

# Model 18-FR Pressure Relief Valve



## KEY FEATURES

- Available in globe and angle style
- Available sizes 1/2 inch and 3/4 inch
- Direct acting
- Drip tight closing
- Accurate pressure control
- UL listed to ANSI/UL 1478A FM approved to FM 1359



## PRODUCT OVERVIEW

The 18-FR is a remote sensing, high capacity, spring and diaphragm operated, normally closed valve. The inner valve is held closed by the spring. When the sensed pressure increases above the spring setting, the valve opens.

## SPECIFICATIONS

The valve shall be Singer Model 18-FR, with the spring range specified.

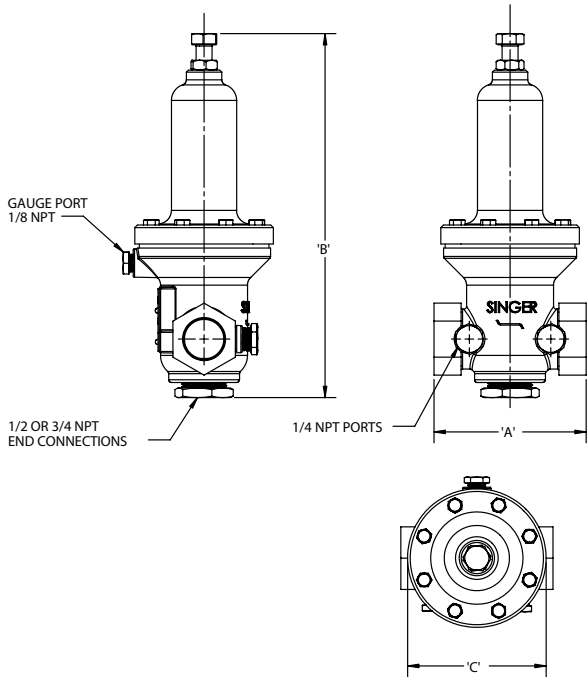
- The normally closed valve shall be of stainless steel construction with a spring to adjust the opening pressure.
- The inner valve shall be of stainless steel 316 construction and the inner valve shall have EPDM resilient compound for seating.
- A separate port will sense pressure to open the valve when system pressure exceeds the valve set-point.
- Maximum working temperature: 180° F / 82° C
- Maximum working pressure: 400 psi / 27.6 bar

	Spring Ranges	Approximate psi per turn
<b>Standard</b>	20 to 200 psi (1.38 to 13.8 bar)	22 psi (1.52 bar) per turn
<b>Optional</b>	10 to 75 psi (0.69 to 5.17 bar)	9 psi (0.62 bar) per turn
	100 to 300 psi (6.9 to 20.7 bar)	49 psi (3.38 bar) per turn

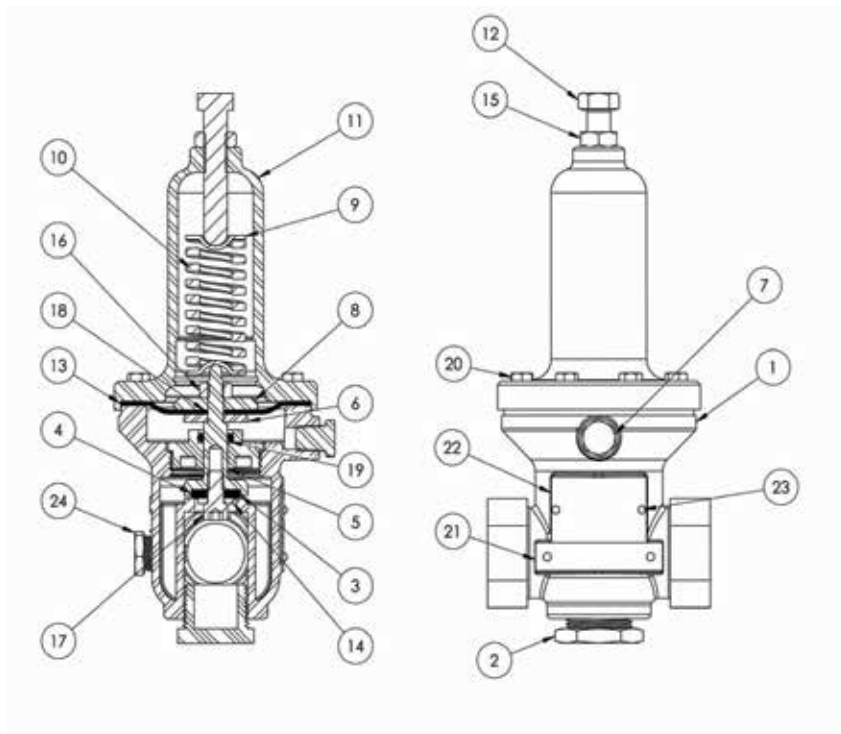
Flow Rates		
Size	Cv	Max Flow (GPM)
1/2"	6.8	70
1/2" angle	6.9	76
3/4"	8.3	84
3/4" angle	8.4	88

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## SCHEMATIC DRAWING



	Inches	mm
A	3.5	90
B	9.06	230
C	3.19	81
Weight	4.05 lbs	1.8 Kg



1. Body
2. Plug stainless steel
3. Inner Valve 18FR
4. Resilient Disc
5. Bushing Threaded
6. Clamp Plate Lower
7. Plug 1/8 NPT Stainless Steel
8. Clamp Plate
9. Spring Step
10. Spring
11. Spring Casing
12. Hbolt 0.375-16x2.06 – Machined
13. Diaphragm Pilot EPDM
14. Retainer Disc
15. Nut Hex Jam 3/8-16 UNC
16. Nut Hex 1/4-20 UNC
17. Socket Head Cap Screw
18. O-Ring
19. O-Ring
20. Screw Hex Head
21. Tag Singer
22. Tag UL Approval
23. Rivet U Drive
24. Plug 1/4 NPT