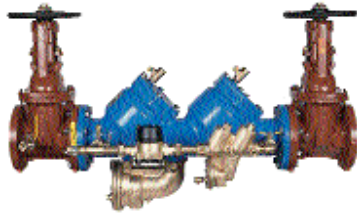




RPDA-40 Series

REDUCED PRESSURE DETECTOR ASSEMBLY

The Apollo Series RPDA-40 Reduced Pressure Detector Assembly is designed to provide reduced pressure principle protection against cross-connections that present a health hazard, and at the same time detect leakage or unauthorized use of water from fire or automatic sprinkler systems. The mainline unit consists of two independent spring-loaded, poppet type check valve assemblies with a diaphragm actuated and spring-loaded, relief valve assembly located between check valves. Two resilient wedge gate valves and four test cocks complete the mainline unit. The by-pass consists of an approved reduced pressure assembly, four test cocks, two shut-off valves and a water meter.



Sizes 3", 4", 8", 10"

MATERIALS

Body and covers	FDA Approved epoxy-coated ductile iron (mainline), By-pass (bronze)
By-pass components	Bronze
Springs	Stainless Steel (both)
Seats	Bronze (both)
C.V. discs	EPDM (mainline) Silicone rubber (by-pass)
R.V. discs	Silicone rubber (mainline) EPDM (by-pass)
Diaphragm	Nitrile and nylon (both)
R.V. body	Bronze (mainline)
Fasteners	Stainless Steel (both)
Test cock handles	Stainless Steel

Contact local water authorities for installation/service requirements.

OPERATION

During no flow conditions, the mainline and by-pass check valves will remain closed. Also, both mainline and by-pass relief valves stay closed due to the pressure differential between supply and zone pressure. If there is a low flow demand (up to a minimum of 3 gpm) of water downstream, which may be caused by a system leak or unauthorized use, the flow is routed through the water meter to monitor such consumption. Higher flow will tend to open the mainline check valves at which point water continues to flow at the by-pass at a rate below capacity. In the event pressure increases downstream, tending to reverse direction of flow, both check valves in the mainline and by-pass are closed to prevent backflow. If the second check valve in either the mainline or by-pass is prevented from closing tightly, leakage into the reduced pressure zone increases pressure and will cause the relief valves to open. If the supply pressure drops to atmosphere or lower than the reduced pressure zone, the relief valves will open creating an internal air gap in both assemblies.

Contact local water authorities for installation/service requirements.

FEATURES

- Maximum protection against back-pressure/back-siphonage
- Removable bronze seats
- Reversible/replaceable seat discs
- Internal sensing passage
- Corrosion resistant
- Easy in-line maintenance and testing
- Maximum working pressure 175 psig
- 5 year, domestic warranty
- Horizontal installation approvals
- Operating temperature range 33°F-140°F
- UL Classified
- FM approved
- USC FCCCHR
- ASSE1047
- CSA
- Designed, manufactured, assembled and tested in South Carolina, USA

ORDERING CODE - 40 [X] - 7 0 X - X X

	SIZE	METER	GATE VALVES
40 - Standard	0 - 3" A - 4" C - 6" E - 8" G - 10"	C - With meter in cubic feet E - With meter in gallons G - Less water meter	1 - Less gate valves 3 - With OS&Y gate valves 6 - w/OS&Y gate valve on inlet, NRS gate valve w/ post plate and nut on outlet 7 - With Flanged Inlet x Grooved Outlet (both OS&Y) 8 - With Grooved x Grooved OS&Y gate valves 10 - OS&Y Flg x Grv Post Indicator



See page 52 for air gap drain information.

Dimensions - in.(mm) – Weights - lbs.(kg)					
Model No.	RPDA403	RPDA404	RPDA406	RPDA408	RPDA4010
Ordering No.	40-700	40-70A	40-70C	40-70E	40-70G
Size	3" (80)	4" (100)	6" (150)	8" (200)	10" (250)
A	38-1/16 (968)	46-3/4 (1187)	63 (1600)	75 (1905)	88-1/4 (2242)
B	22-1/16 (562)	28-1/2 (724)	42 (1067)	52 (1321)	62-1/16 (1578)
C (OS&Y) OPEN	18-7/8 (479)	22-3/4 (578)	30-1/8 (765)	37-3/4 (969)	45-3/4 (1152)
D	3-3/4 (95)	4-1/2 (114)	5-1/2 (140)	6-3/4 (171)	8 (200)
E (OS&Y) OPEN	28-3/8 (721)	33-3/16 (843)	41-5/8 (1057)	53-3/4 (1365)	63-1/4 (1607)
F	9-1/4 (235)	10-1/2 (267)	13-1/4 (337)	14-3/4 (375)	17-1/2 (445)
G	3-3/4 (95)	4-1/2 (114)	5-1/2 (140)	6-3/4 (171)	8 (200)
Test cocks (line)	1/2" NPT	1/2" NPT	3/4" NPT	3/4" NPT	3/4" NPT
Test cocks (by-pass)	1/4" NPT	1/4" NPT	1/4" NPT	1/4" NPT	1/4" NPT
Net Wt. (less gate valves)	145 (66)	217 (98)	452 (205)	738 (335)	1471 (667)
Net Wt. (with OS&Y valves)	282 (128)	423 (192)	776 (352)	1233 (559)	2314 (1050)
Shipping Wt. (less gate valves)	209 (95)	281 (127)	550 (249)	908 (412)	1641 (744)
Shipping Wt. (with OS&Y valves)	346 (157)	487 (221)	912 (414)	1413 (641)	2530 (1148)

SEE PAGE 67 FOR FLOW CURVES