

Hydraulic Control Valve

IR-105-4"L/6"R

The Most Cost-Effective Control Valve for 120-180 m³/h; 530-790 gpm Irrigation Blocks

- KV to Weight (KV/Kg) Ratio: 31
- KV to Price (KV/\$PL) Ratio: 0.5

The BERMAD 105-4"L/6"R Hydraulic Control Valve is a hydraulically operated, diaphragm actuated control valve that can accept a variety of control features to serve as a 4", 5" or 6" Main Irrigation Control Valve, large scale Plot Valve or in main supply systems.

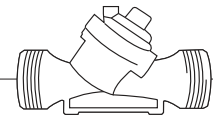
The BERMAD 105-4"L/6"R hYflow valve starts to operate at a very low pressure and provides very high flow at low head loss, accurate and stable regulation performances & smooth closing.



Features and Benefits

- Hydraulic Control Valve
 - Line pressure driven
 - Meets all irrigation applications range
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity - Low pressure loss
- Unitized Flexible Super Travel Diaphragm and Guided Plug
 - Accurate and stable regulation with smooth closing
 - Requires low actuation pressure
 - Prevents diaphragm erosion and distortion
- Engineered Plastic Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection sizes and types
 - Articulated flange connections isolate valve from line bending and pressure stresses
 - Highly durable, UV, chemical and cavitation resistant
- User-Friendly Design
 - Simple in-line inspection and service



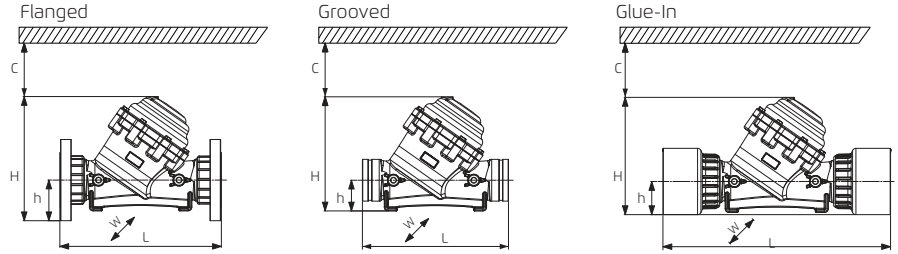


Technical Specifications

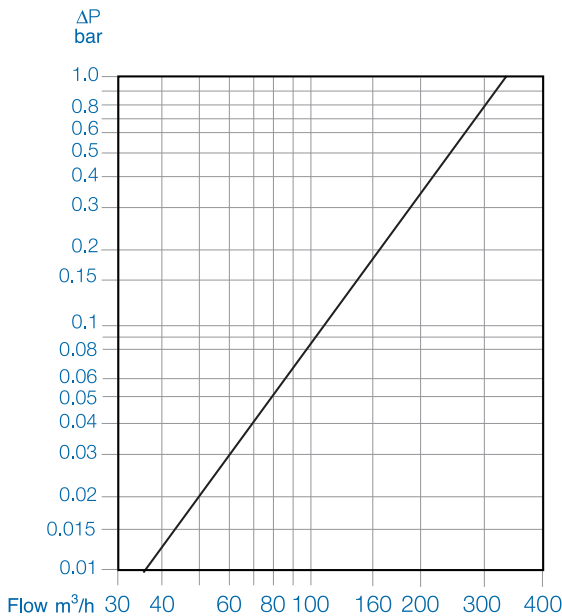
Dimensions and Weights

		Flange 4";DN100	Flange 6";DN150	Glue-In PVC 160 mm	Grooved 4"
L	mm	442.0	470.0	484.0	400.0
	inch	17.4	18.5	19.1	15.7
H	mm	340.0	377.0	301.0	286.0
	inch	13.4	14.8	11.9	11.3
W	mm	226	300	226	226
	inch	8.9	11.8	8.9	8.9
h	mm	112.0	149.0	72.5	57.0
	inch	4.4	5.9	2.9	2.2
Weight	Kg	10.0	11.0	10.0	8.0
	lib	22.1	24.3	22.1	17.6

Note: C = Half of H



Flow Chart



Flow Coefficient	KV	340
	CV	393
CCDV	Liter	1.4
	Gallon	0.4

CCDV = Control Chamber Displacement Volume

$$\text{Valve flow coefficient, Kv or Cv} \quad \Delta P = \left(\frac{Q}{Kv}\right)^2; \quad \Delta P = \left(\frac{Q}{Cv}\right)^2$$

Where:

Kv = Valve flow coefficient (flow in m³/h at Diff. Press. 1 bar)

Cv = Valve flow coefficient (flow in gpm at Diff. Press. 1 psi)

Q = Flow rate (m³/h; gpm)

ΔP = Differential pressure (bar; psi)

$$Cv = 1.155 Kv$$

Technical Data

Pressure Rating: 10 bar; 145 psi

End Connections: Flanged, Grooved & Glue-In PVC

Operating Pressure Range: 0.5-10 bar; 7-145 psi

Temperature Range: Water up to 50°C; 82°F

Standard Materials:

Body, Cover and Plug: Glass-Filled Nylon

Diaphragm: NBR (Buna-N), Nylon fabric reinforced

Seals: NBR (Buna-N)

Spring: Stainless Steel

