Series LF909

Reduced Pressure Zone Assemblies

Size: DN20-DN50

Series LF909 Reduced Pressure Zone Assemblies are designed to provide superior cross-connection control protection of the potable water supply in accordance with national plumbing codes and containment control for water authority requirements. This series can be utilized in a variety of installations, including health hazard cross-connections in plumbing systems or for containment at the service line entrance. The LF909 features Lead Free* construction to comply with Lead Free* installation requirements. With its exclusive, design incorporating the “air-in/water-out" principle it provides maximum relief valve discharge during the emergency conditions of combined backsiphonage and backpressure with both checks fouled. Model LF909QT, standardly furnished with full port, resilient seated and Lead Free* cast copper silicon alloy ball valve shutoffs. Sizes (20 and 25mm) shutoffs have tee handles.

Features

- Modular design
- Replaceable seats
- Compact for installation ease
- Horizontal or vertical (up or down) installation on DN20 & DN25 only
- No special tools required for servicing

Pressure - Temperature

Model LF909:
- Temperature Range: 0.5°C – 60°C continuos
  82°C intermittent
- Maximum Working Pressure: 1210 kPa

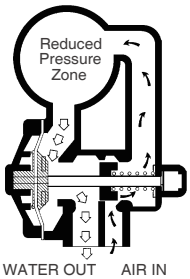
Model LF909HW:
- Temperature Range: 0.5°C – 99°C
- Maximum Working Pressure: 1210 kPa

Material

Component	Material
Body	Lead Free* Cast Copper Silicon Alloy
Check Seats	909 Celcon
Relief Valve Seats	Stainless Steel 909HW
Test Cocks	Lead Free* Cast Copper Silicon Alloy

How it Operates

The unique relief valve construction incorporates two channels: one for air, one for water. When the relief valve opens, as in the accompa nying air-in/water-out diagram, the right-hand channel admits air to the top of the reduced pressure zone, relieving the zone vacuum. The channel on the left then drains the zone to atmosphere. Therefore, if both check valves foul, and simultaneous negative supply and positive backpressure develop, the relief valve uses the airin/water-out principle to stop potential backflow.



*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Specification

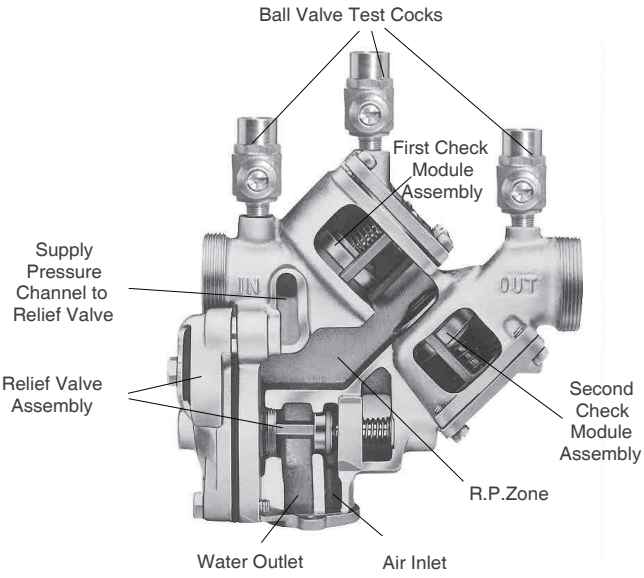
- Design Standard: AS/NZS 2845.1
- Connection Standard: DN15-DN25:MxF BSP
  DN32-DN50:MxM BSP
- Working Medium: Non corrosive liquids

Models

Suffix	
QT	Quarter-turn ball valves
S	Bronze strainer
HW	Stainless steel check modules for hot and harsh water conditions

Approval

WMKA1355



Installation Dimensions

LF909QT, LF909QT-S

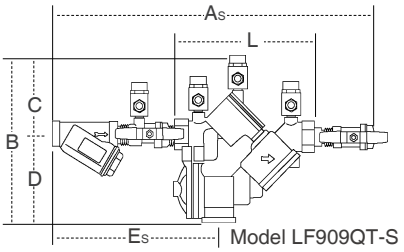
SIZE (DN)	Dimensions									WEIGHT	
	A	As	B	C	D	E	Es	L	P	QT	QT-S
	mm	mm	mm	mm	mm	mm	mm	mm	mm	kgs.	kgs.
20	365	459	222	102	121	171	259	186	98	6.4	7.1
25	391	498	222	102	121	178	279	186	98	6.8	7.9
32	470	595	295	140	165	191	310	264	133	18.1	19.4
40	483	619	295	140	165	191	321	264	133	18.1	20.0
50	495	659	295	140	165	197	354	264	133	18.1	21.5

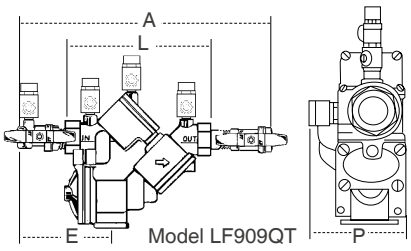
Subscript 'S' = strainer model

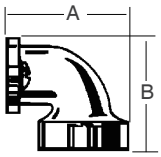
When installing a drain line use 909AG series Air Gaps on Series 909 backflow preventers. ††909EL series elbows are for air gaps on backflow preventers in vertical installations.

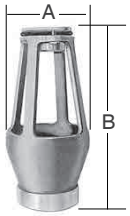
Series 909AG Air Gaps

909 DRAIN			Outlet	Dimensions		Dimensions
Iron Body No.	Desc.	Sizes	Sizes	A	B	
		mm	mm	mm	mm	kg.
909AG-C	Air Gap	19,25	25	83	124	.7
909EL-C	Elbow††	19,25	–	60	60	.2
909AG-F	Air Gap	32-50	50	111	171	1.5
909EL-F	Elbow††	32-50	–	92	92	.9



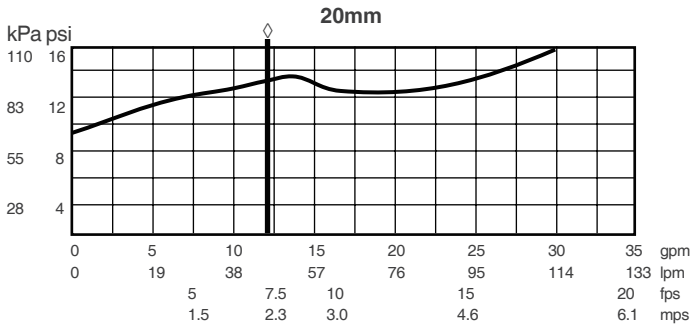


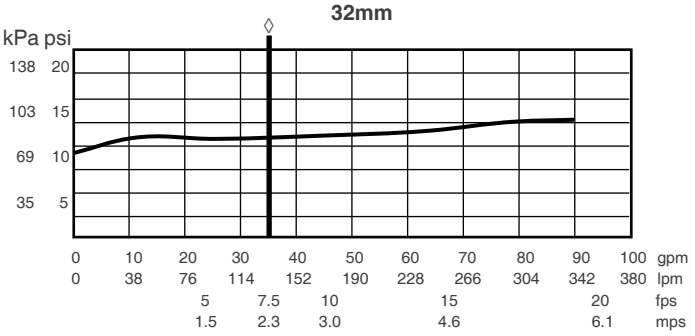




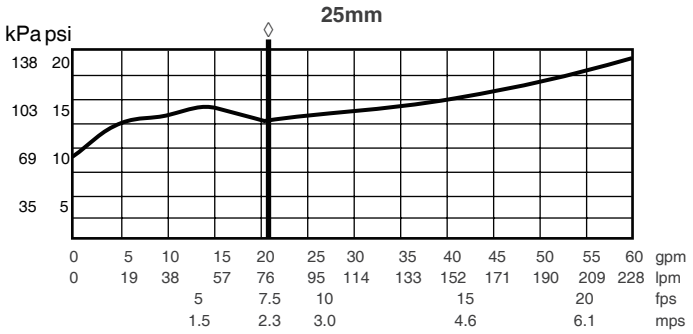
Characteristic Curves

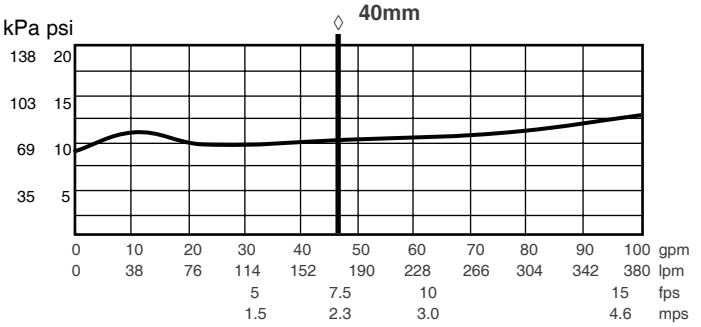
As compiled from documented Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California lab tests.
◊Typical maximum system flow rate (2.3m/s.)

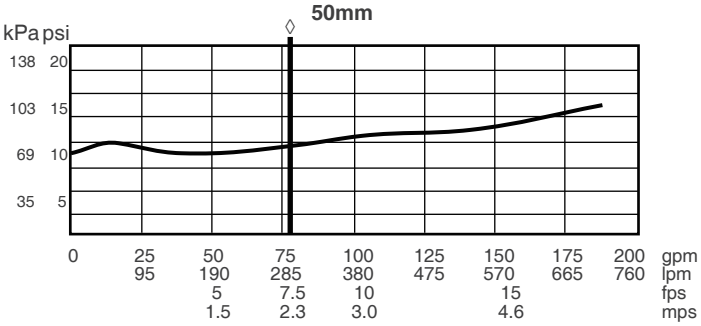




Note: Curves in US GPM







WATTS®