▲ Model 71 DE/EL/PORV

OCV's DE/EL/PORV, electronically and pneumatically actuated, remote-reset valve, is held shut drip-tight in its standby position. When a fire alarm control panel energizes the 3/2 way N.O. solenoid, or when one (or more) of the automatic sprinklers on the pilot-line burst, the deluge valve opens instantly and allows water to flow into the pipeline and through the open sprinklers over the protected area.

DESIGNED FOR

- High-pressure (375psi/PN25), high-flow deluge systems
- Automatic or local manual emergency actuation
- Hazardous-flammable and explosion classified area fire suppression
- Onshore & Offshore, Naval, Industrial, Commercial & Residential fire suppression

FEATURES

- Superior design featuring exceptionally low pressure losses at high flow rates
- Low to negligible lifelong maintenance
- Simple, comprised of 3 main parts, facilitates easy maintenance
- Fresh or Brackish water, seawater and foam
- Out of box fully assembled & tested valves
- All valves are factory trimmed for both vertical & horizontal installations without modification
- Extensive valve & trim material selection and corrosion protection coating

OPERATION

This electro-pneumatic actuated, remote-reset deluge valve is designed for fire protection systems controlled and actuated by an air or nitrogen dry pilot line and an electric detection and release system. The basic control valve type used in this deluge system is a direct-sealing elastomeric diaphragm, hydraulically operated control valve engineered specifically for fire protection systems.

In the standby position, the deluge valve is held closed by the upstream water pressure, trapped in the valve's control chamber. The water pressure enters the control chamber through the priming line ball valve (**2**), a Y-type strainer (**3**), a check valve (**4**) and a Tee restrictor (**5**).

Under fire conditions, the deluge valve will open automatically under any of the following circumstances:

1. A fire alarm control panel energizes the 3/2 way N.O. solenoid (**10**) forcing it to change position and release the pressure accumulated in the relay valve (**9**).

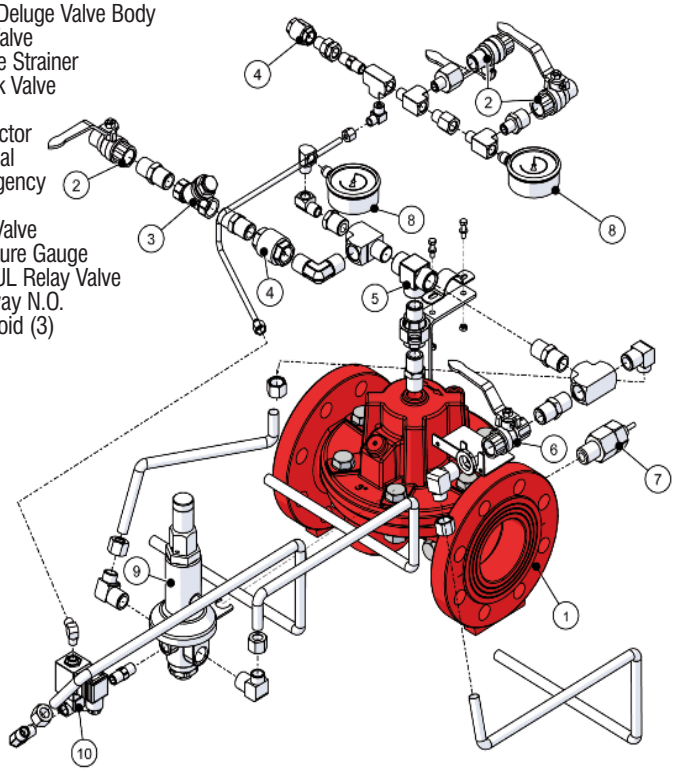
2. The pressure in the pneumatic-pressurized pilot-line drops to a predetermined value, following bursting of one (or more) of the automatic sprinklers.

When this happens, the pressure in the relay valve (**9**) is relieved, thus releasing the trapped pressure in the deluge valve's control chamber, forcing it open and allowing water to flow into the pipeline and through the open sprinklers over the protected area.

Manual emergency actuation is enabled by opening the Emergency manual activation valve **[6]**. The deluge valve opens instantly and allows water to flow into the pipeline and through the open sprinklers over the protected area.

PARTS & MATERIALS

(1) OCV Deluge Valve Body
(2) Ball Valve
(3) Y-Type Strainer
(4) Check Valve
(5) Tee Restrictor
(6) Manual Emergency Valve
(7) Drip Valve
(8) Pressure Gauge
(9) 66-2UL Relay Valve
(10) 3/2 way N.O. Solenoid (3)



Model 71 DE/EL/PORV Electrically & Pneumatically Actuated Remote Reset Deluge Valve

TOLL FREE 1.888.628.8258 ● **phone:** (918)627.1942 ● **fax:** (918)622.8916 ● 7400 East 42nd Place, Tulsa, Ok 74145
email: sales@controlvalves.com ● **website:** www.controlvalves.com

Model 71 DE/EL/PORV

Technical Data:
- Media up to 176°F (80°C)
- Elastomers suitable for extreme climates are available upon request.

Sizes:
- Straight Flow: 2"-24"
- Angle: 1.5" - 8"

Basic Valve Materials:
Ductile Iron A-536 65-45-12; Cast Steel WCB A-216; Cast Steel A-352 LCB; Austenitic Stainless Steel A-351/CF8M; Super Duplex 2507; Nickel-Aluminium-Bronze B-148 UNS C95800

End Connections:
- Flanged: ISO PN10, ISO-PN16 & ISO-PN25 ANSI B16.42 Class # 150 and # 300
- Grooved: Sizes: 2"-8"

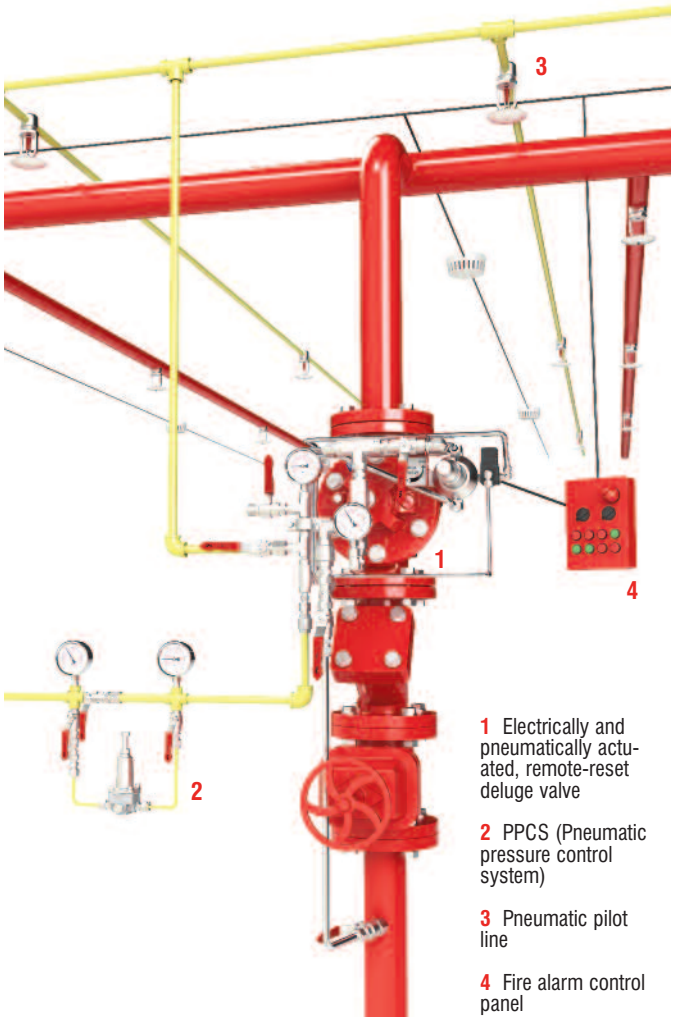
Pressure Rating:
- 250 psi for Class #150
- 375 psi for Class #300

UL Listed Sizes:
- 2"-10"

Please specify in addition to the above:
- Electrical features other than standard (24VDC, IP65/NEMA4)
- Control trim material other than standard (Brass/Copper)
- Required standards, certifications and approval

SPECIFICATIONS

The deluge valve shall be hydraulically operated, direct elastomeric diaphragm-seal, single chamber weir type. The valve shall consist of three major components: the body, cover and the diaphragm assembly. The diaphragm shall be the only moving part. The diaphragm forms a sealed control chamber in the upper portion of the valve, separating operating pressure from line pressure. Packing glands' stuffing boxes and dynamic o-ring seals are not permitted and there shall be no shafts, discs, bearings or pistons operating the main valve. No hourglass-shaped disc retainers shall be permitted and no V-type, U-type or other slotted type disc guides shall be used. The valve shall contain a nylon reinforced rubber diaphragm, elastic & resilient through its entire surface without vulcanized radial discs and/or reinforcements. The diaphragm shall not be guided by any shafts or bearings and shall not be in close contact with other valve parts except for its sealing surface. Maintenance, disassembly and reassembly of all the valve's components shall be made possible on site and in-line, without the need to remove the valve from the line. Standard material valves such as Ductile Iron (ASTM A-536 65-45-12) and Cast Steel (WCB A-216) should be coated with epoxy, followed by a coat of fire red enamel paint. Special considerations should be made for deluge valve being used in seawater supply systems. The valve should be UL listed under category VLFT for fire protection service.



1 Electrically and pneumatically actuated, remote-reset deluge valve

2 PPCS (Pneumatic pressure control system)

3 Pneumatic pilot line

4 Fire alarm control panel

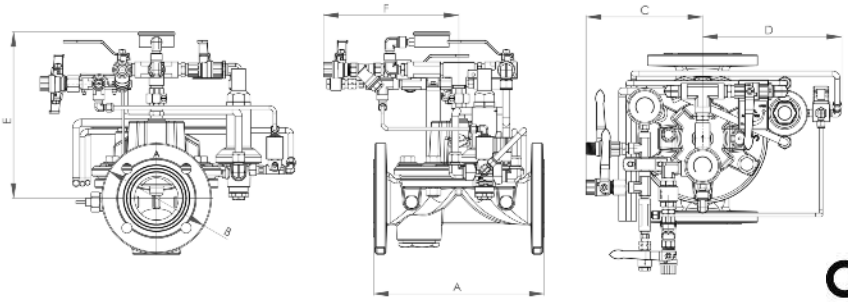
Valve	2 (50)		3 (80)		4 (100)		6 (150)		8 (200)		10 (250)	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
A	10	254	12 3/16	310	14	355	17 1/2	443	20 7/8	530	25	635
B	6 5/8	168	7 7/8	200	9 3/8	238	12	306	14 3/16	360	16 7/8	430
C	5 7/8	150	8 5/16	210	6 3/15	157	9 13/16	248	10 5/15	262	13	330
D	9 7/8	252	9 7/8	252	9 7/8	252	9 7/8	252	9 7/8	252	9 7/8	252
E	9 3/16	234	11 13/16	300	11 5/8	296	14 7/8	379	15 11/16	399	16 5/8	422
F	10 1/2	266	9 11/16	246	9 11/16	246	9 11/16	246	10 3/8	265	12 1/2	317
Approx.	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
Weight	31	14	75	34	93	42	174	79	280	127	428	194

*Approximate dimensions

OCV pressure control valves are UL/ULC Listed for mounting in the horizontal or vertical position. Space should be taken into consideration when mounting valves and their pilot systems.

A routine inspection & maintenance program should be established and conducted yearly by a qualified technician. Consult our factory @ 1-888-628-8258 for parts and service.

When ordering your 71 DE/EL/PORV, please provide: Series Number - Valve size - Globe or Angle - Flanged 150#, 300# ANSI, screwed or grooved ends - Trim Material - Special needs / or Installation Requirements



QUALITY SYSTEM REGISTERED TO ISO 9001

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