



### Paddle Flow Rate Servo Pilot

#### Model PC-70-M

This flow rate pilot combines all principal functions of a 2-way control circuit with elements of a 3-way control circuit. It is a direct acting pilot valve, actuated by a paddle that is positioned within the flow stream. Should demand rise above setting, the increasing flow dynamic force moves the paddle, which thereby pushes the pilot trim against the spring force. This increases control water flow into the control chamber, causing the main valve to throttle closed limiting system flow to pilot setting. The pilot's unique internal design dynamically increases and decreases the main valve response speed in direct proportion to the discrepancy between actual and setting flow rate.

#### Typical Applications

- Flow Control Valves sizes 1 1/2"-10"
- Flow Control and Pressure Reducing Valves sizes 1 1/2"-10"
- Level and Flow Control Valves sizes 1 1/2"-10"
- Burst Control Valves sizes 1 1/2"-10"  
(Modified to 3-Way Trim PC-70-X-M)

#### Technical Data

**Pressure Rating:** 16 bar; 232 psi  
**Working Temperature:** Water up to 80°C; 180°F  
**Flow Factor:** Kv 0.07 m<sup>3</sup>/h @ 1bar ΔP; Cv 0.08 GPM @ 1psi ΔP  
**Standard Materials:**  
**Body & Cover:** Brass  
**Elastomers:** NBR  
**Internals:** Stainless Steel & Brass  
**Spring:** Stainless Steel  
**Ports:** 1/8" NPT

#### Adjustment Range

Spring	Flow Velocity	
	m/sec.	f/sec.
E-Purple	1-5	3.3-16.4

#### Connections

- 1 - Upstream
- 2 - Downstream
- 3 - Valve control chamber

#### Paddle Length Table

Valve size		Paddle Length (mm)	Paddle Length (inch)	Number Leaves
inch	DN			
1 1/2	40	35	13/8	1
2	50	35	13/8	1
2 1/2	65	45	13/4	2
3R	80R	35	13/8	1
3	80	50	2	2
4R	100	50	2	2
4	100	65	2 1/2	3
6	150	80	3 1/8	4
8	200	95	3 3/4	5
10	250	110	4 5/16	6

