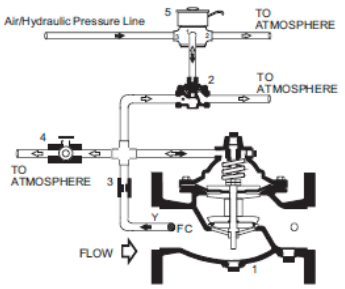
MEIJI

DELUGE VALVE

Fig. 10-06

PN16/25

DN 80-250



COMPONENTS

1. Main valve
2. Pneumatic/hydraulic control
3. Fixed Orifice Restriction.
4. Isolator valve
5. 3-way solenoid

FC: Flow – Clean Strainer.

SPECIFICATION

Type: Pilot control valve, Working pressure: 16/25 bar

Flanged to JIS 10/16K, BS4504 PN16/25, ANSI#150/300

Size : DN 80mm, DN 100mm, DN 150mm, DN 200mm, DN 250 mm.

PRESSURE/TEMPERATURE RATINGS

Working pressure	16/25 bar
Testing Pressure	24/37.5 bar
Working temperatre	-10℃ ~ 80℃

MATERIALS

Part	Material	ASTM	BS
Body, cover	Ductile iron	A536	Gr.420/12
Seat, Disc	Staniless steel	A240 304/410	SUS304/410
Stem, Spring	Staniless steel	A240 304/316	SUS304/316
Bolt/nut	Staniless steel	A240 304/410	SUS304/410
Fiting	Brass	B124 C37700	2874 CZ122
Painting	Epoxy power coating		

Function: Opens on demand to provide water flow to the fire protection sprinkler system. Pilot system can be hydraulically, pneumatically, or manually operated. Opening of valve is by electrical signal to solenoid or manual opening.

Operation:

- Deluge valve is controlled by a 3-way direct-acting solenoid which controls the position of the Pnematic/Hydraulic pilot.
- When the solenoid is de-enegerized, ports 1 and 3 are connected (port 2 is blocked). Pressure is routed to the cover of the pneumatic/hydraulic control. The pneumatic/hydraulic control closes, closing the main valve.
- When the solenoid is energized, port 1 and 2 are connected (port 3 is blocked). The cover of the pneumatic/hydraulic control is vented. The control opens, opening the main valve.
- An isolator valve in the control circuit provides a manual by-pass/override of the pneumatic/hydraulic control. Opening the isolator valve will open the main valve. This isolator valve is to be closed during normal operation.

Start-up: Start-up of the deluge valve requires that proper procedures be fllowed: 1-Clear the line of slag and other debris. 2-Close upstream system isolator valve,if so equipped. 3-Install the valve so that the flow arrow marked on the valve body matches the flow through the line. 4-Ensure that the manual by-pass isolator valve is closed. 5-Connect actuating air/hydraulic pressure source to port 3of the solenoid control.

Step 1: Energize the solenoid to check actuation and to confirm connection to power soure.

Step 2: De-energize the solenoid for initial valve filling.

Step 3: Activate the air/hydraulic pressure source.

Step 4: Pressure the line, opening the upstream isolator valve slowly. Open manual by-pass isolator valve to ensure that the main valve opens. Manual by-pass isolator valve must be closed during normal operation of valve.

Step 5: Partially open the manual isolator valve to vent air trapped in the cover chamber. Close when fluit begins to vent. Caution: do not remove or loosen top cover plug while valve is under pressure.

Step 6: Energize the solenoid. This will vent the pneumatic/hydraulic control cover chamber, causing the main valve to open.

Step 7: De-energize the solenoid. This will pressure the pneumatic/hydraulic control cover chamber, causing the main valve to close.

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