

Agilent Variable Leak Valve

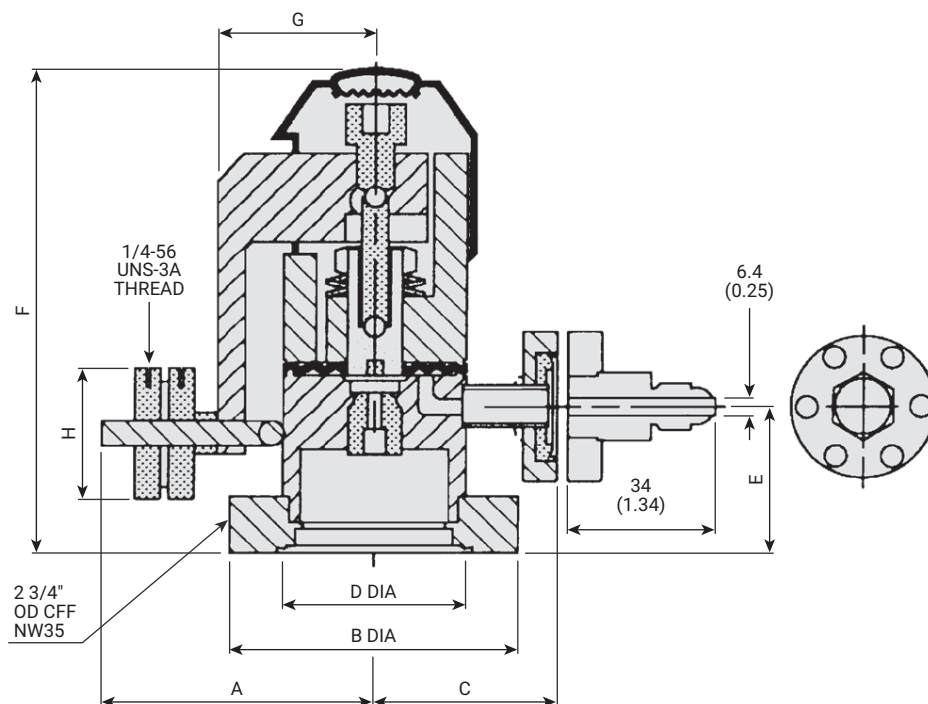


Abstract

This unique device provides extremely precise control of gas flow to a vacuum system. The variable leak valve includes a movable piston with an optically flat sapphire that meets a captured metal gasket. This forms a seal completely free from friction, seizing, and shear. The sapphire's movement is controlled through a threaded shaft-and-lever mechanism which provides a mechanical advantage of 13,000 to 1.

Technical specifications

Parameters	Value
Controlled Leak Rate	10 ⁻¹⁰ Torr-L/sec (minimum)
Vacuum Range	Atmosphere to below 10 ⁻¹¹ Torr (mbar)
Leak Rate	No leak detectable on a helium mass spectrometer leak detector with sensitivity of 1 × 10 ⁻¹⁰ std cc/sec
Max Flow Conductance	6 L/m
Bakeable to –	450 °C



	A	B	C	D	E	F	G	H
mm	67	70	44	44	33	114	39	32
Inches	2 21/34	2 3/4	1 3/4	1 3/4	1 5/16	4 1/2	1 17/32	1 1/4

Ordering information

Description	Part Number	Shipping Weight, kg (lbs)
Sapphire-sealed Variable Leak Valve and Valve Adjustment Tools		
With 1 1/3 inch (NW16) CFF Gas Inlet	9515106	1.8 (4.0)
Adapter Kit, 1 1/3 inch (NW16) CFF-to-flare-fitting Adapter Kit	9515117	0.5 (1.0)
Replacement Gasket Assembly	9535050	0.1 (0.3)
Replacement Sapphire Assembly	9530072	0.5 (1.0)
Sapphire Removal Tool	SR0061417400	0.2 (0.5)
Repair and tool kit includes fine screw assembly, handle, and collar adjusting knobs and spring driver assembly springs, sapphire assembly and gasket removal tool, brush, lubricant, 1/4 and 5/16 hex key wrenches and instruction manual.	9620014	2.3 (5.0)

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