



DIRECT ACTING RATIO BLEND CONTROLLER

The Kates Blend Controller includes three simple proven component elements:

1. An adjustable-area orifice (VariO) located in the main or wild fluid stream. Flow through this generates a pressure drop through it (or a pressure difference across it.)
2. A second adjustable-area orifice (VariO) located in the second or controlled injection stream. Flow of the injection stream through this orifice also generates a pressure drop.
3. Kates patented spool design, which compares the two pressure drops and keeps them equal. It does this by regulating the flow rate of the injection stream.

The VariO Adjustable Orifice is the type that has been field-proven in Kates Self-Actuated Flow Controllers for over ten years. Orifice area is adjustable over a 20:1 turndown range. Set point change may be manual, or by air or electric signal. It can be controlled by viscometer, or otherwise integrated into a system control circuit.

The Differential Balance Controller is self-actuated, a true force balance, and requires no field adjustment. It has no diaphragms, springs, neither pneumatic nor electric linkages. There is only one moving part.

All three elements are mounted integrally, in a self contained unit, it is inherently weatherproof, and explosion proof and it does not require sensitive elements to adjust or house.

SPECIFICATIONS

- Material: 316 stainless with Teflon®, Viton, or Kalrez® Seals
- Flow Range: 0.3 - 40 gpm
- Max Pressure: 300 psi
- Max Temperature: 400° F
- Accuracy: $\pm 1-1/2\%$ of setpoint
- Repeatability: $\pm 1/2\%$ of setpoint
- Response time: 1-2 seconds
- Turndown ratio: 20 to 1 (average)
- Connections: 3/8" to 1"

Teflon® and Kalrez® are registered trademarks of Dupont Corporation.

FOR MORE INFORMATION

Call (248) 435-8225 or visit W.A. Kates Company on the Internet at www.wakates.com.

