Bulletin 807 Rev. I

Reliable®

Model G
2½" (65 mm), 76mm 3" (80 mm), 4" (100 mm), 6" (150 mm) & 165 mm Swing Check Valves

Features

1. Grooved end connections.
2. Compact, lightweight design.
3. Non–slamming, spring loaded clapper to minimize water hammer.
4. Approved for horizontal and vertical installation.
5. Streamlined body design provides very low friction loss.
6. Elastomer faced clapper provides leak–free, non–sticking sealing.

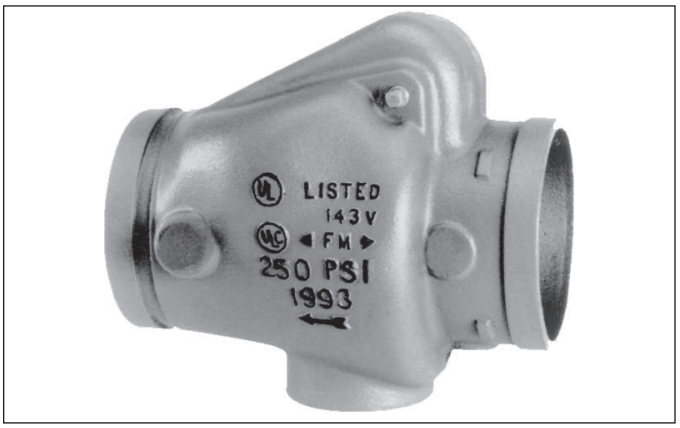


Figure 1

General

Reliable Model G Swing Check Valves are multiple purpose valves performing regular check valve duties with very low friction loss. All four sizes are approved for use in fire protection systems. Typical applications include connections between public water supplies and private fire systems, at the discharge from fire pumps, at gravity tank connections and at fire department pumper connections.

All Model G Check Valves are provided with a ½" NPT (R½) supply side connection (Item 12, Fig.2).

Grooved end connections provide fast and easy installation using listed or approved mechanical grooved couplings. Rigid style grooved couplings can be used for positive clamping to resist flexural and torsional loads.

Swing Check Valves and associated equipment should periodically be given a thorough inspection and test. NFPA 25 provides minimum maintenance requirements. Check valves should be inspected and operated at least annually. Parts should be replaced as required.

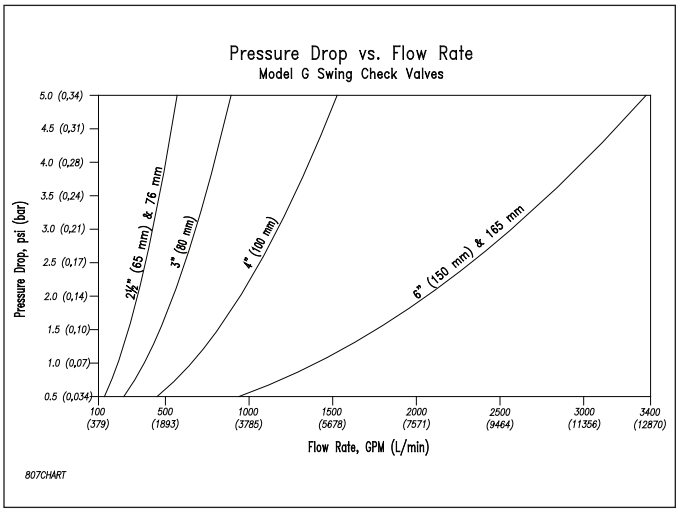
When Model G Swing Check Valves are installed vertically, the direction of the flow arrow must point upward. For horizontal installations, the hinge pin must be located at the top.

Valve Description

1. Rated working pressure 250 psi (17,25 bar).
2. Factory hydrostatic test pressure 500 psi (34,5 bar).
3. Friction loss, expressed in equivalent length of Sch. 40 pipe with C = 120 (based on Hazen and Williams formula):
   2½" (65mm) & 76mm - 7 ft (2.13 m)
   3" (80mm) - 7 ft (2.13 m)
   4" (100mm) - 10 ft (3.05 m)
   6" (150mm) & 165mm - 16 ft (4.88 m)
4. Standard grooved end dimensions per ANSI/AWWA C606.

Technical Data

Valve Size	Face–to–Face Dimensions	Shipping weight
2½" (65mm) & 76mm	7.03" (178mm)	9 lbs. (4kg)
3" (80mm)	7.62" (193mm)	11 lbs. (5kg)
4" (100mm)	8.44" (214mm)	17 lbs. (7.7kg)
6" (150mm) & 165mm	10.25" (260mm)	38 lbs. (17.25kg)



Approvals

1. Listed by Underwriters Laboratories, Inc.
2. Underwriters' Laboratories certified for Canada.
3. Approved by Factory Mutual Research Corp.*
4. NYC MEA 258-93-E

* FM Approved as both a "Single" check valve and as an "Anti-Water Hammer" check valve.

Refer to figure 2.

Item No.	Part Name	Material	Qty.	Part Number					
				2½" (65mm)	76mm	3" (80mm)	4" (100mm)	6" (150mm)	165mm
1*	Valve Body	Gray Iron, ASTM–A48 Class 30A	1	91005012	91005011	91005013	91005014	91005016	91006015
2*	Seat	Bronze C83600 or C93200, ASTM–B505	1	96020200	96020200	96020300	96020400	96020600	96020600
3	Clapper	Stainless Steel 304, ASTM–A240	1	91816112	91816112	91816113	91816114	91816116	91816116
4	Facing Seal **	EPDM Rubber	1	95520200	95520200	95520300	95520400	95520600	95520600
5	Clamping Ring	Stainless Steel 304, ASTM–A240	1	95290300	95290300	95290300	95290400	95290600	95290600
6	Gasket **	EPDM Rubber	1	93720604	93720604	93720604	93720604	93720604	93720604
7	Spring	Stainless Steel 302, ASTM–A313	1	96400300	96400300	96400300	96400400	96400600	96400600
8	Hinge Pin	Stainless Steel 303, ASTM–A582	1	95000280	95000280	95000300	95006824	95000600	95000600
9	Bolt	Stainless Steel 304, ASTM–F593	1	91090600	91090600	91090600	91090600	91090600	91090600
10	Locknut **	Stainless Steel 303, ASTM–F594	1	94913816	94913816	94913816	94913816	94913816	94913816
11	Plug, ¼" NPT	Steel	1	95201800	95201800	95201800	95201800	95201800	95201800
12	Plug, ½" NPT	Steel	1	98604402	98604402	98604402	98604402	98604402	98604402
**	Replacement Seal Kit		1	6888040025	6888040025	6888040030	6888040040	6888040060	6888040060

* Not field replaceable.

Valve Disassembly

1. Close the main water supply valve and drain the system.
2. Remove the check valve from the piping system.
3. Inspect the Seat (2) for any cuts, scrapes and dents. Replace the valve if any damage is found.
4. To replace the Facing Seal (4), remove the Clapper (3), unscrew the Locknut (10) and remove the Retention Bolt (9).

Valve Reassembly

1. Thoroughly clean the Clapper (3). Insert the Retention Bolt (9) with a new Gasket (6).
2. Place the new Facing Seal (4) and the Clamping Ring (5) against the Clapper (3). Tighten the new Locknut (10) to 21 in.-lbs. (2.37 N•m) torque in 2½" (65mm), 76mm & 3" (80mm) sizes and to 52 in.-lbs. (5.87 N•m) in 4" (100mm), 6" (150mm) & 165mm sizes.
3. Insert the clapper assembly into the valve through the downstream opening. Reinsert the Hinge Pin (8) while holding the coils of the properly oriented Spring (7) in place. Install the hinge pin Plug (11).
4. Reinstall the check valve in the system.
5. Place the system back in service.

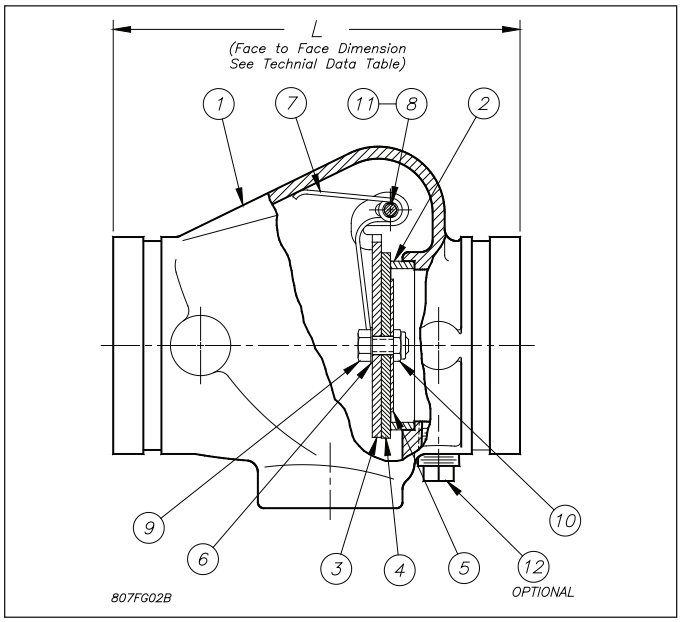


Figure 2

Ordering Information

Specify:

1. Model G Right–Check™ Valve.
2. Size.

Contact the installing contractor or Reliable if any difficulties are experienced. Should replacement parts be needed, use only genuine Reliable parts.

Manufactured by

Reliable®

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