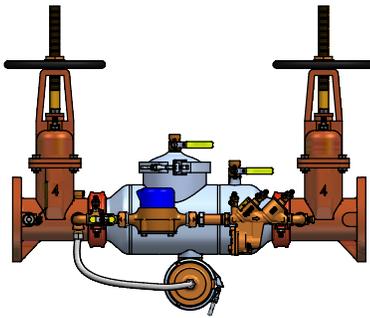


# RPDALF4A/RPDA2LF4A Series

Reduced Pressure Detector Assembly

## LEAD FREE



Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO#:	
Rep:	
Wholesale Dist.:	

### DESCRIPTION

The 2-1/2" - 12" Lead Free Reduced Pressure Detector Assembly shall be an Apollo Model RPDALF4A or RPDA2LF4A. The assembly shall be manufactured in America and carry a 5-year Apollo factory warranty. The TriForce™ center-stem guided check valves shall feature reversible silicone rubber seat discs. The check valves shall be held in place by SS snap-in retainers (2-1/2" - 6") or SS studs & nuts (8" - 12"). Access to the check valves and relief valve internals shall be by an Apollo quick-connect SS coupling (2-1/2" - 6") or grooved couplings (covers) and SS bolts (relief valves) (8" - 12"). The bodies shall be SS in 2-1/2" - 8" sizes and FDA epoxy-coated ductile iron in 10" & 12" sizes. The assembly is a mainline RP with a Type 2 bypass consisting of a lead free\* single check valve (SCV) and meter bypassing the mainline second check to prevent backflow while accurately measuring all flows up to 2 gpm with the mainline 2nd check remaining closed. Assemblies with the optional Type 1 bypass consist of a lead free\* RP and meter which bypasses both mainline checks and accurately meters all flows up to 2 gpm with both mainline checks closed. The Apollo ball valve test cocks shall have SS handles. Both RP relief valves shall be positioned at the bottom of their respective assemblies with separate center-access covers. The pressure drop across the assembly shall be documented by an independent laboratory. The assembly shall prevent contamination of the potable water supply due to back-siphonage or back pressure from substances that are health or non-health hazards.

### 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 Drains
- Lead-Free Standard
- US Patent Nos. 6,443,184; 7,025,085; 7,533,699
- Made in the USA (D Option)
- 5 Year Warranty
- Optional Mounting of Bypass on Either Side for Ease of Installation

### PERFORMANCE RATING

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

### APPROVALS

- Approved for Horizontal Flow
- ASSE 1047 (with Meter)
- CSA B64.4
- NSF/ANSI 61 - Water Quality
- NSF/ANSI 372 - Lead Free
- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California (2-1/2" - 8" Types 1 & 2)
- UL, ULC Classified
- FM Approved

### STANDARD MATERIALS LIST

<b>BODY (2-1/2"-8")</b>	304 Stainless Steel
<b>BODY (10" &amp; 12")</b>	FDA Epoxy Coated Ductile Iron
<b>COVERS (2-1/2"-6")</b>	Glass Filled PPO/SS
<b>COVERS (8")</b>	304 Stainless Steel
<b>COVERS (10" &amp; 12")</b>	FDA Epoxy Coated Ductile Iron
<b>RELIEF VALVE</b>	Lead Free Bronze C89836
<b>CHECK VALVES</b>	Bronze/Glass-Filled PPO/SS
<b>SPRINGS</b>	Stainless Steel
<b>SEAT DISCS</b>	Chloramine-Resistant Silicone
<b>TESTCOCKS</b>	Lead Free Bronze w/ SS Handles

### 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 (STD)	0 - TYPE 1 W/ 1/2" REDUCED PRESSURE	9 - 2-1/2"	C - CUBIC FT/MIN	01 - LESS SHUT-OFF VALVES	D - DOMESTIC ASSEMBLY
	2 - TYPE 2 W/ 1/2" SINGLE CHECK	0 - 3"	E - GALLONS/MIN	03 - OS&Y FLANGE X OS&Y FLANGE	R1 - RETROFIT*
	3 - TYPE 1 W/ BYPASS ON LEFT*	A - 4"	G - LESS METER	04 - OS&Y FLANGE X MONITORED (MON.) BUTTERFLY VALVE GROOVE†	R2 - RETROFIT*
	4 - TYPE 2 W/ BYPASS ON LEFT*	C - 6"		06 - OS&Y FLANGE X POST INDICATOR FLANGE	R3 - RETROFIT*
		E - 8"		07 - OS&Y FLANGE X OS&Y GROOVE	
		G - 10"		08 - OS&Y GROOVE X OS&Y GROOVE	
		H - 12"		09 - MON. BUTTERFLY VALVE GROOVE X MON. BUTTERFLY VALVE GROOVE†	*CUSTOM LENGTH RETROFIT ORDERS MUST BE ACCOMPANIED WITH SIGNED FROM #OFBRETRO WITH EXACT LENGTH REQUIRED.
				10 - OS&Y FLANGE X POST INDICATOR GROOVE	
				13 - POST INDICATOR FLANGE X MON. BUTTERFLY VALVE GROOVE†	
				14 - POST INDICATOR FLANGE X POST INDICATOR FLANGE	
				16 - MON BUTTERFLY VALVE GROOVE X POST INDICATOR FLANGE†	
				17 - POST INDICATOR FLANGE X OS&Y GROOVE	
				18 - OS&Y GROOVE X POST INDICATOR GROOVE	
				19 - MON. BUTTERFLY VALVE GROOVE X POST INDICATOR GROOVE	
				20 - POST INDICATOR FLANGE X OS&Y FLANGE	
				21 - POST INDICATOR GROOVE X OS&Y GROOVE	
				22 - POST INDICATOR GROOVE X MON. BUTTERFLY VALVE GROOVE†	
				23 - MON. BUTTERFLY VALVE GROOVE X OS&Y FLANGE	

EXAMPLE: 4ALF 72A E3 = 4" size lead free reduced pressure detector assembly with OS&Y flanged inlet x OS&Y flanged outlet shut-off valves Type 2 Bypass w/ meter in gallons

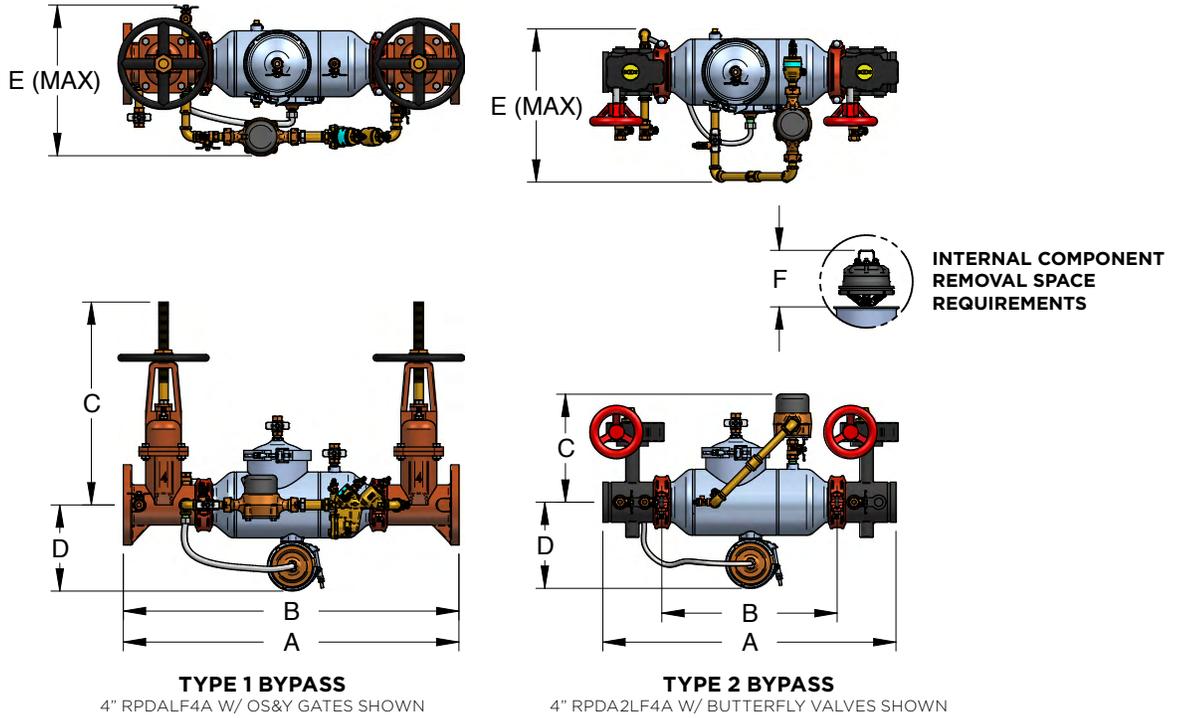
\*Orientation of bypass looking downstream. Standard is right hand side. Left hand is on opposite side

†Butterfly valves not available in 12" size.

\*LEAD FREE: The wetted surfaces of this product shall contain no more than 0.25% lead by weighted average. Complies with Federal Public Law 111-380. ANSI 3rd party approved and listed.

# RPDALF4A/RPDA2LF4A Series

Reduced Pressure Detector Assembly  
**LEAD FREE**



## DIMENSIONS

### 2-1/2" - 6" TYPE 1 & TYPE 2 BYPASS

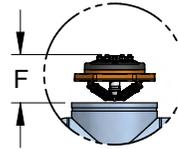
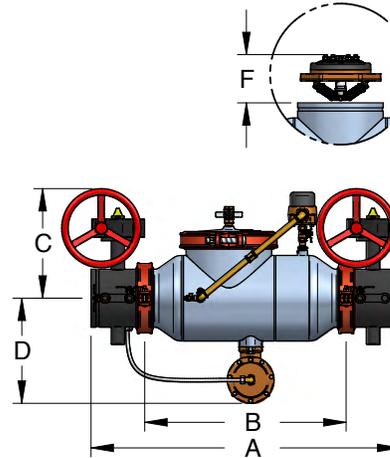
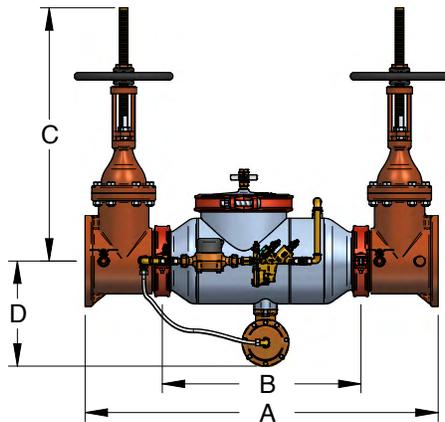
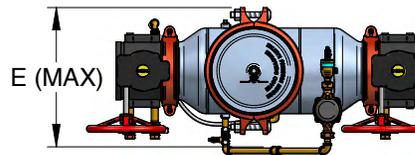
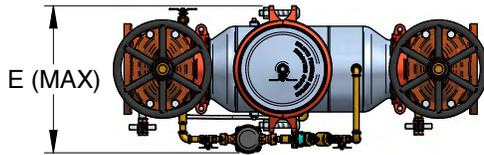
DIMENSIONS	2-1/2"	60MM	3"	75MM	4"	100MM	6"	150MM
A (Butterfly Valves)	28	711	28.5	724	33	838	38.5	978
A (Gate Valves)	31	787	32	813	37.6	955	45.5	1156
B (Less Shut-off Valves)	16	406	16	406	19.8	503	24.5	622
C (Butterfly Valves - Type 1)	8.6	218	9.6	244	10.9	277	13	330
C (Butterfly Valves - Type 2)	13.3	338	13.3	338	12.1	307	13.8	351
C (NRS/PI Gate Valves - Type 1)	11.8	300	13	330	14	356	17.8	452
C (NRS/PI Gate Valves - Type 2)	13.3	338	13.3	338	14	356	17.8	452
C (OS&Y Open)	16.4	417	20.5	521	22.8	579	27.3	693
D (Centerline to Bottom)	9	229	9	229	9.8	249	11	279
E (Max w/Gate or Butterfly Valves - Type 1)	15.5	394	15.5	394	16.6	422	19.4	493
E (Max w/Gate or Butterfly Valves - Type 2)	14.1	358	14.1	358	17.4	442	18.4	467
F (Check Removal Clearance)	4.8	122	4.8	122	6.5	165	7.5	191
Test Cocks (NPT)	1/2"	15	1/2"	15	1/2"	15	3/4"	20
WEIGHTS	LB.	KG	LB.	KG	LB.	KG	LB.	KG
Net Wt. (Less Valves)	31	14	32	15	48	22	84	38
Net Wt. (w/ Butterfly Valves)**	105	48	111	50	137	62	198	90
Net Wt. (w/ NRS Gate Valves)**	103	47	118	54	158	72	282	128
Net Wt. (w/ OS&Y Gate Valves)**	118	54	134	61	189	86	342	155

Notes:  
Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances ( $\pm 1/8"$  (3 mm) per joint)  
Internal body connections are grooved on 2-1/2" - 10" sizes.

# RPDALF4A/RPDA2LF4A Series

Reduced Pressure Detector Assembly

## LEAD FREE



**INTERNAL COMPONENT  
REMOVAL SPACE  
REQUIREMENTS**

**TYPE 1 BYPASS**  
8" RPDALF4A W/ OS&Y GATES SHOWN

**TYPE 2 BYPASS**  
8" RPDA2LF4A W/ BUTTERFLY VALVES SHOWN

### DIMENSIONS

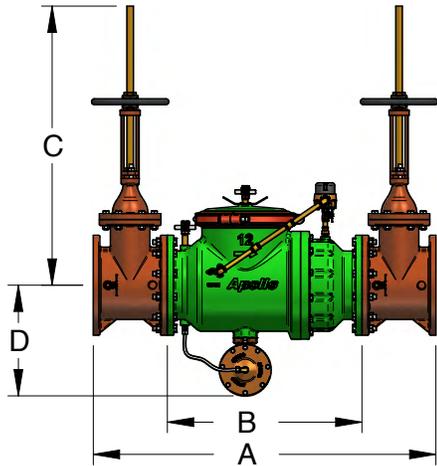
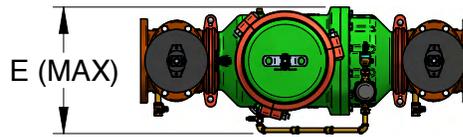
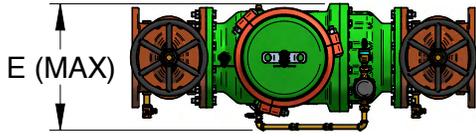
8" TYPE 1 & TYPE 2 BYPASS

DIMENSIONS	8"	200MM
A (Butterfly Valves)	46	1168
A (Gate Valves)	53.1	1349
B (Less Shut-off Valves)	30	762
C (Butterfly Valves - Type 1)	16.5	419
C (Butterfly Valves - Type 2)	16.5	419
C (NRS/PI Gate Valves - Type 1)	21	533
C (NRS/PI Gate Valves - Type 2)	21	533
C (OS&Y Open)	37.8	960
D (Centerline to Bottom)	15.8	401
E (Max w/Gate or Butterfly Valves - Type 1)	22.4	569
E (Max w/Gate or Butterfly Valves - Type 2)	22	559
F (Check Removal Clearance)	7.5	191
Test Cocks (NPT)	3/4"	20
WEIGHTS	LB.	KG
Net Wt. (Less Valves)	228	103
Net Wt. (w/ Butterfly Valves)**	420	191
Net Wt. (w/ NRS Gate Valves)**	561	254
Net Wt. (w/ OS&Y Gate Valves)**	636	288

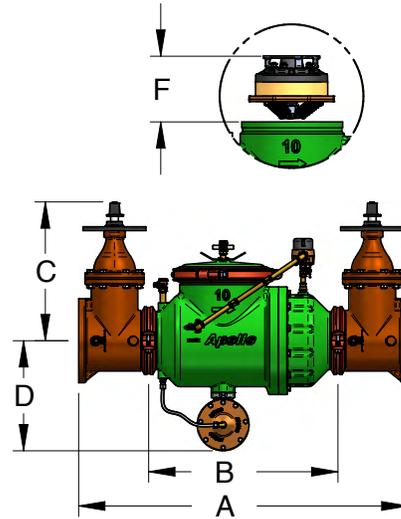
Notes:  
Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances.  
Internal body connections are grooved on 2-1/2" - 10" sizes.

# RPDA2LF4A Series

Reduced Pressure Detector Assembly  
**LEAD FREE**



**TYPE 2 BYPASS**  
12" RPDA2LF4A W/ OS&Y GATES SHOWN



**TYPE 2 BYPASS**  
10" RPDA2LF4A W/ NRS GATES SHOWN

**INTERNAL COMPONENT  
REMOVAL SPACE  
REQUIREMENTS**

## DIMENSIONS

### 10" - 12" TYPE 2 BYPASS

DIMENSIONS	10"	250MM	12"	300MM
A (Butterfly Valves)	52	1321	N/A	N/A
A (Gate Valves)	62.3	1582	65.4	1661
B (Less Shut-off Valves)	36	914	37	940
C (Butterfly Valves - Type 1)	N/A	N/A	N/A	N/A
C (Butterfly Valves - Type 2)	N/A	N/A	N/A	N/A
C (NRS/PI Gate Valves - Type 1)	N/A	N/A	N/A	N/A
C (NRS/PI Gate Valves - Type 2)	24.5	622	30	762
C (OS&Y Open)	45.8	1163	53.1	1349
D (Centerline to Bottom)	21	533	21.1	536
E (Max w/Gate or Butterfly Valves - Type 1)	N/A	N/A	N/A	N/A
E (Max w/Gate or Butterfly Valves - Type 2)	24.9	632	25	635
F (Check Removal Clearance)	10	254	10	254
Test Cocks (NPT)	3/4"	20	3/4"	20
WEIGHTS	LB.	KG	LB.	KG
Net Wt. (Less Valves)	762	346	865	392
Net Wt. (w/ Butterfly Valves)**	N/A	N/A	N/A	N/A
Net Wt. (w/ NRS Gate Valves)**	1299	589	1755	796
Net Wt. (w/ OS&Y Gate Valves)**	1413	641	1870	848

Notes:

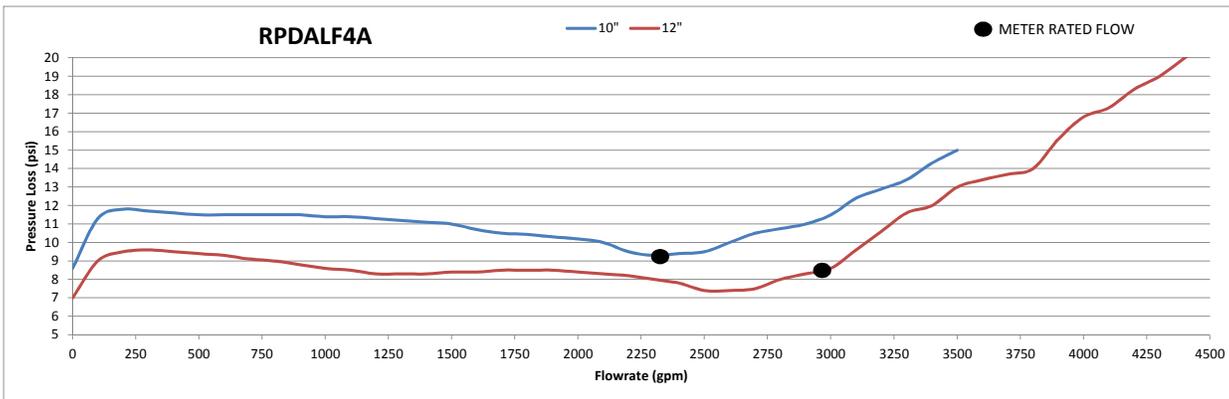
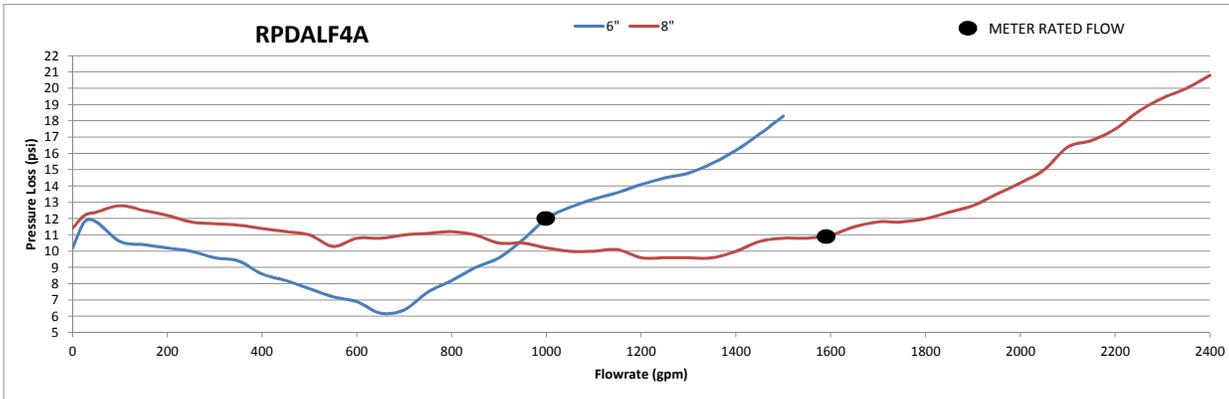
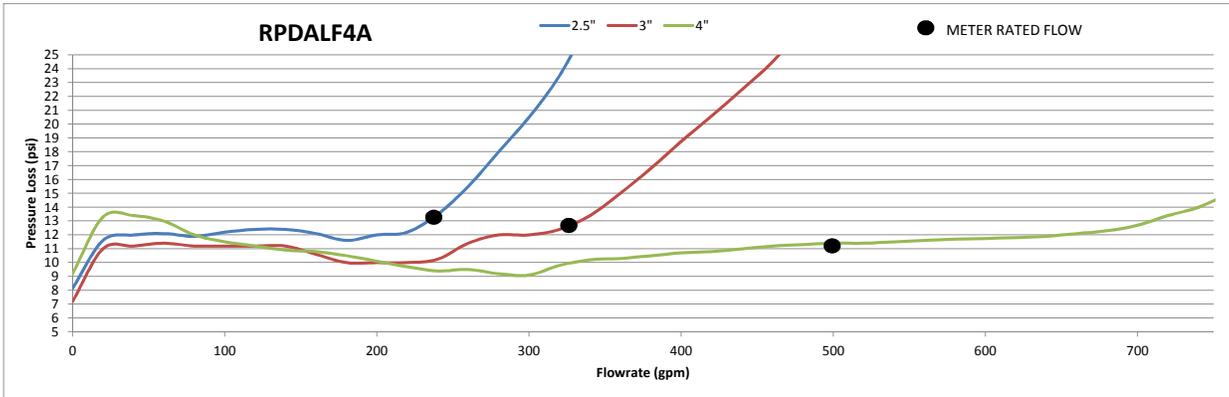
Nominal dimensions are shown. Allowances must be made for manufacturers' tolerances.  
Internal body connections are flanged on 12" size.

# RPDALF4A/RPDA2LF4A Series

Reduced Pressure Detector Assembly

## LEAD FREE

### FLOW CURVES



Notes:  
 Flow curves directly reflect data collected by an independent laboratory.  
 Flow curves shown were recorded with gate shut-off valves. Contact factory for more information.  
 All data points are based on ASSE increasing flow data, from zero GPM to rated flow (opening curve).  
 For high flow rates/pressure loss information - contact factory.