post indicator Flange	R3 - Retrofit*
		E - 8"		07 - OS&Y Flange x OS&Y Groove	
		G - 10"		08 - OS&Y Groove x OS&Y Groove	
		H - 12"		09 - Mon. Butterfly Valve Groove x Mon. Butterfly Valve Groove <sup>1</sup>	
				10 - OS&Y Flange x Post Indicator Groove	
				13 - Post Indicator Flange x Mon. Butterfly Valve Groove <sup>1</sup>	*Custom length retrofit orders must be accompanied with signed from #OFBFRETRO with exact length required.
				14 - Post Indicator Flange x Post Indicator Flange	
				16 - Mon Butterfly Valve Groove x Post Indicator Flange <sup>1</sup>	
				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 <sup>1</sup>	
				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.**

<sup>1</sup>Orientation of bypass looking downstream. Standard is right hand side. Left hand is on opposite side  
<sup>2</sup>Butterfly valves not available in 12" size.

## DCDALF 4A / DCDA2LF 4A SERIES

### DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY



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.

## DCDA 4SG SERIES

### DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY



The Apollo DCDA 4SG Series Double Check Detector Assembly is designed to prevent contamination of the potable water supply due to back-siphonage or backpressure from substances that are non-health hazards. The device consists of a mainline double check valve with resilient seated shut-off valves. The by-pass serves to measure water use of up to 3 gpm. Grooved connections on an epoxy-coated ductile iron body allow for easy connection to butterfly valves or gate valves. (2-1/2" - 8")

#### FEATURES

- Lightweight
- Short Lay Length
- Low Pressure Loss
- Modular Check Valves
- Individual Access to Check Calves
- Reversible/Replaceable Seat Discs
- Approved for Vertical and Horizontal Installations
- Gate Valves Epoxy Coated (FDA)
- Corrosion Resistant FDA Epoxy Coated Ductile Iron Body
- US Patents Nos.: 5,711,341 and 6,343,618
- 5 Year Warranty
- **Assembled and Tested in the USA**

#### PERFORMANCE RATING

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

#### APPROVALS

- UL Classified
- FM Approved
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 10" Non Lead Free Only)
- ASSE 1048 (with Meter)
- CSA

#### STANDARD MATERIALS LIST

<b>BODY (MAINLINE)</b>	FDA Epoxy Coated Ductile Iron
<b>BYPASS DC</b>	Bronze (C84400/LF C89836)
<b>COVERS (2-1/2" - 6")</b>	FDA Epoxy Coated Steel
<b>COVERS (8")</b>	FDA Epoxy Coated Ductile Iron
<b>CHECK VALVES (2-1/2" - 6")</b>	Glass-Filled PPO
<b>CHECK VALVES (8" - 10")</b>	Bronze (C8440)
<b>SPRINGS</b>	Stainless Steel
<b>SEAT DISCS</b>	Chloramine-Resistant EPDM
<b>TEST COCK HANDLES</b>	Stainless Steel

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#### PART NUMBER MATRIX

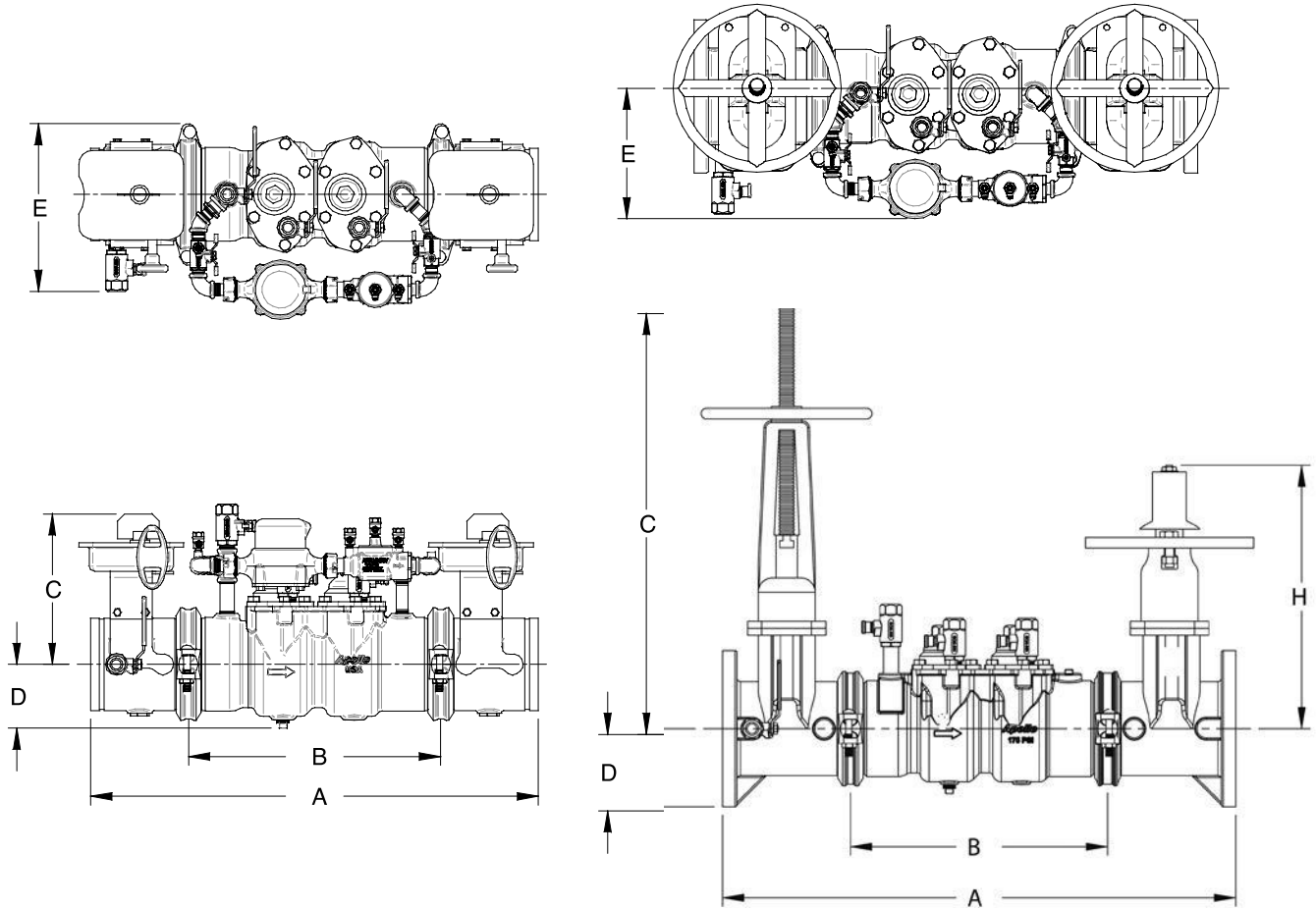
4S X	60 X	X	XX	X
	SIZE	METER OPTION	SHUT-OFF VALVES (INLET X OUTLET)	OPTION
4SG - Standard (2-1/2" - 8" Only)	9 - 2-1/2"	C - Cubic ft/min	03 - OS&Y Flange x OS&Y Flange	D - Domestic Assembly
4S - 10" Only	0 - 3"	E - Gallons/min	04 - OS&Y Flange x Monitored Butterfly Valve Groove	
	A - 4"	G - Less Meter	06 - OS&Y Flange x Flange Post Indicator	
	C - 6"		07 - OS&Y Flange x OS&Y Groove	
	E - 8"		08 - OS&Y Groove x OS&Y Groove	
	G - 10"		09 - Mon. Butterfly Valve Groove x Mon. Butterfly Valve Groove	
			10 - OS&Y Flange x Groove Post Indicator	

EXAMPLE: 4SG 60A E7 = 4" size double check detector assembly with meter in GPM and OS&Y flanged inlet x OS&Y grooved outlet shut-off valves

\*10" body is flanged internal connections only (Model 4S)

## DCDA 4SG SERIES

### DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY



## DIMENSIONS

MODEL NUMBER PART NUMBER SIZE	DC4SG212 4SG-109 2 1/2"	DC4SG212 4SG-109 65 MM	DC4SG3 4SG-100 3"	DC4SG3 4SG-100 80 MM	DC4SG4 4SG-10A 4"	DC4SG4 4SG-10A 100 MM	DC4SG6 4SG-10C 6"	DC4SG6 4SG-10C 150 MM	DC4SG8 4SG-10E 8"	DC4SG8 4SG-10E 200 MM	DC4S10 4S-10G 10"	DC4S10 4S-10G 250 MM
A (Butterfly Valves)*	29	737	29-1/2	749	29-3/4	756	32-1/2	815	43	1092	N/A	N/A
A (Gate Valves)*	32	813	33	838	34-1/2	876	39	991	50-1/4	1276	55-3/4	1416
B (Grooved End Body)	17	432	17	432	16-1/2	419	18	457	27	686	29-1/2	750
C (Butterfly Valves)	8	200	8-1/2	216	9-1/4	235	10-1/4	260	12	300	N/A	N/A
C (OS&Y Open)	18.8	478	20.3	515	22.1	562	29.4	747	37.8	934	45.8	1147
D (Butterfly Valves)	4-1/2	114	4-1/2	114	4-1/2	114	4-1/2	114	6-1/2	165	N/A	N/A
D (Gate Valves)	3-1/2	89	3-3/4	95	4-1/2	114	5-1/2	140	6-3/4	171	8.0	203
E	9	229	9	229	9	229	9	229	10-3/4	273	13.0	330
H (Post Indicator Valve)	14.75	375	14.80	376	14.80	376	18.75	476	24.42	595	11-1/2	292
Test Cocks (NPT)	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4
<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>
Net Wt. (w/ Butterfly Valves)	92	42	95	43	109	50	140	64	523	238	N/A	N/A
Ship Wt. (w/ Butterfly Valves)	175	80	179	81	270	123	304	138	691	314	N/A	N/A
Net Wt. (w/ Post Indicator Valves)	119	54	136	62	160	73	255	116	712	324	997	453
Ship Wt. (w/ Post Indicator Valves)	203	92	220	100	245	111	343	156	860	391	1187	540
Net Wt. (w/ OS&Y Valves)	137	62	152	69	191	87	315	143	787	358	1112	505
Ship Wt. (w/ OS&Y Valves)	221	100	236	107	276	125	403	183	935	425	1302	592

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

**RPLF 4A SERIES**  
REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY



**2-1/2" - 8"**  
**304 STAINLESS**  
**STEEL BODY**



**10" - 12"**  
**FDA EPOXY**  
**COATED DUCTILE**  
**IRON BODY**



**TRIFORCE™**  
**CHECK**



**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>RELIEF VALVE</b>	LF C89836
<b>CHECK VALVES</b>	Bronze/Glass-filled PPO/SS
<b>SPRINGS</b>	Stainless Steel
<b>SEAT DISCS</b>	Chloramine-Resistant Silicone

The Apollo Model RPLF 4A Reduced Pressure Principle Backflow Preventers consist of two independently acting, TriForce™ center stem guided check valves with a differential pressure relief valve located between the check valves. The unit is designed to give maximum protection against backflow of health or non-health hazard fluids by either back-pressure or back-siphonage. The durable domestic stainless steel units (2-1/2"-8") and the FDA epoxy coated ductile iron units (10" and 12") are easily maintained in the line without any special tools. The TriForce™ check valves operate with a spring assist in the flowing condition to provide excellent flow rates which are documented by an independent laboratory.

**OPERATION**

During normal flow conditions, the two check valves are held off their seats, supplying water downstream. The relief valve is held shut by supply pressure acting through the sensing tube on the relief valve diaphragm. In the area between the check valves, called the zone, the pressure is maintained approximately 7 psi lower than supply pressure. Should a back-pressure or back-siphonage condition occur, the second check valve will seal, prohibiting the backflow of water. Should the second check become fouled, the pressure in the zone will increase causing the differential relief valve to open to atmosphere. This will maintain the pressure in the zone at least 2 psi lower than supply pressure.

**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"
- Modular Captured Spring Relief Valve
- Low Pressure Loss as Documented by an Independent Approval Laboratory
- Center Stem Guided TriForce™ Check Valves
- Chloramine-Resistant Elastomers
- **Designed, Assembled and Tested in the USA**
- Lead Free Standard
- Optional Air Gap Drains
- 5 Year Warranty
- US Patent Nos.: 6,443,184; 7,025,085; 7,533,699

**PERFORMANCE RATING**

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

**APPROVALS**

- AWWA C511 (2-1/2" - 8")
  - ASSE 1013-2011, CSA B64.4, FM, IAPMO, 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")
- \*UL and cUL Installations Must Include Indicating-Type Shut-Off Valves**

*Flow Curves - Page 61*

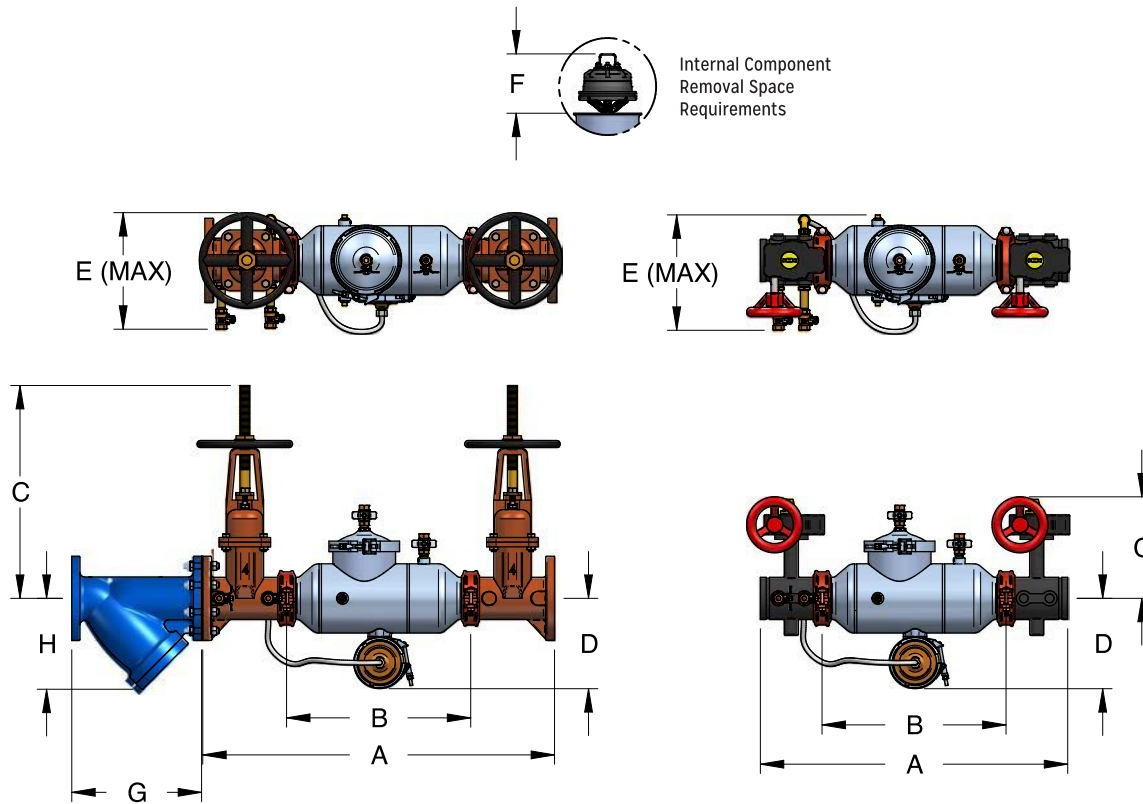
**PART NUMBER MATRIX**

4ALF	2 X	X	XX	XX
	Y-STRAINER	SIZE	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4ALF - Lead Free (Standard)	0 - Standard	9 - 2-1/2"	01 - Less Shut-off Valves	D - Domestic Assembly
	1 - w/ Y-Strainer (Shipped Loose)	0 - 3" A - 4" C - 6" E - 8" G - 10" H - 12"	02 - NRS Flange x NRS Flange 03 - OS&Y Flange x OS&Y Flange 04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove' 06 - OS&Y Flange x Post indicator Flange 07 - OS&Y Flange x OS&Y Groove 08 - OS&Y Groove x OS&Y Groove 09 - 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	R1 - Retrofit* R2 - Retrofit* R3 - Retrofit*

**EXAMPLE: 4ALF 20A 07 = 4" size lead free reduced pressure assembly with OS&Y flanged inlet x OS&Y grooved outlet shut-off valves.**

\* Butterfly valves not available in 12" size.

## RPLF 4A SERIES REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY



DRAWING SHOWN DEPICTS 2-1/2" - 8" ASSEMBLIES.  
SEE SUBMITTAL SS1273 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)

DIMENSIONS	2-1/2"	60 MM.	3"	75 MM.	4"	100 MM.	6"	150 MM.	8"	200 MM.	10"	250 MM.	12"	300 MM.
A (Butterfly Valves)	28	711	28.5	724	33	838	38.5	978	46	1168	N/A	N/A	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)	8.6	218	9.6	244	10.9	277	13	330	16.5	419	N/A	N/A	N/A	N/A
C (NRS/PI Gate Valves)	11.8	300	13	330	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)	9	229	9	229	9.8	249	11	279	15.8	401	21	533	21.1	536
E (Max w/Gate or Butterfly Valves)	11.9	302	12.5	318	13	330	15.4	391	19.4	493	21.5	546	21.8	554
F (Check Removal Clearance)	4.8	122	4.8	122	6.5	165	7.5	191	7.5	191	10	254	10	254
G (Strainer Length)	10.9	277	11.6	295	14	356	18.6	472	25.5	648	26.1	663	30.1	765
H (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"	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)	31	14	32	15	48	22	84	38	228	103	762	346	865	392
Net Wt. (w/ Butterfly Valves)	92.6	42	98.6	45	124.6	57	184.6	84	407	185	N/A	N/A	N/A	N/A
Net Wt. (w/ NRS Gate Valves)	85	39	103	47	143	65	267	121	545	247	1269	576	1725	782
Net Wt. (w/ OS&Y Gate Valves)	103	47	119	54	174	79	327	148	620	281	1384	628	1840	835

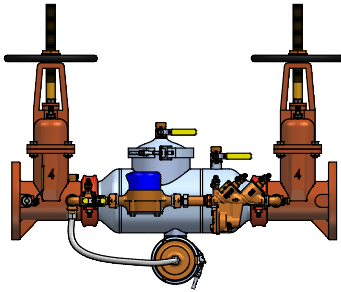
Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances (1/8" per joint).  
Internal body connections are grooved on 2 1/2" - 10" sizes.  
Internal body connections are flanged on 12" size.  
Strainer option only available for flanged-end shut-off options.



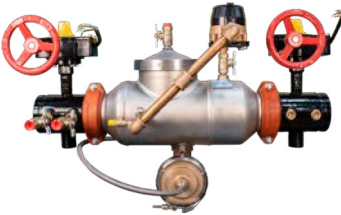
## RPDALF 4A / RPDA2LF SERIES REDUCED PRESSURE DETECTOR BACKFLOW PREVENTER ASSEMBLY



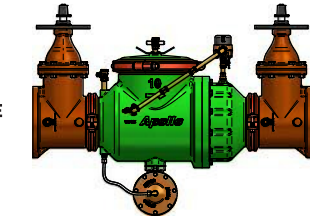
**TYPE 1 BYPASS  
2-1/2" - 8"  
304 STAINLESS  
STEEL BODY**



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



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



**TRIFORCE™  
CHECK**



**Flow Curves - Page 63**

The Apollo Model RPDALF 4A / RPDA2LF 4A Reduced Pressure Detector Assembly consists of two independently acting, TriForce™ center stem guided check valves with a differential pressure relief valve located between the check valves. The unit is designed to give maximum protection against backflow of health or non-health hazard fluids by either back-pressure or back-siphonage and at the same time detect leakage or unauthorized use of water from fire or automatic sprinkler systems. The durable domestic stainless steel units (2-1/2" to 8") and the FDA epoxy coated ductile iron units (10" and 12") are easily maintained in line without any special tools. The TriForce™ check valves operate with a spring assist in the flowing condition to provide low flow rates which are documented by an independent laboratory.

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
- Snap-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
- Modular Captured Spring Relief Valve
- Optional Air Gap Drain
- 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 1047 (with Meter)
- CSA B64.4
- 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" Types 1 & 2)
- UL, ULC Classified
- FM Approved

### STANDARD MATERIALS LIST

<b>BODY (2-1/2"-8")</b>	304 Stainless Steel	<b>COVERS (10" &amp; 12")</b>	FDA Epoxy Coated Ductile Iron
<b>BODY (10" &amp; 12")</b>	FDA Epoxy Coated Ductile Iron	<b>CHECK VALVES</b>	Bronze/Glass-Filled PPO/SS
<b>COVERS (2-1/2"-6")</b>	Glass Filled PPO/SS	<b>SPRINGS</b>	Stainless Steel
<b>COVERS (8")</b>	304 Stainless Steel	<b>SEAT DISCS</b>	Chloramine-Resistant Silicone

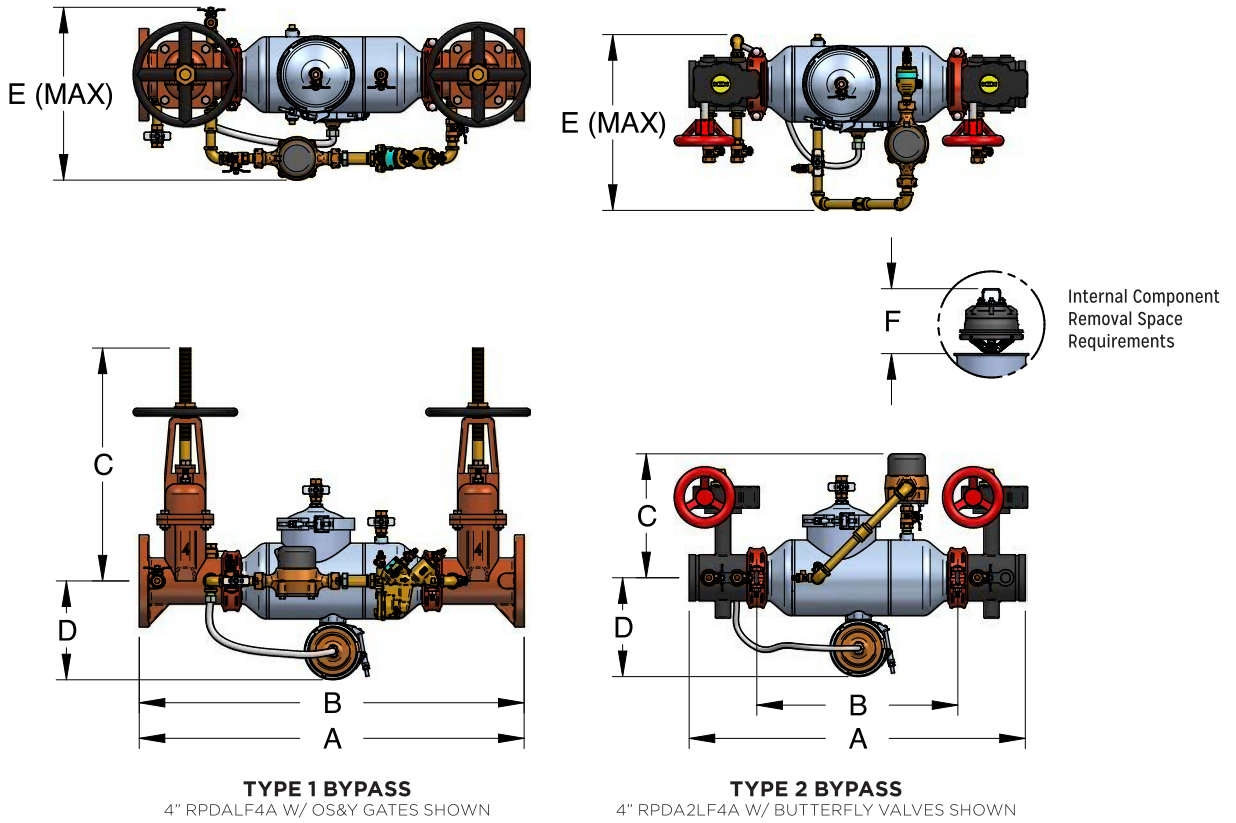
### PART NUMBER MATRIX

4ALF	7 X	X	X	XX	XX
	BYPASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4ALF - Lead Free (Standard)	0 - Type 1 w/ 1/2" Reduced Pressure	9 - 2-1/2"	C - Cubic ft/min	01 - Less Shut-off Valves	D - Domestic Assembly
	2 - Type 2 w/ 1/2" Single Check	0 - 3"	E - Gallons/min	03 - OS&Y FLANGE x OS&Y FLANGE	R1 - Retrofit*
	3 - Type 1 w/ Bypass on Left*	A - 4"	G - Less Meter	04 - OS&Y FLANGE x Monitored (Mon.) Butterfly VALVE Groove†	R2 - Retrofit*
	4 - Type 2 w/ Bypass on Left*	C - 6"		06 - OS&Y FLANGE x Post indicator FLANGE	R3 - Retrofit*
		E - 8"		07 - OS&Y FLANGE x OS&Y Groove	
		G - 10"		08 - OS&Y Groove x OS&Y Groove	
		H - 12"		09 - Mon. Butterfly Valve Groove x Mon. Butterfly Valve Groove†	*Custom length retrofit orders must be accompanied with signed from #OFBFRETRO with exact length required.
				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 72A E3 = 4" size lead free reduced pressure detector assembly with OS&Y flanged inlet x OS&Y flanged outlet shut-off valves Type 2 Bypass 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.

## RPDALF 4A / RPDA2LF SERIES REDUCED PRESSURE DETECTOR BACKFLOW PREVENTER ASSEMBLY



DRAWING SHOWN DEPICTS 2-1/2" - 6" ASSEMBLIES.  
SEE SUBMITTAL SSI329 FOR DETAILED DRAWINGS FOR EACH SIZE.

### DIMENSIONS

DIMENSIONS	2-1/2"	60MM	3"	75MM	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	N/A	N/A	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)	9	229	9	229	9.8	249	11	279	15.8	401	21	533	21.1	536
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
<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 Valves)	31	14	32	15	48	22	84	38	228	103	762	346	865	392
Net Wt. (w/ Butterfly Valves)**	105	48	111	50	137	62	198	90	420	191	N/A	N/A	N/A	N/A
Net Wt. (w/ NRS Gate Valves)**	103	47	118	54	158	72	282	128	561	254	1299	589	1755	796
Net Wt. (w/ OS&Y Gate Valves)**	118	54	134	61	189	86	342	155	636	288	1413	641	1870	848

Notes:  
Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances.  
Internal body connections are grooved on 2-1/2" - 10" sizes.  
Internal body connections are flanged on 12" size.