9200 Series

Vacuum to 150 psig Plug Shutoff Valves



Features

- Leak proof in vacuum or pressure service
- No stem leakage
- Minimum pressure drop/straight through flow passage
- Convenient ball handle
- Very low turning torque
- Positive position indication

Technical Data

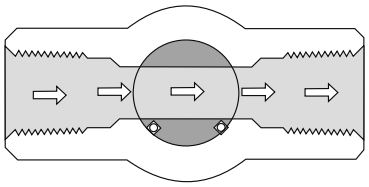
Body Construction Materials	Brass, 303 and 316 stainless steel
O-ring Materials	Buna N, Neoprene or Viton®
Operating Pressures	• Vacuum to 150 psig (10 bar) • 20 psig (1.38 bar) max in reverse flow
Proof Pressure	300 psig (21 bar)
Burst Pressure (Minimum)	Over 500 psig (34 bar)
Temperature Range	0° F to +400° F (–17.8° C to +204° C) *Based on o-ring material, see "How to Order".*
Connection Sizes	1/8″–1″
Leakage	Zero—internal and external

Note: Proper filtration is recommended to prevent damage to sealing surface.

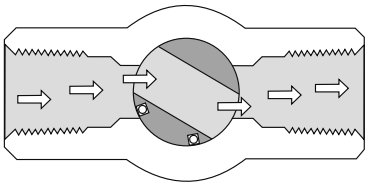
shutoff valves

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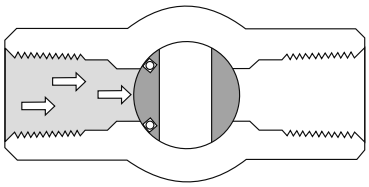
How it Works



Open
Specially machined lipped grooves on the cylindrical surface of the plug hold the flow-sealing o-ring in place. Flow passes through full-ported opening with no restriction or direction change.



Closing
Pressure depresses the flow-sealing o-ring so that it is not damaged or cut when passing the inlet port.



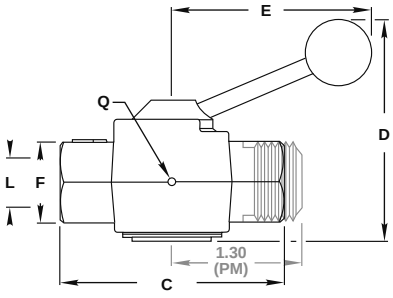
Close
O-ring completely surrounds the port, sealing off the flow "bubble-tight".

Dimensions (inches) & Specifications

Female Pipe, Male Pipe

Dash No.	Size	B	C	D	E	F Hex	Q Eq. Dia.	L Orifice	Weight (LBS)	Torque* (In-lbs)
–1PP	1/8″	0.75**	1.62	1.93	1.37	0.635*	0.040	0.187	0.23	2
–2PP, –2PM	1/4″	1.00	2.10	2.27	1.61	0.687	0.040	0.297	0.41	3
–3PP	3/8″	1.12**	2.38	2.83	2.13	0.937*	0.188	0.406	0.62	11
–4PP	1/2″	1.62	3.00	3.15	2.90	1.125	0.188	0.562	1.25	20
–6PP	3/4″	1.87	3.50	3.60	3.62	1.375	0.250	0.719	2.00	30
–8PP	1″	2.50	4.06	5.15	5.42	1.750	0.250	0.875	3.75	—

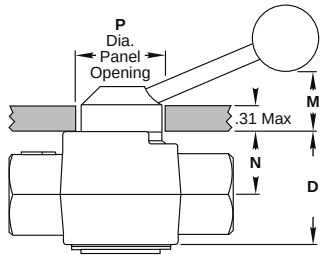
Note: Weights listed are for brass valves
** Opening torque, typical, at 150 psi.*
*** For 9200–1PP and –3PP, body will be make of square bar stock with ends turned to Dia. "F".*



Panel Mount

Dash No.	Size	D	Thread	A Radius	M	N	P	R sq.
–1PP	1/8″	0.87	6-32 NC-2	0.475	0.78	0.500	0.65	0.080
–2PP, –2PM	1/4″	0.87	6-32 NC-2	0.525	0.78	0.563	0.75	0.085
–3PP	3/8″	1.31	10-32 NF-2	0.687	0.93	0.750	0.92	0.109
–4PP	1/2″	1.50	10-32 NF-2	0.837	0.98	0.825	1.25	0.109
–6PP	3/4″	1.75	10-32 NF-2	1.000	1.05	1.000	1.50	0.140
–8PP	1″	2.25	1/4-20 NC-2	1.218	1.70	1.290	1.87	0.200

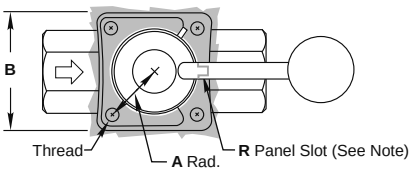
Valves are furnished complete with 4 panel mount screws.



Note: When panel-mounting plug is removed and valve mounted from rear of panel, drill "P" diameter hole to receive plug. Slot hole, as shown, to permit pin to pass through when re-inserting plug in valve body after mounting has been completed.

Slot Dimensions

–1PP, –4BB	0.080 sq.	**–6PP, –12BB**	0.140 sq.
–2PP, –6BB, –6TT	0.085 sq.	**–8PP, –16BB**	0.200 sq
–3PP, –4PP, –8BB, –10BB	0.109 sq.		



9200 Series

How to Order

92 59 B – 2 PPQ (P)

O-RING MATERIAL & TEMPERATURE RANGE
- **59** Buna N (0° F to +280° F)
- **33** Neoprene (0° F to +240° F)
- **32** Viton® (0° F to +350° F)

BODY MATERIALS
- **B** Brass
- **T** 303 stainless steel
- **T1** 316 stainless steel

VALVE SIZE
- **1** 1/8″
- **2** 1/4″
- **3** 3/8″
- **4** 1/2″
- **6** 3/4″
- **8** 1″

END CONNECTIONS (INLET/OUTLET/VENT)
- **M** Male pipe
- **F** Female pipe
- **Q** Downstream port*

OPTION
- **P** Panel mount

* *Downstream vent port is designed to bleed off downstream pressure to atmosphere when valve is closed. O-ring in plug isolates vent port when valve is open.*

Operating instructions: Place valve in line so that flow arrow points in direction of flow.

For a nominal charge, 9200 Series valves can be helium leak tested and certified to be leakproof in high vacuum.

Please consult your Circle Seal Controls distributor or our factory for information on special connections, materials, larger sizes, o-rings, operating pressures, and temperature ranges.

Repair Kits
In normal service, the only part(s) which may require replacement is(are) the seal(s). A repair kit may be ordered by placing a "**K/**" in front of the complete part number (i.e. **K/9259B–2PP**).

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