WET ALARM CHECK VALVE. PN10/PN16

1. DESCRIPTION

Model AL Alarm Check Valve are divided seat ring, rubber faced clapper, waterflow alarm check valve wich are intended for use in wet pipe pro-tection systems. They may be installed vertically and they are designed to automatically actuate electric or hydraulic alarm when there is steady flow of water in to the system that is equivalent to the discharge rate of one or more sprinklers.

Model AL Alarm Check Valve includes pressure gauges to monitor system pressure conditions, a by-pass check valve, a main drain valve, and an alarm test valve. The by-pass check valve serves to reduce the possibility of false alarm by permitting slow as well as small transient increases in water supply pressure to be passed though to the system without opening of the water way capper.

2. INSTALLATION PROCEDURE

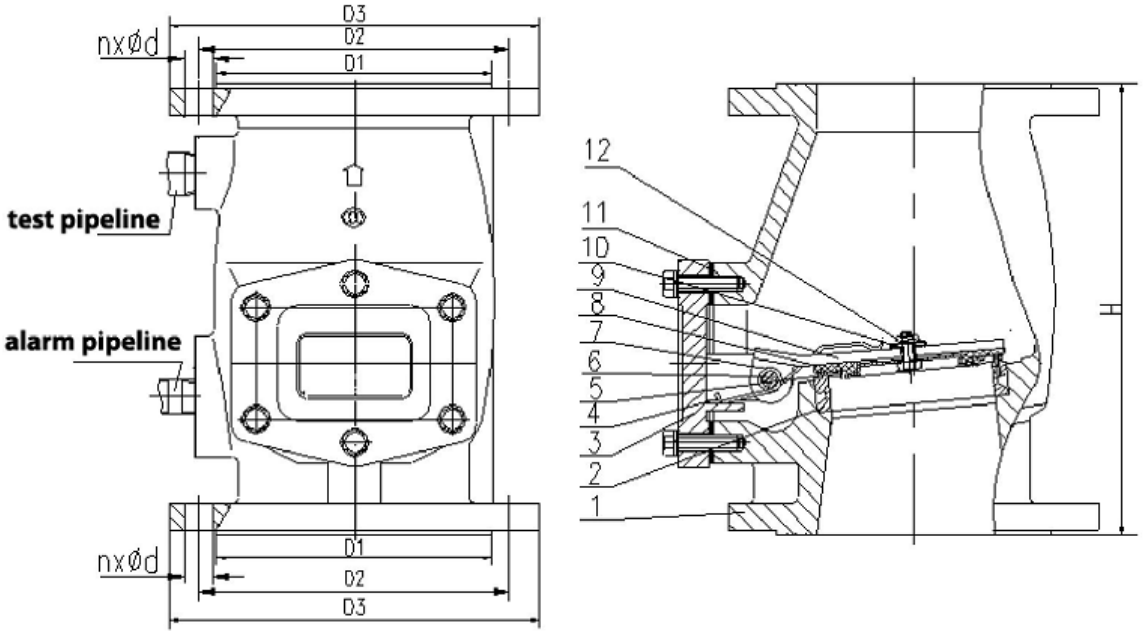
Pipe flange weldeding: Properly positon Model AL Alarm Check Valve and bolt hole and then firmly weld in accordance to the pipe flange plan considering the height of Alarm Check Valve and gasket packing.

Pipe Cleaning: when the installation is completed, clean thoroughly the pipe interior. Remove slag by knocking welded parts of pipe with a hammer and if possible, fush the interior with pressure water of 5kg/cm2 until it is completely rinsed out. Negligence of cleaning will: 1.Cause repeated false alarm due to the damaged seat rubber in the Alarm Check Valve, 2. retard or even result in failure of fire supperession when the orifice of sprinkler head is choked up.

3. MAIN COMPONENTS TECHNICAL PARAMETER

3.1 AL check valve

3.1.1 *Main Valve Structure And External Dimension*



Item	Part Name	Item	Part Name
1	Valve body	2	Valve seat
3	Valve cover	4	Torision spring
5	Ring	6	Rotating shaft
7	Bush	8	Sealing gasket
9	Flap	10	Gasket
11	Cover gasket	12	Bolt

3.1.2 *Connection Dimension*

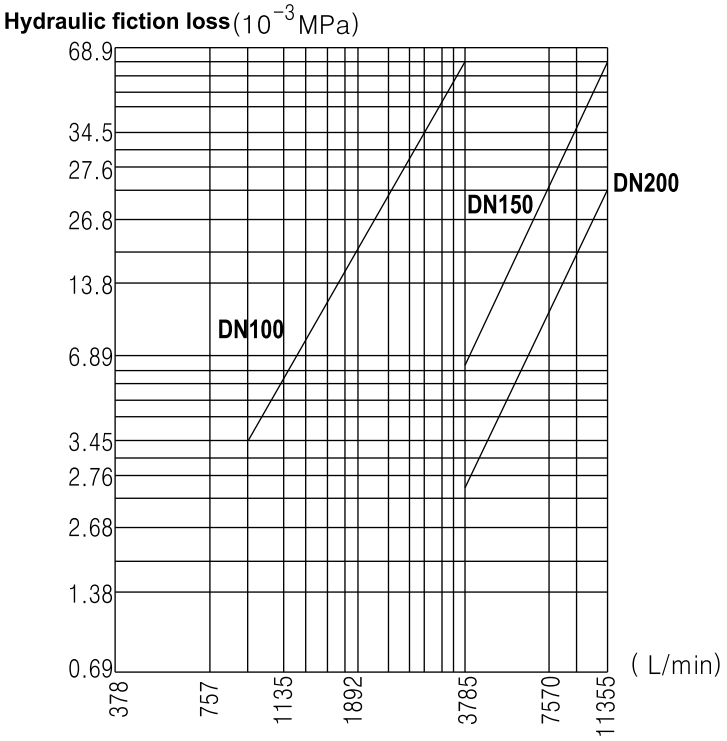
Model No.	H	D1	D2	D3	n-Ød
AL100	230	Ø158	Ø180	Ø215	8 x 18
AL150	250	Ø212	Ø240	Ø280	8 x 22
AL200	270	Ø260	Ø295	Ø340	12 x 22

3.1.3 *Main Technical Parameter*

Model No.	Nominal Diameter	Working Pressure (Mpa)	Alarm Pipeline	Test Pipeline
AL100	100	1.6	R3/4	R1
AL150	150	1.6	R3/4	R1
AL200	200	1.6	R3/4	R1

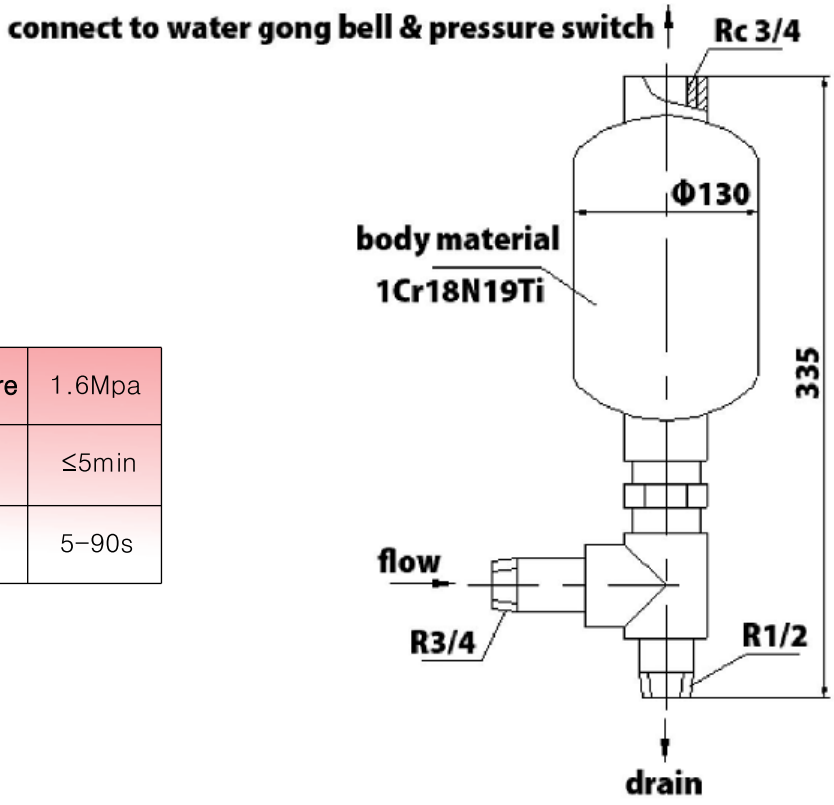
3.1.4 *Hydraulic Fiction Loss*

Model No.	Equivalent length
AL100	8.5m
AL150	9.1m
AL200	12.5m



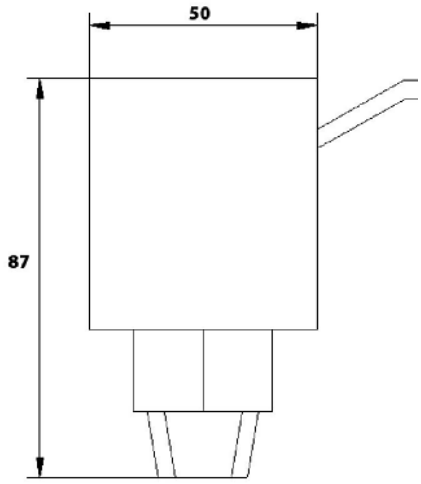
3.2 AL Retard Chamber

Max Working Pressure	1.6Mpa
Draining time	≤5min
Delay time	5-90s



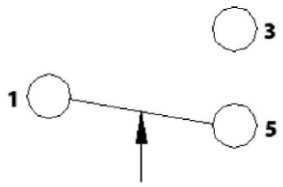
3.3 Pressure Switch

single contact pressure switch



3.3.1 Wiring diagram

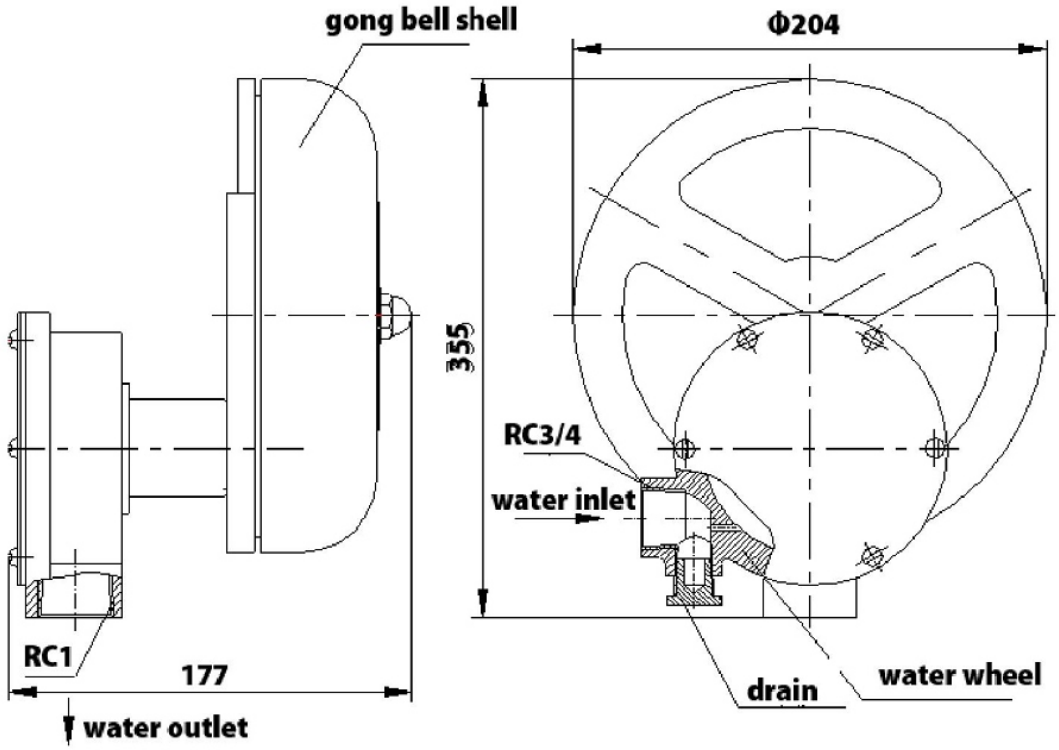
single contact pressure switch



contact capacity:380VAC 3A

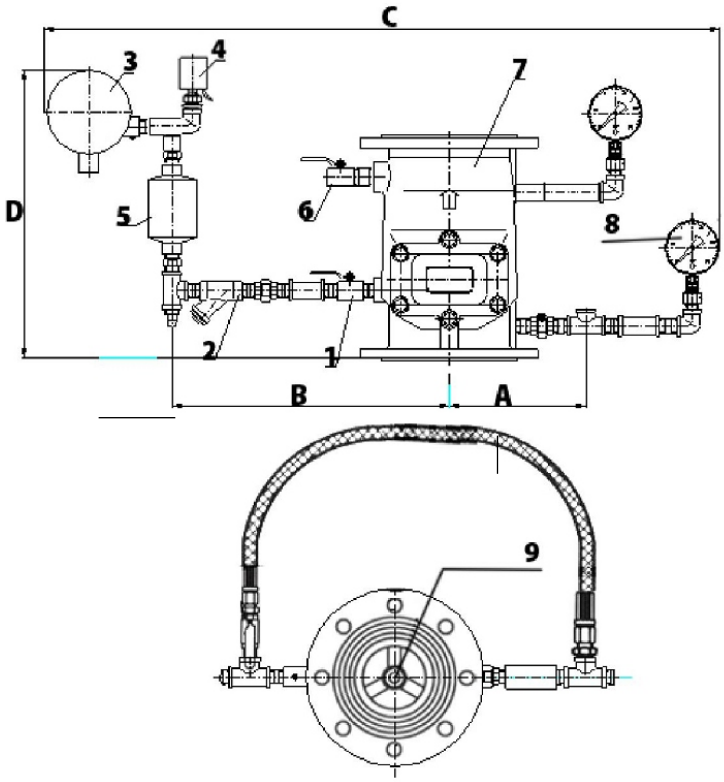
Max working pressure	1.6Mpa
Working pressure range	0.05–1.6Mpa
Installation	Vertical
Switch contact capacity	DC24V 3A

3.4 Water Gong Bell



Max working pressure	1.6Mpa
Actuating pressure	≥0.05Mpa
Sound level	≥70dB(A) when water inlet pressure are 0.05Mpa
3m away sound level	≥85dB(A) when water inlet pressure are 0.2Mpa

4. INSTALLATION



No.	Part Name	AL100	AL150	AL200
1	Ball valve	DN20	DN20	DN20
2	Y - Strainer	DN20	DN20	DN20
3	Gong bell	Ø200	Ø200	Ø200
4	Pressure Switch	ALPS16	ALPS16	ALPS16
5	Retard Chamber	Ø127	Ø127	Ø127
6	Ball valve	DN25	DN25	DN25
7	Main Check Valve	DN100	DN150	DN200
8	Pressure gauge	Y100	Y100	Y100
9	Compensator	DN20	DN20	DN20

No.	AL100	AL150	AL200
A	350	380	400
B	570	650	700
C	1030	1130	1200
D	620	670	690

* Leakag test before installation, test pressure should be twice as much as the rated working pressure, asting for 5 minutes.
* Alarm wet check valve should be installed vertically, the arrow mark should be in line with the direction of flow.
* Clean out the pipeline.
* Each drain of valve should be connected with drainage separately, keep free from obstruction.
* Pressure switch installation should be convenient for viewing.