

Reliable®

Model TD Test and Drain Valve

300 psi (20.7 bar) pressure rated

cULus Listed, FM Approved

Product Description

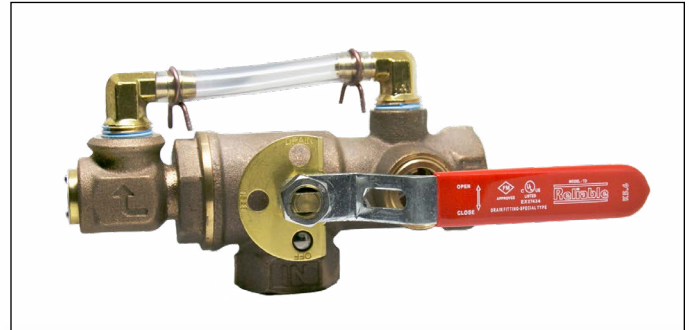
The Reliable Model TD Test and Drain Valve is a single-handle, tri-position ball valve allowing both testing of the waterflow alarm and draining of a wet-pipe fire protection system. The valves are cULus Listed and FM Approved. The Model TD Valve has a pressure rating of 300 psi (20.7 bar), and is factory tested at 600 psi (41.1 bar).

Model TD Test and Drain Valves have a restricted orifice with the available K-factors listed in Table A. Nominal valve sizes are 1", 1-1/4", and 2" with either NPT or ISO7-1 female threaded connections. 1-1/4" and 2" versions are also available with ANSI/AWWA C606 grooved inlet connections. Table C identifies the materials used in the Model TD valve.

The Model TD valve is available with an optional relief valve kit. The relief valve kit includes a Reliable Model A relief valve along with a hose and all fittings needed to connect the relief valve to the Model TD valve. The Model A relief valve is UL Listed and FM Approved for use on fire protection systems. The Model A relief valve is available with a nominal pressure rating of 175 psi (12 bar), 185 psi (13 bar), 210 psi (14 bar), 260 psi (18 bar), or 310 psi (21 bar). See Reliable Technical Bulletin 257 for additional information on the Model A relief valve. An optional locking handle kit is available for use with customer supplied padlocks.

Installation

Connect the "IN" port of the Model TD valve to the wet-pipe sprinkler system. Connect the "OUT" port to a properly sized drain. The optional relief valve kit is installed as shown in the photographs in this bulletin after removing the plugs in the cap and body of the Model TD valve. The relief valve is commonly installed after hydrostatic testing.



Model TD Test & Drain Valve 1" with optional relief valve kit; threaded inlet



Model TD Test & Drain Valve 2" with optional relief valve kit; grooved inlet

Operation

To run a test, rotate the handle counter-clockwise until the "Test" position is aligned with the ball detent. Note that rotating the valve to the "test" position is intended to operate the sprinkler system's waterflow alarm. To drain, rotate the handle further until the "Drain" position is aligned with the ball detent. Return the handle to the "Off" position when all testing and draining functions have been completed.

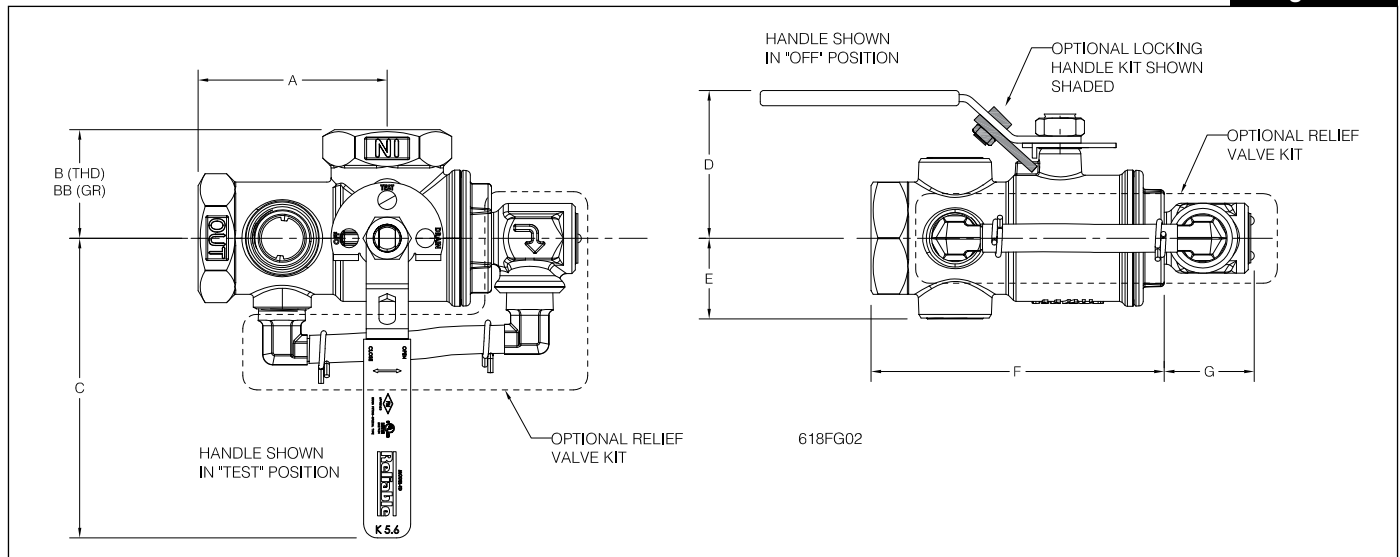
Table A

Nominal Valve Size	Available K-factors* gpm/psi ^{1/2} (L/min/bar ^{1/2})	Inlet Connection	Outlet Connection
1"	2.8 (40), 4.2 (60), 5.6 (80)	NPT, ISO7-1 Threaded	NPT, ISO7-1 Threaded
1 1/4"	2.8 (40), 4.2 (60), 5.6 (80), 8.0 (115), 11.2 (160)	NPT, ISO7-1 Threaded	
2"	2.8 (40), 4.2 (60), 5.6 (80), 8.0 (115), 11.2 (160), 16.8 (240)	C606 Grooved	

***Note:** Valve K-factor must be equal to or less than the K-factor of the smallest K-factor sprinkler installed on the sprinkler system. For sprinkler systems where the smallest K-factor sprinkler on the system is greater than the largest available valve K-factor, use any valve K-factor that will provide a min. flow of 10 gpm (38 lpm) as required to operate a UL Listed Waterflow Switch.

Model TD Test and Drain Valve with optional relief valve kit & locking handle kit

Figure 1



Component Dimensions (refer to Figure 1)

Table B

Valve Size	A	B	BB	C	D	E	F	G
Model TD Test and Drain 1" Valve	3-3/8" (86mm)	1-11/16" (43mm)	N/A	5-1/2" (140mm)	2-9/16" (65mm)	1-7/16" (37mm)	5-1/4" (133mm)	1-3/4" (44mm)
Model TD Test and Drain 1-1/4" Valve	3-3/8" (86mm)	1-15/16" (49mm)	2-5/16" (59mm)	5-1/2" (140mm)	2-5/8" (67mm)	1-7/16" (37mm)	5-1/4" (133mm)	1-3/4" (44mm)
Model TD Test and Drain 2" Valve	4-1/16" (103mm)	2-7/8" (73mm)	2-7/8" (73mm)	7-5/8" (194mm)	3-1/2" (89mm)	1-15/16" (49mm)	6-3/4" (171mm)	1-3/4" (44mm)

Materials

Table C

Component	Material
Body	Brass alloy
Stem seal	Nitrile
End cap seal	Nitrile
Stem washer	PTFE
Nest	PTFE
Stem	Brass alloy
Ball	Chrome plated brass alloy
End cap	Brass alloy
Spring detent	Stainless steel
Ball detent	Stainless steel
Plate washer	Delrin
Function plate	Brass alloy
Handle	Plated carbon steel
Nut, handle	Stainless steel
Sight glass seal	EPDM
Sight glass	Glass
Sight glass gasket	PTFE
Sight glass retainer	Brass alloy
Pipe plug	Brass alloy

Maintenance

Reliable Model TD valve should be inspected and the sprinkler system maintained in accordance with NFPA 25, as well as the requirements of any Authorities Having Jurisdiction.

Guarantee

For the Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Ordering Information

Specify the following when ordering:

Model TD Test and Drain Valve

Valve Size (1", 1-1/4", 2")

K-factor (See Table A)

Inlet/Outlet Connection (Thd x Thd [all sizes], Gr x Thd [1-1/4" & 2" sizes only])

Threads (NPT, ISO7-1)

Optional Accessories:

Relief Valve Kit [175 psi (12 bar), 185 psi (13 bar), 210 psi (14 bar), 260 psi (18 bar), or 310 psi (21 bar)]

Locking Handle Kit

1" & 1-1/4" Valve size P/N 6990021646

2" Valve size P/N 6990021647