



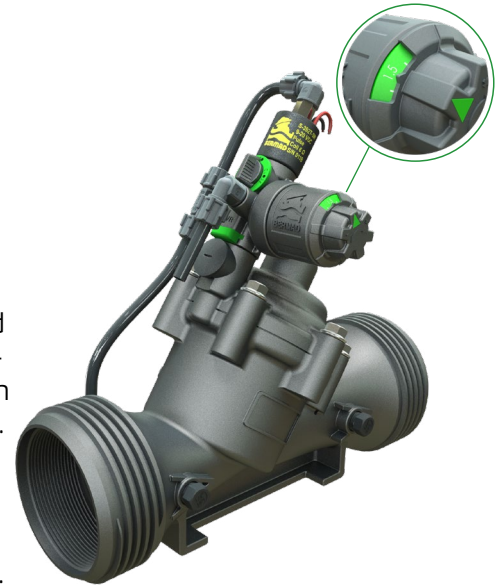
PRESSURE REDUCING TOP PILOT VALVE

With Solenoid Control

Model IR-12T-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-12T-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-12T-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

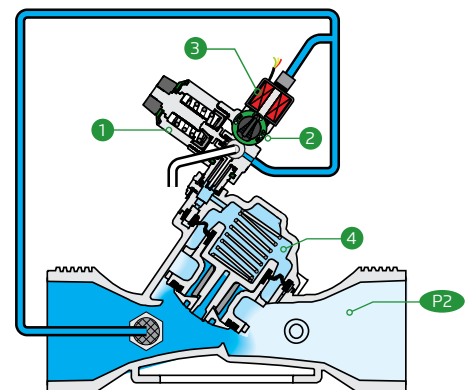
- Line Pressure Driven, Hydraulically Controlled (on/Off)
 - Protects downstream systems
 - Opens fully when line pressure drop
- 3-Way Integrated pilot - user friendly design
 - Adjustment knob and high resolution scale for easy calibration without pressure gauge
 - Compact "Box-Size" solution
 - Solenoid control is easily added or removed
 - Uniquely suitable to all size range up to 3"
- Engineered Plastic Valve with Industrial Grade Design
 - Adaptable on-site to a wide range of end connection sizes and types
 - Highly durable, chemical & cavitation resistant
- hYflow 'Y' Valve Body with "Look Through" Design
 - Ultra-high flow capacity at Low pressure loss
- Unitized Flexible Super Travel Diaphragm with a Guided Plug
 - Accurate and stable regulation with smooth closing
 - Requires low actuation pressure
 - Prevents diaphragm erosion and distortion

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 **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 electric control, in which the solenoid **3** connects valve control chamber **4** with line pressure to shut the valve or vents it through the pilot to open the valve.





IR-12T-55-3W-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:
Glass-Filled Nylon

Diaphragm:
NR, Nylon fabric reinforced

Seals: NR

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	Black		0.8-6.0 bar

Solenoid Voltage Range:

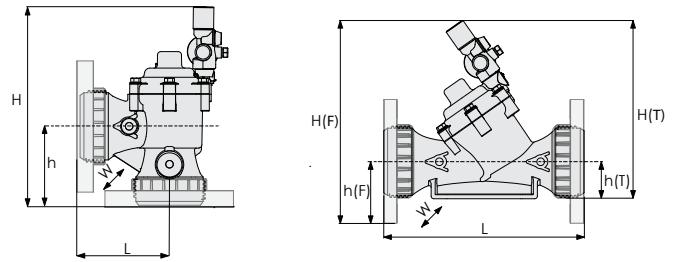
S-390-T-3W:
Continues voltage:
12VDC, 24VDC, 24VAC

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

Technical Specifications

Y Pattern Valves Dimensions & Weights

For [BERMAD](#) dual & T pattern, Please see our full engineering page.



Pattern		Oblique (Y)					Oblique (Y)		Angle (A)				
Size Inch ; mm		1½" ; 40	2" ; 50	2"L ; 50L	3" ; 80	2" ; 50	2½" ; 65	2" ; 50	3" ; 80				
End Connections		Internal Threaded (BSP-T / NPT)			Universal Flanges		External Threaded (BSP-F)		Internal Threaded (BSP-T / NPT)		Universal Flanges		
					Plastic	Metal					Plastic	Metal	
Length (mm)	L	200	230	298	308	355	200	230	115	133	138	338	
Height (mm)	H(F)	-			355	-	-	-	-	-	-	338	
	H(T)	279	298	310	-	-	279	298	318	333	-	-	
	h(F)	-			100	-	-	-	-	-	-	123	
	h(T)	40	43	55	-	-	40	43	115	118	-	-	
Width (mm)	W	142	152		200	142	152	142	152	200			
CCDV (lit)		0.12	0.15			0.12	0.15	0.12	0.15				
Weight (Kg)		1.4	1.5	1.8	1.9	2.8	4.7	1.4	1.5	1.5	1.9	2.8	4.7

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

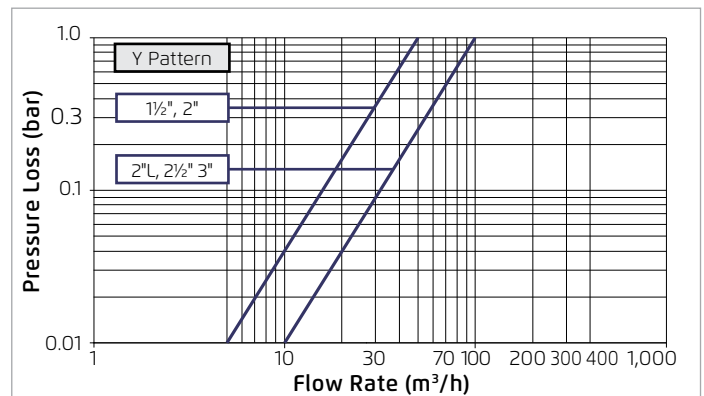
Sizes	Inch DN	1½" 40	2" 50	2"L 50L	2½" 65	3" 80
KV		50	50	100	100	100

Valve Flow Coefficient

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

$Kv = m^3/h @ \Delta P \text{ of } 1 \text{ bar}$
 $Q = m^3/h$
 $\Delta P = \text{bar}$

Flow Chart



www.bermad.com

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