

with Bypass



07F Series Detector Check For Automatic Fire Sprinkler Systems

Sizes: 4", 6", 8", 10"

FEATURES

- The durable 07F ductile iron body is lightweight for ease of installation, yet is stronger than cast iron.
- Corrosion resistance and accurate seating are features of the stainless steel check module
- Design simplicity of the 3 piece check module provides easy, low cost maintenance.
- FDA approved epoxy coating, inside and out, minimizes pressure loss while extending the valve life.
- Can be installed horizontally or vertically
- By-pass assembly can be left or right side mounted.

DESCRIPTION

07F Series valves are designed to operate in a normally closed position with the meter stopped. The spring load prevents the main check from opening thus forcing all low flows through the metered by-pass assembly. This serves to detect leakage or theft of water from the fireline system. In the event of fire, increased flow demands open the main check allowing full flow through both the main check and the bypass.

STANDARDS

Design to comply with the following standards for single detector valves. UL 312 and FM Dectector Check Valves
Note: Special tools required for seat removal and replacement.

SPECIFICATIONS

A single detector check valve shall be installed at the fire main tap. The main check body shall be FDA epoxy coated inside and out ductile iron with a 300 Series stainless steel check module and replaceable bronze seat ring. The bypass shall include a CFM or GPM meter, check valve, and a ball valve shut off. Watts Regulator Company Series 07F or equal.

MATERIALS

- (FDA Approved) epoxy coated (inside and out) ductile iron body.
- Bronze seat ring
- 300 Series stainless steel check module

OPTIONS

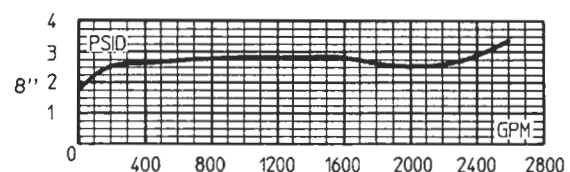
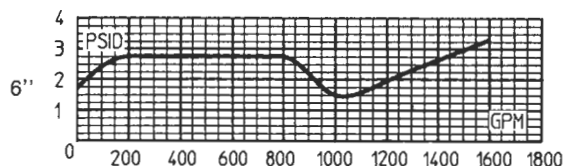
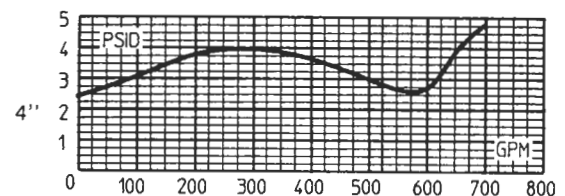
- **07FG** - with flanged inlet by grooved outlet
- ¾" By-pass assembly kits available separately
Kits consist of check valve, CFM or GPM meter, ball valve shut-off and related fittings.

CFM Meter		GPM Meter	
Size	Kit No.	Size	Kit No.
• 4"	101-BP-CFM	• 4"	100-BP-GPM
• 6"	103-BP-CFM	• 6"	102-BP-GPM
• 8"	105-BP-CFM	• 8"	104-BP-GPM
• 10"	105-BP-CFM	• 10"	104-BP-GPM

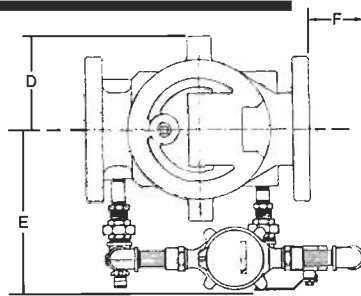
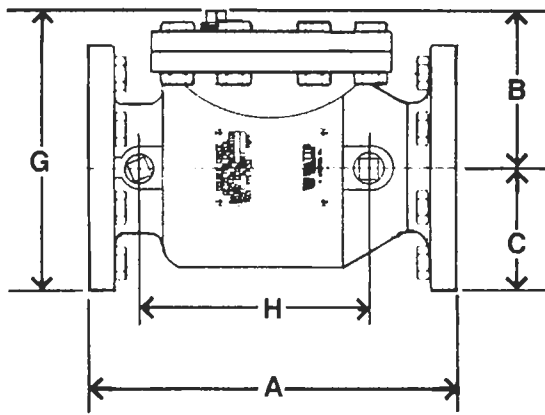
PRESSURE - TEMPERATURE

Sizes 4" thru 10" are suitable for supply pressure up to 175 psi and water temperatures to 110°F max.

FLOW CURVES



DIMENSIONS & WEIGHTS



BY-PASS TAPPING SIZE:

Size	Standard	Optional Up to
4" 07F	3/4" NPT	1" NPT
6" 07F	3/4" NPT	1 1/2" NPT
8" 07F	3/4" NPT	2" NPT
10" 07F	3/4" NPT	2" NPT

Size inches	A	B	C	D	E	F	G	H	Wgt. lbs.
4	147/16	71/16	4 1/2	5 13/16	12 3/8	3 1/8	11 9/16	9 1/8	70
6	18 5/8	7 13/16	5 1/2	7 7/16	13 13/16	2	13 5/16	11 5/8	162
8	23 7/16	9 1 1/16	6 3/4	8 1 9/16	15 1/8	0	16 7/16	13 15/16	273
10	24 1/2	9 15/16	8	8 1 9/16	16	0	18	14 3/16	285

REPAIR KITS & INFORMATION

Rubber Parts Kits

EDP No.	Order No.	Size
887105	RK 07F RT	4"
887106	RK 07F RT	6"
887107	RK 07F RT	8"
887104	RK 07F RT	10"

Kits consist of: Cover O'Ring, Bolt O'Ring, Disc and bracket

Check Kits

EDP No.	Order No.	Size
887108	RK 07F CK	4"
887109	RK 07F CK	6"
887110	RK 07F CK	8"
887117	RK 07F CK	10"

Kits consist of: Spring Assembly and Cover O'Ring

Seat Kits

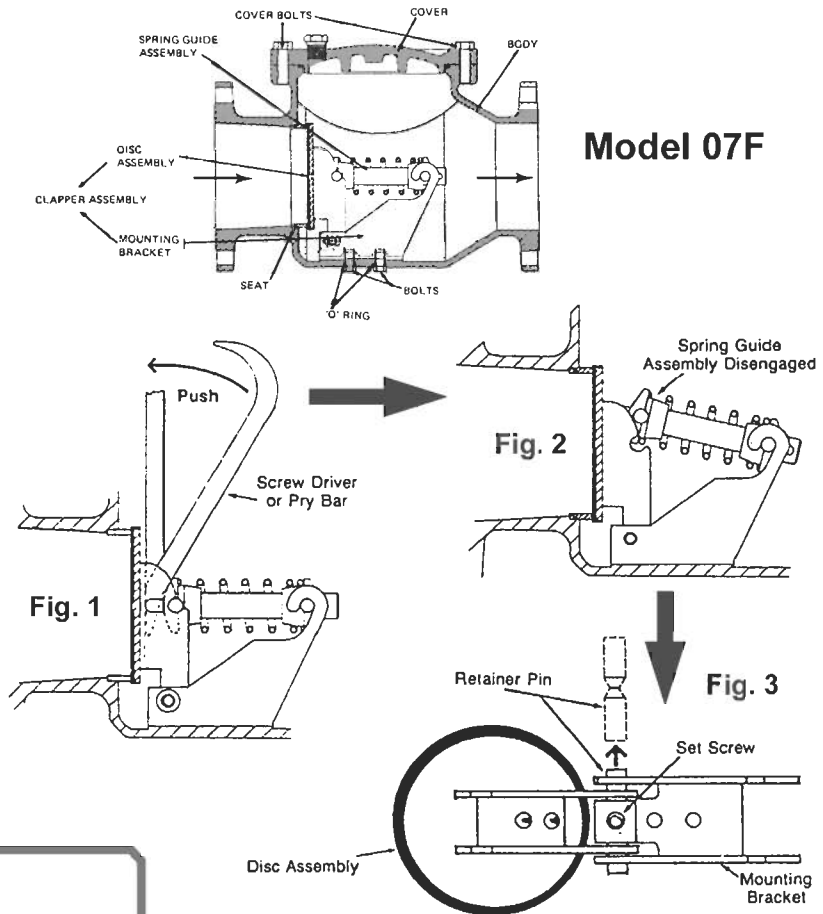
EDP No.	Order No.	Size
887111	RK 07F S	4"
887112	RK 07F S	6"
887113	RK 07F S	8"
887118	RK 07F S	10"

Kits consist of: Seat, Seat O'Ring and Cover O'Ring

Complete Repair Kits

EDP No.	Order No.	Size
887114	RK 07F T	4"
887115	RK 07F T	6"
887116	RK 07F T	8"
887119	RK 07F T	10"

Kits consist of: Spring Assembly, Disc and Bracket, Bolt O'rings and Cover O'ring



Spring Guide Assembly Removal Instructions

1. The 07F features a captured spring in a center stem guided assembly. The spring guide assembly must be removed to clean the seat disc. As with any spring loaded mechanism, keep fingers away from pinch points. The spring guide assembly has a heavy spring pre-load and could cause injury. It is not necessary to disassemble the spring guide assembly.
2. Remove the access cover.
3. Apply leverage between the spring guide assembly and the disc assembly as shown in Fig. 1.
4. Compress the spring guide assembly slightly so it will pop free from the notches on the disc assembly and rest as shown in Fig. 2.
5. Completely remove the spring guide assembly by unhooking the two outlet end ears from the mounting bracket.

Disc Assembly Removal Instructions

1. Remove the access cover.
2. Remove the spring guide assembly.
3. Unfasten the two bolts on the side of the body opposite the access cover.
4. Reach in through the access opening and remove the entire clapper assembly. Opening the clapper assembly, and laying it flat on a table (refer to Fig. 3).
5. With an allen wrench, remove the set-screw which secures the spacer to the retainer pin on the clapper assembly.
6. Slide out the retainer pin to separate the disc assy from the mounting bracket.

American Backflow Specialties

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