W.A. Kates® company

the genius of simplicity

Materials of Construction

- All wetted parts are PVC except:

Spring:	PVC Coated 316 SS
Thrust washer:	Teflon®
O-Rings:	Teflon®, Viton or Buna

Teflon® is a registered trademark of Dupont Corporation.

Specifications

• Accuracy:	± 2% of flow setting
• Repeatability:	± 1% of setpoint
• Response Time:	1-2 seconds
• Turndown Ratio:	20 to 1 average
• Connections:	3/4" NPT
• Max. Working Press:	275 psi max.

Typical Applications

• Deionized Water • Rotating Seals • Additives/Blending • Nitrogen Blanketing • Natural Gas • Bleaching Systems • Reverse Osmosis • Dynamometers • Ratio Blending • Humidity Control • Polymer Injection • Heat Exchangers • Cooling Water • Dust Suppression • Aircraft De-icing • Test Cells • Caustics • Acids • Instrument Purge • Analytical Fast Loops ...and hundreds more!

PVC Flow Rate Controllers

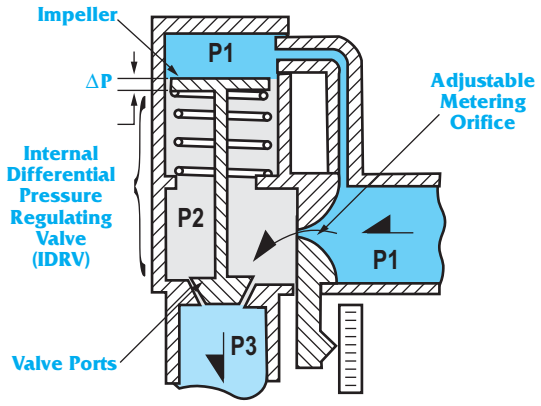
Since 1948 the W.A. Kates Company has been manufacturer of durable, high quality flow rate controllers. The Kates Automatic Flow Rate Controller has been installed in a wide variety of liquid and gas applications. Many of these units have been in operation for over 40 years. The PVC flow rate controller works under the same basic principle as the stainless steel unit. PVC Construction makes the unit ideal for use with corrosive mediums where stainless steel is incompatible. The Kates PVC Flow Rate Controller is available in a variety of models with flow ranges from .5 GPM to 25 GPM (19 to 95 LPM).

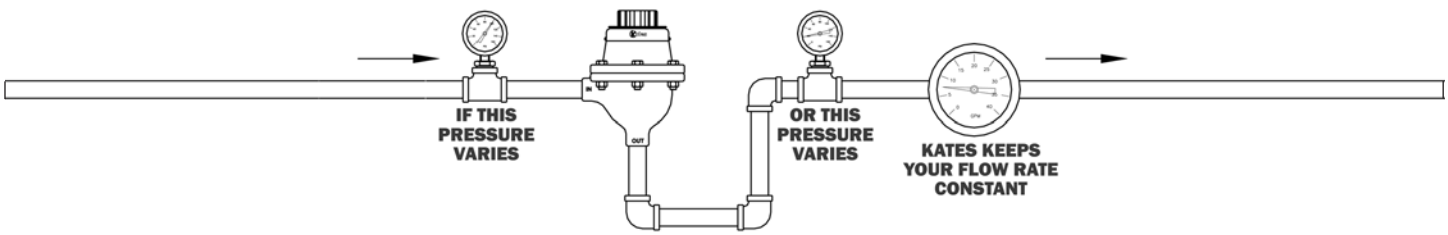
How It Works

Flow rate through an orifice is proportional to the size of the restriction and the differential pressure across it. By combining an adjustable orifice with an internal regulating valve, the Kates controller will maintain a constant pressure drop across the metering orifice.

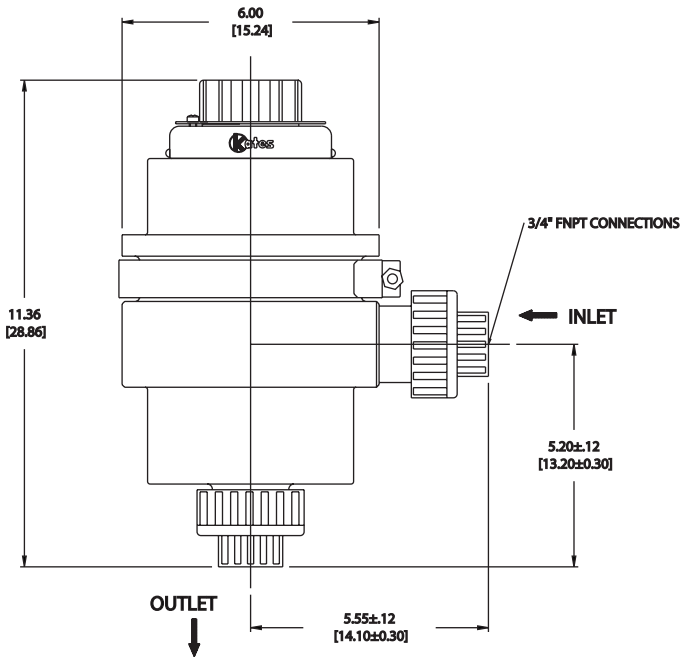
$$P1 = P2 + \text{Spring Force}$$

For example; if supply pressure (P1) increases, the resulting momentary pressure imbalance immediately moves the impeller downward. This action restricts the valve ports thus increasing orifice backpressure (P2),restoring differential pressure and the flow rate to the original settings. The unit will respond equally as well to an upset in outlet pressure (P3).





Dimensions



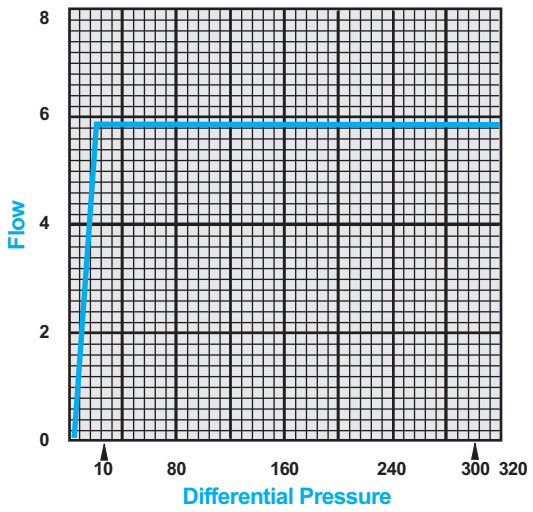
Ordering Information

Size	Flow Range	Model	#Options
3/4"	0.5-5.0 GPM	EC11U -	**A** BUNA O-RINGS
3/4"	1-12 GPM	FC11U-	**B** TEFLON® O-RINGS (STD)
3/4"	2-25 GPM	GC11U-	**C** VITON O-RINGS
			E METAL KNOB
			F SS TAG
			H ELECTRIC ACTUATOR
			J GAS SERVICE
			L SPECIAL

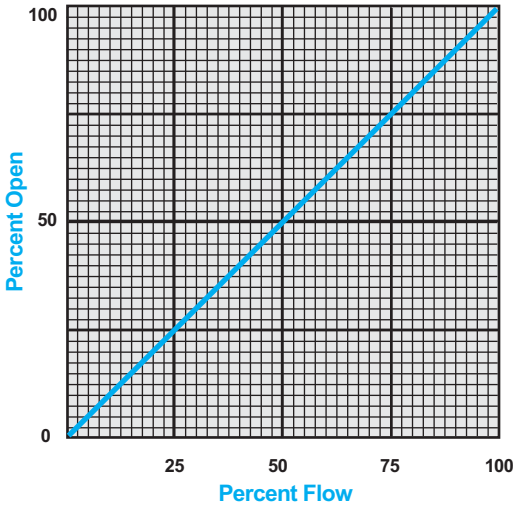
- Specified flow ranges are for water (SPG = 1.0). Actual flow may vary due to fluid conditions.
- For long lasting maintenance free operation we recommend that a strainer or filter be installed just upstream of the controller. Refer to BLT 204–02.
- Teflon® is a registered trademark of DuPont Corporation.

Example: EC11U-BE

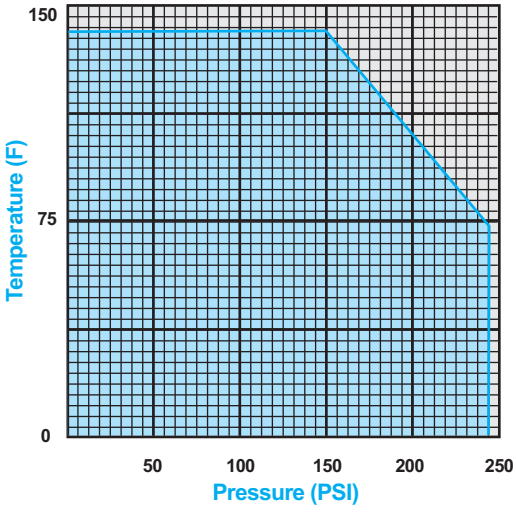
Flow Characteristics



Linearity



Pressure/Temperature Range



W.A. Kates® company

1363 Anderson • Clawson, MI 48017 • Phone: (248) 435-8225 • Fax: (248) 435-8255
Web Site: www.wakates.com • E-mail: info@wakates.com