

BACKFLOW PREVENTION CATALOG

Double Check Detector Backflow Preventers

DCDA 4SG SERIES



Sizes 2-1/2", 3", 4", 6", 8", 10"

DCDA 4SG SERIES DOUBLE CHECK DETECTOR 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.

FEATURES

- Lightweight
- Short lay length
- Low pressure loss
- Modular check valves
- Individual access to check valves
- Reversible/replaceable seat discs
- Approved for vertical and horizontal installations
- **Lead-Free** option (2-1/2" - 6" only)
- Gate valves epoxy coated (FDA)
- Corrosion resistant FDA epoxy-coated ductile iron body
- 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
- US Patents #5,711,341 and #6,343,618

MATERIALS

Part	Material
Body (mainline)	Epoxy-coated (FDA) Ductile Iron
Bypass DC	Bronze (C84400, LF C89836)
Covers (2-1/2" - 6")	Epoxy-coated (FDA) Steel
Covers (8")	Epoxy-coated (FDA) Ductile Iron
Check Valves (2-1/2" - 6")	Glass-Filled PPO
Check Valves (8")	Bronze (C84400, LF C89836)
Springs	Stainless Steel
Seat Discs	Chloramine-Resistant EPDM
Test Cock Handles	Stainless Steel

FACTORY CODE

4SG [X]	60 X	X	[X]	X
	SIZE	METER OPTION	SHUT-OFF VALVES (Inlet x Outlet)	FLOW (OPTIONAL)
4SG = Standard	9 = 2-1/2"	C = Cubic feet/min	1 = Less Shut-off Valves (grooved-end body)	N = n Flow
4SGLF = Lead Free (2-1/2"-6" only)	0 = 3"	E = Gallons/min	3 = OS&Y Flg x OS&Y Flg	
4S = 10"	A = 4"	G = Less meter	4 = OS&Y Flg x Monitored Butterfly Valve Grv	
	C = 6"		6 = OS&Y Flg x Flg Post Indicator**	
	E = 8"		7 = OS&Y Flg x OS&Y Grv	
	G = 10"#		8 = OS&Y Grv x OS&Y Grv	
			9 = Mon. Butterfly Vlv Grv x Mon. Butterfly Vlv Grv	
			10 = OS&Y Flg x Grv Post Indicator**	

**Post indicator option not available in 2-1/2" size
10" body is flanged internal connections only (Model 4S)

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

BACKFLOW PREVENTION CATALOG

Reduced Pressure Backflow Preventers

RP 4A



Sizes 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"

REDUCED PRESSURE PRINCIPLE

The Apollo® Series RP 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 testcocks 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
- ASSE 1013
- CSA B64.4
- **Lead-Free** option
 - NSF 61/8/G/372
 - Federal Public Law 111-380
- AWWA C511
- UL Classified (less shut-offs)
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- Standard with full port ball valves with stainless steel handles
- Corrosion resistant
- Maximum working pressure 175 psig
- Operating temperature range 33°F-180°F
- Horizontal installation approvals on 1/2" through 2"
- Designed, cast, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

MATERIALS

Part	Material
Body and Caps	Bronze (C84400, LF C89836)
BV Shut-offs, Testcocks	Bronze C84400 or C87800 Lead Free
Springs	300 Series SS
Seat Discs	Chloramine-resistant Silicone
Diaphragm	Nitrile and Nylon
Check Modules	Glass-Filled PPO
O-rings	Chloramine-resistant EPDM
Ball Valve Handles	Stainless Steel

Contact local water authorities for installation/service requirements.

FACTORY CODE

4A [X]	2 X	X	A X	X
	Y-STRAINER	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
4A = Non-Lead Free 4ALF = Lead Free	0 = Standard 1 = With Y-Strainer (Shipped loose)	3 = 1/2" 4 = 3/4" 5 = 1" 6 = 1-1/4" 7 = 1-1/2" 8 = 2"	2 = w/ball valves (Standard) 4 = w/union ball valves (3/4" - 2")	F = SAE threaded test cocks (standard 1/2, 3/4", 1") L = Lever handle (3/4" & 1" only) LL = Locking lever handles PR = Press Connection P = Push Connection

Example:

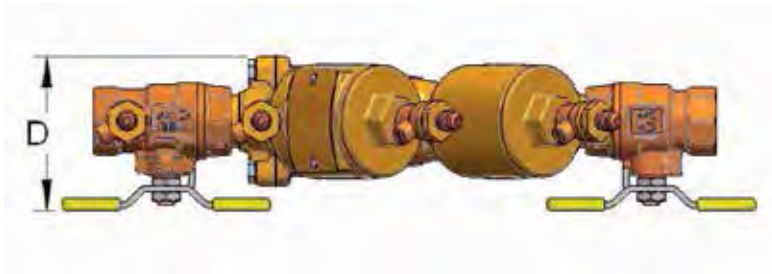
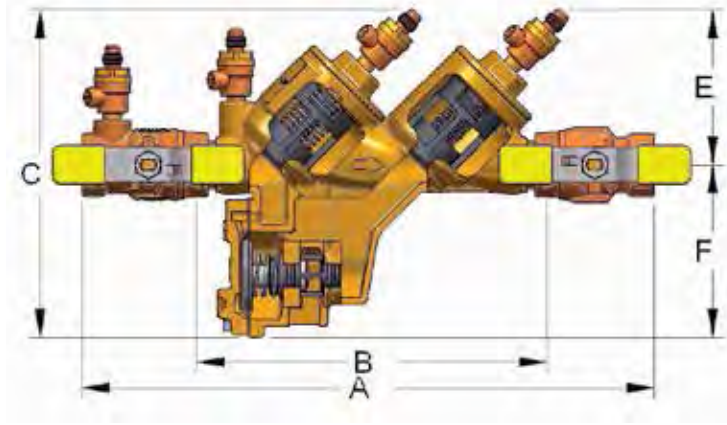
4A 215 A4LL = 1" Reduced Pressure Backflow Preventer with strainer, union ball valves and locking lever handles

BACKFLOW PREVENTION CATALOG



Reduced Pressure Backflow Preventers

RP 4A



DIMENSIONS

See Page 61 For Flow Curves

Model No. Factory 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 A2 1-1/4"	RP4A114 4A 206 A2 32 mm.	RP4A112 4A 207 A2 1-1/2"	RP4A112 4A 207 A2 40 mm.	RP4A2 4A 208 A2 2"	RP4A2 4A 208 A2 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	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	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 Union Ball Valve, Press, and Push connection dimensions, see submittal sheets.

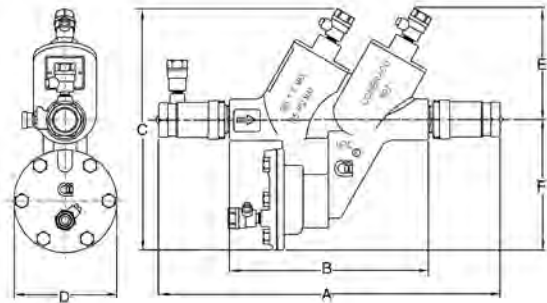
BACKFLOW PREVENTION CATALOG

Reduced Pressure Backflow Preventers

RP 40S SERIES



Sizes 1/4", 3/8", 1/2", 3/4", 1"



See page 52 for air gap drain information.

STAINLESS STEEL REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER

The Apollo Series RP 40S 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 port ball valves with stainless steel handles
- **Lead-Free** standard
- Maximum working pressure 175 psig
- Temperature range 33°F-180°F
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California
- ASSE 1013
- CSA
- Designed, cast, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

MATERIALS

Part	Material
Body and Covers	316 Stainless Steel (CF8M)
Springs	Stainless Steel
Fasteners	Stainless Steel
Poppets	Glass-Filled Celcon®
Seat Discs	Silicone Rubber
Diaphragm and O-Rings	FDA Fluorocarbon
Replaceable Seats	Glass-Filled PPO
Test Cocks & Handles	Stainless Steel

Contact local water authorities for installation/service requirements.

FACTORY CODE

40 2 X	X	T X	S X
Y-STRAINER	SIZE	SHUT-OFF VALVES	OPTIONS (CAN BE COMBINED)
0 = Standard 1 = w/SS Y-strainer (shipped loose)	1 = 1/4" 2 = 3/8" 3 = 1/2" 4 = 3/4" 5 = 1"	1 = Less ball valves (UL classified-3/4",1") 2 = w/SS ball valves, w/SS Tee Handles (Standard)	LL = Locking lever handles

DIMENSIONS

Model No. Factory No. Size	(x = Shut-off valve configuration) See Page 62 For Flow Curves									
	RP40S14 40 201 TxS 1/4"	RP40S14 40 201 TxS 6 mm.	RP40S38 40 202 TxS 3/8"	RP40S38 40 202 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	10-1/2	267	10-1/2	267	10-1/2	267	13-1/2	343	15-1/4	387
B	5-3/4	146	5-3/4	146	5-3/4	146	7-15/16	202	7-15/16	202
C	6-7/8	175	6-7/8	175	6-7/8	175	9	229	9	229
D	2-5/8	68	2-5/8	68	2-5/8	68	4-1/16	103	4-1/16	103
E	3-3/16	81	3-3/16	81	3-3/16	81	4-3/8	111	4-3/8	111
F	3-3/4	95	3-3/4	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	1/8 x 1/4 NPT	1/8 x 1/4 NPT	1/8 x 1/4 NPT
WEIGHTS	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.	lbs.	kg.
Net Wt. (w/o Ball Valves)	4.3	2.0	4.3	2.0	4.1	1.9	8.1	3.8	8.1	3.7
Net Wt. (with Ball Valves)	5.5	2.5	5.5	2.5	5.4	2.4	10.8	4.9	11	5.0
Shpg. Wt. (w/o Ball Valves)	5.2	2.4	5.1	2.3	5	2.3	9.8	4.4	9.6	4.3
Shpg. Wt. (with Ball Valves)	6.4	2.9	6.4	2.9	6.3	2.8	12.3	5.6	12.8	5.8

BACKFLOW PREVENTION CATALOG

Reduced Pressure Backflow Preventers

RPFHB 4A SERIES



Size 1"

Contact local water authorities for installation/service requirements.

FIRE HYDRANT BACKFLOW METER

The Apollo Series RP 4A Fire Hydrant Backflow Meter shall measure potable water flow from a fire hydrant or other non-permanent installation. At the same time it shall protect against backflow by either back-pressure or back-siphonage from a cross-connection between potable water system and substances that are non-health and health hazards. The unit shall consist of a 3/4" Short Water Meter, 1" 4A-205 RP device, 1" resilient-seated full port ball valve with locking device, 2 1/2"-7 1/2" NST threaded hose couplings, strainer on inlet of meter and adjustable support rod assembly.

OPERATION

The Fire Hydrant Backflow Meter is connected directly to a fire hydrant with a 2 1/2"-7 1/2" NST fire hose female swivel coupling. The device operates like a standard Reduced Pressure device except the flow through the device is measured by a Water Meter connected to the inlet of the backflow preventer. Support rod assembly is adjustable to accommodate fire hydrants at different heights from the ground.

FEATURES

- Normal operating flow range 2-30 gpm
- Accuracy 100% ± 1.5% of actual thruput
- Low flow registration 95% at 1/2 gpm
- Maximum pressure loss 11.0 psi at 30 gpm
- Maximum operating pressure 150 psi
- Measuring element oscillating piston
- Register is straight reading, hermetically sealed magnetic drive
- Meter maincase is bronze, measuring chamber is Rocksyn, a corrosion resistant thermoplastic material, maincase bottom plate is bronze, gears are self-lubricating, molded plastic for long life and minimum friction, magnets are Alnico, trim and casing bolts are stainless steel and strainer is thermoplastic.
- Tamperproof locking system inside the meter
- 2 1/2"-7 1/2" NST fire hose swivel couplings, female inlet, male outlet
- Maximum rate listed is for intermittent flow only. Maximum continuous flow rate as specified by AWWA is 15 gpm.
- Designed, manufactured, assembled and tested in South Carolina, USA
- 5 year, domestic warranty

WEIGHTS (lbs.)	
NET WEIGHT	24.1
SHIPPING WEIGHT	27.6
MODEL NUMBER	
4A-205-FHB	(meter in cu. ft.)
4A-205-FHBG	(meter in gallons)

BACKFLOW PREVENTION CATALOG

Reduced Pressure Backflow Preventers

RPLF 4A SERIES



Sizes 2-1/2"-12"



TriForce™ Check

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER

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"
- Low pressure loss as documented by an independent laboratory
- Center stem guided TriForce™ check valves
- Approved for horizontal flow*
- Chloramine-resistant elastomers
- Made in the USA
- **Lead-Free** standard
- ASSE 1013
- CSA B64.4
- AWWA C-511
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 6")
- UL, ULC Classified
- FM approved
- Maximum working pressure 175 psi
- Temperature range 33°F - 140°F, 180°F intermittent
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- Optional Air Gap Drains (see page 52 for details and discharge rates)
- 5 year, domestic warranty

MATERIALS

Part	Material
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 C84400/ LF C89836
Check Valves	Bronze/Glass-filled PPO/SS
Springs	Stainless Steel
Seat Discs	Chloramine-resistant Silicone

FACTORY CODE

4ALF	2 X	X	O X
	Y-STRAINER	SIZE	SHUT-OFF VALVES
4ALF = Lead Free Standard	0 = Standard 1 = w/Y-strainer (shipped loose)	9 = 2-1/2" 0 = 3" A = 4" C = 6" E = 8" G = 10" H = 12"	1 = Less Shut-off Valves 2 = NRS Flg x NRS Flg 3 = OS&Y Flg x OS&Y Flg 4 = OS&Y Flg x Monitored (Mon.) Butterfly Vlv Grv† 6 = OS&Y Flg x Post indicator Flg** 7 = OS&Y Flg x OS&Y Grv 8 = OS&Y Grv x OS&Y Grv 9 = Mon. Butterfly Vlv Grv x Mon. Butterfly Vlv Grv† 10 = OS&Y Flg x Post Indicator Grv** 11 = NRS Grv x NRS Grv 12 = NRS Flg x NRS Grv 13 = Post Indicator Flg x Mon. Butterfly Vlv Grv† 14 = Post Indicator Flg x Post Indicator Flg 16 = Mon Butterfly Vlv Grv x Post Indicator Flg† 17 = Post Indicator Flg x OS&Y Grv 18 = OS&Y Grv x Post Indicator Grv 19 = Mon. Butterfly Vlv Grv x Post Indicator Grv 20 = Post Indicator Flg x OS&Y Flg

** Post indicator with plate & nut option not available in 2-1/2" size.

† Butterfly valves not available in 12" size.

Example:
4ALF 20A 07 = 4" size Lead Free Reduced Pressure Assembly with OS&Y flanged inlet x OS&Y grooved outlet shut-off valves.

www.apollovalves.com

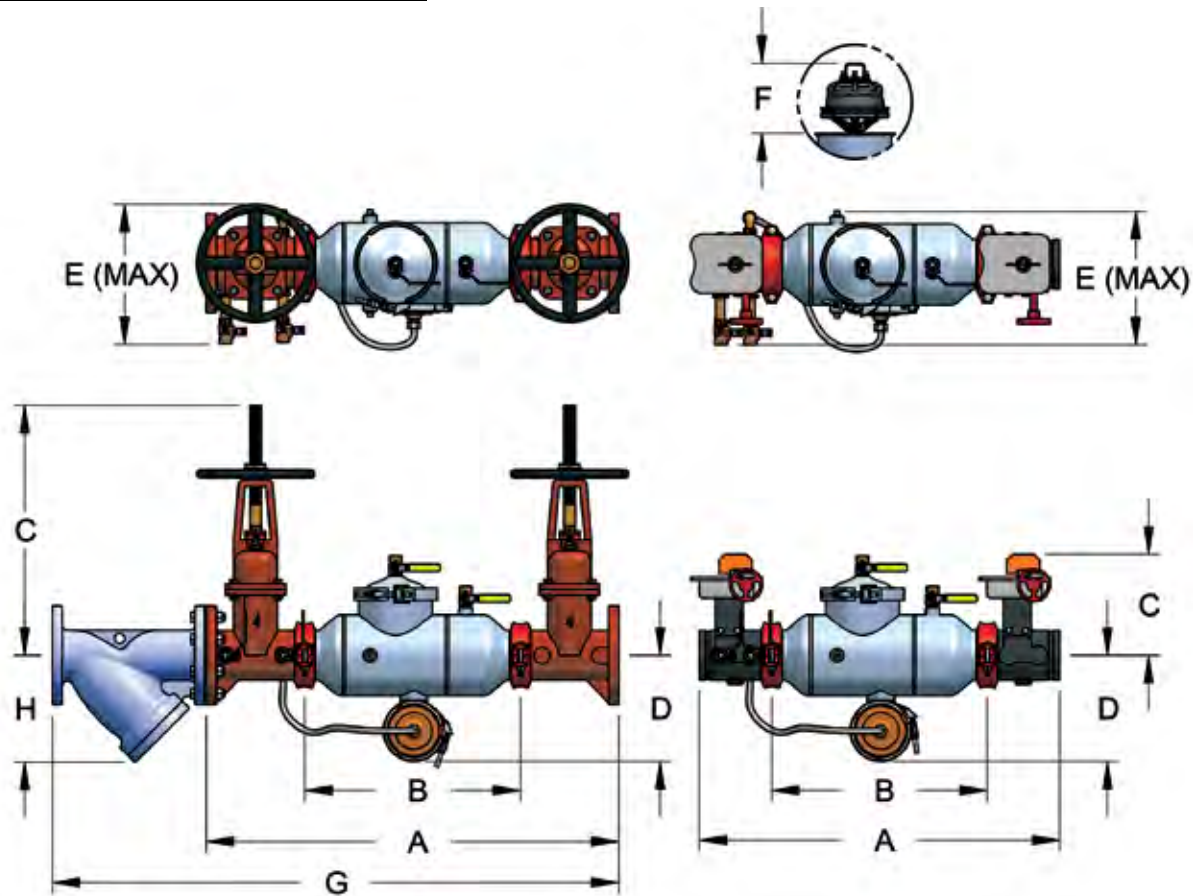
Customer Service (704) 841-6000



BACKFLOW PREVENTION CATALOG

Reduced Pressure Backflow Preventers

RPLF 4A SERIES



DIMENSIONS

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances ($\pm 1/8"$ (3 mm) per joint)
See Page 63 For Flow Curves

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 ±	28-1/2 ±	724 ±	33-1/4 ±	845 ±	38-7/8 ±	987 ±	46-3/8 ±	1178 ±	52-1/4 ±	1327 ±	N/A	N/A
A (Gate Valves)	31 ±	787 ±	32 ±	813 ±	38 ±	965 ±	45-7/8 ±	1165 ±	53-3/8 ±	1356 ±	62-1/4 ±	1581 ±	62-1/2 ±	1586 ±
B (Less Shut-off Valves)	15-7/8 ±	403 ±	15-7/8 ±	403 ±	19-5/8 ±	498 ±	24-1/2 ±	622 ±	30 ±	762 ±	36 ±	914 ±	37 ±	940 ±
C (Butterfly Valves)	8	203	8-3/8	213	9-1/8	233	10-1/8	257	12	306	13-3/8	340	N/A	N/A
C (NRS/PI Gate Valves)	11-3/8	289	12-3/8	314	14-3/4	375	19	483	22-1/2	572	26-1/2	673	30	762
C (OS&Y Open)	16-3/8	416	18-7/8	479	22-3/4	578	30-1/8	765	37-3/4	959	45-3/4	1162	53-1/8	1349
D (Centerline to bottom)	9-5/8	238	9-5/8	238	10-3/8	264	11-5/8	295	15-5/8	397	21	533	21	533
E (Width Max)	11-1/2	292	12	305	12-1/2	318	14-3/8	365	17-5/8	449	21	533	22	559
F (Check Removal Clearance)	4-3/4	121	4-3/4	121	6-1/2	165	7-1/2	191	7-1/2	191	10	254	10	254
G (With Strainer)	41-7/8	1064	43-5/8	1108	52	1321	64-1/2	1638	74-7/8	1902	88-3/8	2245	95-5/8	2429
H (Strainer Clearance)	8	203	8-3/4	222	9-1/2	241	12-5/8	321	16-3/8	416	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 Shut-offs)	31	14	32	5	48	22	84	38	228	103	762	346	865	392
Net Wt. (w/ Butterfly Valves)	58	26	62	28	92	42	152	69	359	163	980	445	N/A	N/A
Net Wt. (w/NRS Gate Valves)	117	53	143	65	197	89	323	147	691	313	1608	729	2003	909
Net Wt. (w/ OS&Y Gate Valves)	127	58	153	69	203	92	333	151	705	320	1648	748	2057	933

Notes:

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



For additional information, submittal sheets and manuals, visit www.apollovalves.com

Customer Service (704) 841-6000

BACKFLOW PREVENTION CATALOG

Reduced Pressure Backflow Preventers

RPLF 4An SERIES



n Flow

Vertical Up Flow

Sizes 2-1/2"-12"



TriForce™ Check



Optional Valve Setter (see pg 50)

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER

The Apollo® MODEL 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 laboratory
- Center stem guided TriForce™ check valves
- Optional Air Gap Drains (see page 52 for details and discharge rates)
- Small installation space required - small footprint
- Approved for n-flow and vertical up flow*
- Chloramine-resistant elastomers
- **Lead-Free** standard
- ASSE 1013
- CSA B64.4
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (4" - 6")
- AWWA C-511
- UL, ULC Classified
- FM approved
- Maximum working pressure 175 psi
- Temperature range 33°F - 140°F, 180°F intermittent
- Optional valve setters eliminate need for thrust blocks between elbows
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- Made in the USA
- 5 year, domestic warranty

MATERIALS

Part	Material
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 C84400/ LF C89836
Check Valves	Bronze/Glass-filled PPO/SS
Springs	Stainless Steel
Seat Discs	Chloramine-resistant Silicone

FACTORY CODE

4AnLF	2 X	X	0 X
	Y-STRAINER	SIZE	SHUT-OFF VALVES
4AnLF= Lead Free	0 = Standard 1 = w/Y-strainer (shipped loose)	9 = 2-1/2" 0 = 3" A = 4" C = 6" E = 8" G = 10" H = 12"	1 = Less Shut-off Valves 2 = NRS Flg x NRS Flg 3 = OS&Y Flg x OS&Y Flg 4 = OS&Y Flg x Monitored (Mon.) Butterfly Vlv Grv [†] 6 = OS&Y Flg x Post indicator Flg** 7 = OS&Y Flg x OS&Y Grv 8 = OS&Y Grv x OS&Y Grv 9 = Mon. Butterfly Vlv Grv x Mon. Butterfly Vlv Grv [†] 10 = OS&Y Flg x Post Indicator Grv** 11 = NRS Grv x NRS Grv 12 = NRS Flg x NRS Grv 13 = Post Indicator Flg x Mon. Butterfly Vlv Grv [†] 14 = Post Indicator Flg x Post Indicator Flg 16 = Mon Butterfly Vlv Grv x Post Indicator Flg [†] 17 = Post Indicator Flg x OS&Y Grv 18 = OS&Y Grv x Post Indicator Grv 19 = Mon. Butterfly Vlv Grv x Post Indicator Grv 20 = Post Indicator Flg x OS&Y Flg

** Post indicator with plate & nut option not available in 2-1/2" size.
† Butterfly valves not available in 12" size.

Example:
4AN 20A 07 = 4" size Reduced Pressure Assembly with OS&Y flanged inlet x OS&Y grooved outlet shut-off valves

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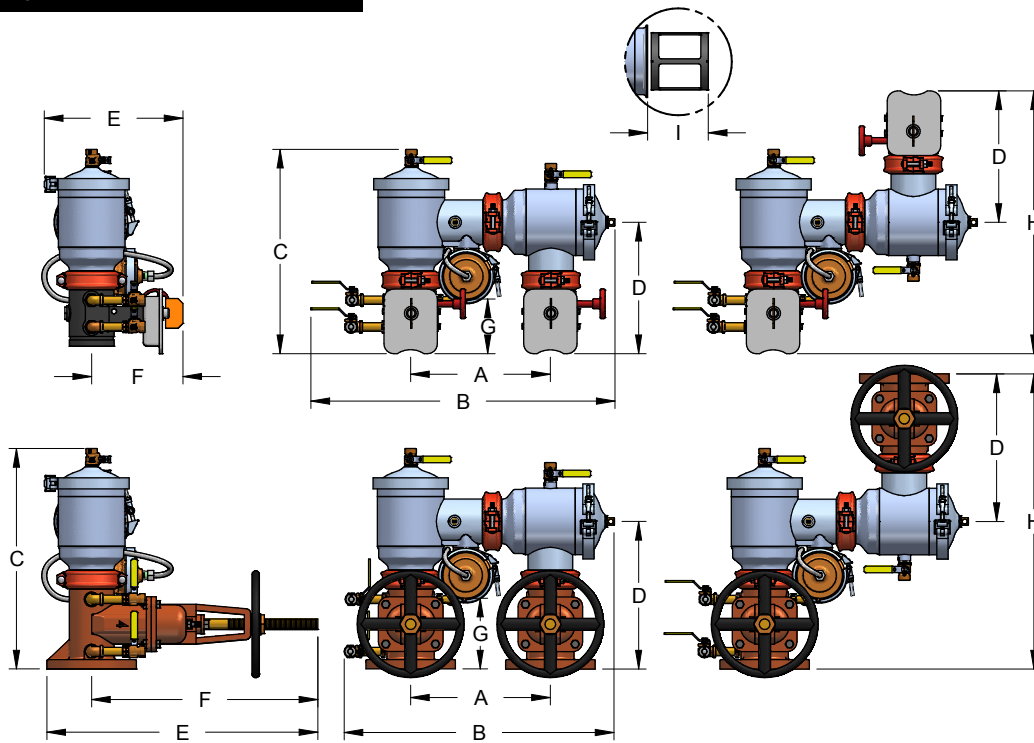
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BACKFLOW PREVENTION CATALOG

Reduced Pressure Backflow Preventers

RPLF 4An SERIES



DIMENSIONS

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances ($\pm 1/8"$ (3 mm) per joint)
See Page 64 For Flow Curves

DIMENSIONS	2-1/2"	60mm	3"	75mm	4"	100mm	6"	150mm	8"	200mm	10"	250mm	12"	300mm
A (Centerline to Centerline)	12-1/2 \pm	318 \pm	12-1/2 \pm	318 \pm	14 \pm	356 \pm	16 \pm	406 \pm	18-1/2 \pm	470 \pm	21 \pm	533 \pm	26-3/4 \pm	675 \pm
B (Butterfly Valves)	27-1/2 \pm	699 \pm	27-1/2 \pm	699 \pm	30-3/4 \pm	781 \pm	36 \pm	914 \pm	37-3/8 \pm	949 \pm	43 \pm	1092 \pm	N/A	N/A
B (Gate Valves)	24-1/2 \pm	622 \pm	24-1/2 \pm	622 \pm	27 \pm	686 \pm	32 \pm	813 \pm	40-3/4 \pm	1035 \pm	49 \pm	1245 \pm	55-3/4 \pm	1416 \pm
C (Butterfly Valves)	18-1/4	468	18-1/2	470	20	508	24-3/4	629	28-1/2	724	35	889	N/A	N/A
C (Gate Valves)	19-5/8	498	20	508	22-1/2	572	27-3/4	705	32-1/8	816	40	1016	44	1118
D (Butterfly Valves)	11-1/2	292	11-3/4	298	12-1/2	318	14-1/2	368	17-7/8	454	19-3/4	502	N/A	N/A
D (Gate Valves)	13	330	13-1/2	343	14-7/8	378	18	457	21-3/8	543	24-3/4	629	28-3/4	730
E (Butterfly Valves)	11-1/2	292	12-1/8	308	12-7/8	327	15-7/8	403	22-1/4	565	23-1/8	587	N/A	N/A
E (OS&Y Open)	19-7/8	505	24-1/2	622	27-1/4	692	32-3/4	832	44-1/2	1130	54	1372	62-3/4	1594
E (NRS/PI)	14-7/8	378	16-1/8	410	19-1/4	489	24-1/2	622	29-1/4	740	36-3/8	924	40	1016
F (Butterfly Valves)	8	203	8-3/8	213	9	229	10-7/8	277	12-7/8	327	13-1/2	343	N/A	N/A
F (OS&Y Open)	16-3/8	416	20-1/2	521	22-3/4	578	28	711	37-3/4	959	46	1168	53-1/8	1349
F (NRS/PI)	11-3/8	289	12-3/8	314	14-3/4	375	19	483	22-1/2	572	26-1/2	673	30	762
G (Butterfly Valves)	4-1/8	105	4-1/2	114	4-3/8	111	6-1/2	165	5-1/4	133	4	102	N/A	N/A
G (Gate Valves)	5-1/2	140	6	152	6	152	9	229	9	229	9	229	10	254
H (Butterfly Valves)	23	584	23-1/2	597	25	635	29	737	35-3/4	908	N/A	N/A	N/A	N/A
H (Gate Valves)	26	660	27	686	29-3/4	756	36	914	42-3/4	1086	N/A	N/A	N/A	N/A
I (Check Removal Clearance)	6	152	6	152	6	152	8	203	8-1/2	216	12	305	12	305
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 Shut-offs)	39	18	39	18	48	22	83	38	325	147	841	381	966	438
Net Wt. (w/ Butterfly Valves)	66	30	69	31	92	42	151	69	456	207	1019	462	N/A	N/A
Net Wt. (w/NRS Gate Valves)	125	57	150	68	197	89	322	146	788	357	1487	674	2103	954
Net Wt. (w/ OS&Y Gate Valves)	135	61	160	73	203	92	332	151	802	364	1509	684	2157	978

Notes:

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



For additional information, submittal sheets and manuals, visit www.apollovalves.com

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BACKFLOW PREVENTION CATALOG

Reduced Pressure Detector Assembly

RPDALF 4A SERIES

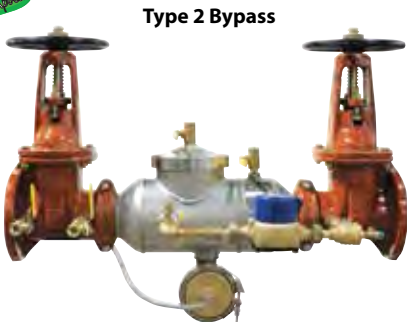
RPDALF 4A REDUCED PRESSURE DETECTOR ASSEMBLY

The Apollo® MODEL RPDALF 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.

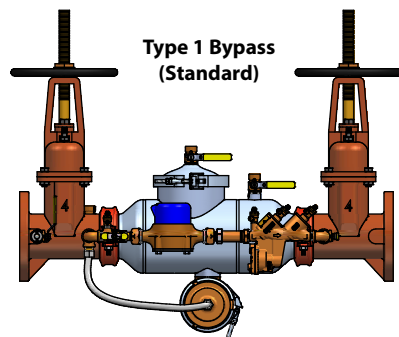
The Type 2 bypass uses the first check of the mainline assembly as the first check of the bypass. The second check of the bypass is a single check valve with a model number and serial number for test recording. This arrangement complies with the National Backflow Standards. The arrangement provides the same level of protection as the standard 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 laboratory
- Center stem guided TriForce™ check valves
- Approved for horizontal flow
- ASSE 1047 (with meter)
- Optional air gap drains (see page 52 for details and discharge rates.)
- **Lead-Free** standard
- CSA B64.4
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (RPDALF 4A 2-1/2" - 6")
- UL, ULC Classified
- FM approved
- Maximum working pressure 175 psi
- Temperature range 33°F - 140°F, 180°F intermittent
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- Made in the USA
- 5 year, domestic warranty
- Optional mounting of bypass on either side for ease of installation



Type 2 Bypass



Type 1 Bypass (Standard)

Sizes 2-1/2"-12"



TriForce™ Check

MATERIALS

Part	Material
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 (C84400/LF C89836)
Check Valves	Bronze/Glass-filled PPO/SS
Springs	Stainless Steel
Seat Discs	Chloramine-resistant Silicone

FACTORY CODE

4ALF	7 X	X	X	[X]
	BY-PASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (Inlet x Outlet)
4ALF = Lead Free Standard	0 = Type 1 w/ 1/2" Reduced Pressure 2 = Type 2 w/1/2" Single Check 3 = Type 1 w/ bypass on left* 4 = Type 2 w/ bypass on left*	9 = 2-1/2" 0 = 3" A = 4" C = 6" E = 8" G = 10" H = 12"	C = Cubic feet/min E = Gallons/min G = Less meter	1 = Less Shut-off Valves 3 = OS&Y Flg x OS&Y Flg 4 = OS&Y Flg x Monitored (Mon.) Butterfly Vlv Grv [†] 6 = OS&Y Flg x Post indicator Flg** 7 = OS&Y Flg x OS&Y Grv 8 = OS&Y Grv x OS&Y Grv 9 = Mon. Butterfly Vlv Grv x Mon. Butterfly Vlv Grv [†] 10 = OS&Y Flg x Post Indicator Grv** 13 = Post Indicator Flg x Mon. Butterfly Vlv Grv [†] 14 = Post Indicator Flg x Post Indicator Flg 16 = Mon Butterfly Vlv Grv x Post Indicator Flg [†] 17 = Post Indicator Flg x OS&Y Grv 18 = OS&Y Grv x Post Indicator Grv 19 = Mon. Butterfly Vlv Grv x Post Indicator Grv 20 = Post Indicator Flg x OS&Y Flg

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

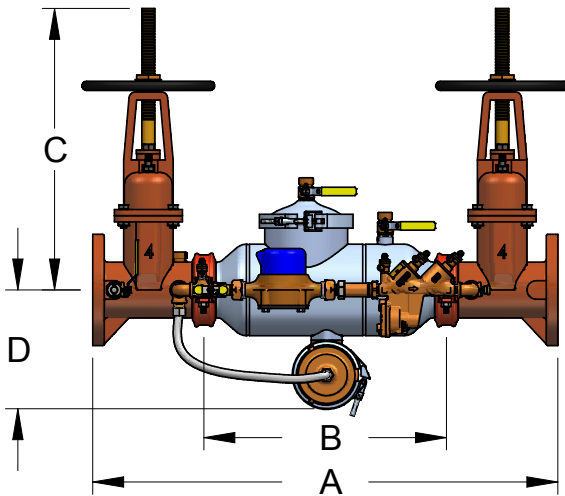
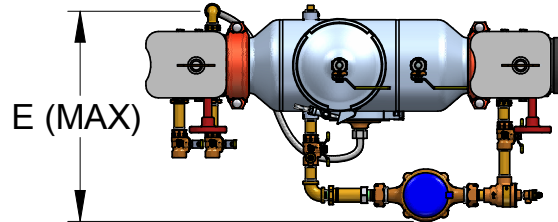
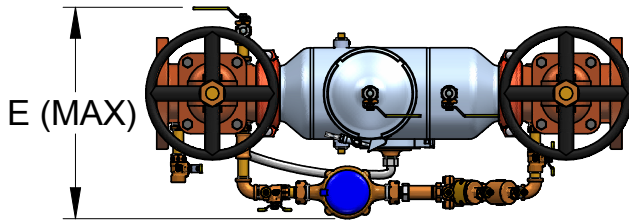
** Post indicator with plate & nut option not available in 2-1/2" size.

† Butterfly valves not available in 12" size.

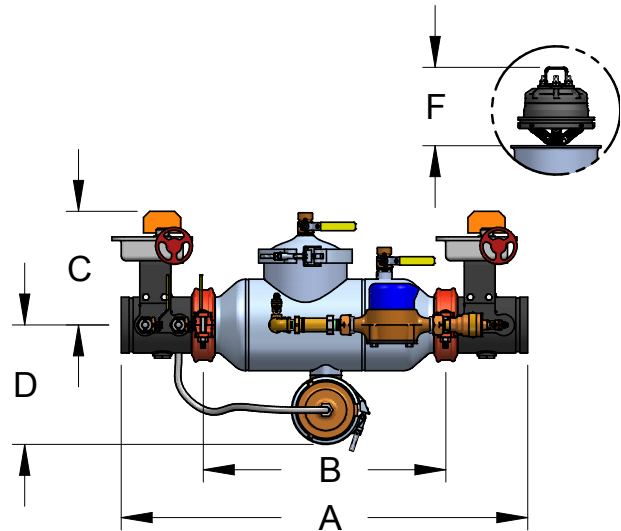
BACKFLOW PREVENTION CATALOG

Reduced Pressure Detector Assembly

RPDALF 4A SERIES



TYPE 1 BYPASS



TYPE 2 BYPASS

DIMENSIONS

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances ($\pm 1/8"$ (3 mm) per joint)
See Page 65 For Flow Curves

DIMENSIONS	2-1/2"	60mm	3"	75mm	4"	100mm	6"	150mm	8"	200mm	10"	250mm	12"	300mm
A (Butterfly Valves)	28 ±	711 ±	28-1/2 ±	724 ±	33-1/4 ±	845 ±	38-7/8 ±	987 ±	46-3/8 ±	1178 ±	52-1/4 ±	1327 ±	N/A	N/A
A (Gate Valves)	31 ±	787 ±	32 ±	813 ±	38 ±	965 ±	45-7/8 ±	1165 ±	53-3/8 ±	1356 ±	62-1/4 ±	1581 ±	65-1/2 ±	1664 ±
B (Less Shut-off Valves)	15-7/8 ±	403 ±	15-7/8 ±	403 ±	19-5/8 ±	498 ±	24-1/2 ±	622 ±	30 ±	762 ±	36 ±	914 ±	37 ±	940 ±
C (Butterfly Valves)	8	230	8-3/8	213	9-1/8	232	10-1/8	257	12	305	13-3/8	340	N/A	N/A
C (NRS/PI Gate Valves)	11-3/8	289	12-3/8	314	14-3/4	375	19	483	22-1/2	572	26-1/2	673	30	762
C (OS&Y Open)	16-3/8	41	18-7/8	479	22-3/4	578	30-1/8	765	37-3/4	959	45-3/4	1162	53-1/8	1349
D (Centerline to bottom)	9-5/8	244	9-5/8	244	10-3/8	264	11-5/8	295	15-5/8	397	21	533	21	533
E (Width Max)	17	432	17	432	17	432	20	508	21-1/2	546	26-1/2	673	27-1/2	699
F (Check Removal Clearance)	4-3/4	121	4-3/4	121	6-1/2	165	7-1/2	191	7-1/2	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 Shut-offs)	48	22	49	22	65	30	101	46	245	111	787	358	890	405
Net Wt. (w/ Butterfly Valves)	75	34	79	36	109	50	169	77	376	171	1005	457	N/A	N/A
Net Wt. (w/ OS&Y Gate Valves)	144	65	170	77	220	100	350	159	722	328	1673	760	2082	946

Notes:

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



For additional information, submittal sheets and manuals, visit www.apollovalves.com

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BACKFLOW PREVENTION CATALOG

Reduced Pressure Detector Assembly

RPDALF 4An SERIES



Sizes 2-1/2" - 12"



TriForce™ Check



Optional Valve Setter (see pg 50)

n STYLE REDUCED PRESSURE DETECTOR ASSEMBLY

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.

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 standard 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 laboratory
- Center stem guided TriForce™ check valves
- Optional air gap drains (see pg 52)
- Small installation space required - small footprint
- Approved for n-flow and vertical up flow
- Chloramine-resistant elastomers
- Made in the USA
- **Lead-Free** standard
- CSA B64.4
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (RPDALF 4AN 4")
- ASSE 1047 (with meter)
- UL, ULC Classified
- FM approved
- Maximum working pressure 175 psi
- Temperature range 33°F - 140°F, 180°F intermittent
- Optional valve setters eliminate need for thrust blocks below grade
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- 5 year, domestic warranty
- Optional mounting of bypass on either side for ease of installation

MATERIALS

Part	Material
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 (C84400/LF C89836)
Check Valves	Bronze/Glass-filled PPO/SS
Springs	Stainless Steel
Seat Discs	Chloramine-resistant Silicone

FACTORY CODE

4AnLF	7 X	X	X	X [X]
	BY-PASS SUB-ASSEMBLY OPTIONS	SIZE	METER OPTION	SHUT-OFF VALVES (Inlet x Outlet)
4AnLF = Lead Free Standard	0 = Type 1 w/ 1/2" Reduced Pressure 2 = Type 2 w/1/2" Single Check 3 = Type 1 w/ bypass on left* 4 = Type 2 w/ bypass on left*	9 = 2-1/2" 0 = 3" A = 4" C = 6" E = 8" G = 10" H = 12"	C = Cubic feet/min E = Gallons/min G = Less meter	1 = Less Shut-off Valves 3 = OS&Y Flg x OS&Y Flg 4 = OS&Y Flg x Monitored (Mon.) Butterfly Vlv Grv† 6 = OS&Y Flg x Post indicator Flg** 7 = OS&Y Flg x OS&Y Grv 8 = OS&Y Grv x OS&Y Grv 9 = Mon. Butterfly Vlv Grv x Mon. Butterfly Vlv Grv† 10 = OS&Y Flg x Post Indicator Grv** 13 = Post Indicator Flg x Mon. Butterfly Vlv Grv† 14 = Post Indicator Flg x Post Indicator Flg 16 = Mon Butterfly Vlv Grv x Post Indicator Flg† 17 = Post Indicator Flg x OS&Y Grv 18 = OS&Y Grv x Post Indicator Grv 19 = Mon. Butterfly Vlv Grv x Post Indicator Grv 20 = Post Indicator Flg x OS&Y Flg

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

** Post indicator with plate & nut option not available in 2-1/2" size.

† Butterfly valves not available in 12" size.

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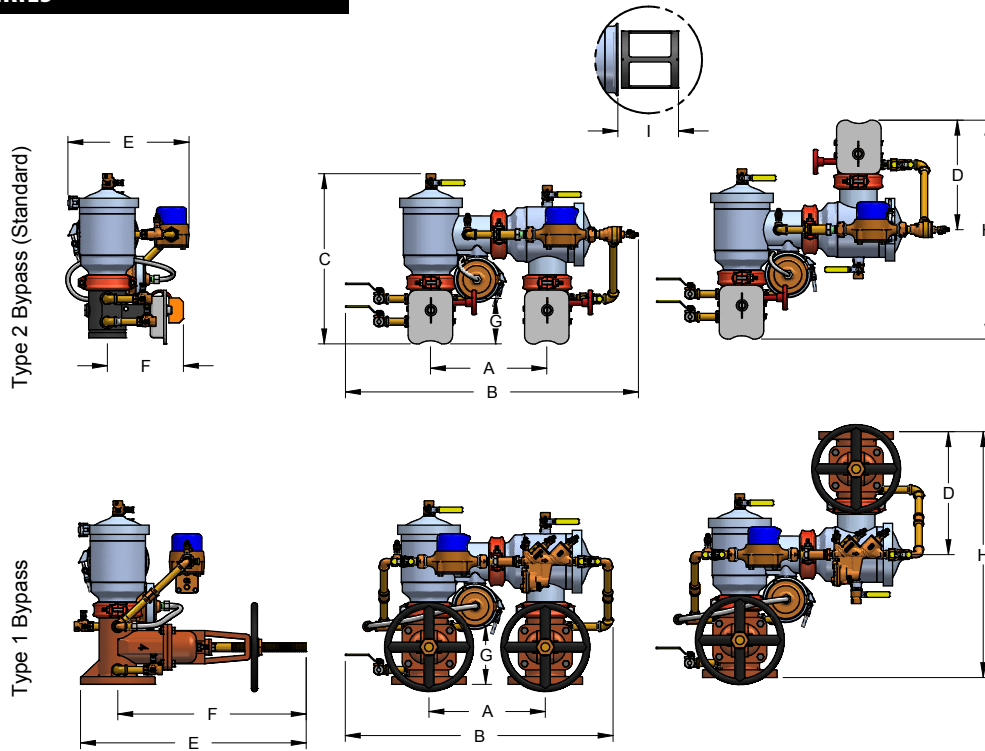


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BACKFLOW PREVENTION CATALOG

Reduced Pressure Detector Assembly

RPDALF 4An SERIES



DIMENSIONS

Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances ($\pm 1/8"$ (3 mm) per joint)
See Page 66 For Flow Curves

DIMENSIONS	2-1/2"	60mm	3"	75mm	4"	100mm	6"	150mm	8"	200mm	10"	250mm	12"	300mm
A Centerline to Centerline	12-1/2 \pm	318 \pm	12-1/2 \pm	318 \pm	14 \pm	356 \pm	16 \pm	406 \pm	18-1/2 \pm	470 \pm	21 \pm	533 \pm	26-3/4 \pm	679 \pm
B (Butterfly Valves)	32-3/4 \pm	832 \pm	32-3/4 \pm	832 \pm	35-1/2 \pm	902 \pm	40 \pm	1016 \pm	44 \pm	1118 \pm	54 \pm	1372 \pm	N/A	N/A
B (Gate Valves)	31 \pm	787 \pm	31 \pm	787 \pm	31-3/4 \pm	806 \pm	36-3/4 \pm	933 \pm	41-1/2 \pm	1054 \pm	49 \pm	1245 \pm	55-3/4 \pm	1416 \pm
C (Butterfly Valves)	18-1/4	464	18-1/2	470	20	508	24-3/4	629	28-1/2	724	35	889	N/A	N/A
C (Gate Valves)	19-5/8	498	20	508	22-1/2	572	27-3/4	705	32-1/8	816	40	1016	44	1118
D (Centerline to top-Butterfly Valves)	11-1/2	292	11-3/4	298	13-1/4	337	15-3/8	391	17-7/8	454	19-3/4	502	N/A	N/A
D (Centerline to top-Gate Valves)	13	330	13-1/2	343	14-7/8	378	18	457	21-3/8	543	24-3/4	629	28-3/4	730
E (Butterfly Valves)	11-1/2	292	12-1/8	308	12-7/8	327	15-7/8	403	22-1/4	565	23-1/8	587	N/A	N/A
E (OS&Y Open)	19-7/8	505	24-1/4	616	27-1/4	692	32-3/4	832	44-1/2	1130	54	1372	62-3/4	1594
E (NRS/PI)	14-7/8	378	16-1/8	410	19-1/4	489	24-1/4	616	29-1/4	743	36-3/8	924	40	1016
F (Butterfly Valves)	8	203	8-3/8	213	9	229	10-7/8	276	12-7/8	327	13-1/2	343	N/A	N/A
F (OS&Y Open)	16-3/8	416	20-1/2	521	22-3/4	578	28	711	37-3/4	959	46	1168	53-1/8	1349
F (NRS/PI)	11-3/8	289	12-3/8	314	14-3/4	375	19	483	22-1/2	572	26-1/2	673	30	762
G (Butterfly Valves)	4-1/8	105	4-1/2	114	4-3/8	111	6-1/2	165	5-1/4	133	4	102	N/A	N/A
G (Gate Valves)	5-1/2	140	6	152	6	152	9	229	9	229	9	229	10	254
H (Butterfly Valves)	23	584	23-1/2	597	25	635	29	737	3-3/4	908	N/A	N/A	N/A	N/A
H (Gate Valves)	26	660	27	686	29-3/4	756	36	914	42-3/4	1086	N/A	N/A	N/A	N/A
I (Check Removal Clearance)	6	152	6	152	6	152	8	203	8-1/2	216	12	305	12	305
Test Cocks (NPT)	1/2"	13	1/2"	13	1/2"	13	3/4"	20	3/4"	20	3/4"	20	3/4"	20
WEIGHTS	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg	lb.	kg
Net Wt. (Less Shut-offs)	58	26	58	26	83	38	325	148	861	391	987	449		
Net Wt. (w/ Butterfly Valves)	85	39	88	40	92	42	151	69	456	207	1039	472	N/A	N/A
Net Wt. (w/NRS Gate Valves)	144	65	169	77	197	90	322	146	788	358	1507	685	2123	965
Net Wt. (w/ OS&Y Gate Valves)	154	70	179	81	203	92	332	151	802	365	1529	695	2177	990

Notes:

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



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BACKFLOW PREVENTION CATALOG

Vacuum Breaker Backflow Preventers

AVB1/AVB2 SERIES



AVB1

Sizes 1/4", 3/8", 1/2", 3/4", 1", 1-1/4", 1-1/2", 2"



AVB2

Sizes 1/4", 3/8", 1/2", 3/4"
(Optional Polished Chrome Finish Shown)

ATMOSPHERIC TYPE VACUUM BREAKERS

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. 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)
- 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"
- **Lead-Free** option
- Heat resistant silicone seat disc
- Rough brass, rough chrome, or polished chrome finish
- Easy to maintain
- Compact and lightweight
- Durable
- ASSE1001

MATERIALS

Part	Material
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.

SUFFIX

No.	Finish
01	Rough Brass
03	Rough Chrome (1/4" - 1" only)
06	Polished Chrome (AVB2)
N	n shape (AVB2)

FACTORY CODE

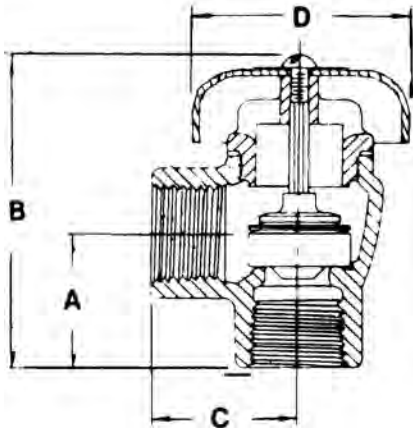
38(LF) X	OX	OX
	SIZE	FINISH
1 = Bronze	1 = 1/4"	1 = Rough Brass
2 = Forged Brass (not available in LF)	2 = 3/8"	3 = Rough Chrome (1/4" - 1" only)
	3 = 1/2"	6 = Polished Chrome (AVB2 only)
	4 = 3/4"	
	5 = 1"	
	6 = 1-1/4"	
	7 = 1-1/2"	
	8 = 2"	

BACKFLOW PREVENTION CATALOG

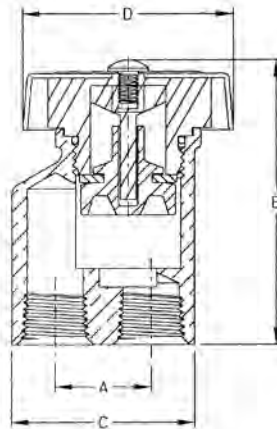


Vacuum Breaker Backflow Preventers

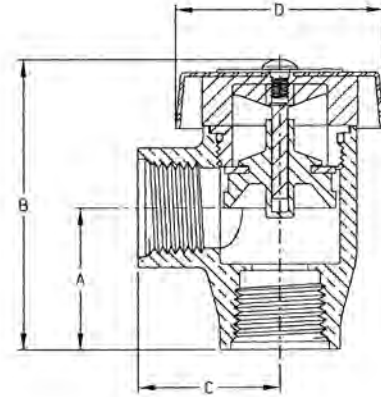
AVB1/AVB2 SERIES



AVB1
38/38LF-10X



38-23xN (n Flow)



AVB2
38-20x

DIMENSIONS

See Page 67 For Flow Curves

Factory No.	Model No.	Size In.	Size mm.	A (In.)	A (mm.)	B (In.)	B (mm.)	C (In.)	C (mm.)	D (In.)	D (mm.)	Wt. Lbs.	Wt. Kgs.
38-101	AVB114	1/4	6	29/32	23	2-3/8	60	1-1/32	26	1-13/16	46	50.96	23
38-102	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
38LF-101	AVB114LF	1/4	6	29/32	23	2-3/8	60	1-1/32	26	1-13/16	46	50.96	23
38LF-102	AVB138LF	3/8	10	29/32	23	2-3/8	60	1-1/32	26	1-13/16	46	47.7	22
38LF-103	AVB112LF	1/2	15	1-3/32	28	2-1/2	65	1-3/16	30	1-3/16	30	54.7	25
38LF-104	AVB134LF	3/4	20	1-5/16	33	3-1/16	78	1-15/32	37	2-1/8	54	79.7	36
38LF-105	AVB11LF	1	25	1-3/4	45	4-1/16	103	1-7/8	48	2-7/8	73	174	79
38LF-106	AVB1114LF	1-1/4	32	2	50	4-3/8	111	2	50	3-3/4	95	316	143
38LF-107	AVB1112LF	1-1/2	40	2	50	4-3/8	111	2	50	3-3/4	95	289	131
38LF-108	AVB12LF	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
38-231N	DMVB14	1/4	6	3/4	20	2-7/32	56	1-7/16	36	21/32	17	26.2	12
38-232N	DMVB38	3/8	10	7/8	22	2-7/32	56	1-3/4	44	21/32	17	31.2	14



For additional information, submittal sheets and manuals, visit www.apollovalves.com

Customer Service (704) 841-6000