



TOP PILOT PRESSURE REDUCING VALVE

Model IR-22T-55-2W

The BERMAD Top Pilot Pressure Reducing Control Valves with solenoid control offer top performance, compact design and intuitive plug & play operation, thanks to an innovative integrated pilot, equipped with a high resolution adjustment dial for easy, quick & accurate calibration. Model IR-22T-55-2W reduces higher upstream pressure to a calibrated constant downstream pressure, regardless of flow fluctuations; and opens when line pressure drops below setting. The valve opens & shuts in response to an electric signal.

*This valve is designated for irrigation use only and not for other uses! Manufacturer warranty is limited to the permitted use only.



- [1] BERMAD Model IR-22T-55-2W establishes reduced pressure zone, protecting laterals and distribution line.
- [2] Kinetic Air Valve Model IR- K10
- [3] Combination Air Valve Model IR-C10
- [4] RTU-Remote Terminal Unit

Features & Benefits

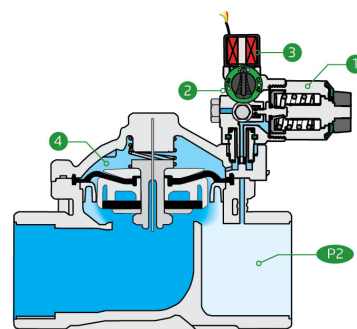
- Line Pressure Driven, Hydraulically Controlled On/Off
 - Protects downstream systems
- 2-Way Integrated Pilot - User Friendly Design
 - Adjustment knob and high resolution scale for easy calibration without any pressure gauge
 - Compact "Box-Size" solution
 - Internal Self-Cleaning control - No external tubes
 - Solenoid control is easily added or removed
- Smooth Valve Opening and Closing
 - Accurate and stable regulation
 - Low operating pressure requirements
- Composite Hydro-Efficient Globe 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 performances
 - Prevents diaphragm erosion and distortion
- Fully Supported & Balanced Diaphragm
 - Requires low actuation pressure

Typical Applications

- Automated Irrigation Systems
- Systems Subject to Varying Supply Pressure
- Plot Valves in Drip & Sprinklers Irrigation Systems
- Energy Saving Irrigation Systems

Operation:

The Pressure Reducing Pilot [1] restricts, control flow resulting-in valve throttling closed should Downstream Pressure [P2] rise above setting and to open when it drops below setting. The Integrated Trio Selector [2] enables manual closing and opening override or electric control, in which the solenoid [3] shuts control flow from the Valve Control Chamber [4] allowing line pressure to shut the valve or vents it through the pilot to open the valve.





Technical Data

Pressure Rating:
150 psi

Operating Pressure Range:
10-150 psi

Materials

Body & Cover:
Polyamide 6 & 30% GF

Diaphragm:
NBR

Spring:
Stainless Steel

Control Loop Accessories

PR Pilot: Top Pilot

Pilot Spring Range:

Spring	Spring Color	Setting range
Black	Black	12-80 psi

- H2 for bar scale
- J2 for psi scale

Tubing and Fittings:
Polyethylene and Polypropylene

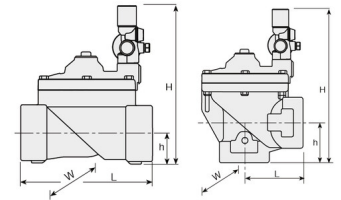
AC solenoid:
S-390-T-2W

DC latch solenoid:
S-392-T-2W

*For other solenoids please consult [BERMAD](#)

Technical Specifications

For other end connection types,
Please refer to [BERMAD](#) full engineering page.



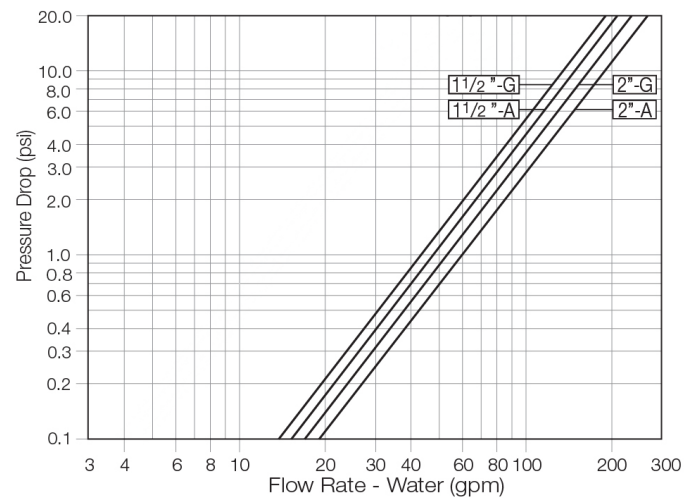
Size	Pattern	End Connection	Weight (Lb)	L (In)	H (In)	h (In)	W	CCDV (Gal)	CV
1½" ; DN40	Globe	Threaded	2.95	6¾	7¾	1¾	5¾	0.016	43
1½" ; DN40	Angle	Threaded	2.84	3¾	7¾	1¾	5¾	0.016	47
2" ; DN50	Globe	Threaded	3.17	6¾	7¾	1½	5¾	0.016	54
2" ; DN50	Angle	Threaded	2.75	3¾	8¾	2¾	5¾	0.016	60

CCDV = Control Chamber Displacement Volume

Additional Features

Code	Description	Size Range
5	Plastic Test Point	1½"-2"

Flow Chart



2-Way circuit "Added Head Loss" (for "V" below 6.5 f/s): 4.5 psi

Differential Pressure & Flow Calculation

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

Cv = gpm @ ΔP of 1 psi

Q = gpm

ΔP = psi