

W-30 F

Flow Control Valve
3 Way



Introduction

Based on a unique technology that combines innovative design and performance, the Eliptix line of hydraulic control valves offers optimal system solutions. The Eliptix line are suitable for installation in the areas of waterworks, high-rise buildings, fire protection systems, industrial, oil & gas, on & off-shore and irrigation systems.

With an innovative elliptical structure, the Eliptix control valve line offers accurate, stable and excellent regulating capabilities for a wide range of flow rates.

Requiring exceptionally low operating pressure for valve opening and rapid, yet gradual closing.

The Eliptix valve is designed for minimal head loss and increased revenue.

With a simple mechanism and a minimal amount of moving parts, the Eliptix hydraulic control valve line delivers reliable operation, extended durability and minimize cavitation risk.

Cost reduction with fast and simple inline maintenance.

Rugged, high quality construction meets applicable engineering standards.

Description

The Eliptix Flow Control Valve model W-30 F is activated by line pressure. The Eliptix W-30 F control valve is partly open to allow a preset constant flow rate.

The flow rate is determined by using an orifice plate. The head loss across the orifice is proportional to the actual flow rate. With increasing head loss, the Eliptix W-30 F control valve is automatically activated to close.

With decreasing head loss, the valve opens. The combined operation of the orifice plate and the pilot enables the flow rate to remain constant, regardless of the line pressure fluctuations.

The Eliptix W-30 F Flow Control Valve is used to maintain a constant flow rate, to limit the downstream flow. Eliptix W-30 F has a 3-way metal pilot valve for general use in water supply systems up to 16 bar.

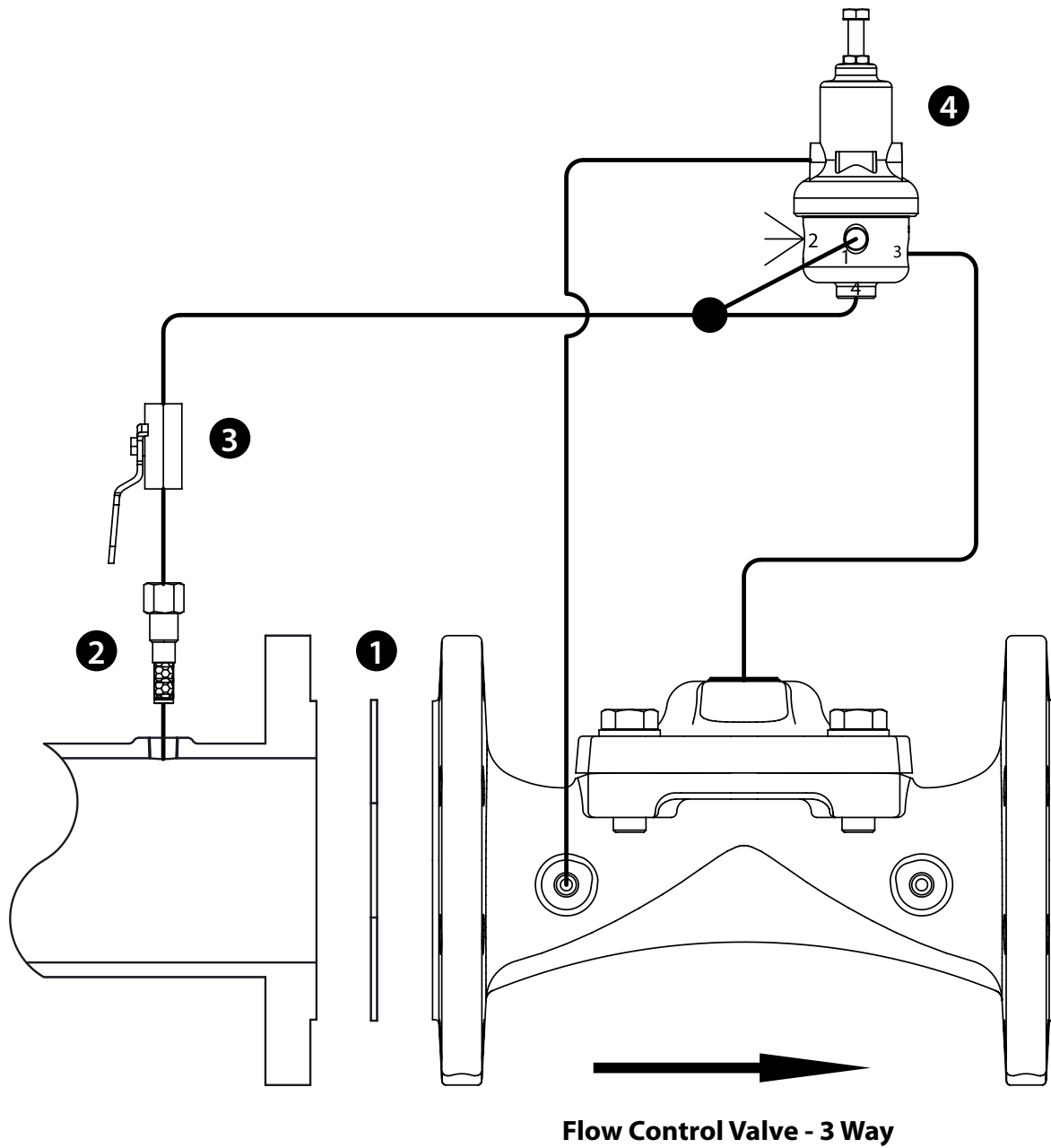
Product Features

- Rugged, high quality construction meets applicable engineering standards
- Long service life and low maintenance
- Unique technology, innovative design and performance
- Free and unobstructed liquid flow with minimal head loss
- Designed to reduce cavitation
- Elliptic diaphragm reacts faster with less movement
- Small control chamber enables quicker response

Schematic Control Loop Diagram

COMPONENTS

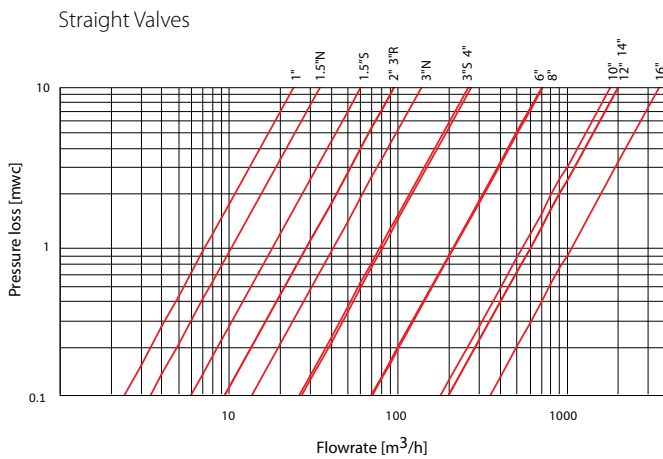
1. Orifice Plate
2. Finger Filter
3. Ball Valve
4. P-36 D Differential Pilot Valve



Purchase Specifications

The control valve shall be a hydraulically operated, pilot controlled, weir type, in-line serviceable valve. The main in-line hydraulic control valve shall have only two moving parts, the resilient diaphragm and the spring. The diaphragm shall be the only sealing component of the control valve.

Eliptix Series 30 Flow Capacity Chart



Valve Technical Specifications*

Series W-30 PN16

Self-actuated, WEIR type diaphragm actuated, hydraulic control valve

*For dimensions and weights, please refer to the Eliptix Basic Valve leaflet

Material	Body & Bonnet	Ductile Iron / Stainless Steel SAE 316
	Diaphragm	Natural Rubber / EPDM
	Spring	Stainless Steel SAE 302
	Spring Seat	Acetal / Stainless Steel SAE 316
	Bolts	Steel, Zinc Cobalt Coated / Stainless Steel SAE 316
	Piping & Tubing	Stainless Steel SAE 316 / Reinforced Nylon
	Coating	Fusion bonded epoxy coating according to the standard DIN 30677-2
Pressure Rating	Maximum working pressure - 16 bar Minimum working pressure - 0.4 bar (depending on type of diaphragm)	
Water Temp. Range	5° to 60°C	

Pilot Valve Technical Valve Specifications

Model: **P-36 D** PN16

Spring loaded 3W hydraulic control pilot valve

Material	Body	Brass – Nickel Plated / Stainless Steel 316
	Internal Parts	Elastomers: EPDM / NBR Metal: Stainless Steel SAE 316 / Brass
	Spring	Stainless Steel SAE 302
Pressure Rating	Maximum working pressure - 16 bar Minimum working pressure - 0.4 bar	
Water Temp. Range	5° to 60°C	

Installation and Storage Recommendations

- Always flush the pipeline to remove debris before the installation of the valve.
- Arrow on the valve bonnet must match the actual flow direction.
- Tighten bolts to the recommended torque for the specific size and model of the Eliptix valve.
- Do not over-torque.
- Tighten bolts using the crossover method.
- If the Eliptix valve is for use in ambient or fluid temperatures below freezing, consult your nearest A.R.I. distributor. If shut down during cold weather, the valve control space and the control system must be drained.

When ordering, please specify

- 1) Eliptix Control Valve Series W-30 model F
- 2) Eliptix valve size
- 3) Desired end connection / Standard
- 4) Static inlet pressure (when valve is closed)
- 5) Dynamic pressures (min – max)
- 6) Flow rates (min-max)
- 7) Required outlet Flow rates