

## GROOVED WET ALARM CHECK VALVE

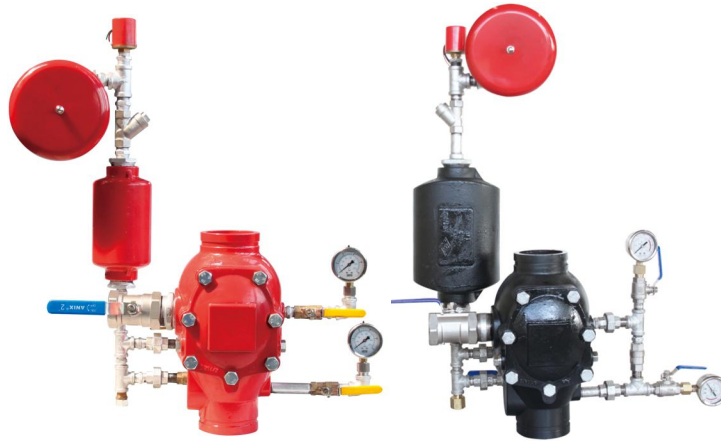
Type: ZSFZ8X9

Doc No: DS-900-ZSFZ8X9-01-E-X

### 1.0 PRODUCT OVERVIEW

The alarm check valve works as a check valve by preventing the reverse flow of water from the system piping to the water supply. The valve is trimmed with a water bypass line, which has an in-line swing check valve. The bypass line allows pressure surges to enter the system and to be trapped above the alarm check valve's clapper without the clapper lifting and causing false alarms.

When significant flow of water occurs, such as from an open sprinkler, the alarm valve's clapper lifts and allows water to enter the system. Simultaneously, water enters an intermediate chamber, which allows the water to activate an alarm either through a water motor alarm or through a water pressure alarm. These alarms continue to sound until the flow of water is stopped.



#### Dimensions:

3"(DN80)-8"(DN200)

#### Design Standard:

UL 193, ULC 193, FM1041, GB 5135.2

#### Connection Standard:

ISO 6182, AWWA C606

#### Working Pressure:

PN16/PN10, 300PSI, 250PSI, 200PSI

#### Application:

##### Sign Off:

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_  
Location: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer: \_\_\_\_\_  
Approved & Date: \_\_\_\_\_

The wet alarm valve is an important component of the wet sprinkler system. The operating temperature range is 0°C-80°C.

**Pipe Material:**

Welded and seamlessly rolled steel pipe:  
 ASME B36.10、ASTM A53-A53M、ISO 4200、GB/T 21835-2008  
 Grooved Coupling: ISO6182、GB 5135.11、AWWA C606

**Surface Treatment:**

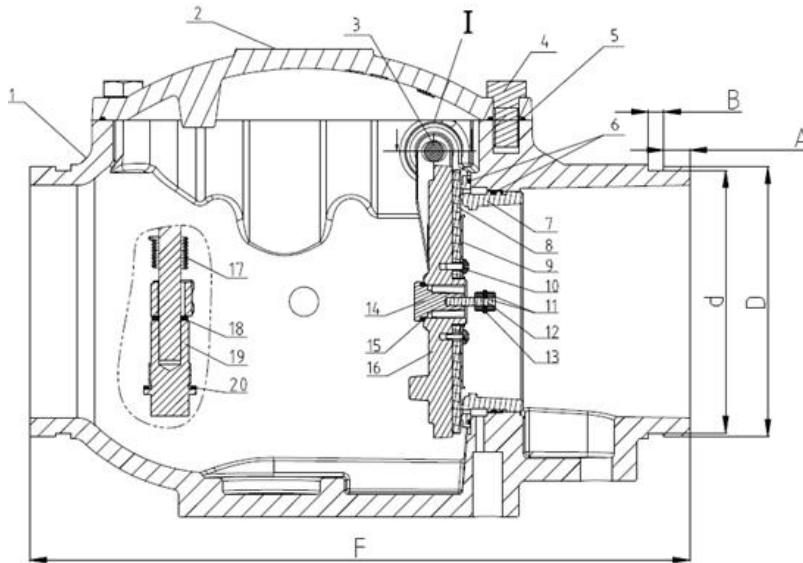
- RAL3000 painting
- RAL3000 Epoxy power painting
- HS-1701B
- Others would be available upon clients' detailed request

**2.0 APPROVALS**



**3.0 SPECIFICATIONS**

**Product Sketch:**



**Sign Off:**

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_ Engineer: \_\_\_\_\_  
 Location: \_\_\_\_\_ Date: \_\_\_\_\_ Approved & Date: \_\_\_\_\_

Part No.	Part	Standard Specification	Options
1	Valve Body	ASTM A536, 65-45-12/ EN GJS-450-10	
2	Bonnet	ASTM A536, 65-45-12/ EN GJS-450-10	
3	Pin	SS304	SS316
4	Hex Bolt	Carbon Steel Zinc Plated	
5	Gasket	EPDM	
6	O-Ring	NBR	
7	Seat	C83600	
8	Gasket	EPDM	
9	Plate	H62	
10	Slotted Screw	NBR	EPDM
11	Hex Nut	EPDM	
12	Adjustment Screw	SS304	SS316
13	Card Board	H62	SS316
14	Compensator	H62	
15	O-Ring	NBR	
16	Disc	H62	
17	Spring	1Cr18Ni9Ti	
18	Plug Gasket	PTFE	
19	Plug	SS304	SS316
20	Plug Gasket	PTFE	

## External Accessories

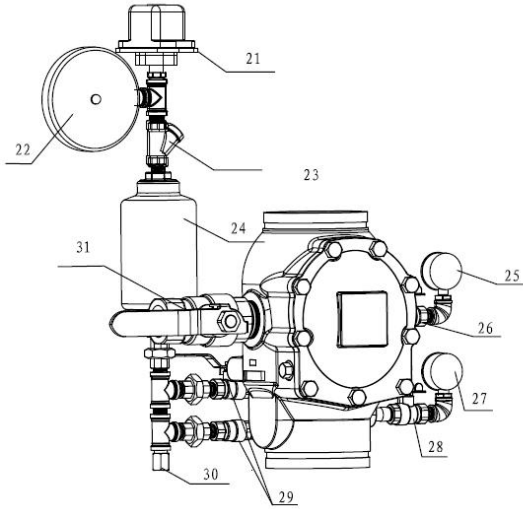
**Sign Off:**

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer: \_\_\_\_\_

Approved & Date: \_\_\_\_\_



External Accessories			
Part No	Part	Part No	Part
21	Pressure Switch	27	Pressure Switch
22	Alarm	28	Ball Valve
23	Strainer	29	Ball Valve
24	Decelerator	30	Throttle valve
25	Pressure Switch	31	Ball Valve
26	Ball Valve		

## 4.0 DIMENSIONS AND PERFORMANCE

### 4.1 Dimensions

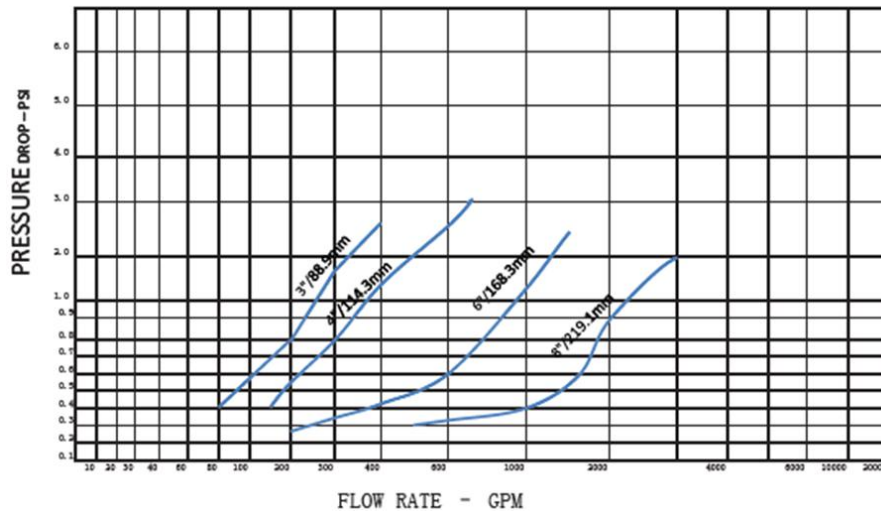
Size	in	DN	OD	Dimensions				
				A	B	∅ d	∅ D	F
3"		80	88.9	15.88	7.93	84.94	88.9	320.3
4"		100	114.3	15.88	9.53	110.08	114.3	382
5"		125	139.7	15.88	9.53	135.48	139.7	390
			141.3	15.88	9.53	137.03	141.3	390
6"		150	165.1	15.88	9.53	160.9	165.1	406.4
			168.3	15.88	9.53	163.96	168.3	406.4
8"		200	219.1	19.05	11.1	214.4	219.1	446

### 4.2 Flow rates

**Sign Off:**

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_  
Location: \_\_\_\_\_ Date: \_\_\_\_\_

Engineer: \_\_\_\_\_  
Approved & Date: \_\_\_\_\_



#### 4.3.1. Shell Body Test

4.3.1.1 Disc assembly, 2 times rated working pressure

4.3.1.2 Decelerator, 2 times rated working pressure

#### 4.3.2. Leakage Test

4.3.2.1 Wet disc valve system side and connecting pipe fittings, 2 times rated working pressure

4.3.2.2 2 times the rated working pressure when the disc assembly in the open position

#### 4.3.3. Alarm function

4.3.3.1 When the inlet pressure is 0.14MPa and the system side discharge flow is 15 L/min, neither the pressure switch nor the hydraulic alarm can issue an alarm signal.

4.3.3.2 The inlet pressure is 0.14MPa, 0.70 MPa, 1.20 MPa, 1.60 MPa, the corresponding side discharge flow of the system side is 60 L/min, 80 L/min, 170 L/min, 170 L/min, pressure switch and hydraulic alarm The bells must issue an alarm signal.

4.3.3.3 Delay adjustment time: The alarm device starts to issue a continuous alarm within 5s-90s after the system side releases water.

## 5.0 REFERENCE MATERIALS

### Approved certification for Grooved Wet Alarm Check Valve

#### Sign Off:

Owner: \_\_\_\_\_ Contractor: \_\_\_\_\_

Engineer: \_\_\_\_\_

Location: \_\_\_\_\_ Date: \_\_\_\_\_

Approved & Date: \_\_\_\_\_