

TORO**Count on it.**

Sentinel™ Valve

Micro-Irrigation



Application:

This durable, heavy-duty angle valve offers proven reliability under the most demanding conditions. The valve offers a host of features that deliver strong and reliable performance that make this valve ideal for agricultural, commercial and industrial applications.

Features:

- Low maintenance, low cost, angle pattern valve
- Constructed of rugged, lightweight, corrosion proof materials with excellent chemical and weather resistance
- Available in manual, electric with manual override, or hydraulic configurations
- Ideal for industrial and irrigation applications
- Manual and electric valves have internal manual bleed
- Pressure regulating models include 0–100 psi or 0–30 psi (0–6,9 or 0–2 bar) regulator with schrader valve (less gauge) to check pressure setting
- Inlet pressure for pressure regulating models must be 15 psi (1,03 bar) greater than desired outlet pressure
- Designed for slow opening and closing time to prevent surge and waterhammer
- Easily serviced without removal from an installed system



Sentinel™ Valve

Specifications:

- Size: 4 inch (120 mm)
- Connections: Grooved (Victaulic type)
- Materials:
 - PVC Plastic (Body Construction)
 - Stainless Steel (Internal Trim)
 - Brass (External Trim)
- Maximum Operating Temperature: 140° F (60° C)
- Flow Rate: 100–1000 gpm (0–60 l/s)
- Pressure Rating: 150 psi (10,3 bar)
- Cv Factor: 300
- Operating Pressure Range: 15–150 psi (1,03–10,3 bar)
- Solenoid: 24 vac, 0.48 amp inrush, 0.24 amp holding
- Closure Time: 90 seconds (approx.) from wide open position
- Dimensions: 8" x 10" x 12" (203 mm x 254 mm x 305 mm)
- Weight: 7.3 lbs. (3,3 kilos)

Models:

Hydraulic	VPR20000
Manual	VPR30100
Electric	VPR10107

Pressure Regulating:

Manual	VPR31100-100*
Electric	VPR11107-100*

* For 30 psi (2 bar) substitute "-30" for "-100", i.e.: VPR31100-30.

Accessories:

Victaulic Coupling:

ZCP9531-04 4" coupling to be used with 4" Sentinel valve (use 2 per valve installation), back wash valve, and Sand media filters.

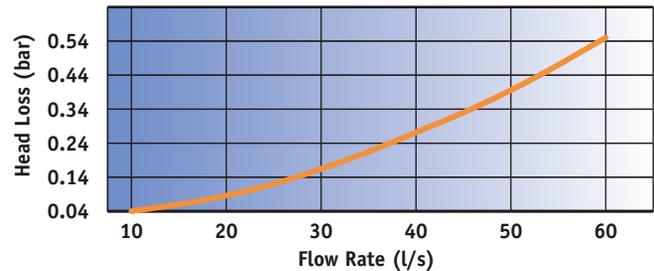
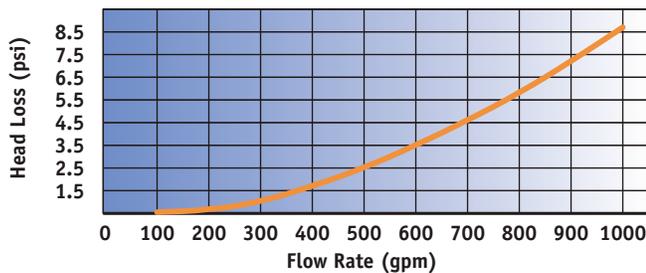
IKA01100 4" groove x male Spigot, Schd. 80 to be used with 4" Sentinel valve. (use 2 per valve installation)

Friction Loss Table in PSI (valve wide open)

Flow Rate (gpm)	100	200	300	400	500	600	700	800	900	1000
Head Loss (psi)	0.055	0.64	1.00	1.70	2.50	3.50	4.60	5.80	7.20	8.70

Friction Loss Table in Bar (valve wide open)

Flow Rate (Liters/sec)	10	20	30	40	50	60
Flow Rate (M3/hr.)	36	72	108	144	180	216
Head Loss (Bar)	0,04	0,08	0,16	0,27	0,39	0,55



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 Micro-Irrigation Business
 1588 N. Marshall Avenue, El Cajon, CA 92020-1523, USA
 Tel: +1 (800) 333-8125 or +1 (619) 562-2950
 Fax: +1 (800) 892-1822 or +1 (619) 258-9973

toro.com

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