PRESSURE REDUCING TOP PILOT VALVE

With Solenoid Control

Model IR-22T-55-3W-X

The BERMAD Top Pilot Pressure Reducing Control Valves with solenoid control 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-55-3W-X reduces higher upstream pressure to a calibrated constant downstream pressure, regardless of flow fluctuations and opens fully when line pressure drops below setting. The valve opens & shuts in response to an electric signal.

[1] BERMAD Model IR-22T-55-X establishes reduced pressure zone, protecting laterals and distribution line.
[2] Kinetic Air Valve
[3] Combination Air Valve
[4] Remote Terminal Unit

Features and Benefits

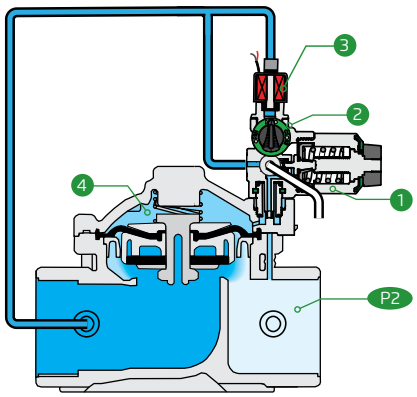
- Line Pressure Driven, Hydraulically Controlled (on/Off)
  - Protects downstream systems
  - Opens fully when line pressure drop
- 3-Way Integrated pilot - user friendly design
  - Adjustment knob and high resolution scale for easy calibration without pressure gauge
  - Compact "Box-Size" solution
  - 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

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

Operation:

The Pressure Reducing Pilot ❶ 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 ❷ enables manual closing and opening override or electric control, in which the solenoid ❸ connects valve control chamber ❹ with line pressure to throttle close the valve or vents it through the pilot to open the valve.



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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

Solenoid Voltage Range:

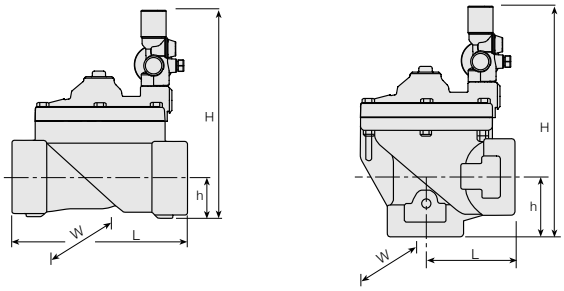
S-390-T-3W:
Continues voltage:
12VDC, 24VDC, 24VAC

S-392-T-3W:
Latch 9-20VDC

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	249	255	250	274
	h	32	39	38	59
Width (mm)	W	148		148	
CCDV (lit)		0.072		0.072	
Weight (Kg)		1.29	1.39	1.24	1.2

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 = m^3/h @ ΔP of 1 bar
Q = m^3/h
ΔP = bar

Flow Chart