

Vent Valve

QRAI Series- Inline

0.5 to 150 PSIG (10 bar)

Description

The QRAI series inline relief valve is a compact, factory preset, repeatable, direct acting pressure relief valve. Internal adjustment provides a tamper proof design against inadvertent pressure changes. 100% factory preset and tested to customers desired crack pressure. This valve is available in Male x Female NPT threads and Male NPT x Female BSPP threads-ON REQUEST.



Application

- System overpressure protection
- Medical equipment
- Vacuum pump safety
- Refrigeration & heating equipment

Technical Data

Body Materials	Aluminum, Brass, 316 Stainless Steel
Quad-ring Materials	Viton, Neoprene, Buna, Teflon, Silicone, Fluorosilicone, Ethylene Propylene, Kalrez
Spring Material	302 Stainless Steel (Standard)
Locknut Material	18-8 Stainless Steel (Standard) /Brass
Operating Pressure	Vacuum to 200 psig (14 bar)
Cracking Pressure	0.5 to 150 psig (.034 to 10.34 bar)
Burst Pressure	Above 500 psig (34 bar)
Temperature Range	-70°F to 400°F (-56°C to 204°C)
Connection sizes	1/8" NPT to 1-1/4" NPT

QUAD SEAL

Flow at Cracking Pressure

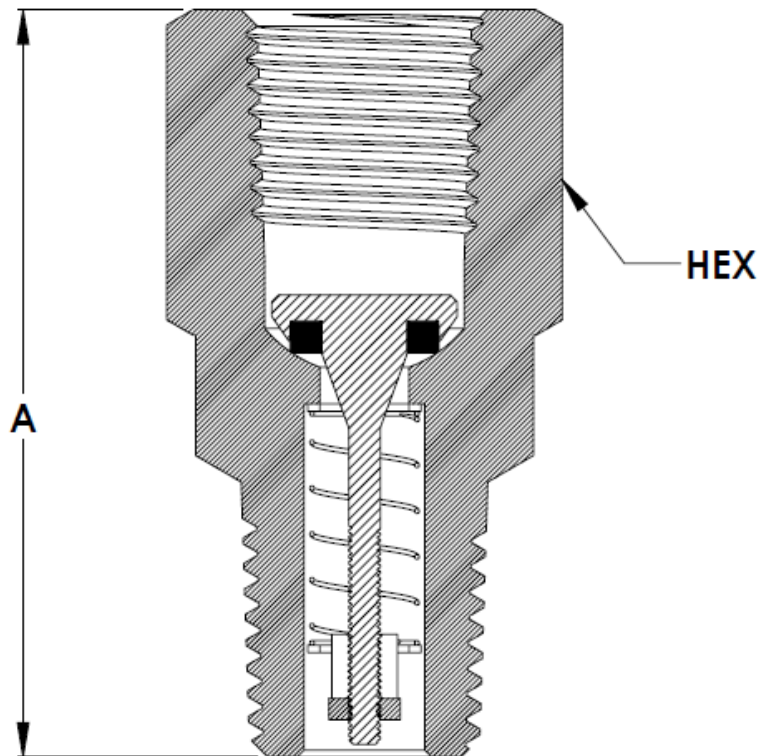
Elastomeric Seals: 5cc/min PTFE: .02 scfm

Cracking Pressure Tolerance: $\pm 5\%$

Initial cracking pressures may be higher than subsequent cracks due to the inherent characteristics of seals. Cracking pressure tolerance will be greater than $\pm 5\%$ if set pressure is ≤ 1 psi.

Dimensional Data

Fitting Size NPT	MNPT x FNPT	
	A(inches)	Hex
1/4"	1.65	0.75
3/8"	2.12	0.875
1/2"	2.38	1.125
3/4"	2.68	1.25
1"	3.61	1.50
1-1/4"	4.69	1.875



Notes:

Female BSPP X Male NPT connection is available on request.

Consult factory for any other custom sizes or materials.



HOW TO ORDER

Find the suitable codes from the tables below **Body Material**, **Connection Size**, **Quad- ring Material** and then specify the set pressure in PSIG respectively.

Ex: If you need 3 / 8" Male X Female NPT Brass Inline relief valve, sets at 100 PSIG and the operating temperature range is - 20 ° F to 400 ° F:

The ordering code is **QRAI - B- X3 - V- 100** (Refer the “**SELECTION GUIDE**” below)

SELECTION GUIDE

Series	Body Material	Connection Size	Quad-Ring material	Set Pressure (0-150 PSIG)
QRAI	B	X3	V	100

Body Material	Code
Brass	B
Aluminum	A
316 SST	S1
Brass(w/NickelPlate)	BN

Connection Size	Male NPT X Female NPT	Male NPT X Female BSPP- On request
1/8"	X1	Y1
1/4"	X2	Y2
3/8"	X3	Y3
1/2"	X4	Y4
3/4"	X5	Y5
1"	X6	Y6

Quad-Ring Material	Code
Viton (-20°F to 400°F) (-29°C to +204°C)	V
Buna-N (-70°F to 250°F) (-56°C to +275°C)	B
Neoprene (-40°F to 300°F) (-40°C to +149°C)	N
Ethylene Propylene (-65°F to +300°F) (-54°C to +149°C)	EP
Silicone (-65°F to 400°F) (-54°C to +204°C)	S
Fluorosilicone (-20°F to 350°F) (-29°C to +220°C)	FS
Kalrez (-43°F to +420°C) (-42°C to +220°C)	KZ
Teflon (-320°F to +400°F) (-196°C to +205°C)	T