



# Plastic Control Valves

Plastic Control Valves Catalogue



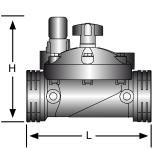
## **Globe & Angle Irrigation Valves**

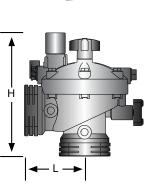
The series 80 valves are designed to offer the highest performance in greenhouse, field crops and turf irrigation systems. With straight or angle flow design, the 80 series valves are used for all control applications while ensuring minimal maintenance and maximal reliability.

#### **Features and Benefits**

- · Simple, reliable and economical
- Angle or straight, globe-pattern valve, activated by a fully supported diaphragm
- · Durable, corrosion free materials
- Unique clog-free labyrinth inlet of the activation water on electric 2-way valves
- 3 Position Manual override on electric 2-way valves
- Operation at wide range of flow rates, from near zero to the maximal flow
- Electric 2-way or hydraulic / electric 3-way actuation
- All of the control system's devices are assembled on the valve's bonnet.
- · No tubes are connected to the body
- · Removable flow control stem handle (optional)
- · Integral stainless-steel EasyClean® filter

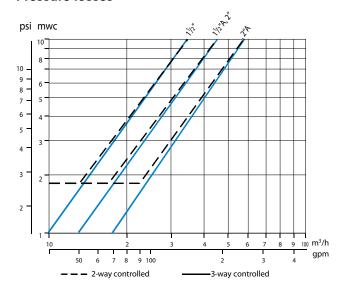






#### **Technical Data**

#### **Pressure losses**



#### **Dimensions**

Dimension		40mn	1, 1¹/₂"	50mm, 2"	
		Angle	Straight	Angle	Straight
Height (H)	mm	171	159	171	166
neight (n)	inch	6.73	6.23	6.73	6.54
Length - Straight (L)	mm	88	165	88	165
Center to outlet-Angle	inch	3.46	6.5	3.46	6.5
Longth	mm	163	163	163	163
Length	inch	6.42	6.42	6.42	6.42
Waisslat	kg	0.8	0.9	0.8	0.9
Weight	lbs	1.8	2	1.8	2

		40mm, 1 <sup>1</sup> / <sub>2</sub> "	50mm, 2"	
Max. Flow	m³/hr	25	40	
Wax. Flow	gpm	110	176	
Droccure renge	bar	0.5	-10	
Pressure range	psi	7-150		
Max. Water Temp.	°C	60		
wax. water remp.	°F	140		
May Ambient Tomp	°C	52		
Max. Ambient Temp.	°F	125		



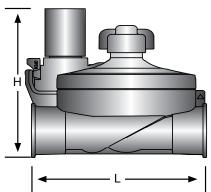
## 80-1, 80-3/4" Turf Irrigation Valves

Electric valve for gardens, parks and golf courses

#### **Features and Benefits**

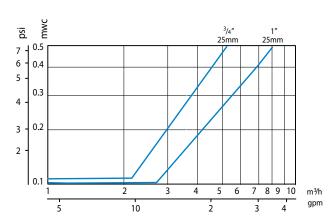
- · Simple, reliable and economical
- · Globe- pattern valve, activated by a fully- supported diaphragm
- · Durable, corrosion free materials
- · Unique clog- free labyrinth inlet of the activation water
- Operation at wide range of flow rates, from near zero to the maximal flow
- · Internal bleed manual override opening
- · Removable flow control stem handle (optional)
- No filters
- · No cleaning needle





#### **Technical Data**

#### **Pressure losses**



#### **Electrical Specifications**

- Standard: 24 VAC 50/60 Hz. ±10%
  Optional: other voltage rating or latching DC operators
- · Current: 0.25 Amp Inrush; 0.11 Amp holding

#### **Dimensions**

Dimension	20mm, 3/4"	25mm, 1"	
Unight (U)	mm	109	112
Height (H)	inch	4.3	4.4
Length - Straight (L)	mm	98	103
Center to outlet-Angle	inch	3.9	4.1
Width	mm	75	75
wiatii	inch	3	3
Weight	kg	0.28	0.29
vveignt	lbs	0.62	0.64

		20mm, <sup>3</sup> / <sub>4</sub> "	25mm, 1"
Max. Flow	m³/hr	6	10
Wax. Flow	gpm	26	44
Droceuro rango	bar	0.5	-10
Pressure range	psi	7-150	
Max. Water Temp.	°C	60	
wax. water remp.	°F	140	
May Ambient Tomn	°C	52	
Max. Ambient Temp.	°F	125	



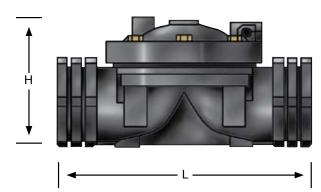
# **Direct- acting Diaphragm valve**

Series 75, "GAL" plastic valves are designed for the control of irrigation systems of field crops, vineyards and orchards. The exceptional hydraulic characteristics of the mod.75 enable very high flow rates, at low head losses. Wide range of control functions, allows the design of the irrigation networks to optimal operation.

#### **Features and Benefits**

- · Structural simplicity
- · Superb hydraulic performance
- · Reliable control of corrosive liquids
- · Light-weight, cost-saving
- · Minimum maintenance maximum dependability

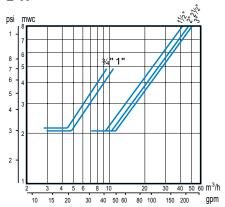




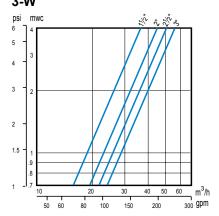
#### **Technical Data**

#### **Pressure losses**

#### 2-W



#### 3-W



#### **Dimensions**

Dimensio	on	20mm, 3/4"	25mm, 1"	35mm, 1 <sup>1</sup> / <sub>2</sub> "	50mm, 2"	65mm, 2 <sup>1</sup> / <sub>2</sub> "	80mm, 3"
Height	mm	70	73	110	110	119	120
(H)	inch	23/4	27/8	43/8	43/8	4 <sup>5</sup> / <sub>8</sub>	43/4
Length	mm	113	124	188	199	228	236
(L)	inch	41/2	47/8	73/8	77/8	9	91/4
Vol.control	CC	3	36		180		
chamber	gal	0.01			0.	05	
Weight	kg	0.2		0.9		1.2	1.4
Weight	lbs	0.4	0.44		2	2.6	3.1

		20mm, 3/4"	25mm, 1"	35mm, 1 <sup>1</sup> / <sub>2</sub> "	50mm, 2"	65mm, 2 <sup>1</sup> / <sub>2</sub> "	80mm, 3"
Max. Flow	m³/hr	6	10	25	40	65	90
IVIAX. FIOW	gpm	26	44	110	176	285	396
Pressure	bar	1 -	- 8	1.5 - 10			
range	psi	15 - 115 22 - 145					
Max. Water	°C	60					
Temp.	°F	145					



#### **uPVC Valves**

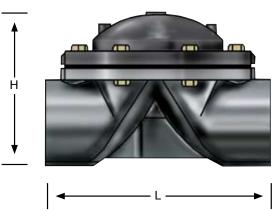
The uPVC valves, models 95 (threaded) and 96 (solvent welded directly to the pipe) are made for high-flow irrigation plots and flood tables. The direct- attachment to the PVC pipelines and the optional underground installation, save cost of valve configurations and reduce head losses. Unique diaphragm design generates surge- free closure even at high velocities.

Unique hydrodynamic design allows exceptionally low pressure losses at high flow rates, stable regulation from maximal to near zero flows, surge-free closure and simple, minimal maintenance.



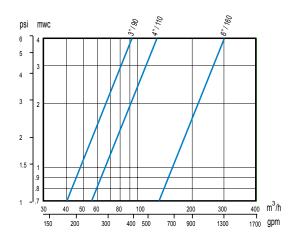
- · Structural simplicity
- · Superb hydraulic performance
- · Reliable control of corrosive liquids
- · Light-weight, cost-saving
- · Minimum maintenance maximum dependability





#### **Technical Data**

#### **Pressure losses**



#### **Dimensions**

Dimensio	Dimension		110mm, 4"	160mm, 6"
Height	mm	195	202	380
(H)	inch	7 <sup>11</sup> / <sub>16</sub>	7 <sup>15</sup> / <sub>16</sub>	14 <sup>15</sup> / <sub>16</sub>
Length	mm	258	278	360
(L)	inch	10 <sup>3</sup> / <sub>16</sub>	10 <sup>15</sup> / <sub>16</sub>	14 <sup>3</sup> / <sub>16</sub>
Vol.control	lit	2.6	2.6	9.9
chamber	gal	0.7	0.7	2.6
Mainht	kg	4	4.2	11.8
Weight	lbs	8.8	9.2	26

		90mm, 3"	110mm, 4"	160mm, 6"
Max. Flow	m³/hr	90	160	350
Wax. Flow	gpm	400	700	1540
Pressure	bar	0.6 - 8 9 - 115		0.5 - 10
range	psi			7 - 145
Max. Water	°C	40		
Temp.	°F	104		



# Typical Applications

Control functions below are applicable to valve models: 80, 75, 95/96. Pictures are for referance only.

### **Pressure Reducing Valve**

Made to maintain a constant, preset pressure in greenhouses, turf and open field irrigation plots- regardless of pump pressure or demand variations.



Designed to allow maximal simplicity and reliability in greenhouses and field crop irrigation systems controlled by electronic controller.

Available only in 75 & 80 models.



Made for high-flow greenhouse irrigation, especially for control of Flood Tables, and of Field crops irrigation networks that are activated by sophisticated controllers.

# **Pressure Sustaining / Relief Valve**

The Sustaining valve maintains a constant, preset pressure in the inlet side, to protect pumps in case of excessive demand. It can also be used to prevent pressure drop in supply pipelines as flow exceeds the designed value, or to discharge excess pressure when installed as a relief valve.







# **Electrically-activated Pressure Reducing Valve**

Designed to open and regulate downstream pressure to a stable preset value upon electric command from an irrigation controller. Electric command may be of constant current or pulse, as determined by the controller in use.

# **Hydraulically-activated Pressure Reducing Valve**

Designed to open and regulate downstream pressure to a stable preset value upon a hydraulic command delivered through a control tube. This application enables locating all solenoid valves at one convenient point and reduces the risk of lightning strike damages to the system.



## **Hydraulic Remote Control Valve**

The valve will open fully upon a hydraulic command delivered through a control tube. As the pressure is released from the control tube, the valve will be closed drip-tight. This application enables locating all solenoid valves at one convenient point and reduces the risk of lightning strikes damages to the system.

# **Pressure Reducing / Sustaining Valve**

The valve will maintain a preset upstream pressure as well as reduce downstream pressure to required safe value.

If upstream pressure is higher than its preset value and downstream pressure is lower than its preset value, the valve will be fully open to allow minimal head losses.





Global Standards of Innovation, Expertise and Reliability

Hundreds of companies in the industrial, civil engineering and agricultural sectors around the world have selected the innovative and field-proven technologies developed by Dorot. Public and private water utility companies, construction and engineering companies, fire-suppression integrators, farming enterprises, energy companies and other entities from various industries, all benefit from Dorot's expertise and professional services. Dorot is considered a true partner by its customers for overcoming challenges in R&D, design, implementation, and maintenance of water-control valve products.

Since its establishment in 1946, Dorot drives the market with continued innovation, uncompromising excellence and firm commitment to its customers. Through its unique water-management solutions, the company also contributes to the global efforts for environment protection. Dorot invests in research and development of quality products and solutions.



