



PRESSURE REDUCING TOP PILOT VALVE

Model IR-22T-3W-X

The BERMAD Top Pilot Pressure Reducing Control valves offer top performance, compact design and intuitive plug-and-play operation, thanks to an innovative integrated pilot, equipped with a high resolution adjustment dial for easy, quick & accurate calibration.

Model IR-22T-3W-X reduces higher upstream pressure to a calibrated constant downstream pressure, regardless of flow fluctuations and opens fully when line pressure drops below setting.



[1] BERMAD Model IR-22T-X establishes reduced pressure zone, protecting laterals and distribution line.

[2] Kinetic Air Valve

[3] Combination Air Valve

Features and Benefits

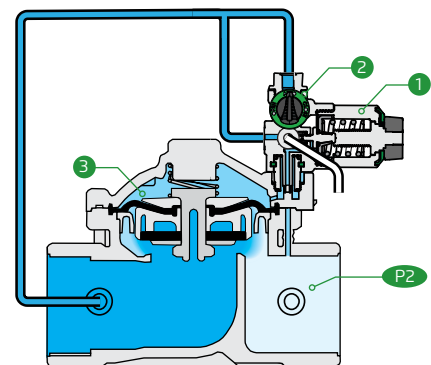
- Line Pressure Driven, Hydraulically Controlled (on/Off)
 - Protects downstream systems
 - Opens fully when line pressure drop
- 3-Way Integrated pilot - user friendly design
 - Adjustment knob and high resolution scale for easy calibration without pressure gauge
 - Compact "Box-Size" solution
 - Solenoid control is easily added or removed
 - Uniquely suitable to all size range up to 2"
- Smooth valve opening and closing
 - Accurate and stable regulation
 - Low operating pressure requirements
- Plastic Globe Hydro-Efficient Valve
 - Unobstructed flow path
 - Single moving part
 - High flow capacity
 - Highly durable, chemical and cavitation resistant
- Unitized Flexible Diaphragm and Guided Plug
 - Excellent low flow regulation performance
 - Prevents diaphragm erosion and distortion
- Fully Supported & Balanced Diaphragm
 - Requires low actuation pressure

Typical Applications

- Systems Subject to Varying Supply Pressure
- Plot valves in Drip & Sprinklers irrigation systems
- Energy Saving Irrigation Systems

Operation:

The Pressure Reducing Pilot **1** commands the Valve to throttle closed should Downstream Pressure **P2** rise above setting and to open fully when it drops below setting. The Integrated Trio Selector **2** enables manual closing and opening override or automatic hydraulic control, in which the pilot connects valve control chamber **3** with line pressure to throttle close the valve or vents it through the pilot to open the valve





IR-22T-3W-X

Technical Data

Pressure Rating:
10 bar; 145 psi

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

Setting Range:
0.8-6 bar; 12-80 psi

Setting ranges vary according to specific pilot spring. Please consult factory

Materials:

Body, Cover and Plug:
Polyamid 6 & 30% GF

Diaphragm: NBR

Seals: NBR

Spring: Stainless Steel

Cover Bolts: Stainless Steel

Control Accessories:

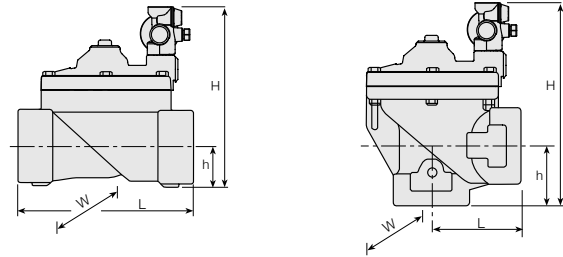
Pilot Spring Range:

Dial Code	Spring Color	Adjustment Knob Color	Setting Range
J2	Black	Black	12-80 psi
H2			0.8-6.0 bar

Technical Specifications

Dimensions & Weights

For more details of [BERMAD 200 series](#) Please see our full engineering page.



Pattern		Globe (G)		Angle (A)	
Size Inch ; mm		1½" ; 40	2" ; 50	1½" ; 40	2" ; 50
End Connections		Internal Threaded (BSP-T / NPT)		Internal Threaded (BSP-T / NPT)	
Length (mm)	L	162	171	80	85
Height (mm)	H	217	210	216	236
	h	32	39	38	59
Width (mm)	W	148		148	
CCDV (lit)		0.072		0.072	
Weight (Kg)		1.18	1.28	1.13	1.09

CCDV = Control Chamber Displacement Volume

Other End Connections are available on request. For dimensions and weights of adapters or valve with adapters please consult with customer service

Flow Properties

Sizes	Inch DN	1½" 40	1½" 40	2" 50	2" 50
Pattern		G	A	G	A
KV		37	41	47	52

Valve Flow Coefficient

$$\Delta P = \left(\frac{Q}{Kv} \right)^2$$

Kv = m³/h @ ΔP of 1 bar
Q = m³/h
ΔP = bar

Flow Chart

