

the  
**genius**  
of  
simplicity



**Brass &  
316 Stainless Steel**



**Zytel**

## MATERIALS OF CONSTRUCTION

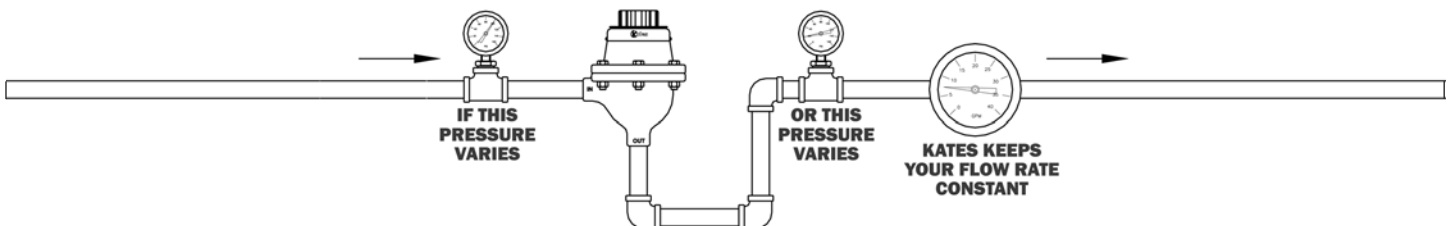
Body Material:	<b>316 SS &amp; Brass</b>	<b>Zytel (Nylon)</b>
Internals:	304 Stainless Steel	304 Stainless Steel
O-rings:	Buna	Buna
	(Contact factory for other materials)	

## SPECIFICATIONS

	<b>316 S.S. &amp; Brass</b>	<b>Zytel (Nylon)</b>
Accuracy	± 5% flow setting	± 5% flow setting
Adjustability	± 10% of set flow	± 10% of set flow
Connections:	1/4" NPT female	7/16-20 S.A.E. male
Temperature:	450° F. max.	250° F max.
Differential Pressure:	10-450 psi	10-300 psi max.
Working Pressure	450 psi max.	300 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!



## MINI-FLO

Since 1948, the W.A. Kates Company has been a manufacturer of durable high quality adjustable flow rate controllers. The Kates Mini-Flo controller is a low cost, direct acting, flow rate regulator which is applicable for a wide variety of systems. The Mini-Flo controller works on the same basic principle as the original adjustable Kates Flow Rate Controller. It is available in factory settings from .05 to 1 gpm (.19 to 3.79 LPM).

## HOW IT WORKS

The Kates Mini-Flo regulator maintains flow at the set rate, regardless of the variations in either supply or discharge pressure, by holding a constant pressure drop across the metering orifice.

Since the regulator always maintains the same pressure drop across the orifice, flow rate is determined by the size of the adjustable orifice and the differential pressure setting.

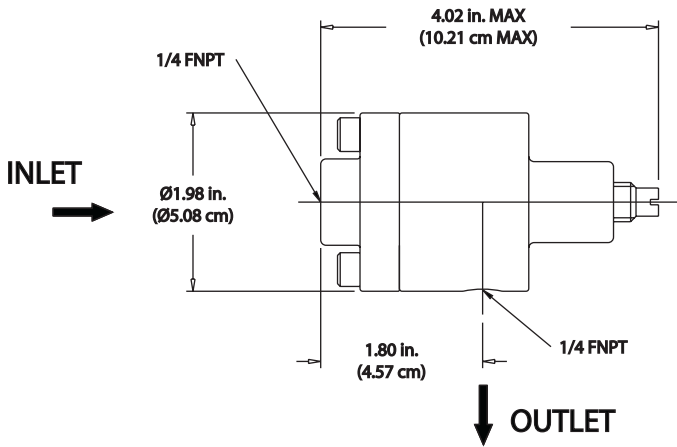
Constant pressure drop across the orifice is maintained by a piston-valve. The valve port opening is regulated by the relative positioning of the piston-valve. The piston-valve moves up or down as inlet or outlet pressure fluctuates.

The piston-valve is loaded downward by the pressure at the regulator inlet, which is also the pressure upstream of the metering orifice. It is loaded upward by the pressure of the downstream side of the orifice plus a spring whose force is equal to the adjustable orifice pressure drop.

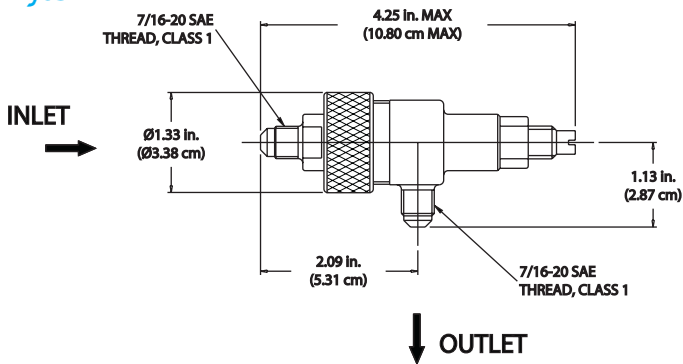
Therefore, the piston-valve will be in balance only when the pressure drop across the metering orifice is at the set value. Any variation in this pressure drop will cause instant corrective action; the imbalance on the piston-valve will change the valve port opening, as required. The orifice pressure drop is immediately restored to its correct value and the flow is maintained at the set rate.

## DIMENSIONS

### Brass & Stainless Steel



### Zytel

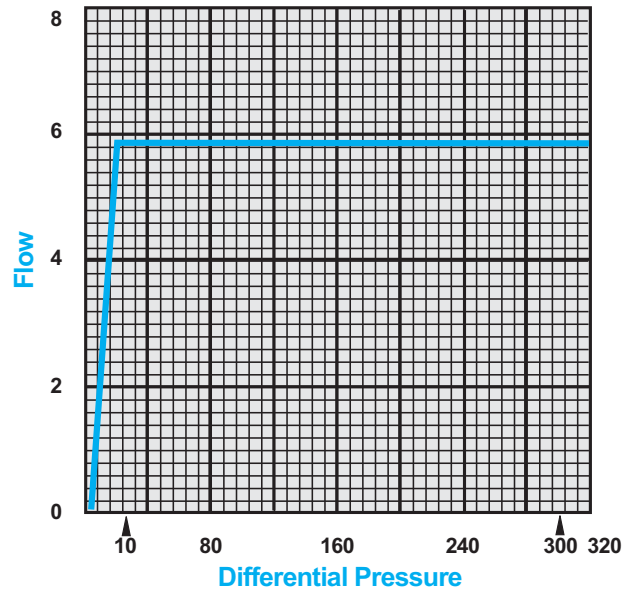


## ORDERING INFORMATION

Model #	Material	Flow Range (gpm)
25F	B Brass	1 .05-.08
		2 .09-.12
25F	S Stainless Steel	3 .13-.17
		4 .18-.22
25F	Z Zytel	5 .23-.28
		6 .29-.34
		7 .35-.40
		8 .41-.46
		9 .47-.52
		10 .53-.58
		11 .59-.64
		12 .65-.72
		13 .73-.83
		14 .84-1.00

Example: 25FS12

## FLOW CHARACTERISTICS



## TYPICAL APPLICATIONS

