

MODEL RCV GROOVED ENDS SWING CHECK VALVE 2", 2½", 65mm, 3", 4", 6", 150mm, & 8" STANDARD & "SHOTGUN"

GENERAL DESCRIPTION

The Globe Model RCV grooved end Swing Check Valve features a swing type clapper designed for use in fire sprinkler systems that incorporate grooved connecting pipe ends. It is UL Listed and FM Approved for pressures up to 300 psi (20,7 bar). The RCV is effectively used when it is necessary to permit water flow in one direction only, preventing flow in the reverse direction (non-return). Because the RCV incorporates a spring-loaded clapper assembly, it may be installed in either the vertical position (upward flow only) or horizontal position (hinge pin to the top). Most commonly, it is used with various configurations of fire department connections for fire sprinkler systems, by-pass connections, gravity pressure tanks and, pump discharge connections. As an alternative to using an alarm check valve with wet sprinkler systems, the RCV Swing Check Valve may be used in a "Shotgun" arrangement utilizing the provided threaded outlets for supply and pressure gauges as well as a main drain, thus providing a more compact and economical arrangement than an Alarm Check Valve when a Water Motor Alarm is not required. This arrangement utilizes an electric water flow switch (Not Included) and alarm bell instead of a water motor gong for fire notification.

The body of the Globe RCV Swing Check Valve is constructed of high tensile strength cast iron having considerable ductility to reduce damage in field handling. It meets the ASTM A126 Class B rating. The RCV clapper assembly is made of stainless steel and has an E.P.D.M. rubber facing. It effectively provides a leak tight seal against back pressures greater than one (1) psi. The RCV may be ordered separately; with loose gauge and drain trim; or pre-assembled with supply and system gauges as well as main drain. (See ordering procedure).

TECHNICAL DATA

Approvals

- cULus
- FM
- NYC-DOB MEA 305-05-E

Maximum Working Pressure

- 300 psi (20 bar)

Materials of Construction

- See Figure 1



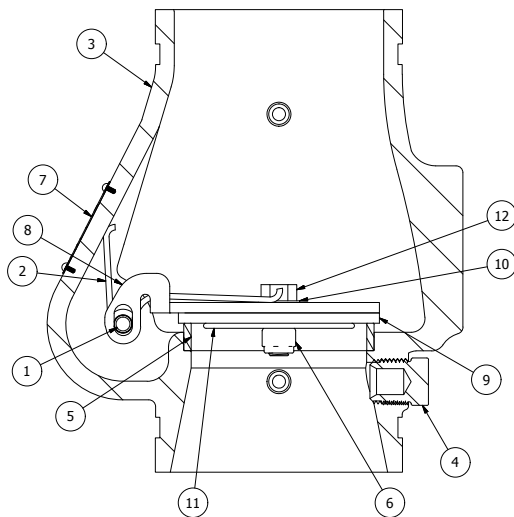
MODEL RCV
STANDARD CHECK VALVE



MODEL RCV
"SHOTGUN" CHECK VALVE

NOTE:

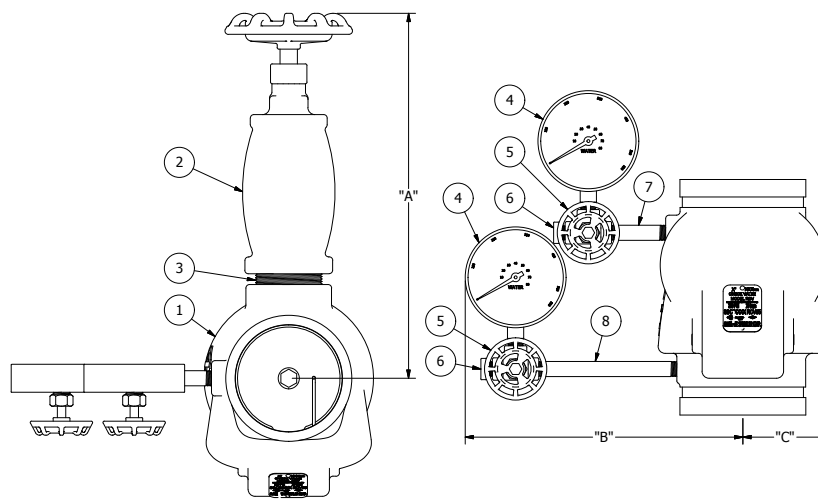
Users should refer to Globe's web site (www.globesprinkler.com) to assure that the most recent technical literature is being utilized.



CROSS SECTION

| ITEM | DESCRIPTION | MATERIAL |
|------|---------------------|-----------------|
| 1 | Hinge Pin | Stainless Steel |
| 2 | Torsion Spring | Stainless Steel |
| 3 | Machined Body | Cast Iron |
| 4 | 1/2"NPT Plug | Cast Iron |
| 5 | Seat Ring | Brass |
| 6 | Locknut | Stainless Steel |
| 7 | Nameplate | Aluminum |
| 8 | Clapper | Stainless Steel |
| 9 | Clapper Facing Disc | EPDM |
| 10 | Sealing Washer | Hard Fiber |
| 11 | Disc Retainer | Stainless Steel |
| 12 | Hex Head Bolt | Stainless Steel |

FIGURE 1: MODEL RCV MATERIALS OF CONSTRUCTION



TOP VIEW

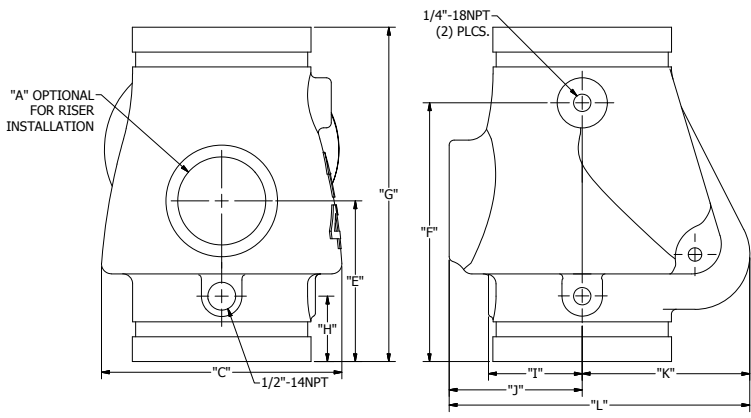
FRONT VIEW

| ITEM | DESCRIPTION | QTY. |
|------|----------------------|------|
| 1 | RCV | 1 |
| 2 | Angle Valve | 1 |
| 3 | Close Nipple | 1 |
| 4 | 1/4" Water Gauge | 2 |
| 5 | 1/4" 3-Way Valve | 2 |
| 6 | 1/4" Plug | 2 |
| 7 | 1/4" Nipple | 1 |
| 8 | 1/4" x 5-1/2" Nipple | 1 |

| SIZE | A in. (mm) | B in. (mm) | C in. (mm) |
|---------------------------------|--|--|--------------------------------------|
| 2" | 10" (254) | 8 ³ / ₄ " (222) | 2 ¹ / ₄ " (57) |
| 2 ¹ / ₂ " | 11" (279) | 9 ¹ / ₄ " (234) | 2 ¹ / ₄ " (57) |
| 65mm | 11" (279) | 9 ¹ / ₄ " (234) | 2 ¹ / ₄ " (57) |
| 3" | 12" (76) | 9 ¹ / ₂ " (241) | 2 ¹ / ₂ " (63) |
| 4" | 13 ¹ / ₂ " (343) | 10" (254) | 3 ¹ / ₄ " (82) |
| 6" | 14 ¹ / ₄ " (362) | 10 ³ / ₄ " (273) | 4" (102) |
| 150mm | 14 ¹ / ₄ " (362) | 10 ³ / ₄ " (273) | 4" (102) |
| 8" | 15 ¹ / ₄ " (387) | 12 ¹ / ₄ " (311) | 5" (127) |

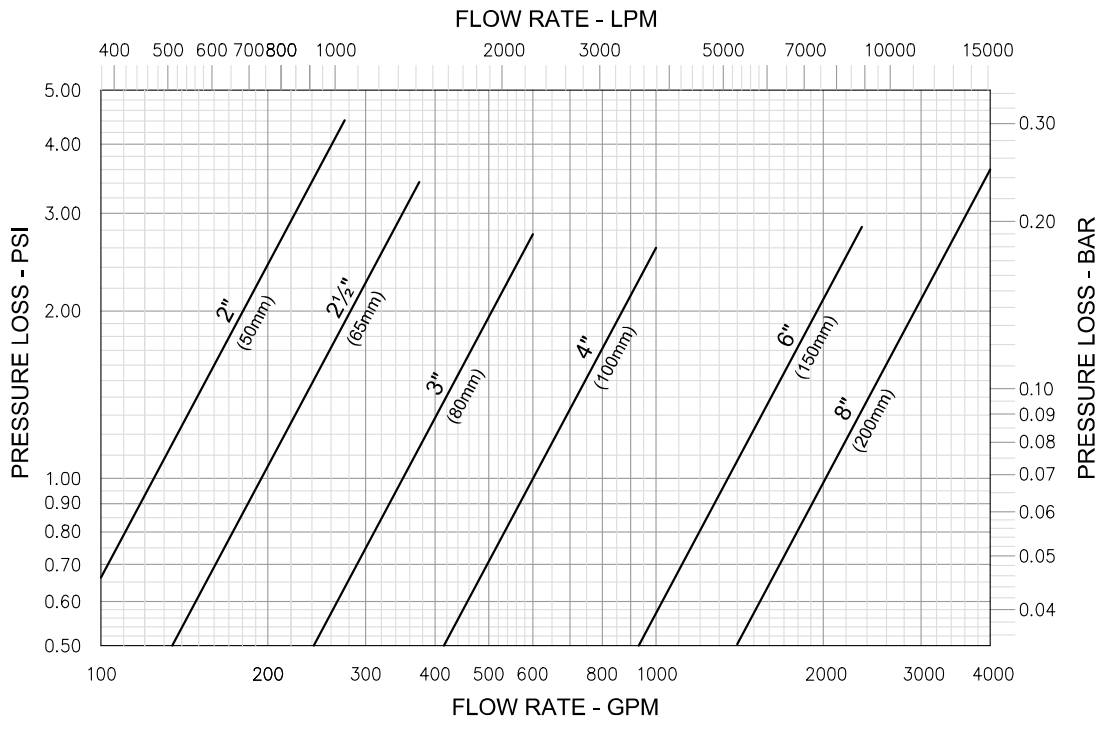
NOTE: Items 2 - 8 available as Trim Kit.

FIGURE 2: MODEL RCV "SHOTGUN" TRIM ARRANGEMENT



| SIZE | A in. (mm) | C in. (mm) | E in. (mm) | F in. (mm) | G in. (mm) | H in. (mm) | I in. (mm) | J in. (mm) | K in. (mm) | L in. (mm) | WEIGHT lbs. (kg) no trim |
|-------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------------|
| 2" | 1" (25) | 4" (101) | 3½" (89) | 4½" (114) | 6½" (165) | 1½" (38) | 1½" (38) | 2¼" (57) | 2½" (63) | 4¾" (121) | 4.5 (2) |
| 2½" | 1¼" (32) | 4½" (114) | 4" (101) | 5" (127) | 7" (178) | 1½" (38) | 1½" (38) | 2½" (63) | 2¾" (70) | 5½" (140) | 8 (3.6) |
| 65mm | 1¼" (32) | 4½" (114) | 4" (101) | 5" (127) | 7" (178) | 1½" (38) | 1½" (38) | 2½" (63) | 2¾" (70) | 5½" (140) | 8 (3.6) |
| 3" | 1¼" (32) | 5" (127) | 4½" (114) | 6" (152) | 7¾" (197) | 1¾" (44) | 2" (51) | 3" (76) | 3¾" (95) | 6¾" (171) | 12 (5.4) |
| 4" | 2" (51) | 6¼" (159) | 4" (101) | 6½" (165) | 8½" (216) | 1½" (38) | 2½" (63) | 3½" (89) | 4¼" (108) | 7½" (190) | 17.5 (8) |
| 6" | 2" (51) | 8" (203) | 5" (127) | 8" (203) | 10½" (267) | 1½" (38) | 3¼" (82) | 4¼" (108) | 5½" (140) | 10" (254) | 40.5 (18.4) |
| 150mm | 2" (51) | 8" (203) | 5" (127) | 8" (203) | 10½" (267) | 1½" (38) | 3¼" (82) | 4¼" (108) | 5½" (140) | 10" (254) | 40.5 (18.4) |
| 8" | 2" (51) | 10" (254) | 7¾" (197) | 12¼" (311) | 15" (381) | 2¾" (70) | 4¾" (121) | 5½" (140) | 7¼" (184) | 12¾" (324) | 74 (33.6) |

FIGURE 3: MODEL RCV DIMENSIONS



Model RCV Equivalent Length of Piping for Friction Losses Through Schedule 40 Pipe

- 2" = 7.2 feet
- 3" = 7.2 feet
- 6" = 16.1 feet
- 2½" = 7.2 feet
- 4" = 10 feet
- 8" = 28.0 feet

FIGURE 4: MODEL RCV FRICTION LOSS GRAPH

ORDERING INFORMATION

The Model RCV can be ordered pre-trimmed (factory assembled) or non-assembled as separate items.

SPECIFY:

MODEL RCV FACTORY ASSEMBLED SHOTGUN

(Includes RCV valve with drain and gauge trim assembled)

| SIZE | PN |
|-------------------|-----------|
| 2" (DN 50) | 321526-S |
| 2½" (DN 65)..... | 321533-S |
| 65mm | 321533-DS |
| 3" (DN 80) | 321539-S |
| 4" (DN 100) | 321547-S |
| 6" (DN 150) | 321557-S |
| 150mm..... | 321557-DS |

SPECIFY:

MODEL RCV CHECK VALVE ONLY

| SIZE | PN |
|-------------------|-----------|
| 2" (DN 50) | 321526 |
| 2½" (DN 65)..... | 321533 |
| 65mm | 321533-D |
| 3" (DN 80) | 321539 |
| 4" (DN 100) | 321547 |
| 6" (DN 150) | 321557 |
| 150mm..... | 321557-D |
| 8" (DN 200) | 321576 |

SPECIFY:

MODEL RCV TRIM (See Fig. 2)

STANDARD TRIM KIT

| SIZE | PN |
|-------------------|-----------|
| 2" (DN 50) | 321561 |
| 2½" (DN 65)..... | 321562 |
| 65mm..... | 321562 |
| 3" (DN 80) | 321562 |
| 4" (DN 100) | 321563 |
| 6" (DN 150) | 321564 |
| 150mm..... | 321564 |

SPECIFY:

DOMESTIC TRIM KIT

| SIZE | PN |
|-------------------|-----------|
| 2" (DN 50) | 321561-DG |
| 2½" (DN 65)..... | 321562-DG |
| 65mm | 321562-DG |
| 3" (DN 80) | 321562-DG |
| 4" (DN 100) | 321563-DG |
| 6" (DN 150) | 321564-DG |
| 150mm..... | 321564-DG |

REPLACEMENT PARTS

CLAPPER FACING DISK

| SIZE | PN |
|-------------------|-----------|
| 2" (DN 50) | 321516 |
| 2½" (DN 65)..... | 321529 |
| 65mm..... | 321529 |
| 3" (DN 80) | 321536 |
| 4" (DN 100) | 321542 |
| 6" (DN 150) | 321550 |
| 150mm..... | 321550 |

GLOBE® PRODUCT WARRANTY

Globe agrees to repair or replace any of its manufactured products found to be defective in material or workmanship for a period of one year from date of shipment.

For specific details of our warranty please refer to Price List Terms and Conditions of Sale (Our Price List).

