

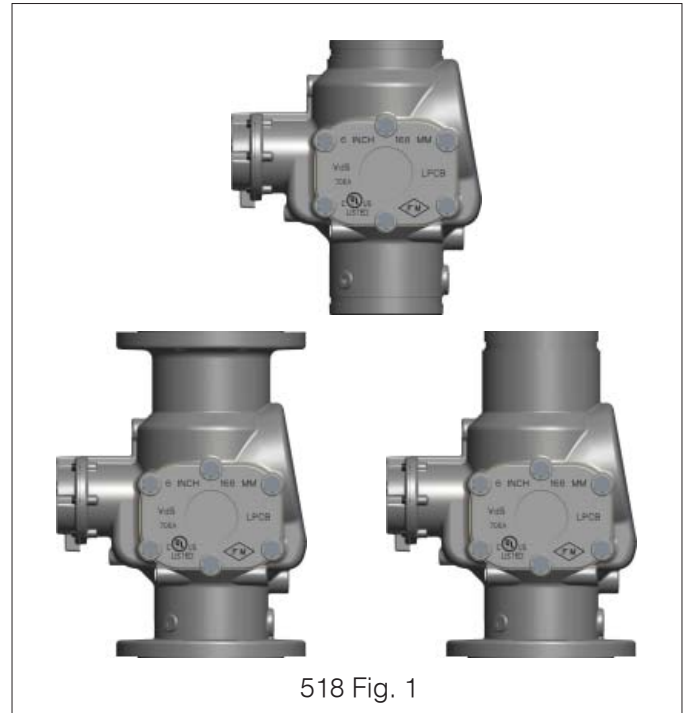
# Reliable®

## Model DDX Deluge Valve

2" (50 mm), 2½" (65 mm), 3" (80 mm),  
76 mm, 4" (100 mm), 6" (150 mm),  
165 mm & 8" (200 mm)

### Features

1. Differential Latch-type, lightweight, dependable construction.
2. Easily trimmed for releasing by:
  - Manual pull stations
  - Wet pilot sprinklers
  - Dry pilot actuators
  - Solenoid valves
3. Drop in or Screw in seat & clapper assembly simplifies maintenance.
4. Bronze or Stainless steel seat with O-ring seals resists corrosion and leakage.
5. Pressure-actuated clapper facing provides dependable seal.
6. Reset externally. Cover removal is not required.
7. Grooved inlet and outlet connections Flanged connections available on 4" (100mm), 6" (150mm), 165mm & 8" (200mm).
8. Drain valve to drain standing water column.
9. Valve latches in open position. No pressure-operated relief valve is required.
10. Pressure rating of 250 psi (17.2 bar) or 300 psi (20.7 bar) (4" (100mm), 6" (150mm) & 165mm Only).



518 Fig. 1

### Listings & Approvals

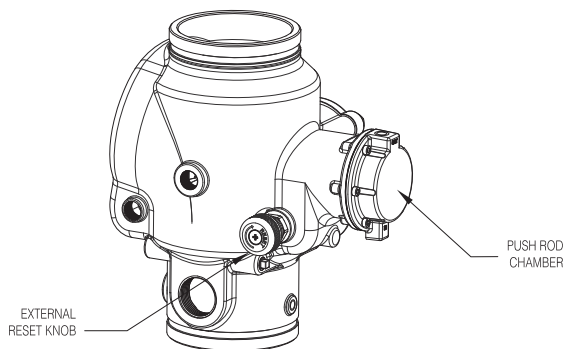
(Only when used with Reliable's Trim Sets.)

1. Listed by Underwriters Laboratories, Inc. and UL certified for Canada (cULus).
2. Certified by Factory Mutual Approvals (FM).
3. NYC MEA 258-93-E
4. LPCB (4" (100mm), 165mm, 6" (150mm) & 8" (200mm) only)
5. CE
6. VdS Schadenverhütung GmbH

The Reliable Model DDX Deluge Valve is a hydraulically operated, latching clapper-type valve used to control the water supply to a deluge or preaction system. Deluge systems use open sprinklers or nozzles as discharge outlets in the fire area, while preaction systems use closed sprinklers or nozzles. Both systems use separate detection devices to control the operation of the Deluge Valve. Three simple trim arrangements allow for actuation of the Reliable Model DDX Deluge Valve by utilizing manual, hydraulic, pneumatic, or electrical devices. These devices include break glass stations, wet pilot sprinklers, dry pilot sprinklers, thermal detectors, and smoke detectors.

The Reliable Model DDX Deluge Valve can be reset externally, without cover removal. This is accomplished by pushing in and turning the external reset knob at the rear of the Deluge Valve (see Fig. 2).

### REAR VIEW OF MODEL DDX DELUGE VALVE



PUSH INWARD AND ROTATE KNOB CLOCKWISE TO RESET CLAPPER.  
DO SO ONLY WHEN PUSH ROD CHAMBER IS UNPRESSURIZED (0 PSIG).

510FG02A  
729FG06A  
518FG02A

Fig. 2

# DDX VALVE CLAPPER IN "OPEN", "CLOSED" AND "LATCHED" POSITIONS

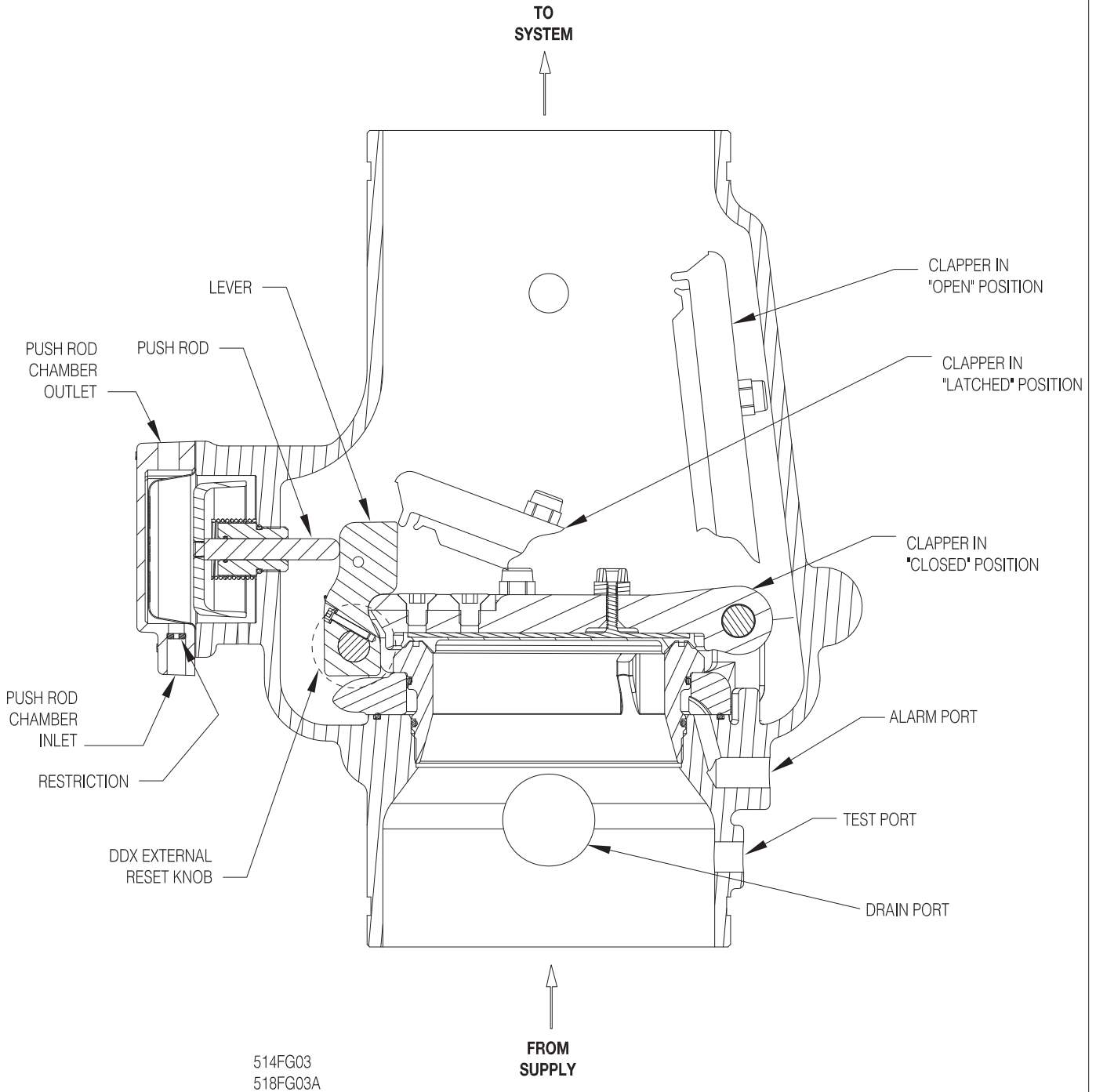


Fig. 3

## Valve Operation

The Reliable Model DDX Deluge Valve is shown in both closed and open positions in Fig. 3. In the closed position, the supply pressure acts on the underside of the clapper and also on the push rod through the push rod chamber's inlet restriction. The resultant force due to the supply pressure acting on the push rod is multiplied by the mechanical advantage of the lever and is more than sufficient to hold the clapper closed against normal supply pressure surges.

When a fire is detected, a releasing device vents the push rod chamber to atmosphere through the chamber's outlet. Since the pressure cannot be replenished through the inlet restriction as rapidly as it is vented, the push rod chamber pressure falls instantaneously. When the push rod chamber pressure approaches approximately one-third of the supply pressure, the upward force of the supply pressure acting beneath the clapper overcomes the lever-applied force thereby opening the clapper.

Once the clapper has opened, the lever acts as a latch, preventing the clapper from returning to the closed position. Water from the supply flows through the Deluge Valve into the system piping. Water also flows through the Deluge Valve's alarm outlet to the alarm devices.

After system shutdown, resetting the Model DDX Deluge Valve is quite simple. Doing so only requires pushing in and turning the reset knob at the rear of the valve (see Fig. 2). The external reset feature of the Model DDX Deluge Valve provides a means for simple, economical system testing, which is one essential facet of a good maintenance program. The external reset feature does not, however, eliminate another important facet of good maintenance, namely, periodic cleaning and inspection of the internal valve parts.

In the event that water builds up inside the valve due to condensate from the air supply system, or water left inside from valve system testing, a drain is available for venting. After closing the main supply valve, a small valve over the drain cup can be opened slightly until the water inside the valve body and the main pipe column has drained.

Whenever ambient temperature conditions are high, the water temperature in the Model DDX Deluge Valve's pushrod chamber could possibly increase, thereby increasing the pressure in the chamber to values exceeding the rated pressure of the system. In an indoor installation where standard room temperatures are exceeded, a pressure relief kit may be needed. Pressure relief kit, P/N 6503050001, can be installed into the pushrod chamber's releasing line to limit the pressure to 250 psi (17.2 bar).

Reliable Model DDX Deluge Valve with associated trim sizes 2" (50 mm), 2½" (65 mm), 76 mm, 3" (80 mm), 4" (100 mm), 165 mm, 6" (150 mm) or 8" (200 mm), are rated for use at a minimum water supply pressure of 20 psi (1.4 bar) and a maximum water supply pressure of 250 psi (17.2 bar) for 2" (50mm), 2½" (65mm), 3" (80mm), 76mm & 8" (200mm) valve sizes and 300 psi (20.7 bar) for 4" (100mm), 6" (150mm) & 165mm valve sizes.. Water supplied to the inlet of the valve and to the push rod chamber must be maintained between 40°F (4°C) and 140°F (60°C).

## Detection and Actuation

In general, the Reliable Model DDX Deluge Valve can be released by any Reliable UL Listed or FM Approved device that opens sufficiently to vent the push rod chamber in response to a fire. The releasing device is simply connected to the push rod chamber's outlet. When the releasing device operates and vents the push rod chamber, the Deluge Valve opens.

Typical releasing devices include hydraulic manual emergency stations, Model F1-FTR Fixed Temperature Detectors on wet pilot lines, dry pilot actuators, and solenoid valves. Model F1-FTR Detectors perform both Deluge Valve releasing and fire detection functions with wet pilot lines.

The use of a solenoid valve for Deluge Valve releasing enables various types of electrical fire detection devices to be used. Typical detection devices include electrical emergency pull stations, thermal detectors, and ionization or photoelectric smoke detectors. Electrical detection and releasing equipment used in Electrical Systems is described in Bulletin 700, for both deluge and preaction systems.

## Model DDX Deluge Valve Description

- Rated working pressure:  
Valve & System - 250 psi (17.2 bar) for the 2" (50mm), 2½" (65mm), 76mm, 3" (80mm) and 8" (200mm) valve sizes and 300 psi (20.7 bar) for the 4" (100mm), 165mm and 6" (150mm) valve sizes.
- Factory tested to a hydrostatic pressure of 500 psi (34.5 bar) for the 2" (50mm), 2½" (65mm), 76mm, 3" (80mm) and 8" (200mm) valve sizes and 600 psi (41.4 bar) for the 4" (100mm), 165mm and 6" (150mm) valve sizes. (Valve only)
- End and trim connections:
  - ANSI/AWWA C606 grooved inlet and outlet

Nominal Pipe Size	Outlet Diameter	Groove Diameter	Groove Width	Outlet Face to Groove
2" (50 mm)	2.375" (60mm)	2.250" (57mm)	11/32" (9.0mm)	5/8" (16mm)
2½" (65 mm)	2.875" (73mm)	2.720" (69mm)	11/32" (9.0mm)	5/8" (16mm)
76 mm	3.000" (76mm)	2.845" (72mm)	11/32" (9.0mm)	5/8" (16mm)
3" (80 mm)	3.500" (89mm)	3.344" (85mm)	11/32" (9.0mm)	5/8" (16mm)
4" (100 mm)	4.500" (114mm)	4.334" (110mm)	3/8" (9.5mm)	5/8" (16mm)
165 mm	6.500" (165mm)	6.330" (161mm)	3/8" (9.5mm)	5/8" (16mm)
6" (150 mm)	6.625" (168mm)	6.455" (164mm)	3/8" (9.5mm)	5/8" (16mm)
8" (200 mm)	8.625" (219mm)	8.441" (214mm)	7/16" (11mm)	3/4" (19mm)

- Threaded openings Per ANSI B 2.1

• Flange Dimensions

Flange Type:	Nominal Pipe Size	Bolt Circle Diameter	Bolt Hole Diameter	Flange Outside Diameter	Flange Thickness	Number of Bolts
ASME B16.5 Class 150	4" (100mm)	7½" (191mm)	¾" (19mm)	9" (229mm)	15/16" (24mm)	8
ISO 7005-2 PN16	4" (100mm)	7¾" (198mm)	¾" (19mm)	9" (229mm)	15/16" (24mm)	8
ASME B16.5 Class 150	6" (150mm)	9½" (241mm)	7/8" (22mm)	11" (279mm)	15/16" (24mm)	8
ISO 7005-2 PN16	6" (150mm)	97/16" (240mm)	29/32" (23mm)	11" (279mm)	15/16" (24mm)	8
ASME B16.5 Class 150	8" (200mm)	11¾" (298mm)	7/8" (22mm)	13½" (343mm)	1" (25.4mm)	8
ISO 7005-2 PN16	8" (200mm)	115/8" (295mm)	29/32" (23mm)	13½" (343mm)	1" (25.4mm)	12

4. Valve Exterior's Color:

Valve Size	Color
2" (50 mm)	Black or Red
2½" (65 mm)	Black or Red
76 mm	Red
3" (80 mm)	Black or Red
4" (100 mm)	Black or Red
165 mm	Red
6" (150 mm)	Black or Red
8" (200 mm)	Black or Red

5. Face to face dimensions:

Valve Size:	End Connection:	End to End:
2" (50mm), 2½" (65mm), 76mm & 3" (80mm)	Groove/ Groove	12½" (318mm)
	Groove/ Groove	14" (356mm)
4" (100mm)	Flange/ Groove	16" (406mm)
	Flange/ Flange	16" (406mm)
	Groove/ Groove	16" (406mm)
6" (150mm) & 165mm	Flange/ Groove	19" (483mm)
	Flange/ Flange	19" (483mm)
	Groove/ Groove	19" (483mm)
8" (200mm)	Groove/ Groove	19¾" (492mm)
	Flange/ Flange	21¼" (540mm)

6. Valve Shipping Weight:

Valve Size:	End Connection:	Weight:
2" (50mm), 2½" (65mm), 76mm & 3" (80mm)	Groove/ Groove	34 lbs (15 kg)
	Groove/ Groove	64 lbs (29 kg)
4" (100mm)	Flange/ Groove	79 lbs (36 kg)
	Flange/ Flange	92 lbs (42 kg)
	Groove/ Groove	95 lbs (43 kg)
6" (150mm) & 165mm	Flange/ Groove	122 lbs (56 kg)
	Flange/ Flange	138 lbs (69 kg)
	Groove/ Groove	148 lbs (67 kg)
8" (200mm)	Groove/ Groove	148 lbs (67 kg)
	Flange/ Flange	197 lbs (90 kg)

7. Trim Shipping Weight:

Trim Configuration	2" (50 mm), 2½" (65 mm), 3" (80 mm) & 76 mm	4" (100 mm), 6" (150 mm), 8" (200 mm) & 165 mm
Wet Pilot Deluge	31 lbs (14 kg)	37 lbs (17 kg)
Dry Pilot Deluge	39 lbs (18 kg)	50 lbs (23 kg)
Electric Actuation Deluge	33 lbs (15 kg)	38 lbs (17 kg)

8. Friction loss (Expressed in equivalent length of Schedule 40 pipe, based on Hazen & Williams formula:

Valve Size:	Equivalent Length:		Cv
	C = 120	C = 100	
2" (50mm)	4.4 ft (1,3 m)	3.1 ft (1,0 m)	101
2½" (65mm)	6.0 ft (1,8 m)	4.3 ft (1,3 m)	236
76mm	7.7 ft (2,3 m)	5.5 ft (1,7 m)	241
3" (80mm)	12.6 ft (3,8 m)	9.0 ft (2,7 m)	254
4" (100mm)	14 ft (4,3 m)	10 ft (3,0 m)	469
165mm	29.4 ft (9,0 m)	20.9 ft (6,4 m)	886
6" (150mm)	29.4 ft (9,0 m)	20.9 ft (6,4 m)	886
8" (200mm)	53.5 ft (16,3 m)	38.1 ft (11,6 m)	1516

9. Installation position: Vertical

**Trim Descriptions**

The trims for the Reliable Model DDX Deluge Valve are arranged for rapid, easy, and compact attachment, and serve as connection points to Reliable Model C Mechanical Alarms and other devices.

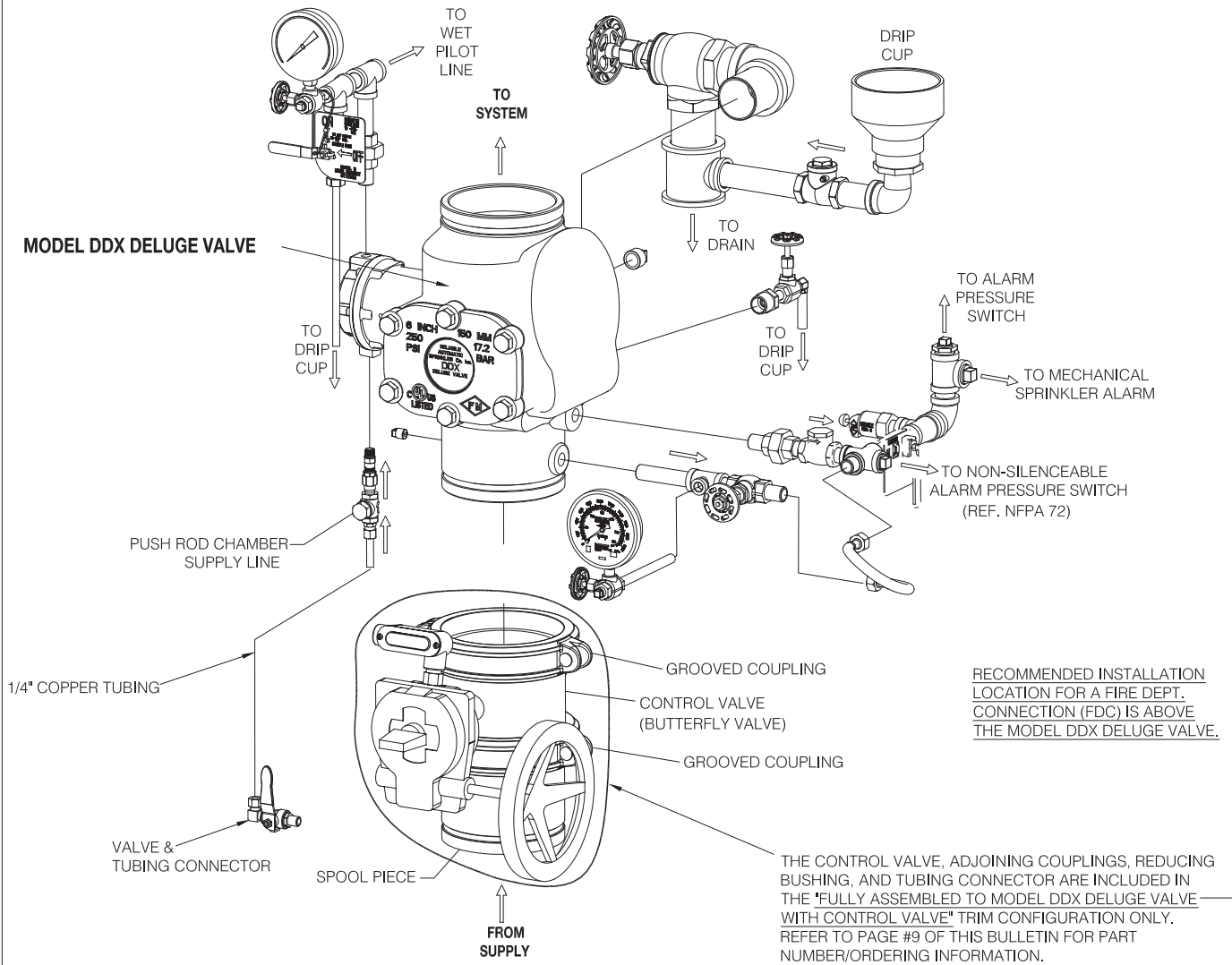
The available Model DDX Deluge Valve trim sets are:

- Wet Pilot Trim
- Dry Pilot Trim
- Electric Actuation Trim

The Wet Pilot Trim (see Fig. 4 or Fig. 5) is used when wet pilot sprinklers or hydraulic manual emergency pull boxes are used for detection and releasing. This trim set provides a one and one quarter main drain for 2" (50mm), 2½" (65mm), 76mm & 3" (80mm) valve sizes or a two inch main drain for 4" (100mm), 6" (150mm), 165mm & 8" (200mm) valve sizes, alarm test, supply pressure gauge, push rod chamber pressure gauge, push rod chamber supply connections, Model B Hydraulic Manual Emergency Station, and a connection for releasing devices.

The Dry Pilot Trim (see Fig. 6 or Fig. 7) is used when dry pilot sprinklers are used as the fire detection means. This trim set includes the Model LP Dry Pilot Line Actuator, air and water pressure gauges, low air pressure switch (for Dry Pilot Line), air pressure relief valve, connections for the air supply and pilot sprinkler lines, a one and one quarter main drain for 2" (50mm), 2½" (65mm), 76mm & 3" (80mm) valve sizes or a two inch main drain for 4" (100mm), 6" (150mm), 165mm & 8" (200mm) valve sizes, alarm test, push rod chamber connections, push rod chamber pressure gauge, and the Model B Hydraulic Manual Emergency Station. Table A provides the recommended air pressure when the dry pilot trim set is used as the actuation means.

# WET PILOT LINE DELUGE TRIM



**AVAILABLE TRIM CONFIGURATIONS:**

- INDIVIDUAL PARTS (MODEL DDX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL DDX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL DDX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL DDX DELUGE VALVE WITH CONTROL VALVE\*

\*NOT AVAILABLE WITH 76MM OR 165MM MODEL DDX VALVE

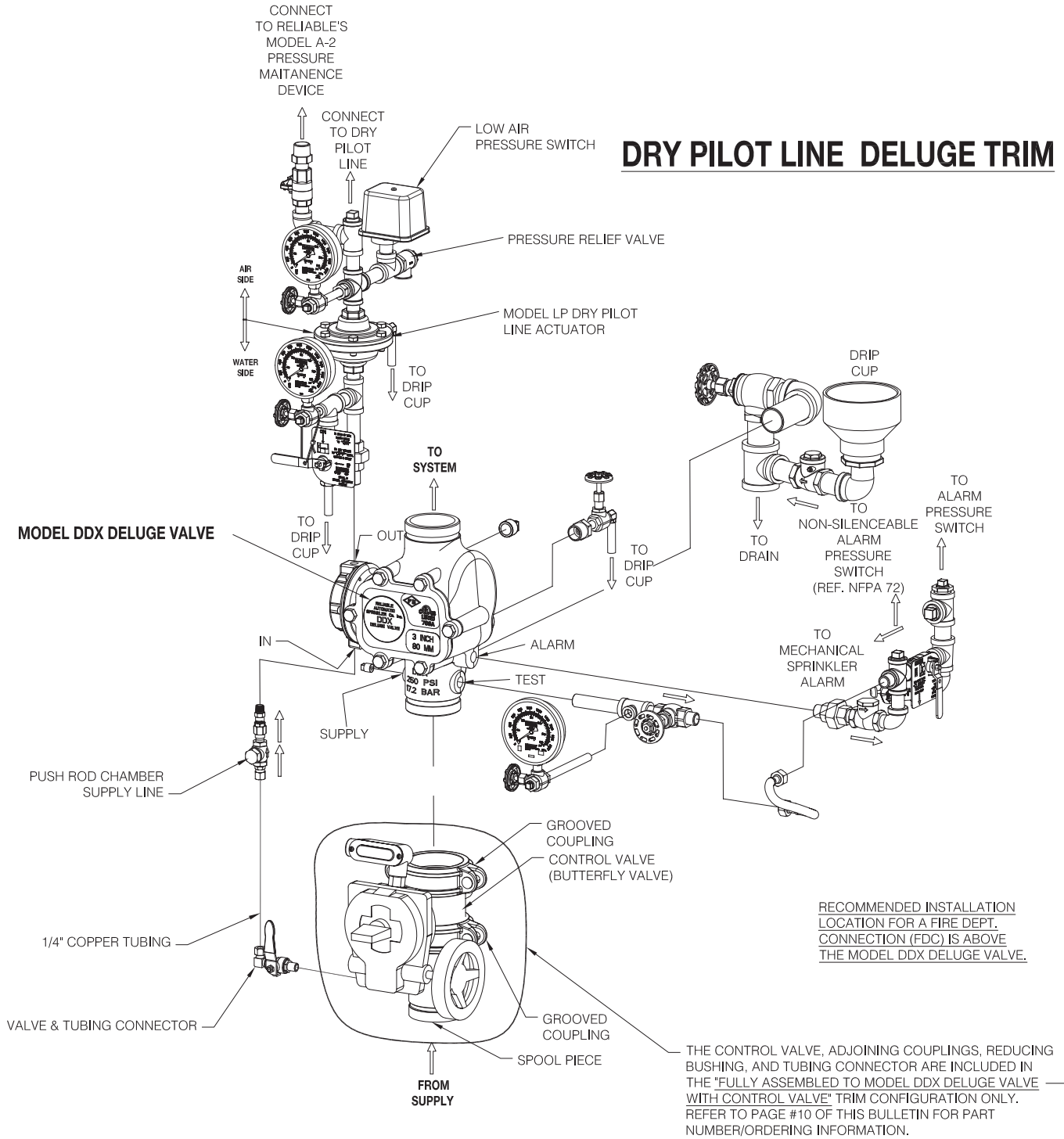
RECOMMENDED INSTALLATION LOCATION FOR A FIRE DEPT. CONNECTION (FDC) IS ABOVE THE MODEL DDX DELUGE VALVE.

THE CONTROL VALVE, ADJOINING COUPLINGS, REDUCING BUSHING, AND TUBING CONNECTOR ARE INCLUDED IN THE "FULLY ASSEMBLED TO MODEL DDX DELUGE VALVE WITH CONTROL VALVE" TRIM CONFIGURATION ONLY. REFER TO PAGE #9 OF THIS BULLETIN FOR PART NUMBER/ORDERING INFORMATION.

518FG04A

Fig. 4

# DRY PILOT LINE DELUGE TRIM



**AVAILABLE TRIM CONFIGURATIONS:**

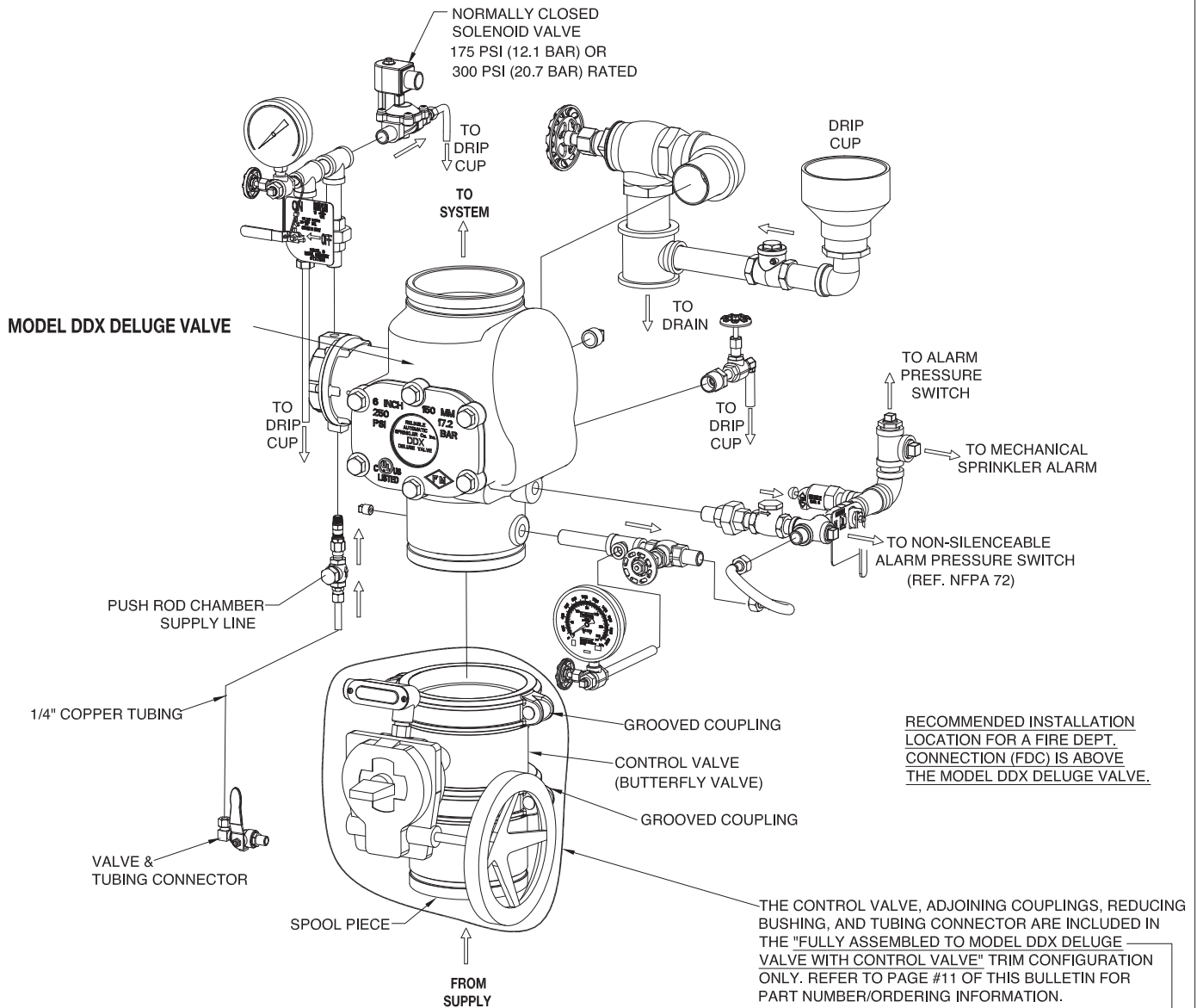
- INDIVIDUAL PARTS (MODEL DDX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL DDX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL DDX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL DDX DELUGE VALVE WITH CONTROL VALVE\*

\*NOT AVAILABLE WITH 76MM OR 165MM MODEL DDX VALVE

518FG05A

Fig. 5

# ELECTRIC ACTUATION DELUGE TRIM



**AVAILABLE TRIM CONFIGURATIONS:**

- INDIVIDUAL PARTS (MODEL DDX DELUGE VALVE SOLD SEPARATELY)
- SEGMENTALLY ASSEMBLED (MODEL DDX DELUGE VALVE SOLD SEPARATELY)
- FULLY ASSEMBLED TO MODEL DDX DELUGE VALVE WITHOUT CONTROL VALVE
- FULLY ASSEMBLED TO MODEL DDX DELUGE VALVE WITH CONTROL VALVE\*

\*NOT AVAILABLE WITH 76MM OR 165MM MODEL DDX VALVE

518FG06A

Fig. 6

**Table A**

Water Pressure psi (bar)	Pneumatic Pressure to be Pumped into Sprinkler System psi (bar)	
	Maximum	Not Less Than Not More Than
20 (1.4)	10 (.7)	14 (1.0)
50 (3.4)	12 (.8)	16 (1.1)
75 (5.2)	13 (.9)	17 (1.2)
100 (6.9)	15 (1.)	19 (1.3)
125 (8.6)	16 (1.1)	20 (1.4)
150 (10.3)	17 (1.2)	21 (1.4)
175 (12.1)	18 (1.2)	22 (1.5)
200 (13.8)	19 (1.3)	23 (1.6)
225 (15.5)	21 (1.4)	25 (1.7)
250 (17.2)	22 (1.5)	26 (1.8)
275 (19.)	23 (1.6)	27 (1.9)
300 (20.7)	24 (1.7)	28 (1.9)

**\*Note:** During system set-up, a higher pneumatic pressure may be required in order to properly set the Model LP Dry Valve Actuator.

The Electric Actuation Trim (see Fig. 8 or Fig. 9) is used when electric detection and releasing are desired. This trim set includes a solenoid valve (175 psi (12.1 bar) or 300 psi (20.7 bar) rated), one and one quarter main drain for 2" (50mm), 2½" (65mm), 76mm & 3" (80mm) valve sizes or a two inch main drain for 4" (100mm), 6" (150mm), 165mm & 8" (200mm) valve sizes, alarm test supply pressure gauge, push rod chamber pressure gauge, push rod chamber supply connections, and the Model B Hydraulic Manual Emergency Station. Detailed description of electrical operation can be found in Bulletins 707 and 708.

The Model B Hydraulic Manual Emergency Station is a standard item in all trim sets. However, the Model A Hydraulic Manual Emergency Station, described in Bulletin 506, is also available as an option.

All Model DDX Deluge Valves are listed by Underwriters Laboratories, Inc, and certified by UL for Canada (cULus) and certified by Factory Mutual Approvals, only when used with the valve manufacturer's trim sets.

**Ordering Information**

Specify:

- Valve Model & Size

Valve Part Numbers			
Valve Size & End Connection	Flange Type	Color	Reliable Part Number
2" (50mm) Grv/Grv	N/A	Black	6103022000
		Red	6103022001
2½" (65mm) Grv/Grv	N/A	Black	6103022500
		Red	6103022501
3" (80mm) Grv/Grv	N/A	Black	6103030000
		Red	6103030001
76mm Grv/Grv	N/A	Red	6103027600
4" (100mm) Grv/Grv	N/A	Black	6103040026
		Red	6103040030
4" (100mm) Flg/Grv	ASME Class 150	Black	6103040044
	ASME Class 150	Red	6103040046
	ISO PN16	Red	6103040048
4" (100mm) Flg/Flg	ASME Class 150	Black	6103040045
	ASME Class 150	Red	6103040047
	ISO PN16	Red	6103040049
6" (168mm) Grv/Grv	N/A	Black	6103060024
		Red	6103060030
6" (168mm) Flg/Grv	ASME Class 150	Black	6103060045
	ASME Class 150	Red	6103060047
	ISO PN16	Red	6103060049
6" (168mm) Flg/Flg	ASME Class 150	Black	6103060046
	ASME Class 150	Red	6103060048
	ISO PN16	Red	6103060050
165mm Grv/Grv	N/A	Red	6103060028
165mm Flg/Grv	ASME Class 150	Red	6103060051
	ISO PN16	Red	6103060052
8" (200mm) Grv/Grv	N/A	Black	6103080001
		Red	6103080003
8" (200mm) Flg/Flg	ASME Class 150	Black	6103080016
	ASME Class 150	Red	6103080018
	ISO PN16	Red	6103080020



- **Trim** — Wet Pilot Trim, Dry Pilot Trim, or Electric Actuation Trim. Each trim set is available in individual parts, in time-saving, segmentally assembled kit forms, or fully assembled to the Model DDX Deluge Valve with or without a control valve). The Electric Actuation trim is available with a 175 psi (12.1 bar) or 300 psi (20.7 bar) rated solenoid valve.

## Wet Pilot Line Deluge

Trim Part Numbers								
Valve Size & End Connection	Trim Configurations							
	Flange Type	Color	Individual Parts (Model DDX Valve Sold Separately)	Segmentally Assembled (Model DDX Valve Sold Separately)	Fully Assembled to Model DDX Valve w/o Control Valve	Fully Assembled to Model DDX Valve w/ Control Valve		
2" (50mm) Grv/Grv	N/A	Black	6503002004	6503002005	6505020001	6505020000		
		Red			6505A20001	6505A20000		
2½" (65mm) Grv/Grv	N/A	Black			6505022501	6505022500		
		Red			6505A22501	6505A22500		
3" (80mm) Grv/Grv	N/A	Black			6505030001	6505030000		
		Red			6505A30001	6505A30000		
76mm Grv/Grv	N/A	Red			6505A27601	N/A		
4" (100mm) Grv/Grv	N/A	Black			6503001002	6503001003	6505040201	6505040200
		Red					6505A40201	6505A40200
4" (100mm) Flg/Grv	ASME Class 150	Black					6505043201	N/A
	ASME Class 150	Red					6505A43201	
	ISO PN16	Red					6505A44201	
4" (100mm) Flg/Flg	ASME Class 150	Black	6505047201	N/A				
	ASME Class 150	Red	6505A47201					
	ISO PN16	Red	6505A48201					
6" (168mm) Grv/Grv	N/A	Black	6505060201	6505060200				
		Red	6505A60201	6505A60200				
6" (168mm) Flg/Grv	ASME Class 150	Black	6505063201	N/A				
	ASME Class 150	Red	6505A63201					
	ISO PN16	Red	6505A64201					
6" (168mm) Flg/Flg	ASME Class 150	Black	6505067201	N/A				
	ASME Class 150	Red	6505A67201					
	ISO PN16	Red	6505A68201					
165mm Grv/Grv	N/A	Red	6505A65201	N/A				
165mm Flg/Grv	ASME Class 150	Red	6505A66201	N/A				
	ISO PN16	Red	6505A69201					
8" (200mm) Grv/Grv	N/A	Black	6505080201	6505080200				
		Red	6505A80201	6505A80200				
8" (200mm) Flg/Flg	ASME Class 150	Black	6505087201	N/A				
	ASME Class 150	Red	6505A87201					
	ISO PN16	Red	6505A88201					

**Note:** For metric installations, a 1¼" NPT x R1¼. ISO 7/1 x Close Nipple (Reliable P/N 98543403) or a 2" NPT x R2. ISO 7/1 x Close Nipple (Reliable P/N 98543401) is sold separately as an adapter for the single drain outlet of the trims.

- **Additional equipment** — Air compressors, electric detection, actuation equipment, and mechanical sprinkler alarms must be ordered separately. These devices are described in Bulletin 700.

## Dry Pilot Deluge

Trim Part Numbers						
Valve Size & End Connection	Trim Configurations					
	Flange Type	Color	Individual Parts (Model DDX Valve Sold Separately)	Segmentally Assembled (Model DDX Valve Sold Separately)	Fully Assembled to Model DDX Valve w/o Control Valve	Fully Assembled to Model DDX Valve w/ Control Valve
2" (50mm) Grv/Grv	N/A	Black	6503002108	6503002109	6505020006	6505020005
		Red			6505A20006	6505A20005
2½" (65mm) Grv/Grv	N/A	Black			6505022506	6505022505
		Red			6505A22506	6505A22505
3" (80mm) Grv/Grv	N/A	Black			6505030006	6505030005
		Red			6505A30006	6505A30005
76mm Grv/Grv	N/A	Red			6505A27606	N/A
4" (100mm) Grv/Grv	N/A	Black			6505040206	6505040205
		Red			6505A40206	6505A40205
4" (100mm) Flg/Grv	ASME Class 150	Black			6505043206	N/A
	ASME Class 150	Red	6505A43206			
	ISO PN16	Red	6505A44206			
4" (100mm) Flg/Flg	ASME Class 150	Black	6505047206	N/A		
	ASME Class 150	Red	6505A47206			
	ISO PN16	Red	6505A48206			
6" (168mm) Grv/Grv	N/A	Black	6505060206	6505060205		
		Red	6505A60206	6505A60205		
6" (168mm) Flg/Grv	ASME Class 150	Black	6505063206	N/A		
	ASME Class 150	Red	6505A63206			
	ISO PN16	Red	6505A64206			
6" (168mm) Flg/Flg	ASME Class 150	Black	6505067206	N/A		
	ASME Class 150	Red	6505A67206			
	ISO PN16	Red	6505A68206			
165mm Grv/Grv	N/A	Red	6505A65206	N/A		
165mm Flg/Grv	ASME Class 150	Red	6505A66206	N/A		
	ISO PN16	Red	6505A69206			
8" (200mm) Grv/Grv	N/A	Black	6505080206	6505080205		
		Red	6505A80206	6505A80205		
8" (200mm) Flg/Flg	ASME Class 150	Black	6505087206	N/A		
	ASME Class 150	Red	6505A87206			
	ISO PN16	Red	6505A88206			
6" (168mm) Grv/Grv	N/A	Black	6503001107	6503001108	6505060206	6505060205
		Red			6505A60206	6505A60205
		Black			6505063206	N/A
		Red			6505A63206	N/A
		Black			6505067206	N/A
		Red			6505A67206	N/A
		Black			6505068206	N/A
		Red			6505A68206	N/A
		Black			6505065206	N/A
		Red			6505A65206	N/A
Black	6505066206	N/A				
Red	6505A66206	N/A				
Black	6505069206	N/A				
Red	6505A69206	N/A				
Black	6505080206	6505080205				
Red	6505A80206	6505A80205				
Black	6505087206	N/A				
Red	6505A87206	N/A				
Black	6505088206	N/A				
Red	6505A88206	N/A				

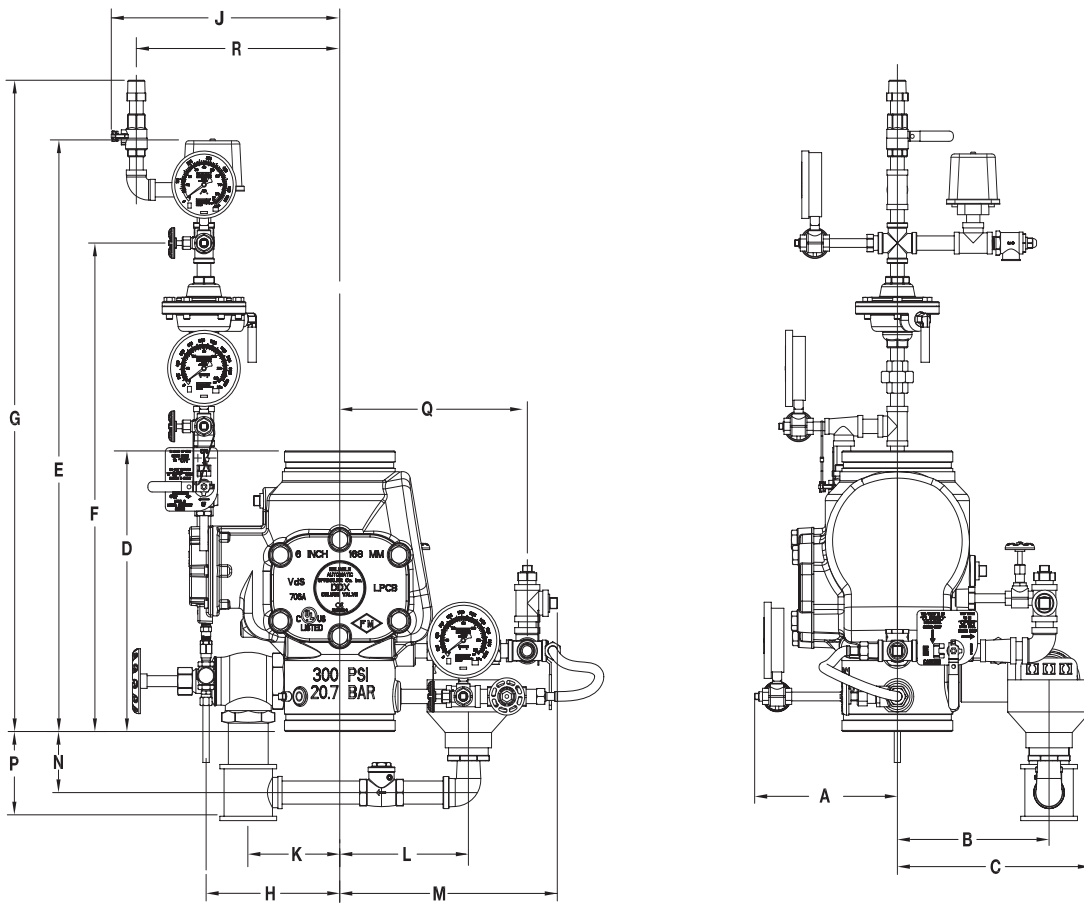
## Electric Actuation Deluge (Explosion Proof Solenoid Available Upon Request)

Trim Part Numbers									
Valve Size & End Connection	Trim Configurations								
	Flange Type	Color	Individual Parts (Model DDX Valve Sold Separately)	Segmentally Assembled (Model DDX Valve Sold Separately)	Fully Assembled to Model DDX Valve w/o Control Valve	Fully Assembled to Model DDX Valve w/ Control Valve			
<b>175 PSI</b>	2" (50mm) Grv/Grv	N/A	6503002507	6503002508	Black	6505020011			
					Red	6505A20011			
	2½" (65mm) Grv/Grv	N/A			Black	6505022511	6505022510		
					Red	6505A22511	6505A22510		
	3" (80mm) Grv/Grv	N/A			Black	6505030011	6505030010		
					Red	6505A30011	6505A30010		
	76mm Grv/Grv	N/A			Red	6505A27611	N/A		
	4" (100mm) Grv/Grv	N/A			Black	6505040211	6505040210		
					Red	6505A40211	6505A40210		
	4" (100mm) Flg/Grv	ASME Class 150			Black	6503001505	6503001507	6505043211	N/A
		ASME Class 150			Red			6505A43211	
		ISO PN16			Red			6505A44211	
	4" (100mm) Flg/Flg	ASME Class 150			Black	6503001505	6503001507	6505047211	N/A
		ASME Class 150			Red			6505A47211	
		ISO PN16			Red			6505A48211	
	6" (168mm) Grv/Grv	N/A			Black	6503001505	6503001507	6505060211	6505060210
					Red			6505A60211	6505A60210
	6" (168mm) Flg/Grv	ASME Class 150			Black	6503001505	6503001507	6505063211	N/A
ASME Class 150		Red	6505A63211						
ISO PN16		Red	6505A64211						
6" (168mm) Flg/Flg	ASME Class 150	Black	6503001505	6503001507	6505067211	N/A			
	ASME Class 150	Red			6505A67211				
165mm Grv/Grv	N/A	Red	6503001505	6503001507	6505A68211	N/A			
165mm Flg/Grv	ASME Class 150	Red			6505A65211	6505A66211	N/A		
8" (200mm) Grv/Grv	N/A	Black	6503001505	6503001507	6505A69211	6505080210			
		Red			6505080211	6505080210			
8" (200mm) Flg/Flg	ASME Class 150	Black	6503001505	6503001507	6505087211	N/A			
	ASME Class 150	Red			6505A87211				
	ISO PN16	Red			6505A88211				
<b>250 PSI</b>	2" (50mm) Grv/Grv	N/A	6503002511	6503002512	Black	6505020016			
					Red	6505A20016			
	2½" (65mm) Grv/Grv	N/A			Black	6505022516	6505022515		
					Red	6505A22516	6505A22515		
	3" (80mm) Grv/Grv	N/A			Black	6505030016	6505030015		
					Red	6505A30016	6505A30015		
	76mm Grv/Grv	N/A			Red	6505A27616	N/A		
	4" (100mm) Grv/Grv	N/A			Black	6505040216	6505040215		
					Red	6505A40216	6505A40215		
	4" (100mm) Flg/Grv	ASME Class 150			Black	6503001506	6503001508	6505043216	N/A
		ASME Class 150			Red			6505A43216	
		ISO PN16			Red			6505A44216	
	4" (100mm) Flg/Flg	ASME Class 150			Black	6503001506	6503001508	6505047216	N/A
		ASME Class 150			Red			6505A47216	
		ISO PN16			Red			6505A48216	
	6" (168mm) Grv/Grv	N/A			Black	6503001506	6503001508	6505060216	6505060215
					Red			6505A60216	6505A60215
	6" (168mm) Flg/Grv	ASME Class 150			Black	6503001506	6503001508	6505063216	N/A
ASME Class 150		Red	6505A63216						
ISO PN16		Red	6505A64216						
6" (168mm) Flg/Flg	ASME Class 150	Black	6503001506	6503001508	6505067216	N/A			
	ASME Class 150	Red			6505A67216				
165mm Grv/Grv	N/A	Red	6503001506	6503001508	6505A68216	N/A			
165mm Flg/Grv	ASME Class 150	Red			6505A65216	6505A66216	N/A		
8" (200mm) Grv/Grv	N/A	Black	6503001506	6503001508	6505A69216	6505080215			
		Red			6505080216	6505080215			
8" (200mm) Flg/Flg	ASME Class 150	Black	6503001506	6503001508	6505087216	N/A			
	ASME Class 150	Red			6505A87216				
	ISO PN16	Red			6505A88216				

Nominal Pipe Size	Installation Dimensions in Inches (mm)																		
	A	B	C	D*	D**	D***	D****	E	F	G	H	J	K	L	M	N	P	Q	R
2" (50 mm)	8 (203)	7 (178)	9½ (241)	12½ (318)	21¼ (540)	N/A	N/A	31 (787)	25 (635)	32½ (826)	6 (152)	11¾ (298)	4¼ (108)	5½ (140)	11 (279)	3 (76)	4½ (114)	9¼ (235)	10¼ (260)
2½" (65 mm), 3" (80 mm) & 76 mm	8 (203)	7 (178)	9½ (241)	12½ (318)	22 (559)	N/A	N/A	31 (787)	25 (635)	32½ (826)	6 (152)	11¾ (298)	4¼ (108)	5½ (140)	11 (279)	3 (76)	4½ (114)	9¼ (235)	10¼ (260)
4" (100 mm)	8½ (216)	8 (203)	10½ (267)	14 (356)	24 (616)	16 (406)	16 (406)	31 (787)	25 (635)	32½ (826)	7½ (191)	13¼ (337)	5½ (140)	8¼ (210)	13½ (343)	5 (127)	6¾ (171)	11¼ (298)	11¾ (298)
6" (150 mm) & 165 mm	8½ (216)	9 (229)	11½ (292)	16 (406)	26¾ (673)	19 (483)	19 (483)	33½ (851)	27½ (699)	35 (889)	8 (203)	13¾ (349)	5½ (140)	8¼ (210)	13¾ (349)	4¾ (121)	6½ (165)	12 (305)	12¼ (311)
8" (200 mm)	8½ (216)	9¾ (248)	12¼ (311)	19⅞ (492)	30¾ (781)	N/A	21¼ (540)	33¾ (857)	27¾ (705)	35¼ (895)	9 (229)	14¾ (375)	5½ (140)	8¼ (210)	14½ (368)	3½ (89)	5¼ (133)	12¾ (324)	13¼ (337)

D\* is total takeout for Fully Assembled to Grv/Grv DDX Valve w/o Control Valve Configurations  
D\*\* is total takeout for Fully Assembled to Grv/Grv DDX Valve w/ Control Valve Configurations  
D\*\*\* is total takeout for Fully Assembled to Flg/Grv DDX Valve w/o Control Valve Configurations  
D\*\*\*\* is total takeout for Fully Assembled to Flg/Flg DDX Valve w/o Control Valve Configurations

**DRY PILOT LINE TRIM SHOWN (FULLY ASSEMBLED WITHOUT CONTROL VALVE)**



518BKPA

The equipment presented in this bulletin is to be installed in accordance with the latest published Standards of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable. Products manufactured and distributed by Reliable have been protecting life and property for almost 100 years.

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