



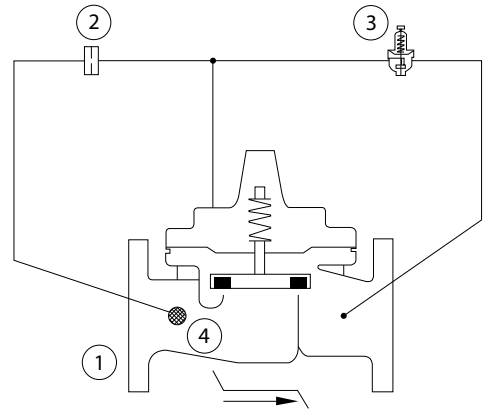
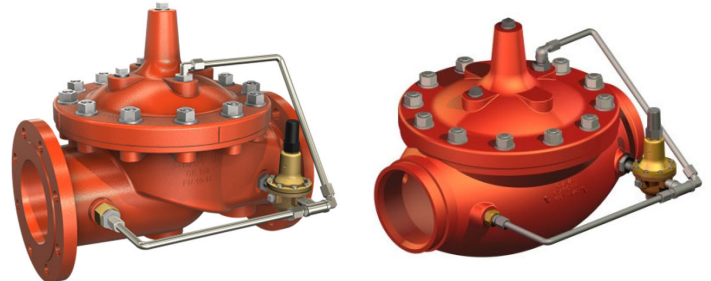
Pressure Reducing Valve

Model: 90G 21 & 90A 21

Product Description

The 90G-21 (globe) and 90A-21 (angle) Pressure Reducing Valves are indispensable in any fire protection system. The diaphragm actuated design is proven highly reliable and easy to maintain. Available are globe or angle pattern with a full range of adjustments. A variety of material options are also available. Epoxy coating is strongly recommended for all fire system valves (excluding bronze valves). The 90G-21 and 90A-21 can be supplied with optional internal and external epoxy coating of the main valve wetted surfaces.

The 90G-21 (globe) and 90A-21 (angle) Pressure Reducing Valves automatically reduce a higher inlet pressure to a steady lower outlet pressure regardless of changing flow rate and/or varying inlet pressure. The valves pilot control system is very sensitive to slight downstream pressure fluctuations, and will automatically open or close to maintain the desired pressure setting. The downstream pressure can be set over a wide range by turning the adjustment screw on the CRD pilot control. The adjustment screw is protected by a screw-on cover, which can be sealed to discourage tampering.



Schematic Diagram

Item	Description
1	PRV (Globe or Angle)
2	Restriction Tube Fitting
3	Pressure Reducing Control
4	Flow Clean Strainer

Features

- Globe or Angle Pattern
- Accurate Pressure Control
- In Line Service
- Flanged, Grooved or Threaded connections

Approvals

UL Listed

UL Listings

Size		Globe	Globe	Globe	Globe	Angle	Angle	Angle	Angle
mm	in	Class 150 F x F	Class 300 F x F	G x G	T x T	Class 150 F x F	Class 300 F x F	G x G	T x T
DN40	1 1/2"	UL	UL	UL	UL		UL	UL	UL
DN50	2"	UL	UL	UL	UL	UL	UL	UL	UL
DN65	2 1/2"	UL	UL	UL	UL	UL	UL		UL
DN80	3"	UL	UL	UL	UL	UL	UL	UL	UL
DN100	4"	UL	UL	UL		UL	UL	UL	
DN150	6"	UL	UL	UL		UL	UL	UL	
DN200	8"	UL	UL	UL			UL	UL	
DN250	10"	UL	UL			UL	UL		
DN300	12"	UL	UL			UL	UL		

F-Flanged, G-Grooved, T-Threaded

Manufactured by Cla-Val who hold the UL Listing

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Pressure Reducing Valve Model: 90G 21 & 90A 21

Specifications

Sizes	DN40 - DN300 (1 1/2" - 12")
End Details	Flanged - ANSI 150 B16.5 Flanged - ANSI 300 B16.5 Grooved Threaded
Pressure Differential	min. 10 psi / 0.7 bar
Pressure Adjustment Range	1 1/2" - 8" - 2.1 to 11.4 bar (30 to 165 psi) 10" - 12" - 2.1 to 12.1 bar (30 to 175 psi)
Max. Temperature	82°C (180°F) Water
Pressure Rating	Class 150 - 17.2 bar (250 psi) Class 300, Grooved and Threaded - 20.7 bar (300 psi)

Materials

Main Valve Body & Cover	Ductile Iron - ASTM A536 / EN-GJS-400
Main Valve Internal Trim	Stainless Steel 316 seat and disc guide Stainless Steel 303 stem, stem nut and cover bearing
Pilot Control System	Bronze ASTM B62 with Stainless Steel 303 internal trim Stainless Steel 303 tubing with Stainless Steel 316 fittings
Main Valve and Pilot Valve	Diaphragm and Disc - Buna N synthetic rubber

Optional Materials for Seawater and Severe Service Applications:

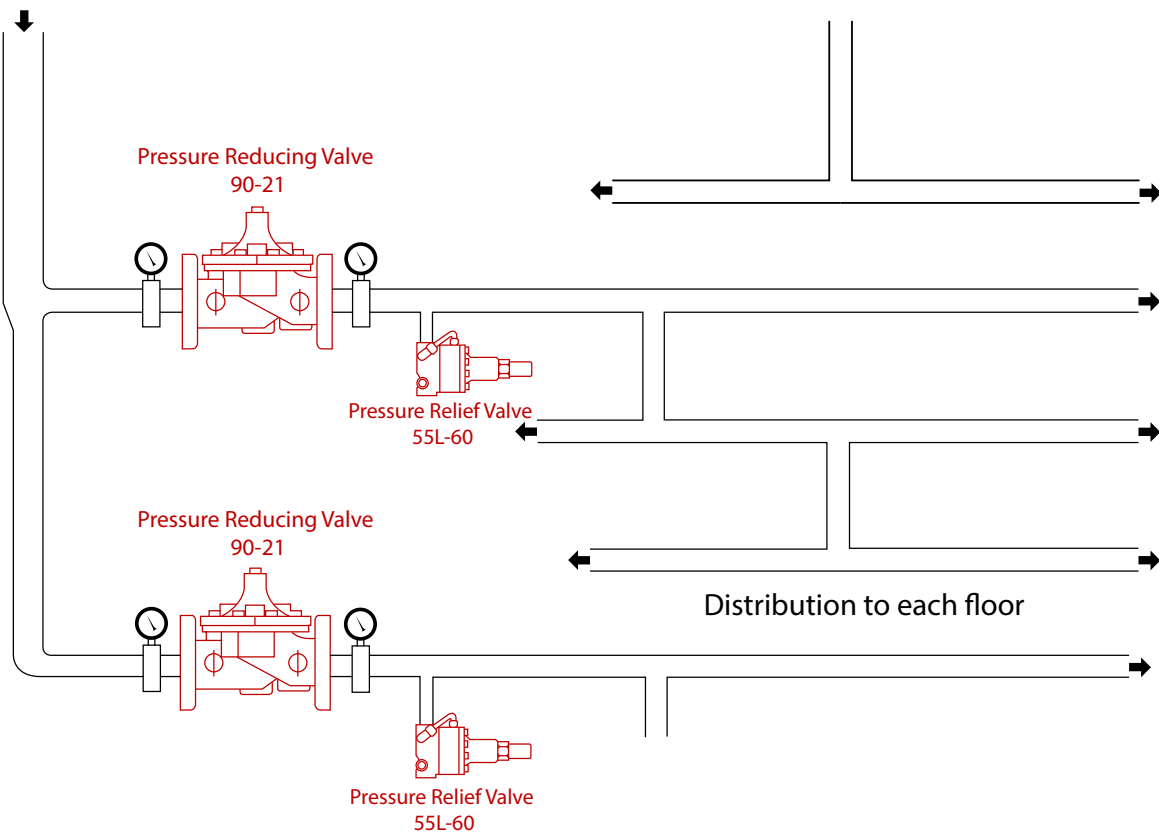
Bronze, Nickel Aluminum Bronze, Stainless steel 300 series, Carbon Steel WCB, Monel 400, Super Austenitic Stainless Steel, Super Duplex Stainless Steel

Flow Capacity

Valve Size	DN40 (1 1/4")	DN50 (2")	DN65 (2 1/2")	DN80 (3")	DN100 (4")	DN150 (6")	DN200 (8")	DN250 (10")	DN300 (12")
Max Flow Rate LPM	606	992	1412	2180	3755	8521	14763	22712	33690

Typical Application

Underwriters Laboratories requires the installation of pressure gauges upstream and downstream of the Pressure Reducing Valve. Also, a relief valve of not less than 15 mm in size must be installed on the downstream side of the pressure control valve. Adequate drainage for the relief valve discharge must be provided.



Manufactured by Cla-Val who hold the UL Listing



Pressure Reducing Valve

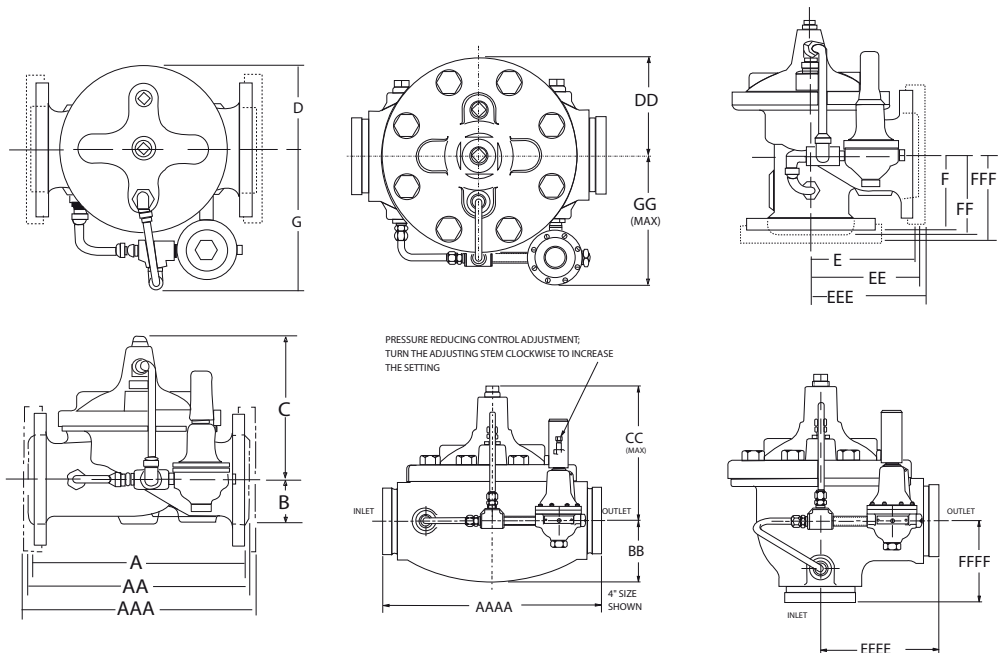
Model: 90G 21 & 90A 21

Dimensions

Valve Size	DN40	DN50	DN65	DN65 (76.1mm)	DN80	DN100	DN150	DN150 (165.1mm)	DN200	DN250	DN300
A Threaded	184	238	279	-	318	-	-	-	-	-	-
AA 150 ANSI	216	238	279	-	305	381	508	-	645	756	864
AAA 300 ANSI	229	254	295	-	337	397	533	-	670	790	902
AAAA Grooved	216	228	279	318	318	381	508	508	645	-	-
B	28	38	43	-	65	81	109	-	135	235	273
BB Grooved	52	54	63	-	77	105	152	-	184	-	-
C max.	140	161	192	-	208	270	340	-	406	435	530
CC max. Grooved	104	127	175	165	165	223	281	281	369	-	-
D	71	84	102	-	116	146	200	-	254	-	-
DD Grooved	71	84	102	116	116	146	200	200	254	-	-
E Threaded	83	121	140	-	159	-	-	-	-	-	-
EE 150 ANSI	102	121	140	-	152	191	254	-	324	378	432
EEE 300 ANSI	108	127	149	-	162	200	267	-	349	395	451
EEEE Grooved	-	121	-	-	152	191	-	-	-	-	-
F Threaded	48	83	102	-	114	-	-	-	-	-	-
FF 150 ANSI	102	83	102	-	102	127	152	-	203	219	349
FFF 300 ANSI	108	89	109	-	111	135	165	-	216	236	368
FFFF Grooved	-	121	-	-	114	127	-	-	-	-	-
G max.	191	197	197	203	203	228	241	241	267	-	-
GG max.	206	203	-	207	207	236	267	267	292	-	-

When Ordering Please Specify

1. Model Number 90-21
2. Size
3. Globe or Angle Pattern
4. Main Valve Body and Cover Material
5. Flanged, Grooved or Threaded
6. Pressure Class
7. Optional Epoxy Coating



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