

2048 SERIES

Ultra-High Purity Check Valves



PRODUCT APPLICATIONS

The stainless steel 2048 Ultra-High Purity Check Valve Series is intended for process gas distribution service where containment, cleanliness, and purity are of the utmost importance. Applications include:

- Prevention of undesired reverse flow
- Gas cabinet process lines
- Reactor gas line protection

▶ PRODUCT FEATURES

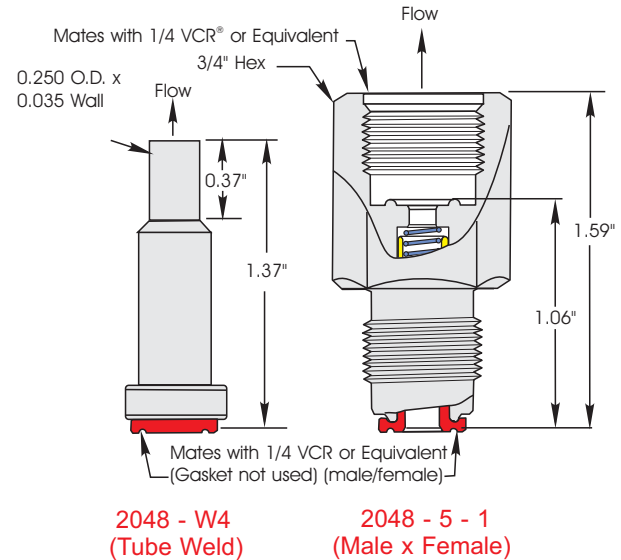
- ▶ High Performance/Compact Design
- ▶ Vacuum to 3500 psig Operating Pressure
- ▶ Ultrasonically Cleaned to Semiconductor Ultra-High Purity Standards
- ▶ 100% Tested for Check Performance and External Leakage
- ▶ Choice of End Connections
- ▶ Compatible with Standard Face Seal Components
- ▶ Purged and Final Packaged in CLASS 1 Cleanroom. Double-Bag Packaging with N₂ Gas Supplied from Liquid Source

● CONSTRUCTION MATERIALS

- 316 L Stainless Steel Body and Fittings
- 316 Stainless Steel Poppet, Seat, and Spring
- Standard Viton® Seat Seal

2048-W4

2048 SERIES - Valve Dimensions



2048 SERIES - Technical Data

CONSTRUCTION MATERIAL	Wetted Areas	316 L Stainless Steel, Viton	
	Non-Wetted Areas	316 Stainless Steel	
TEMPERATURE RANGE	2048 Series	0° F - 300° F	
FLOW COEFFICIENT	2048 Series	C _v = 0.25 at full flow	
CRACKING PRESSURE OPTIONS	2048 Series	Crack Pressure	Reseat Pressure
		1/2 ± 1/4	1/4
		2 ± 1/2	1
		5 ± 1	3
		10 ± 2	7
50 ± 3	47		
105 ± 10, -5	90		
LINE PRESSURE	2048 Series	Vacuum to 3500 psig	

LEAK RATES	Forward Pressure	Bubble tight to crack pressure
	Back Pressure	Bubble tight vacuum to 2500 PSID
	Vacuum Tested	1x10 ⁹ scc/s He max.
CLEANLINESS/PACKAGING	Assembled and tested in CLASS 10 cleanroom Double-bag packaging (2 mil nylon inner bag, 6 mil polyethylene outer bag) with N ₂ gas environment supplied from a liquid source	
STANDARD FINISH	Electropolished to 16 Ra (0.41 Ra μm) on all wetted surfaces*	
OPTIONS	Cracking pressures Seal materials: Kalrez® EPR Buna-N Swivel end connection End connection configurations Female/Male VCR (-1-5)	

Specifications are subject to change without notice.
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*Passivated steel spring

REV. 99-1

Component Selection

The total system design must be considered when selecting a valve to ensure performance. Valve application, materials compatibility, installation, operation and maintenance are the responsibility of the system design engineer.

NOTE 1: Dimensional drawings shown are for reference only. Please contact the manufacturer for customer drawings showing updated dimensions.

