"Apollo"® Valves

backflow prevention

section I

WATERWORKS
RP 4AN SERIES

PLUMBING
RP 4A SERIES

FIRE PROTECTION
DCDA 4A SERIES

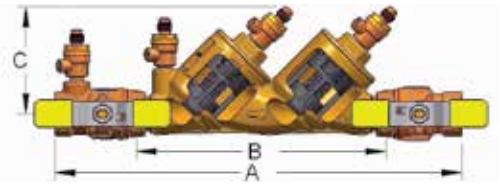
IRRIGATION
PVB 4A SERIES

		APPLICATION				
TYPE OF DEVICE	SERIES	BACK SIPHONAGE	BACK PRESSURE	CONTINUOUS PRESSURE	AESTHETIC HAZARD	HEALTH HAZARD
DOUBLE CHECK VALVE	DCLF 4A DCLF 4AN DCLF 4SG, DCLF 4S	X	X	X	X	
DOUBLE CHECK DETECTOR ASSEMBLY	DCDALF 4A DCDALF 4AN DCDA 4SG, DCDA 4S	X	X	X	X	
REDUCED PRESSURE PRINCIPLE	RPLF 4A	X	X	X	X	X
REDUCED PRESSURE PRINCIPLE (N & V Flow)	RPLF 4AN	X	X	X	X	X
REDUCED PRESSURE PRINCIPLE (Stainless Steel)	RPS 40	X	X	X	X	X
REDUCED PRESSURE DETECTOR ASSEMBLY	RPDALF 4A RPDALF 4AN	X	X	X	X	X
ATMOSPHERIC VACUUM BREAKER	AVB1, AVB1LF AVB2	X			X	X
PRESSURE VACUUM BREAKER	PVB 4A, PVBLF 4A	X		X	X	X
SPILL RESISTANT PRESSURE VACUUM BREAKER	SVB 4A, SVB 4ALF	X		X	X	X
DUAL CHECK	DUC 4ALF DUC 4FP DUC40, DUCLF40	X	X	X	X	
DUAL CHECK W/ ATMOS. PORT	DCAP 4A, DCAP 4ALF	X	X	X	X	
CARBONATED BEVERAGE BACKFLOW PREVENTER	CBBP-A	X	X	X	X	
HOSE CONNECTION VACUUM BREAKER	HBV2, HBV2LF	X	X*		X	X
ANTI FREEZE HOSE CONN. VACUUM BREAKER	HBVAF2, HBVAF2LF	X	X*		X	X
HOSE CONNECTION BACKFLOW PREVENTER	HBDUC, HBDUCLF	X	X*		X	X
LAB FAUCET VACUUM BREAKER	LFDUCLF	X	X		X	

** Limited back pressure to 10' head*
*** Check with local authorities having jurisdiction*

See **BFCA9000** for additional information including weights, dimensions and pressure loss curves.

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



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

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
- **Proudly Made in USA**

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

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)

STANDARD MATERIALS LIST

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

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

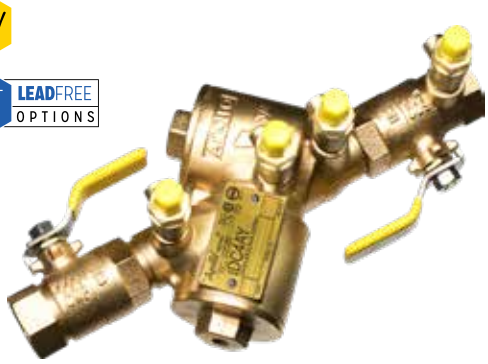
MODEL NO. PART NO. SIZE	4A 103 A2F DC 4A 12 1/2"	4A 103 A2F DC 4A 12 15 MM.	4A 104 A2F DC 4A 34 3/4"	4A 104 A2F DC 4A 34 20 MM.	4A 105 A2F DC 4A 1 1"	4A 105 A2F DC 4A 1 25MM.	4A 106 A2F DC 4A 114 1-1/4"	4A 106 A2F DC 4A 114 32 MM.	4A 107 A2F DC 4A 112 1-1/2"	4A 107 A2F DC 4A 112 40 MM.	4A 108 A2 DC 4A 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
WEIGHTS	**LB.**	**KG.**	**LB.**	**KG.**	**LB.**	**KG.**	**LB.**	**KG.**	**LB.**	**KG.**	**LB.**	**KG.**
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

New!

LEADFREE OPTIONS



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 specifically for shorter lay length in irrigation meter box applications
- Installed with testcocks pointing up for ease of testing when installed in a meter box
- **Proudly Made in USA**
-

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

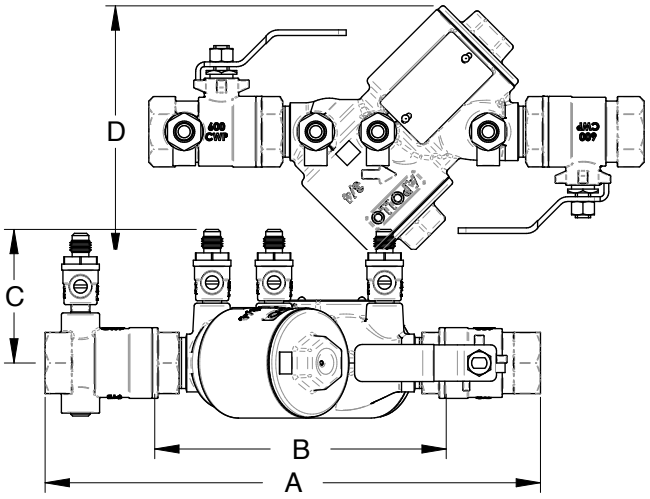
APPROVALS
- Horizontal and Vertical Up Approvals
- Approved by the Foundation for CrossConnection Control and Hydraulic Research at the University of Southern California
- ASSE 1015
- IAPMO
- CSA
- NSF/ANSI/CAN 61 - Water Quality (4AYLF only)

STANDARD MATERIALS LIST

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

DIMENSIONS

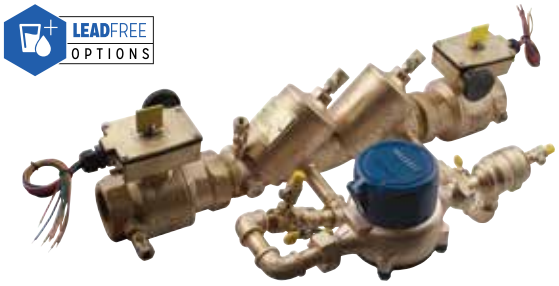
PART NUMBER	SIZE	DIMENSIONS (IN.)				WT. (LB.)
		A	B	C	D	
4AY104A2FB	3/4"	10.2	6	2.8	5.2	6.5
4AY105A2FB	1"	12.2	7.1	3	6.2	8.7



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 4A/DCDA2LF 4A "SLO-CLOZ"
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

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

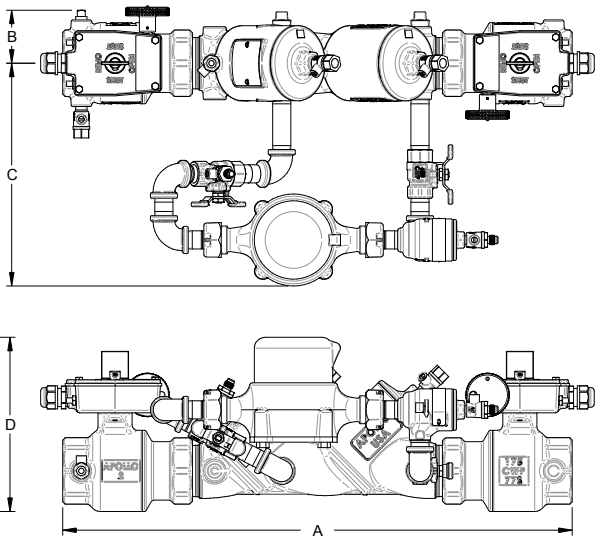
FEATURES
- Low Pressure Loss Documented By Independent Approval Agencies
- Easily Removable Modular Check Valve Cartridges
- Captured Stainless Steel Springs
- Apollo UL® Listed, Slow-Close, Full Open Port, Gear Operated Ball Valves with Integral Tamper Switches
- Top-Mounted Test Cocks for Easy Testing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

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

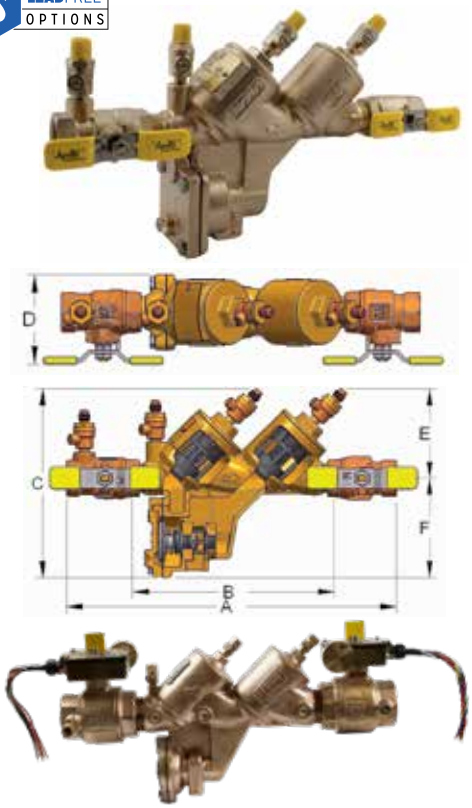
4A X	6 X	X	X 2ST
	BYPASS SIDE	SIZE	METER OPTION
4A - Standard	2 - Bypass Line on Right Side (Standard - as Shown)	7 - 1-1/2"	C - Cubic ft/min
4ALF - Lead Free		8 - 2"	E - GPM
	4 - Bypass Line on Left Side		G - Mo Meter
EXAMPLE: 4A 62 8 E 2ST = 2" double check detector, right side bypass with GPM meter.			



RP 4A / RPLF 4A SERIES

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY

LEADFREE OPTIONS



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

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
- 5 Year Warranty
- **Proudly Made in USA**

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 (1/2" thru 2")
- NSF/ANSI/CAN 61 - Water Quality (4ALF only)
- NSF/ANSI 372 - Lead Free (4ALF only)

STANDARD MATERIALS LIST

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

Contact local water authorities for installation/service requirements.

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				

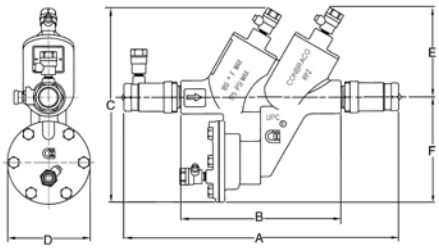
DIMENSIONS

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

RPS 40 SERIES
STAINLESS STEEL REDUCED PRESSURE BACKFLOW PREVENTER ASSEMBLY

LEADFREE CERTIFIED



The Apollo Series RPS 40 Stainless Steel Reduced Pressure Principle Backflow Preventer is designed to give maximum protection against backflow caused by either backpressure or back-siphonage from a cross-connection wherein a contaminant hazard exists (i.e. a health hazard), or a pollutant hazard exists (i.e. a non-hazard). The assembly is composed of two spring-loaded poppet type check valves and a mechanically independent, hydraulically dependent pressure differential relief valve set in an integral stainless steel body. Three of the testcocks are mounted at the top to assure easy access during repair and maintenance when unit is installed in tight places.

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 internal sensing passage, on the relief valve diaphragm. In the area between the check valves, called the zone, the pressure is maintained at 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 valve 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
- Stainless Steel Body and Covers
- Easy to Install and Repair
- Internal Sensing Passage
- Low Head Loss
- Reversible/Removable Seat Discs
- Replaceable Seats
- Comes Standard with Apollo Stainless Steel Full Fort Ball Valves with Stainless Steel Handles
- Lead Free Standard
- 5 Year Warranty
- Optional Air Gap Drain
- **Proudly Made in USA**

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

APPROVALS
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- ASSE 1013
- CSA

STANDARD MATERIALS LIST

BODY, COVERS	316 Stainless Steel (CF8M)
SPRINGS	Stainless Steel
FASTENERS	Stainless Steel
POPPETS	Glass-Filled Celcon®
SEAT DISCS	Silicone Rubber
DIAPHRAGM, O-RINGS	FDA Fluorocarbon
REPLACEABLE SEATS	Glass-Filled PPO
TEST COCKS & HANDLES	Stainless Steel

PART NUMBER MATRIX

40 2 X	X	T X	S X
	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
0 - Standard		1 - Less Ball Valves (UL Classified - 3/4", 1")	LL - Locking Lever Handles
1 - w/ SS Y-Strainer	3 - 1/2"	2 - w/ SS Ball Valves and SS Tee Handles (Standard)	
(Shipped Loose)	4 - 3/4"		
	5 - 1"		
EXAMPLE: 40 20 4 T2 SLL = 3/4" stainless steel reduced pressure backflow preventer, with stainless steel, locking lever ball valves			

DIMENSIONS (X = SHUT-OFF VALVE CONFIGURATION)

MODEL NUMBER PART NUMBER SIZE	RP40S38 40 203 TXS 10 MM.	RP40S12 40 203 TXS 1/2"	RP40S12 40 203 TXS 12 MM.	RP40S34 40 204 TXS 3/4"	RP40S34 40 204 TXS 20 MM.	RP40S1 40 205 TXS 1"	RP40S1 40 205 TXS 25 MM.
A	267	10-1/2	267	13-1/2	343	15-1/4	387
B	146	5-3/4	146	7-15/16	202	7-15/16	202
C	175	6-7/8	175	9	229	9	229
D	68	2-5/8	68	4-1/16	103	4-1/16	103
E	81	3-3/16	81	4-3/8	111	4-3/8	111
F	95	3-3/4	95	5-1/8	130	5-1/8	130
Test Cocks	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT
WEIGHTS	**KG.**	**LB.**	**KG.**	**LB.**	**KG.**	**LB.**	**KG.**
Net Wt. (w/o Ball Valves)	2.0	4.1	1.9	8.1	3.8	8.1	3.7
Net Wt. (with Ball Valves)	2.5	5.4	2.4	10.8	4.9	11	5.0
Shipping. Wt. (w/o Ball Valves)	2.3	5	2.3	9.8	4.4	9.6	4.3
Shipping. Wt. (with Ball Valves)	2.9	6.3	2.8	12.3	5.6	12.8	5.8

RPDA2 / RPDA2LF 4A SERIES "SLO-CLOZ"

BRONZE REDUCED PRESSURE DETECTOR BACKFLOW PREVENTER ASSEMBLY

LEADFREE OPTIONS

The Apollo Model RPDA24A or RPDA2LF4A Lead Free* 1-1/2"– 2" Reduced Pressure Detector Assembly consists of a mainline reduced pressure principle backflow preventer (RP) 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 health and 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.

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
- Short Lay-Length for Small Spaces
- Pre-Wired Tamper (Supervisory) Switches
- **Proudly Made in USA**

PERFORMANCE RATING

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

APPROVALS

- ASSE 1047 (Horizontal)
- UL Classified (Horizontal)
- C-UL Classified (Horizontal)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Reasearch at the Univerity of Southern California. (Horizontal)
- NSF/ANSI/CAN 61 - Water Quality (4ALF only)
- NSF/ANSI 372 - Lead Free (4ALF only)

STANDARD MATERIALS LIST

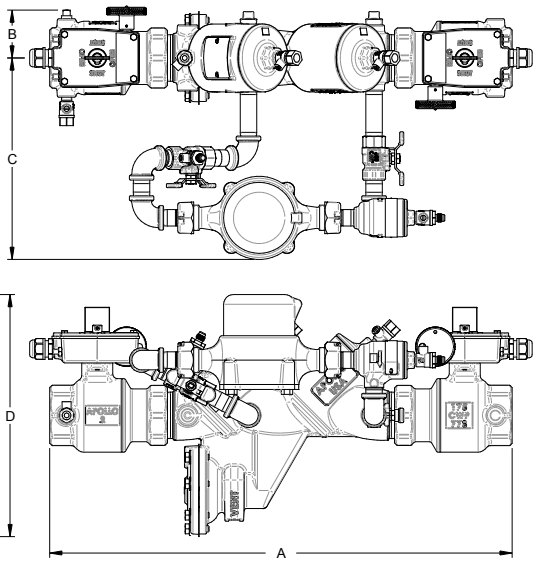
BODY, CAPS, BALL VALVE SHUTOFFS, TEST COCKS	Bronze C84400 or C89836 or C87800 (Lead Free*)
CHECK VALVE CARTRIDGES	Glass-Filled PPO
SPRINGS	300 Series Stainless Steel
SEAT DISCS	Chloramine-Resistant Silicone
O-RINGS	Chloramine-Resistant EPDM

DIMENSIONS

SIZE (IN.)	DIMENSIONS (IN.)				WT. (LB.)
	A	B	C	D	
1-1/2"	22-1/4	2-5/8	9-3/4	10-1/2	39.4
2"	23-3/4	2-5/8	10	12-3/8	51.4

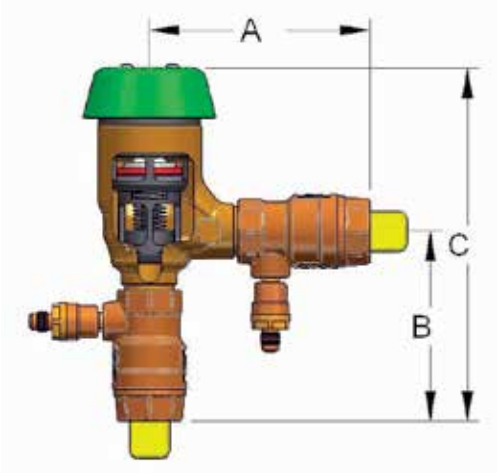
PART NUMBER MATRIX

4A X	7 X	X	X 2ST
	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 72 8 E 2ST = 2" reduced pressure detector, right side bypass with GPM meter.			



PVB 4A / PVBLF 4A SERIES
FREEZE RESISTANT PRESSURE VACUUM BREAKER BACKFLOW PREVENTER

LEADFREE OPTIONS



The Apollo Model PVB 4A or PVBLF 4A Pressure Vacuum Breakers are designed to prevent contamination of potable water due to back-siphonage. An integral relief valve serves to reduce the possibility of damage due to intermittent freezing conditions. The modular check valve cartridge has a replaceable seat and a reversible silicone seat disc. Ball valves with stainless steel handles and nuts are standard.

FEATURES
- Modular Captured Spring Cartridge Check Valve
- Low Pressure Loss
- Easy Maintenance
- **Built-In Freeze Resistant Relief Valve at no extra charge**
- Compact Yet Easy to Maintain
- Ball Valves w/SS Handles & Nuts Standard
- Testcocks Located for Easy Draining
- Threaded Testcock Protectors
- Corrosion Resistant
- 5 Year Warranty
- No Special Tools Required
- Lead Free Option (3/4" - 1")
- Flexible canopy helps protect the bonnet from impact breakage

PERFORMANCE RATING
- Maximum Operating Pressure: 150 psi
- Design Pressure: 300 psi
- Temperature Range: 33° to 140°F

APPROVALS
- ASSE 1020
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (1/2" - 2" Non Lead Free Only)
- CSA B64.1.2
- NSF/ANSI 372 - Lead Free (4ALF only)

STANDARD MATERIALS LIST

BODY	Bronze (C84400/LF C89836)
BALL VALVES, TESTCOCKS	Bronze (C84800/LF C87800)
CANOPY	UV Resistant ABS
BONNET	Glass-Filled PPO
CHECK VALVE CARTRIDGE	Glass-Filled PPO
SPRINGS	Stainless Steel
SEAT DISCS	Chloramine-Resistant Silicone
FLOAT	Glass-Filled Polypropylene
O-RINGS	Chloramine-Resistant EPDM
BALL VALVE HANDLES	Stainless Steel

Contact local water authorities for installation/service requirements.

DIMENSIONS

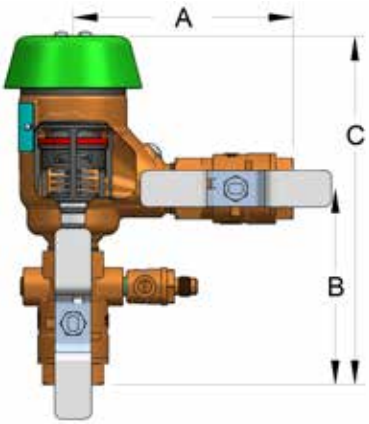
PART NO.	MODEL NO.	DIMENSIONS (IN.) (MM)				WEIGHT	
		SIZE	A	B	C	LB.	KG.
4A-503-A2	PVB4A12	1/2" (15)	4-1/2 (114)	3-3/4 (95)	7-1/4 (184)	2.9	1.3
4A-504-A2	PVB4A34	3/4" (20)	4-3/4 (121)	4-1/8 (105)	7-5/8 (194)	3.0	1.4
4A-505-A2	PVB4A1	1" (25)	5-3/8 (135)	4-5/8 (194)	8-3/8 (211)	4.2	1.9
4A-506-A2	PVB4A114	1-1/4" (32)	7 (178)	5-1/4 (133)	9-7/8 (250)	4.4	2.0
4A-507-A2	PVB4A112	1-1/2" (40)	7-1/4 (184)	5-5/8 (143)	10-1/8 (257)	7.3	3.3
4A-508-A2	PVB4A2	2" (50)	8-1/2 (216)	6-3/8 (161)	11-1/2 (292)	8.9	4.0

PART NUMBER MATRIX

4A [X]	50 X	A X	X
	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
4A - Standard	3 - 1/2"	2 - w/ Ball Valves (Standard)	F - SAE Threaded Test Cocks (Standard 1/2", 3/4",1")
4ALF - Lead Free (3/4" - 1")	4 - 3/4"	4 - w/ Union Ball Valves	LL - Locking Lever Handles (3/4" - 2")
	5 - 1"	(3/4" and 1" Only)	
	6 - 1-1/4"		
	7 - 1-1/2"		
	8 - 2"		
EXAMPLE: 4ALF 505 A4 LL = 1" pressure vacuum breaker with union ball valves and locking levers			

SVB 4A / SVBLF 4A SERIES "SLO-CLOZ"
SPILL RESISTANT VACUUM BREAKER BACKFLOW PREVENTER

LEADFREE OPTIONS



The Apollo Series SVB 4A or SVBLF 4A Spill Resistant Vacuum Breaker is designed to prevent contamination of the potable water supply due to back-siphonage. The SVB is ideally suited for continuous pressure, indoor applications where water spillage is undesirable. The device has a straight through flow path for minimal head loss. All components are easily accessible for easy repair and maintenance. All components are made of corrosion resistant materials for years of reliable service. Should be installed 12" above all downstream piping.

FEATURES
- Modular Captured Spring Check Valve
- Shut-Off Valves w/ Stainless Steel Handles and Nuts
- Threaded Testcock Protectors
- Designed For Easy Maintenance
- Lead-Free Options
- Low Head Loss
- Corrosion Resistant
- 5 Year Warranty
- Flexible canopy helps protect the bonnet from impact breakage
- No Special Tools Required
- **Proudly Made in USA**

PERFORMANCE RATING
- Maximum Operating Pressure: 150 psi
- Temperature Range: 33° to 180°F

APPROVALS
- ASSE 1056

STANDARD MATERIALS LIST

BODY	Bronze C84400 or C89836 Lead Free*
BALL VALVES, TEST COCKS	Bronze C84400 or C87800 Lead Free*
CANOPY	UV-Resistant ABS
BONNET	Glass-Filled PPO
CHECK VALVE CARTRIDGE	Glass-Filled PPO
SPRINGS	Stainless Steel
SEAT DISCS	Chloramine-resistant Silicone
FLOAT	Glass-Filled PPO
O-RINGS	Chloramine-resistant EPDM

DIMENSIONS

PART NO.	LEAD FREE PART NO.	MODEL NO.	LEAD FREE MODEL NO.	DIMENSIONS (IN.) (MM)				WEIGHT	
				SIZE	A	B	C	LB.	KG.
4A-904-A2F	4ALF-904-A2F	SVB4A34	SVBLF4A34	3/4" (20)	4-1/2 (121)	4 (105)	7-1/4 (194)	3.0	1.4
4A-905-A2F	4ALF-905-A2F	SVB4A1	SVBLF4A1	1" (25)	5-3/8 (135)	4-3/4 (194)	8-1/8 (211)	4.2	1.9

PART NUMBER MATRIX

4A [XX]	90 X	XX	X
	SIZE	SHUT-OFF VALVES	
4A - Non-Lead Free	4 - 3/4"	A2 - w/ Ball Valves (Standard)	F - SAE Threaded Test Cocks (Standard)
4ALF - Lead Free*	5 - 1"	A4 - w/ Union Ball Valves	LL - Locking Lever Handles
EXAMPLE: 4ALF 904 A4 LL = 3/4" spill resistant vacuum breaker with union ball valves and locking levers			

DCLF 4A SERIES
DOUBLE CHECK VALVE BACKFLOW PREVENTER ASSEMBLY

LEADFREE OPTIONS

TRIFORCE™ CHECK

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" & 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, Fabricated, 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" - 12")
- AWWA C-510 (2-1/2" - 12")
- IAPMO
- UL, ULC Classified
- FM Approved
- NSF/ANSI/CAN 61 - Water Quality
- NSF/ANSI 372 - Lead Free

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

PART NUMBER MATRIX

4ALF	1X	X	XX	X
	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	0 - 3"	02 - NRS Flange x NRS Flange	
	(shipped loose)	A - 4"	03 - OS&Y Flange x OS&Y Flange	
		C - 6"	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove†	
		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.*

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

LEADFREE OPTIONS

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

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

PART NUMBER MATRIX

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

DCLF 4AN SERIES
N STYLE DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY

LEADFREE OPTIONS

n FLOW

OPTIONAL VALVE SETTER

TRIFORCE™ CHECK

The Apollo® Model DCLF 4An 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 normally vertical up/vertical down oriented body incorporates an internal swivel connection providing the ability to pivot the second check. The n style flow body is domestic stainless steel from 2-1/2"-8" and FDA epoxy coated ductile iron in the 10" and 12". Available in a wide variety of shut-off valves.

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
- 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
- **Designed, Fabricated, Assembled and Tested in the USA**

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

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/CAN - 61 Water Quality
- NSF/ANSI 372 - Lead Free

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

PART NUMBER MATRIX

4ANLF	1 X	X	XX	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4AnLF - Lead Free Standard	0 - Standard	9 - 2-1/2"	01 - Less Shut-off Valves	D - Domestic Assembly
	1 - w/ Y-strainer	0 - 3"	02 - NRS Flange x NRS Flange	
	(Shipped Loose)	A - 4"	03 - OS&Y Flange x OS&Y Flange	
		C - 6"	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove	
		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: 4AnLF 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.

DCDALF 4A / DCDA2LF 4A SERIES
DOUBLE CHECK DETECTOR BACKFLOW PREVENTER ASSEMBLY

LEADFREE OPTIONS

TYPE 1 BYPASS

TRIFORCE™ CHECK

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, Fabricated, 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 only)

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	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	
	3 - Type 1 w/ Bypass on Left*	A - 4"	G - Less Meter	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove†	
	4 - Type 2 w/ Bypass on Left*	C - 6"		06 - OS&Y Flange x Post indicator Flange	
		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†	
				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.

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

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

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)*

DCDALF 4AN SERIES
N STYLE DOUBLE CHECK DETECTOR BACKFLOW PREVENTER

LEADFREE OPTIONS

TYPE 2 BYPASS (STANDARD) SIZES 2-1/2"-12"

OPTIONAL VALVE SETTER

TRIFORCE™ CHECK

The Apollo Model DCLF 4An 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 by-pass assembly serves to measure water use of up to 2 GPM. The normally vertical up/vertical down oriented body incorporates an internal swivel connection providing the ability to pivot the second check. The grooved connections on the bodies from 2-1/2" to 10" allow for easy connection to butterfly or gate shut-off valves. The 12" DCDA 4An has flanged connections for gate shut-off valves.

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
- 5 Year Warranty
- Small Installation Space Required - Small Footprint
- Chloramine-Resistant Elastomers
- Lead Free Standard
- Optional Valve Setters Eliminate Need for Thrust Blocks Below Grade
- US Patent Nos.: 6,443,184; 7,025,085; 7,533,699
- **Designed, Fabricated, Assembled and Tested in the USA**
- 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 (with Meter)
- UL, ULC Classified
- CSA B64.5
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 8" Type 1 Bypass, 10" - 12" type2 only)
- FM Approved
- NSF/ANSI/CAN 61 - Water Quality
- NSF/ANSI 372 - Lead Free

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

PART NUMBER MATRIX

4ANLF	6 X	X	X	X [X]	X
	BYPASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (INLET X OUTLET)	OPTIONS
4AnLF - Lead Free	0 - Type 1 w/ 1/2" Double Check	9 - 2-1/2"	C - Cubic ft/min	1 - Less Shut-off Valves	D - Domestic Assembly
	2 - Type 2 w/ 1/2" Single Check (STD)	0 - 3"	E - Gallons/min	3 - OS&Y Flange x OS&Y Flange	
	3 - Type 1 w/ Bypass on Left*	A - 4"	G - Less Meter	4 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove†	
	4 - Type 2 w/ Bypass on Left*	C - 6"		6 - OS&Y Flange x Post indicator Flange	
		E - 8"		7 - OS&Y Flange x OS&Y Groove	
		G - 10"		8 - OS&Y Groove x OS&Y Groove	
		H - 12"		9 - Mon. Butterfly Valve Groove x Mon. Butterfly Valve Groove†	
				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: 4AnLF 62A E7 = 4" size Lead Free Double Check Detector Assembly with OS&Y flanged inlet x OS&Y grooved outlet shut-off valves with Type 2 bypass w/ meter in GPM

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

RPLF 4A SERIES
REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY

LEADFREE OPTIONS

TRIFORCE™ CHECK

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" & 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, Fabricated, 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" – 12")
- 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" - 12")

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

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	0 - 3"	02 - NRS Flange x NRS Flange	
	(Shipped Loose)	A - 4"	03 - OS&Y Flange x OS&Y Flange	
		C - 6"	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove†	
		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 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 10" or 12" size.*

RPLF 4AN SERIES

N STYLE REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY

LEADFREE OPTIONS

N FLOW

VERTICAL UP FLOW

OPTIONAL VALVE SETTER

TRIFORCE™ CHECK

The Apollo RPLF 4AN Reduced Pressure Principle Backflow Preventer 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. The normally vertical up/vertical down oriented body incorporates an internal swivel connection providing the ability to pivot the second check 180° to a vertical up/vertical up flow. 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 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
- 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
- Modular Captured Spring Relief Valve
- Optional Air Gap Drains
- Small Installation Space Required/Footprint
- Approved for n-Flow and Vertical Up Flow
- Chloramine-Resistant Elastomers
- Lead Free Standard
- Optional Valve Setters
- US Patent Nos.: 6,443,184; 7,025,085; 7,533,699
- **Designed, Fabricated, 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

- AWWA C511 (2-1/2" – 12")
- ASSE 1013-2011, CSA B64.4, FM, IAPMO, UL*, cUL
- NSF/ANSI 61 Lead Free
- NSF/ANSI 372 Water Quality
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 12")

STANDARD MATERIALS LIST

BODY (2-1/2" - 8")	304 Stainless Steel	**RELIEF VALVE**	Bronze (C84400/LF C89836)
BODY (10" & 12")	FDA Epoxy Coated Ductile Iron	**CHECK VALVES**	Bronze/Glass-Filled PPO/SS
COVERS (2-1/2" - 6")	Glass Filled PPO/SS	**SPRINGS**	Stainless Steel
COVERS (8")	304 Stainless Steel	**SEAT DISCS**	Chloramine-Resistant Silicone
COVERS (10" & 12")	FDA Epoxy Coated Ductile Iron		

PART NUMBER MATRIX

4ANLF	2 X	X	XX	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4AnLF - Lead Free	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	
		A - 4"	03 - OS&Y Flange x OS&Y Flange	
		C - 6"	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove†	
		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	

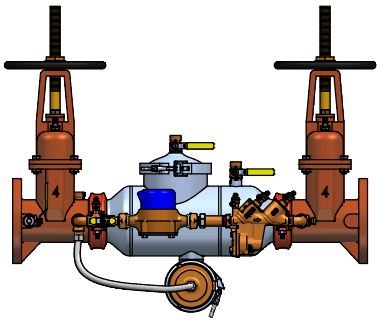
EXAMPLE: 4ALF 20A 07 = 4" size lead free reduced pressure assembly with OS&Y flanged inlet x OS&Y grooved outlet shut-off valves.

† *Butterfly valves not available in 12" size.*

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

LEADFREE OPTIONS

TYPE 1 BYPASS



TRIFORCE™ CHECK

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" - 8") and the FDA epoxy coated ductile iron units (10" & 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, Fabricated, 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, 10" - 12" type 2)
- UL, ULC Classified
- FM Approved

STANDARD MATERIALS LIST

BODY (2-1/2" - 8")	304 Stainless Steel	**COVERS (10" & 12")**	FDA Epoxy Coated Ductile Iron
BODY (10" & 12")	FDA Epoxy Coated Ductile Iron	**CHECK VALVES**	Bronze/Glass-Filled PPO/SS
COVERS (2-1/2" - 6")	Glass Filled PPO/SS	**SPRINGS**	Stainless Steel
COVERS (8")	304 Stainless Steel	**SEAT DISCS**	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	
	3 - Type 1 w/ Bypass on Left*	A - 4"	G - Less Meter	04 - OS&Y FLANGE x Monitored (Mon.) Butterfly VALVE Groove†	
	4 - Type 2 w/ Bypass on Left*	C - 6"		06 - OS&Y FLANGE x Post indicator FLANGE	
		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†	
				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 sizes 10"-12" .

RPDALF 4AN SERIES
N STYLE REDUCED PRESSURE DETECTOR BACKFLOW PREVENTER ASSEMBLY

LEADFREE OPTIONS

N FLOW
TYPE 2 BYPASS

TYPE 2 BYPASS
VERTICAL UP FLOW

OPTIONAL VALVE SETTER

TRIFORCE™ CHECK

The Apollo Model RPDALF 4AN 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 normally vertical up/vertical down oriented body incorporates an internal swivel connection providing the ability to pivot the second check 180° to a vertical up/vertical up flow. 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 the 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
- 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
- Modular Captured Spring Relief Valve
- Optional Air Gap Drains
- Small Installation Space Required - Small Footprint
- Approved for n-Flow and Vertical Up Flow
- Chloramine-Resistant Elastomers
- **Designed, Fabricated, Assembled and Tested in the USA**
- Lead Free Standard
- Optional Valve Setters Eliminate Need for Thrust Blocks Below Grade
- US Patent Nos.: 6,443,184; 7,025,085;7,533,699
- 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
- CSA B64.4
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2"-8" Type 1 Bypass, 10" - 12" Type 2 only)
- ASSE 1047 (with Meter)
- UL, ULC Classified
- FM Approved
- NSF/ANSI/CAN 61 - Water Quality
- NSF/ANSI 372 - Lead Free

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
RELIEF VALVE	Bronze (LF C89836)
CHECK VALVES	Bronze/Glass-Filled PPO/SS
SPRINGS	Stainless Steel
SEAT DISCS	Chloramine-Resistant Silicone

PART NUMBER MATRIX

4ANLF	7 X	X	X	X X	X
	BYPASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (INLET x OUTLET)	OPTIONS
4AnLF - 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	
	3 - Type 1 w/ Bypass on Left*	A - 4"	G - Less Meter	04 - OS&Y Flange x Monitored (Mon.) Butterfly Valve Groove†	
	4 - Type 2 w/ Bypass on Left*	C - 6"		06 - OS&Y Flange x Post indicator Flange	
		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†	
				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	

EXAMPLE: 4ANLF 70A E3 = 4" size lead free reduced pressure detector assembly with meter in GPM and OS&Y flanged inlet x OS&Y flanged outlet shut-off valves.

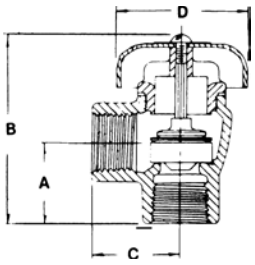
Orientation of bypass looking downstream. Standard is right hand side. Left hand is on opposite side
†Butterfly valves not available in 12" size.

AVB1/AVB2 SERIES
ATMOSPHERIC TYPE VACUUM BREAKERS

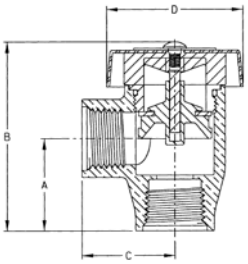
LEADFREE OPTIONS

AVB1

AVB2 (APOLLO INTERNATIONAL™)
SIZES 1/4", 3/8, 1/2", 3/4"
(OPTIONAL POLISHED CHROME FINISH SHOWN)



AVB1
38/38LF-10X



AVB2
38-20X

STANDARD MATERIALS LIST

VALVE BODY (AVB1)	Cast Bronze (LF C89836)
VALVE BODY (AVB2)	Forged Brass
SEAT DISC	Silicone
FLOAT & GASKET	Polypropylene
CANOPY	Powder Coated Steel
SCREW	Zinc-plated Steel

Contact local water authorities for installation/service requirements.

The Apollo Series Atmospheric Type Vacuum Breakers are designed to prevent back-siphonage of polluted water into a potable water system. They should only be installed in areas where spillage of water could not cause damage and where it can be accessible for periodic maintenance. These devices are not designed for continuous pressure application (maximum 12 hours in any 24 hour period). Should be installed a minimum of 6" above all downstream piping with no downstream shutoffs.

OPERATION
During flow conditions, the flow of water lifts the float disc and seals the atmospheric vent at all rates of flow, preventing leakage. When a negative pressure is created at the supply line or when the water supply valve upstream of the device is closed, the float disc will fall, thus opening the atmospheric vent. This prevents back-siphonage and creation of vacuum at the discharge line.

FEATURES
- Corrosion Resistant
- Bronze Body (AVB1)
- Forged Body (AVB2)
- Lead Free Option (100 Series)
- Heat Resistant Silicone Seat Disc
- Rough Brass, Rough Chrome or Polished Chrome Finish
- Easy to Maintain
- Compact and Lightweight
- Durable

PERFORMANCE RATING
- Suitable for Hot or Cold Water Service:
  (up to 212°F at 125 psig) for up to 1"
  (up to 180°F at 125 psig) for 1-1/4" thru 2"

APPROVALS
- ASSE 1001
- NSF/ANSI 372 - Lead Free (38LF only)

PART NUMBER MATRIX

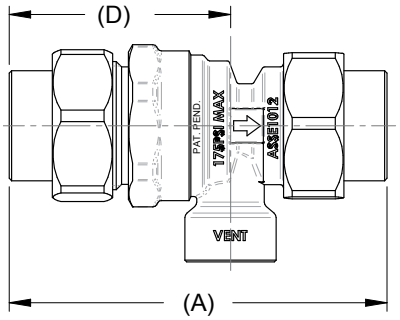
38(LF) X	0X	0X
	SIZE	FINISH
1 – Bronze	1 – 1/4"	1 – Rough Brass
2 – Forged Brass (Not Available in LF)	2 – 3/8"	3 – Rough Chrome (1/4" - 1" Only)
	3 – 1/2"	6 – Polished Chrome (AVB2 Only)
	4 – 3/4"	
	5 – 1"	
	6 – 1-1/4"	
	7 – 1-1/2"	
	8 – 2"	

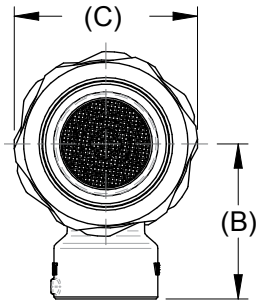
DIMENSIONS

PART NO.	MODEL NO.	SIZE (IN.) (MM.)	DIMENSIONS (IN.) (MM.)				WEIGHT (LB.) (KG.)
			A	B	C	D	
38(LF)-101	AVB114	1/4 (6)	29/32 (23)	2-3/8 (60)	1-1/32 (26)	1-13/16 (46)	50.96 (23)
38(LF)-102	AVB138	3/8 (10)	29/32 (23)	2-3/8 (60)	1-1/32 (26)	1-13/16 (46)	47.7 (22)
38-103	AVB112	1/2 (15)	1-3/32 (28)	2-1/2 (65)	1-3/16 (30)	1-3/16 (30)	54.7 (25)
38-104	AVB134	3/4 (20)	1-5/16 (33)	3-1/16 (78)	1-15/32 (37)	2-1/8 (54)	79.7 (36)
38-105	AVB11	1 (25)	1-3/4 (45)	4-1/16 (103)	1-7/8 (48)	2-7/8 (73)	174 (79)
38-106	AVB1114	1-1/4 (32)	2 (50)	4-3/8 (111)	2 (50)	3-3/4 (95)	316 (143)
38-107	AVB1112	1-1/2 (40)	2 (50)	4-3/8 (111)	2 (50)	3-3/4 (95)	289 (131)
38-108	AVB12	2 (50)	2-1/8 (54)	4-1/2 (114)	2-1/4 (57)	3-3/4 (95)	369 (167)
38-201	AVB214	1/4 (6)	1-3/32 (28)	2-5/16 (59)	1-1/32 (26)	21/32 (17)	50.6 (23)
38-202	AVB238	3/8 (10)	1-3/32 (28)	2-5/16 (59)	1-1/32 (26)	21/32 (17)	47.7 (22)
38-203	AVB212	1/2 (15)	1-9/32 (33)	2-5/8 (67)	1-9/32 (33)	1-7/8 (48)	54.7 (25)
38-204	AVB234	3/4 (20)	1-15/32 (37)	3 (80)	1-15/32 (37)	2 (50)	63.1 (29)

DCAP SERIES
DUAL CHECK WITH ATMOSPHERIC PORT BACKFLOW PREVENTER

LEADFREE OPTIONS





The Apollo International™ DCAP Series Backflow Preventer is designed to protect residential and commercial water supply lines from back-siphonage or back-pressure of non-potable (non-hazardous) substances. It has an intermediate atmospheric vent to insure protection from backflow conditions. It consists of two independently acting and spring-loaded check valves in a corrosion resistant material.

OPERATION
During normal flow operation, the vent valve is closed, and the two check valves are open allowing flow of water through the unit. Each check valve is designed to hold at least 1 psi in the direction of flow. When a back-siphonage condition occurs, both check valves close and the atmospheric vent opens to permit air to enter the intermediate zone. In the event of back-pressure and if the second check valve is prevented from closing tightly, leakage will be vented to the atmosphere through the vent port.

FEATURES
- Corrosion Resistant
- Low Head Loss
- Independently Acting Check Valves
- Ease of Repair and Installation
- Economical
- Suitable for Hot or Cold Water Service
- Durable
- Lead-Free Option
- 5 Year Warranty

PERFORMANCE RATING
- Maximum Working Pressure: 175 psig
- Inlet Temperature Range: 33° to 210°F
- Maximum backflow temperature: 250°F

APPROVALS
- ASSE 1012
- CSA B64.3
- NSF/ANSI 372 - Lead Free (4ALF only)

STANDARD MATERIALS LIST

BODY	Forged Brass C87800
UNION NUT & TAILPIECES	Forged Brass C87800
SEAT DISCS	EPDM (FDA/NSF 61)
SEAT STEM & RETAINER	Forged Brass C46500
SPRINGS	Stainless Steel

DIMENSIONS

PART NUMBER	DIMENSIONS (IN.)				WT. (LB.)
	A	B	C	D	
4ALF4A33A, 4ALF4A33AC	4.1	1.6	1.9	2.4	1.31
4ALF4H33H, 4ALF4H33HC	3.9	1.6	1.9	2.3	1.24
4ALF4A44A, 4ALF4A44AC	4.3	1.6	1.9	2.5	1.32
4ALF4H44H, 4ALF4A44HC	4.4	1.6	1.9	2.6	1.29

PART NUMBER MATRIX

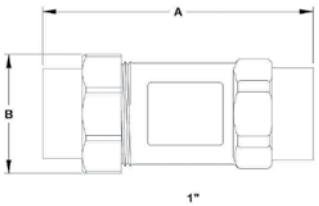
4A [X]	4 X	X - X	X	X
	UNION INLET CONNECTION	INLET AND OUTLET SIZE	UNION OUTLET CONNECTION	OPTION
4A - Standard	A - FNPT	3 - 1/2"	A - FNPT	C - Canadian (discharge port not threaded)
4ALF - Lead Free	H - Solder joint	4 - 3/4"	B - MNPT	
			H - Solder joint	

DUCLF 4ALF SERIES
DUAL CHECK VALVE BACKFLOW PREVENTER

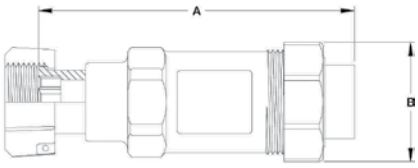
LEADFREE CERTIFIED

The Apollo DUCLF-4ALF Series Dual Check Valve Backflow Preventer is designed to prevent cross-connections of non-potable water (non-hazardous) into safe drinking water systems. It is a compact and economical device that consists of two independently-acting, spring-loaded check valves in a corrosion-resistant material.

OPERATION
Each of the two spring-loaded check valves is designed to open at 1 psi differential in the direction of flow. The check valves will remain tightly closed until there is a demand for water downstream. If the downstream pressure of the device increases above the supply pressure or there is a reverse direction of flow, the check valves will close to prevent backflow. If the second check valve is prevented from closing tightly, the first check will close to provide protection from a backflow condition.



UNION X NPT



METER SWIVEL X NPT

FEATURES
- Low Head Loss
- Independently-Acting Captured Spring Check Valves
- Compact and Lightweight
- Corrosion Resistant
- Replaceable Check Modules
- Industry Lay Lengths
- Available in Standard and Swivel Types
- 5 Year Warranty

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

APPROVALS
- ASSE 1024
- CSA B64.6
- NSF/ANSI 372 - Lead Free (4ALF only)

STANDARD MATERIALS LIST

BODY	Lead Free Bronze C87800
TAILPIECE	Lead Free Brass C46500
UNION NUT	Brass C36000
CHECK MODULES	Acetal (3/4"-1")
SPRINGS	Stainless Steel
SEAT DISCS	Buna-N (3/4"-1")

Contact local water authorities for installation/service requirements.

DIMENSIONS

SIZE (IN.)	DIMENSIONS (IN.)		WT. (LB.)
	A	B	
1/2"	4.38	2.00	1.40
3/4"	4.38	2.00	1.40
3/4" Meter Swivel	4.75	2.00	1.60
1"	4.38	2.00	1.40
1" Meter Swivel	4.75	2.00	1.75

METER THREAD SIZING

5/8" METER	3/4"
3/4" METER	1"
1" METER	1-1/4"

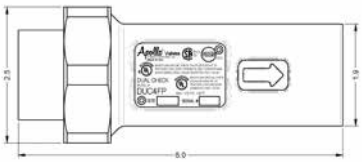
PART NUMBER MATRIX

4ALF [X]	3 X	X X	X	X
	UNION INLET CONNECTION[1,2]	INLET AND OUTLET SIZE	OUTLET CONNECTION[1,2]	FINISH
4ALF - Lead Free	A - FNPT	3 - 1/2"	A - FNPT	Blank - Satin Brass
	B - MNPT	4 - 3/4"	B - MNPT	
	C - Female Meter Thread	5 - 1"		
	S - Female Meter Swivel	6 - 1-1/4" (Meter Thread sizing for 1" meter swivel)		
EXAMPLE: 4ALF 3S54A = Lead Free Dual Check with Female Swivel 1" Inlet (for 3/4" meter connection x 3/4" FNPT outlet)				

[1] *For meter threads, order one size larger than meter size. (i.e.- 4ALF3S54A = 1" Female Meter Swivel Inlet (for connection to 3/4" meter) x 3/4" FNPT outlet*
[2] *Not all inlet and outlet combinations are available. Please contact Apollo Customer Service for availability.*

DUC 4FP SERIES
DUAL CHECK VALVE BACKFLOW PREVENTER

LEADFREE OPTIONS



The Apollo DUC 4FP Series Dual Check Backflow Preventer for Residential Fire Sprinkler Systems prevents backflow by either backpressure or backsiphonage from a cross-connection between potable water lines and substances that are objectionable, but not health-hazards.

FEATURES
- Low Pressure Loss
- Corrosion Resistant
- Replaceable Check Modules
- Pressure Drop at 30 gpm is Less than 6 psi
- Complies With NFPA Standard 13D
- 5 Year Warranty
- **Made in the USA**

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

APPROVALS
- ASSE 1024
- UL Classified
- CSA B64.6
- NSF/ANSI 372 - Lead Free (4FPLF only)

STANDARD MATERIALS LIST

BODY	Bronze (C84400)	**SPACER**	Glass-Filled Noryl®
UNION NUT & TAILPIECES	Brass	**O-RING**	Stainless Steel
CHECK MODULES	Acetal/Nitrile/Stainless Steel		

Contact local water authorities for installation/service requirements.

PART NUMBER MATRIX

4FP [XX]	3 X	X	X	X
	INLET CONNECTION[1]	INLET SIZE	OUTLET SIZE	OUTLET CONNECTION[1]
4FP - Standard	A - FNPT	5 - 1"	5 - 1"	A - FNPT
4FPLF - Lead Free	C - Female Meter Thread	6 - 1-1/4"	6 - 1-1/4"	B - MNPT
		(Meter Thread Sizing for 1" Meter)	(Meter Thread Sizing for 1" Meter)	E - Male Meter Thread
EXAMPLE: 4FP3A55A = 1" Dual Check FNPT Inlet x 1" FNPT outlet				

[1] *Not all inlet and outlet combinations are available. Please contact Customer Service for availability.*

HBV SERIES
3/4" HOSE CONNECTION VACUUM BREAKER BACKFLOW PREVENTER

LEADFREE CERTIFIED

3/4"
APOLLO INTERNATIONAL™
(OPTIONAL SATIN CHROME FINISH SHOWN)

The Apollo International™ HBV Hose Connection Vacuum Breakers are designed to prevent cross-connection caused by back-siphonage. They consist of a single check valve with atmospheric vacuum breaker vent. They feature a break-away set-screw for tamper-proof protection. They are not suitable for continuous pressure applications.

OPERATION
At no flow situations, the check disc seats against the diaphragm with the atmospheric vent open. This prevents back-siphonage or backflow of water. At flow conditions, the spring-loaded check disc opens, thus allowing flow of water through the device and at the same time the diaphragm seals the atmospheric vent.

INSTALLATION
It should only be installed in areas where spillage of water could not cause damage. For permanent installation, screw device directly into faucet, firmly hand tighten and turn set-screw in until head breaks off.

PERFORMANCE RATING
- Maximum Working Pressure: 125 psig
- Maximum Temperature: 180° F

APPROVALS
- ASSE 1011
- CSA B64.2
- IAPMO

DIMENSIONS

PART NO.	MODEL NO.	FINISH	WT./EA
38LF-314-AS	HBVLF234	Satin Brass	.17
38LF-314-CS	HBVLFC234	Satin Chrome	.17

38LF-314 shipped in 12 pcs./box

HBVB SERIES
3/4" FREEZE RESISTANT HOSE CONNECTION VACUUM BREAKER

LEADFREE CERTIFIED

3/4"
APOLLO INTERNATIONAL™

The Apollo International™ Series HBVB Freeze Resistant Hose Connection Vacuum Breaker is especially designed to prevent back-siphonage on wall and yard hydrants. It features a break-away set-screw for tamper-proof protection and automatic drain for protection against freezing conditions when hose is removed. It is not suitable for continuous pressure applications.

OPERATION
The principle of operation is similar to the HCVB Series except it has an automatic draining feature. When the hose is removed, the internal mechanism opens to drain water from the unit and the hose bibb to help prevent water from freezing inside the unit.

INSTALLATION
It should only be installed in areas where spillage of water could not cause damage. For permanent installation, screw device directly into faucet, firmly hand tighten and turn set-screw in until head breaks off.

PERFORMANCE RATING
- Maximum Working Pressure: 125 psig
- Maximum Temperature: 180° F

APPROVALS
- ASSE 1011

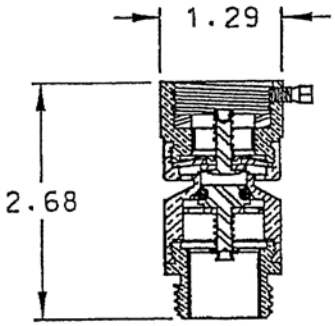
DIMENSIONS

PART NO.	MODEL NO.	FINISH	WT./EA
38LF-414-AS	HBVBLF2	Satin Brass	.37

HBDUC SERIES
3/4" HOSE CONNECTION/LAB FAUCET DUAL CHECK BACKFLOW PREVENTER

LEADFREE OPTIONS

38-304-02
SIZE 3/4"



The Apollo Series HBDUC is designed to provide an in-line testable hose connection that will prevent backflow due to back-siphonage or low head back-pressure. Each device consists of two independent checks, forced loaded in the closed position with an atmospheric vent between the checks. The device is threaded for hose connection at both the inlet and outlet with a break-away set screw on the inlet for tamper proof installations. These devices are not suitable for continuous pressure applications.

OPERATION
During initial pressurization, the inlet check shuttles forward to close the atmospheric vent. As flow is established, both the inlet and outlet check open to allow flow through the device. If a backflow condition is present, then both checks will close and the atmospheric vent opens to introduce air and break the siphon.

FEATURES
- Corrosion Resistant Body and Checks
- Low Head Loss
- Easy to Install With Break-Away Set Screw
- Protects Against Back Siphonage and Low Head Back Pressure

STANDARD MATERIALS LIST

BODY	Brass
SEATS	EPDM
CHECK COMPONENTS	Stainless Steel
CHECK GUIDE	Acetal

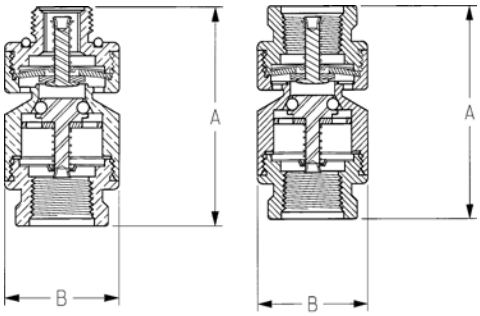
Contact local water authorities for installation/service requirements.

DIMENSIONS

PART NO.	MODEL NO.	WT./EA
38-304-02	HBDUC34	.46
38LF-304-02	HBDUCLF34	.46

LFDUC SERIES
LAB FAUCET DUAL CHECK BACKFLOW PREVENTER

LEADFREE OPTIONS



The Apollo Series LFDUC is designed to provide protection against back-siphonage wherever a hose is connected to a faucet. The device consists of two independently acting checks with an intermediate relief port or vent. It is suitable for supply pressure up to 150 psig and a temperature range of 33°F-212°F. Not suitable for constant pressure conditions.

OPERATION
During normal flow conditions, the two checks are held off their seats, supplying water downstream. The vent is held shut by supply pressure acting on the diaphragm. If the supply pressure should fall below atmospheric, the second check will close due to internal spring pressure and the vent will open to introduce air into the supply line and break the siphon.
Note: This device should only be installed where spillage of water could not cause water damage.

FEATURES
- Corrosion Resistant
- Suitable for Hot or Cold Water Service up to 212° F and 125 psi
- Lead Free Option
- Polished (-CP2 and -CP3 are Rough Brass Only)
- Easy to Maintain
- Compact and Lightweight

APPROVALS
- ASSE 1035
- NSF/ANSI 372 - Lead Free

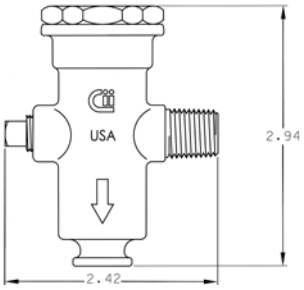
DIMENSIONS

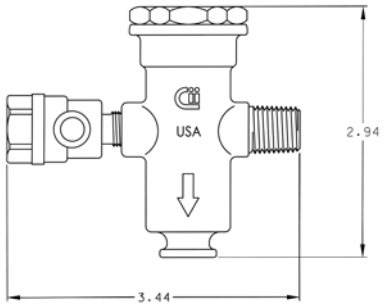
PART NO.	LEAD FREE PART NO.	INLET	OUTLET	A (IN.)	B (IN.)	WT./EA
38-502-01	38LF-502-01	3/8" MNPSM*	3/8" FNPT	2.33	1.24	.50
38-502-02	38LF-502-02	3/8" FNPT	3/8" FNPT	2.34	1.24	.50
38-502-03	38LF-502-03	3/8" FNPT	3/8" MNPSM	2.33	1.24	.50
38-502-CP2**	38LF-502-CP2**	1/4" FNPT	1/4" FNPT	2.34	1.24	.50
38-502-CP3**	38LF-502-CP3**	3/8" FNPT	3/8" FNPT	2.34	1.24	.50

**American National Standard straight pipe thread for free-fitting mechanical joints (male)*
***-CP2 and -CP3 are non-approved devices with a rough brass finish for continuous pressure applications*

FPV SERIES
FREEZE PROTECTION VALVE

LEADFREE OPTIONS





The Apollo Series FPV Freeze Protection Valve protects backflow preventers from freezing when installed in accordance with manufacturer's instructions. All internal parts of the Freeze Protection Valve are replaceable.

OPERATION
During flow conditions, the Freeze Protection Valve shall be drip-tight during above-freezing normal operating conditions. The Freeze Protection Valve shall be suitable for normal operating pressures of 20 to 175 psig.

FEATURES
- Installs Easily on All Backflow Preventers
- Ease of Repair with Available Repair Kit
- Corrosion Resistant
- 1/4" Male Pipe Thread Inlet Port
- Available With 1/8"M x 1/4"F Testcock
- Discharge Port Accommodates 5/8" I.D. Hose
- Lead-Free Option
- Mechanical Operating Principle
- Compact Design
- IAPMO listed
- 5 Year Warranty
- **Made in the USA**

PERFORMANCE RATING
- Nominal Start to Open Temperature of 35°F
- Maximum Operating Pressure: 175 psig
- Maximum Temperature of 180°F

APPROVALS
- NSF/ANSI 372 - Lead Free (40LF only)

STANDARD MATERIALS LIST

BODY	Bronze (C84400/LF C89836)
CAP	Brass
SPRING GUIDE	Brass
SPRING	Stainless Steel
CAP O-RING	Buna-N
GUIDE O-RING	Buna-N
THERMAL ELEMENT	Copper/Stainless Steel/EPDM

Contact local water authorities for installation/service requirements.

WEIGHTS

MODEL NO.	NET WEIGHT (LB.)
40-000-FPV1	.70
40-000-FPV2	.77

MODEL NUMBERS

MODEL NO.
40-000-FPV1
40-000-FPV2 – w/test cock
40LF-000-FPV1
40LF-000-FPV2F – w/SAE testcock

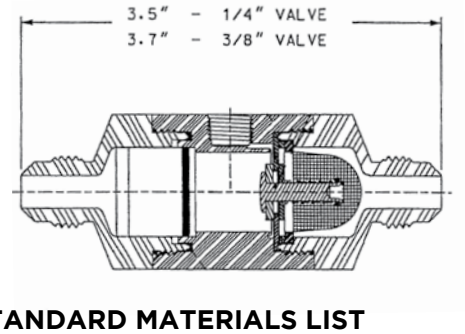
PART NUMBER MATRIX

40 [X] 000	FPV X
	OPTIONS
40 - Standard	1 - w/1/8" NPT plug
40LF - Lead Free	2 - w/1/8" male x 1/4" female test cock
	2F - SAE test cock
	R - Repair kit* for FPV1 and FPV2

** Repair kit includes: Thermal element, spring, spring guide, two o-rings (all internal parts)*

CBBP-A SERIES
CARBONATED BEVERAGE BACKFLOW PREVENTER

LEADFREE CERTIFIED



The Apollo CBBP-A Series Carbonated Beverage Backflow Preventer (CBBP) is designed to prevent the contamination of the potable water supply due to backflow when installed on water distribution lines serving beverage dispensing equipment. The device consists of two independently acting check valves biased to a normally closed position. A normally open atmospheric port is located between the check valves. During backflow conditions, the port vents gases and/or liquids. Additionally, the CBBP is equipped with a 100 mesh integral strainer screen at the inlet. All wetted areas of the device are non-toxic, corrosion resistant, and approved for use with potable water. The CBBP is suitable for supply pressures to 150 psig and water temperatures from 33˚ to 130˚ F.

OPERATION
Under static (non-flowing) conditions, the check valves remain in the closed position. When a valve is opened downstream (i.e. a beverage is delivered from the beverage dispensing unit), the check valves open and permit the flow of water. Under backflow conditions, the diaphragm seat on the first check lifts and permits flow through the atmospheric port located between the two check valves. The strainer insures debris does not enter the backflow preventer.

FEATURES
- Compact Design
- Lowest Head Loss
- Atmospheric Vent Provides Indication of Problems
- Integral Strainer for Equipment Protection
- Lead Free
- 5 Year Warranty
- Available in SAE & NPT Connections
- Repairable Check Assemblies
- Non-Metallic Body for Corrosion Resistance

APPROVALS
- CSA
- NSF/ANSI/CAN 61 - Water Quality
- ASSE 1022
- IAPMO® Listed

STANDARD MATERIALS LIST

END CAP	Noryl/GFN2
STRAINER	PVC/Stainless Steel
O-RING	EPDM
UPSTREAM CHECK	EPDM/Stainless Steel
DOWNSTREAM CHECK	EPDM/Stainless Steel, Acetal
VALVE BODY	Noryl/GFN2
VENT TUBE	Polyethylene

Contact local water authorities for installation/service requirements.

PART NUMBER MATRIX

4C10 X	**XX A**
SIZE	INLET AND OUTLET CONNECTION
1 - 1/4"	01 - Flare
2 - 3/8"	02 - MNPT (3/8" only)

DIMENSIONS

SIZE	CONNECTION SIZING		WT./EA
1/4"	7/16"-20 UNF	SAE Flare	.19
3/8"	5/8"-18 UNF	SAE Flare	.19
3/8"	3/8" NPT	Male NPT	.19

4A, 4AN AND RPS 40 SERIES
AIR GAP DRAIN

For installation with all 4A, 4An and RPS 40 Series Reduced Pressure Principle backflow preventers.

The Apollo Air Gap Drain (AGD) is designed to funnel minor relief valve discharges, due to line pressure fluctuations and /or minor check valve fouling, into the drainage system. Drain piping is easily attached to the drain's threaded bottom.

Note: The AGD is designed to collect expected minor discharges due to fouled checks or pressure fluctuations but not the full discharge capacity of the relief valve.

AGD4A1 / AGD4A112 / AGD4A2 / AGD4A6 (1/2" - 6")

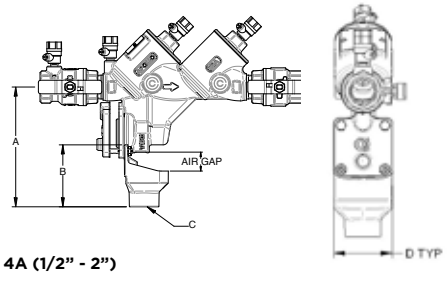
RP SIZE	AIR GAP PART NUMBER	DIMENSIONS (IN.)				OUTLET CONNECTION (FNPT)	WT. (LB.)
		A	B	C	D		
1/2"	AGD4A1	6-1/2	3-3/8	1" FNPT	2-5/8	1-1/4"	0.1
3/4"	AGD4A1	6-1/2	3-3/8	1" FNPT	2-5/8	1-1/4"	0.1
1"	AGD4A1	6-5/8	3-3/8	1" FNPT	2-5/8	1-1/4"	0.1
1-1/4" & 1-1/2"	AGD4A112	8-1/2	4-1/8	1-1/2" FNPT	3-1/2	2"	0.2
2"	AGD4A2	10	5-3/8	2" FNPT	4-1/4	2-1/2"	0.35
RP4A							
2-1/2"	AGD4A6	11.28	-	2.63	3.13	2"	0.7
3"	AGD4A6	11.28	-	2.63	3.13	2"	0.7
4"	AGD4A6	12.02	-	2.63	3.13	2"	0.7
6"	AGD4A6	13.32	-	2.63	3.13	2"	0.7
RP4AN							
2-1/2"	AGD4A6	-	10.87	2.63	3.13	2"	0.7
3"	AGD4A6	-	10.87	2.63	3.13	2"	0.7
4"	AGD4A6	-	10.51	2.63	3.13	2"	0.7
6"	AGD4A6	-	11.76	2.63	3.13	2"	0.7

AGD4A8 & AGDA12IN (8" & 12")

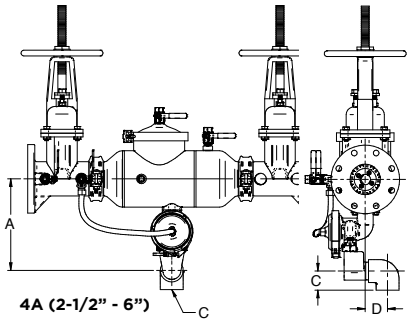
RP STYLE	AIR GAP PART NUMBER	DIMENSIONS (IN.)		OUTLET PIPE SIZE	OUTLET CONNECTION (FNPT)	WT. (LB.)
		A	B	C		
RPLF4A	AGD4A8	21.3	9.1	3"	2-1/2"	1.5
RPLF4AN	AGD4A8	19.8	9.1	3"	2-1/2"	1.5
RPLF4A	AGD4A12IN	26.3	7.7	4"	3"	5
RPLF4AN	AGD4A12IN	23.4	7.7	4"	3"	5

AGD4A012 / AGD4A01 (3/8" - 1")

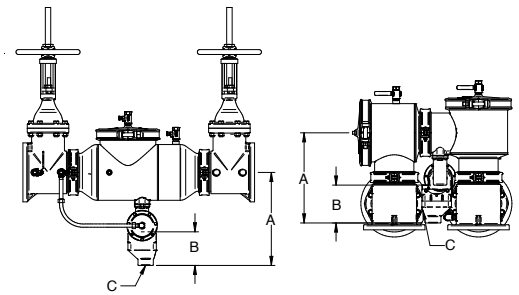
RPS SIZE	AIR GAP PART NUMBER	DIMENSIONS (IN.)				OUTLET CONNECTION (FNPT)	WT. (LB.)
		A	B	C	D		
3/8", 1/2"	AGD4012	6-1/2	3-3/8	1" FNPT	2-5/8	1-1/4"	0.1
3/4" & 1"	AGD401	8-1/4	4 -1/8	1-1/2" FNPT	3-1/2	2"	0.2



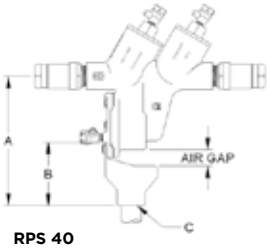
4A (1/2" - 2")



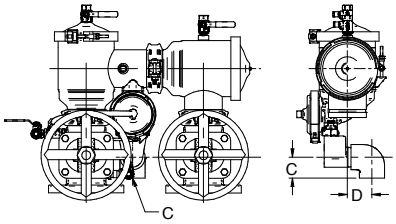
4A (2-1/2" - 6")



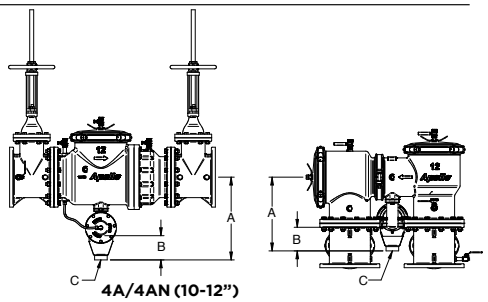
4A/4AN (8")



RPS 40



4AN (2-1/2" - 6")



4A/4AN (10-12")

BACKFLOW PREVENTION