

V-Flow® Dispensing Product Family

Last Revision: September 2017



General Characteristics

General Definition

Versatile, bidirectional and one-way V-Flow® custom dispensing valve can be optimized for your system to allow for effective and precise flow control and dosing. A wide range of liquid viscosities, gases or even powders can be dispensed on demand. These elastomeric dispensing valves are ideal for effective drip control and dosage dispensing.

Working Principle

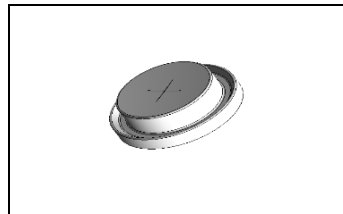
V-Flow® is designed to activate with either manual or mechanical applied pressure or vacuum between 0.25 to 25+ psi. Air recovery occurs through the same opening. Performance temperature range is from -50°F to 400°F (-45°C to 204°C) with reliable performance.

Physical Characteristics

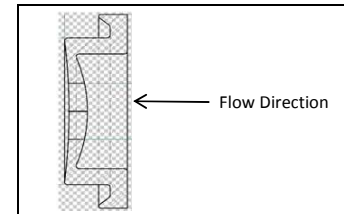
Manufacturing can be held to diameter tolerance of ± 0.08 mm (0.003 inches) and slit length tolerances of 0.08 mm (0.003 inches) maximum. In some cases, even closer tolerances are possible. Optimal dispensing accuracy can be achieved with the right material type and durometer. For this product family the typical hardness is 30 to 40 duro.

Design and Assembly

Design: VA31129 & VA31800

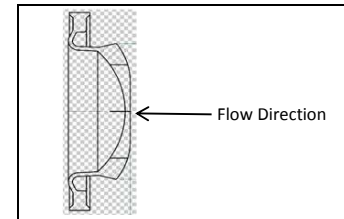


CAD Rendering



Cross Section View

Design: VA31772



Mounting Instructions

Contact Vernay for recommended seat design to ensure proper performance.

Available Products

Design ID	Product Number	Product Image	Valve Dia		Material			
			Inch	mm	Duro	Type		
VA31129	V050010300		0.374	9.5	30	Silicone		
VA31800	V050010500		0.634	16.1	30	Silicone		
VA31772	V050010400		0.719	18.3	40	Silicone		

Slit Type: Cross

Contact

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Valve Performance

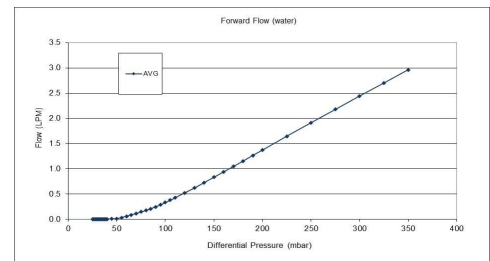
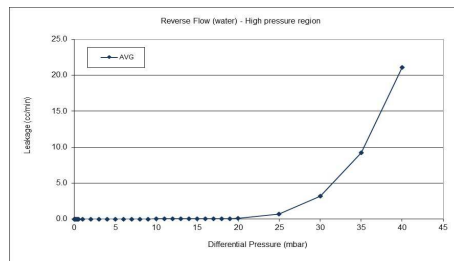
Performance data listed in the chart below is based on internal lab testing; performance may vary with actual use. It is recommended that all valve designs and materials be tested by you, the customer, under your application and conditions to verify that performance meets your requirements.

This valve family is intended as a starting point in developing your custom valve to meet your specific application requirements. Please contact us for samples or to discuss your unique functional characteristics. We will gladly assist you with valve selection, custom material and design options as well as prototype options.

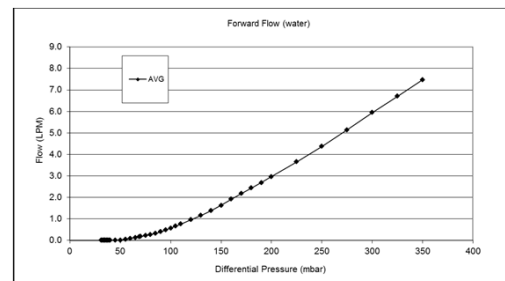
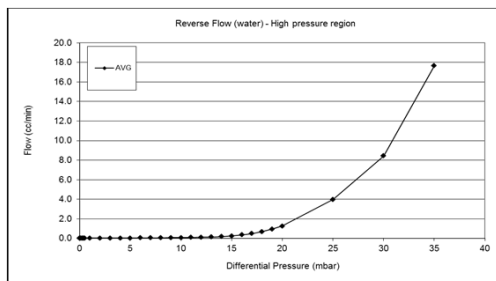
Available Products



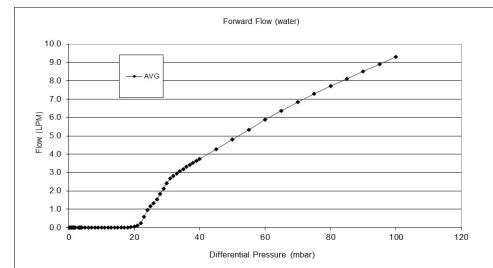
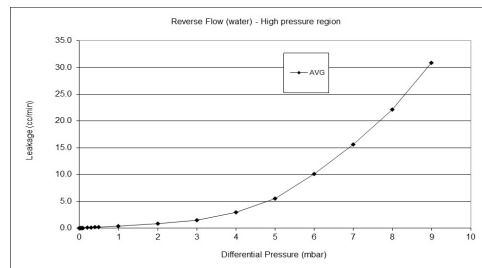
Design ID	Product Number	Avg Open Pressure (Liquid/Water)		Avg Forward Flow		
		mbar	psi	LPM	mbar	psi
VA31129	V050010300	42	0.6	0.12	70	1.0



Design ID	Product Number	Avg Open Pressure (Liquid/Water)		Avg Forward Flow		
		mbar	psi	LPM	mbar	psi
VA31800	V050010500	45	0.6	0.17	70	1.0



Design ID	Product Number	Avg Open Pressure (Liquid/Water)		Avg Forward Flow		
		mbar	psi	LPM	mbar	psi
VA31772	V050010400	42	0.6	6.83	70	1.0



DISCLAIMER: Functional performance is measured under laboratory conditions according to Vernay Test Protocols and relates only to the samples tested. Vernay recommends validating fitness for use of the selected parts in their specific application. The test data in this document are not for specification purpose. Media resistance and service temperature range are indicative. Please contact Vernay for specific media and temperature exposures. This is provided for general information purposes only. It is accurate and correct to the best of Vernay's belief; however, Vernay disclaims any warranties, expressed or implied, as to this information and assumes no obligation or liability therefore. Much of this information is proprietary to Vernay and by providing this information Vernay does not waive or release any patent, copyright, or other proprietary right it may own in this information.

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