



RELIEF VALVES



C-LOK the high quality
instrumentation valves
& fittings specialized
production manufacture

C-LOK

Instrument Valve Co., Ltd.

C-LOK the high quality instrumentation valves
& fittings specialized production manufacture

Relief Valves

R1

Introduction

Valves open when system pressure reaches the set pressure. Then the medium flow out to release system pressure. Valves close when the system pressure is lower than the set pressure.

The opening height and the system pressure are direct proportional. However, there's no limit for relieving capacity. So valves in this series should be selected carefully according to system requirements.



Features

Set pressure: 50 to 6000 psig @70°F (0.34 to 41.4 Mpa @21°C)

Maximum outlet pressure: 1500 psig (103 bar)

Working temperatures: -10°F to 300°F (-23°C to 148°C)

many options for various end connections

Liquid or gas service

Adjustable bonnet cap, and adjustable set pressure

Balance stem design to eliminate the effect of system back pressure

7 color-coded springs available for a wide range of set pressure

Lock wired secure cap to maintain set pressure

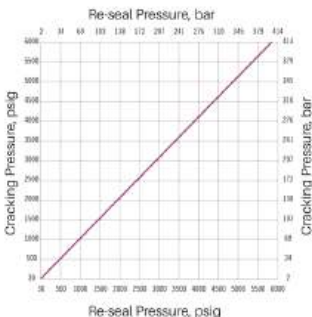
Many options for various seal materials

Label identifies the set pressure range

Manual override handle available to open the valve

without changing the set pressure when lower than 1500 psig

Cracking Pressure and Resealing Pressure



Cracking Pressure: The pressure at which the first indication of flow occurs. The repeatability of the cracking pressure of each valve after initial relief is within + 5% at room temperature.

Resealing Pressure: The pressure at which there is no indication of flow. Resealing pressure is always lower than set pressure.

Back Pressure: The pressure of the outlet of the valve. It increases the set pressure.



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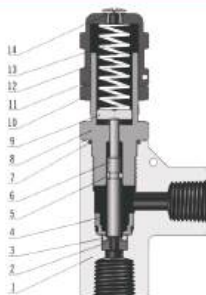
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Material of Construction



Component	Material Grade/ASTM Specification
1 Body	316 SS/A182
2 Insert	316 SS/A479
3 O-ring	Fluorocarbon FKM
4 Seat retainer	316 SS/A479
5 o-ring	Fluorocarbon FKM
6 Stem	316 SS/A479
7 o-ring	Fluorocarbon FKM
8 Bonnet	316 SS/A479
9 Spring support	316 SS/A276
10 Lock nut	17-4PH powered metal
11 Bonnet cap	316 SS/A479
12 Label	Polyester
13 Spring	S17700 SS/AMS 5678
14 Cap	316 SS/A276

*Lubricant: Molybdenum disulfide-based dry film and paste, silicone-based.

*Consult the factory for bill of material for other body materials.

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Spring Kits

Spring Designator	Spring Color	Set Pressure Rang psig (bar)	Remark
F	Green	50-300 (3.4-20.7)	For 0.14 in. and 0.25 in. orifice size
O	Orange	300-700 (20.7-48.3)	
Y	Yellow	700-1500 (48.3-103)	
P	Purple	1500-2500 (103-172)	For 0.14in. orifice size only
W	White	2500-3500 (172-241)	
J	Blue	3500-4500 (241-310)	
C	Red	4500-6000 (310-414)	