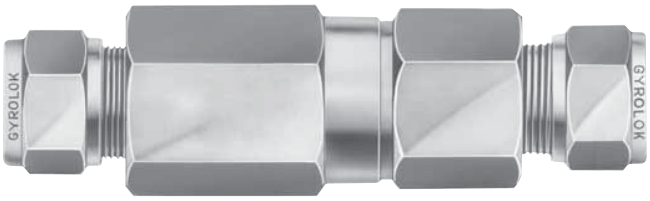
6100 & 6200 Series

Ball and Poppet Check Valves



Features

- O-ring seat provides leak-tight shutoff
- Internal design guides flow around or inside spring, not through coils, when valve is open
- All models are tested in production to assure a leak-tight body joint and seat
- Ball and poppet designs are available as standard
- Ball type provides effective leak-tight closure with minimum flow resistance
- Poppet models provide large flows with a minimum of chatter and fluctuation
- Valves are available with various cracking pressures, from ⅓ to 25 psig (0 to 2 bar).
- 2-piece body permits interchangeability of end connections
- Special High Tolerance NPT Thread

Applications

- Prevents reversed flow to protect solenoids, regulators, and pumps
- Locks pressure in hydraulic cylinders
- Low pressure inline relief valve
- Vent valve to purge a system

Technical Data

Body Material*	316 stainless steel, brass, Monel®
Maximum Operating Pressure	Brass: 3000 psig @ 70° F (414 bar @ 21° C) Stainless steel, Monel®: 6000 psig @ 70° F (414 bar @ 21° C)
Standard cracking pressure	2 psig
Operating Temperature Range	Buna N: -40° F to +200° F (-40° C to +93° C) Viton®: -20° F to +350° F (-29° C to +177° C)
Orifice Sizes	0.187" (4.75mm), 0.422" (10.7mm)
Cv Factors	0.3, 2.4

** Consult factory for other materials*

check valves

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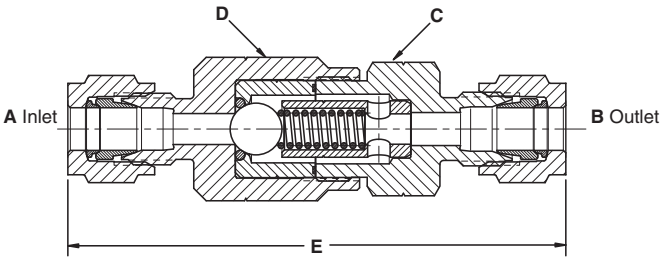
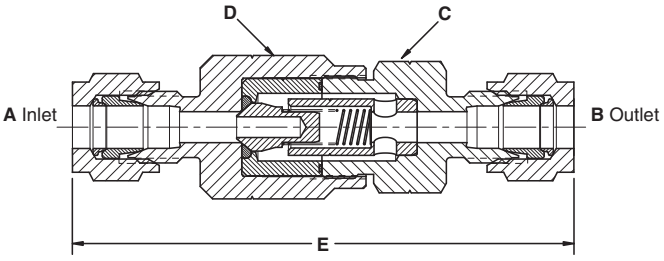
Materials of Construction

	Ball Type			Poppet Type
Part	Brass	316 Stainless Steel	Monel®	316 Stainless Steel
Body	Brass	316 stainless steel	Monel®	316 stainless steel
Ball/Poppet	302 stainless steel	316 stainless steel	Monel®	316 stainless steel
Spring	302 stainless steel	316 stainless steel	Monel®	316 stainless steel
O-ring seat	Buna N	Viton®	Viton®	Viton®/Buna N*
Gasket (body)	Mylar®	Teflon®	Teflon®	Teflon®/Buna N*

** For poppet check valves with ⅜″ and ½″ NPT female connections.*

Dimensions





6100 Series Ball Check Valves

A & B Connections		C Hex	D Hex	E
⅛″ NPT female	inch	11⁄16	¾	2⅜
	mm	17	19	60
⅛″ NPT male	inch	11⁄16	¾	2⅜
	mm	17	19	60
¼″ NPT female	inch	¾	¾	2½
	mm	19	19	64
¼″ NPT male	inch	11⁄16	¾	2⅜
	mm	17	19	60
¼″ NPT male × ¼″ Gyrolok®	inch	11⁄16	¾	2¾
	mm	17	19	70
6mm Gyrolok®	inch	11⁄16	¾	3
	mm	17	19	76
¼″ Gyrolok®	inch	11⁄16	¾	3
	mm	17	19	76
⅜″ Gyrolok®	inch	1	¾	3⅛
	mm	25	19	79

6200 Series Poppet Check Valves

A & B Connections		C Hex	D Hex	E
¼″ NPT female	inch	¾	¾	2½
	mm	19	19	64
¼″ NPT male	inch	11⁄16	¾	2⅜
	mm	17	19	60
¼″ Gyrolok®	inch	11⁄16	¾	3
	mm	17	19	76
⅜″ Gyrolok®	inch	1	¾	3⅛
	mm	25	19	79
½″ Gyrolok®	inch	1¼	1¼	3½
	mm	32	32	89

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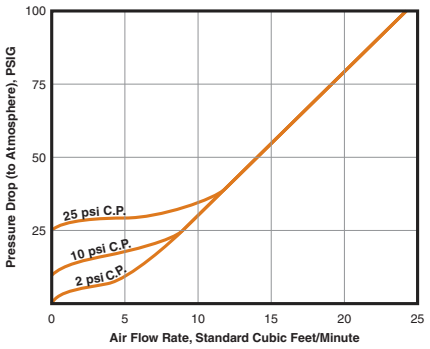
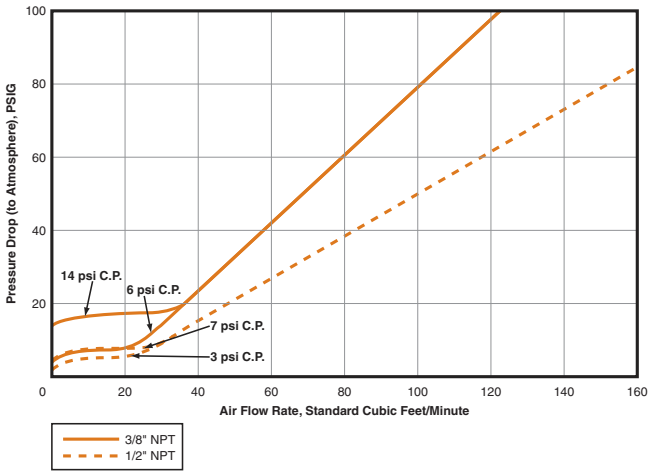
Flow Diagrams

Air

For all models except ⅜″ and ½″ NPT female

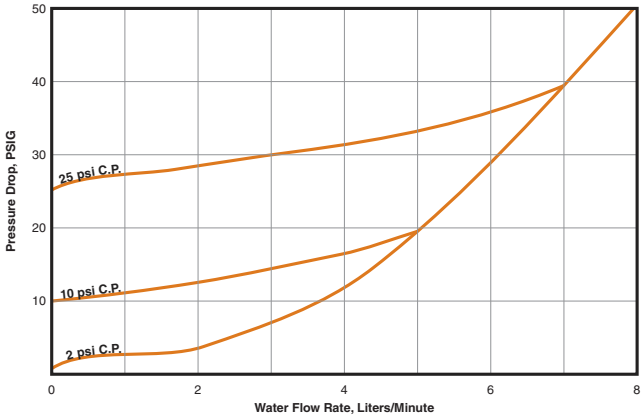


⅜″ and ½″ NPT female models

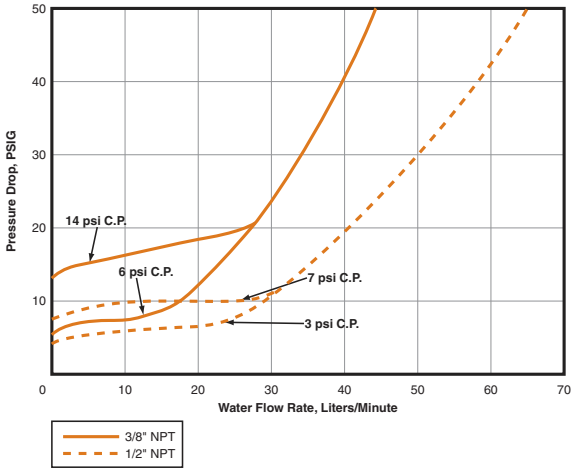


Water

For all models except ⅜″ and ½″ NPT female



⅜″ and ½″ NPT female models



How to Order: Standard Valves (factory preset at cracking pressure of 2 psig)

6100 Series Ball Check Valves

A & B Connections	Part Number Brass	Monel®	316 St. Steel	Orifice
⅛″ NPT female	6113F2B	—	6133F2Y	0.187
⅛″ NPT male	6113M2B	—	6133M2Y	0.187
¼″ NPT female	6113F4B	—	6133F4Y	0.187
¼″ NPT male	6113M4B	—	6133M4Y	0.187
¼″ Gyrolok®	6113G4B	6133G4M	6133G4Y	0.187
⅜″ Gyrolok®	6113G6B	6133G6M	6133G6Y	0.187
¼″ NPT male × ¼″ Gyrolok®	6113H4B	—	—	0.187
6mm Gyrolok®	—	—	6133G6YMM	0.187

6200 Series Poppet Check Valves

A & B Connections	Part Number 316 St. Steel	Orifice
¼″ NPT female	6233F4Y	0.187
¼″ NPT male	6233M4Y	0.187
¼″ Gyrolok®	6233G4Y	0.187
⅜″ Gyrolok®	6233G6Y	0.187
½″ NPT female	6253F8Y	0.422
½″ Gyrolok®	6253G8Y	0.422

Other Differential Cracking Pressures

Cracking Pressure	Digit
⅓ psig	–1
10 psig	–5
25 psig	–6

All check valves except ⅜″ and ½″ female NPT models can be furnished with other that the standard 2 psig cracking pressure. To order, change the fourth digit ("–3") of the desired valve part number.

Example: 6115G4B is a 6100 Series brass ball check valve with ¼″ Gyrolok® ends and a 10 psig cracking pressure

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