PRESSURE CONTROL VALVES

Model FP-43T

Pressure Relief Valve



PRODUCT DESCRIPTION

The relief valve model FP-43T is used to relief excess of water pressure in fire protection systems. It is ideal for maintaining the pressure at the fire pump discharge. It is also adequate for maintaining foam concentrate discharge pressure for a balanced proportioning system.

TECHNICAL DATA

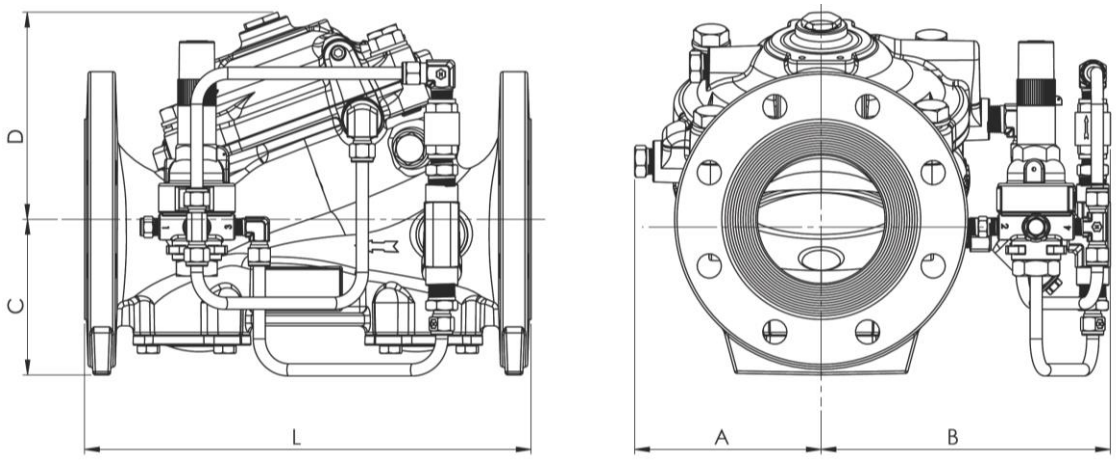
Model	FP-43T
Sizes	1 ½", 2", 3", 4", 6", 8" & 10"
End connections	Flanged: ANSI#150 & ANSI#300 for all sizes Threaded: NPT or BSP 1 ½" or 2" Grooved: ANSI/AWWA C606 for 1 ½", 2", 3", 4", 6"& 8"
Maximum working pressure	365 psi (25 bar) for #300, PN25 or threaded or grooved connection 232psi (16 bar) for #150, PN16 or threaded or grooved connection
Maximum differential for pump-relief valve	350 psi (25 bar)
Maximum differential for PCV duty	175 psi (12 bar)
Water temperature	33 ºF to 122 ºF (0,5 ºC to 50 ºC)
Finish	Red RAL 3000

DIMENSIONS

SIZES	1 ½" DN40	2" DN50	3" DN80	4" DN100	6" DN150	8" DN200	10" DN250
L_1 mm (inch)	230 (9,06)	230 (9,06)	310 (12,21)	350 (13,79)	480 (18,91)	600 (23,64)	730 (28,76)
L_2 mm (inch)	230 (9,06)	235 (9,25)	326 (12,84)	368 (14,50)	506 (19,94)	626 (24,66)	730 (28,76)
A mm (inch)	77,5 (3)	77,5 (3)	100 (3,94)	115 (4,53)	140 (5,51)	172 (6,77)	204 (8)
B mm (inch)	155 (6,10)	155 (6,10)	251 (9,88)	266 (10,47)	372 (14,65)	490 (19,29)	490 (19,29)
C mm (inch)	64 (2,52)	77 (3,03)	106 (4,17)	121 (4,76)	140 (5,51)	172 (6,77)	204 (8,03)
D mm (inch)	120 (4,69)	120 (4,69)	146 (5,75)	158 (6,22)	228 (9)	295 (11,65)	296 (11,65)
Kv m^3/h (Cv gpm)	68 (79)	80 (92)	190 (219)	345 (398)	790 (912)	1160 (1340)	1355 (1565)
Leq m (ft)	2 (7)	5 (16)	7 (23)	9 (30)	15 (49)	27 (89)	62 (203)
Kg (lb) Flanged	17,9 (39,4)	12,8 (28,2)	27,5 (60,5)	37,5 (82,5)	81 (178)	146 (321)	176 (387)

Notes: 1. L_1 is for grooved, threaded and ANSI#150 flanged valves.
2. L_2 is for ANSI#300 flanged valves.
3. Leq: equivalent pipe length.
4. Data is for maximum envelope dimensions, component positioning may vary.
5. Provide adequate space around valve for maintenance.

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OPERATION

A typical installation of the relief valve model FP-43T features a pilot valve for the automatic and accurate maintenance of a constant preset maximum upstream pressure, regardless of fluctuating demand.

When the inlet pressure is lower the preset pressure, the relief valve keeps closed. When the inlet pressure is above the relief preset pressure the relief valve opens, and it allows relieving the excess flow and pressure. After relieving excess pressure, when the inlet pressure is below the preset pressure the valve closes slowly again.

The preset pressure can be adjusted by way of the pilot adjusting screw.

The fast response of the FP-43T preempts pressure reducing valve reaction preventing overpressure peak damage to sensitive equipment.

RELIEF VALVE SIZING

FP-42T REDUCING VALVE	3” DN80	4” DN100	6” DN150	8” DN200	10” DN250
FP-43T RELIEF VALVE	2” DN50	2” DN50	3” DN80	3” DN80	4” DN100

INSTALLATION, TESTING AND MAINTENANCE

The relief valve model FP-43T must be installed, inspected and tested by a qualified and trained person according to NFPA-20 requirements.

Before assembly of the relief valve to the supply piping, thoroughly flush the piping with water to avoid sand, residue, welding slag or other debris hindering the proper functioning of the valve. After few initial successful tests, an authorized person must be trained to perform the inspection and testing of the relief valve.

It must be inspected regularly for possible damage or dirt around the moving parts. If any abnormal conditions are observed such as poor discharge, excessive wear, water leak, corrosion effect, damage etc., then relief valve must be taken out of service and repaired by qualified technician or replaced.

The relief valve should be ready for use. To achieve this condition, scheduled inspection and maintenance operation should be performed and it must be recorded in the maintenance register book indicating the requirement or recommendation. The recommended maintenance, procedure must be followed as given in the manual and also as per the local authority having jurisdiction.

Periodic proper greasing through grease nipple provided on bearing, worm wheel and worm shaft must be ensured. Use water resistant low friction synthetic grease.

The owner is responsible for maintenance of the relief valve in proper operating condition.

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ORDERING INFORMATION

SIZE	MAXIMUM PRESSURE - 232 psi (16		MAXIMUM PRESSURE - 365 psi (25 bar)			
	FLANGE ANSI B16.5 #150	FLANGE ISO PN16	FLANGE ANSI B16.5 #300	FLANGE ISO PN25	THREAD	GROOVE
1 ½" DN40	VLA43TA5C0400	VLA43TA5C0401	VLA43TA3C0400	VLA43TA3C0401	VLA43TA3C0402	VLA43TA3C0403
2" DN50	VLA43TA5C0500	VLA43TA5C0501	VLA43TA3C0500	VLA43TA3C0501	VLA43TA3C0502	VLA43TA3C0503
3" DN80	VLA43TA5C0800	VLA43TA5C0801	VLA43TA3C0800	VLA43TA3C0801		VLA43TA3C0803
4" DN100	VLA43TA5C1000	VLA43TA5C1001	VLA43TA3C1000	VLA43TA3C1001		VLA43TA3C1003
6" DN150	VLA43TA5C1500	VLA43TA5C1501	VLA43TA3C1500	VLA43TA3C1501		VLA43TA3C1503
8" DN200	VLA43TA5C2000	VLA43TA5C2001	VLA43TA3C2000	VLA43TA3C2001		VLA43TA3C2003
10"DN250	VLA43TA5C2500	VLA43TA5C2501	VLA43TA3C2500	VLA43TA3C2501		

Specify:

Model number	
Quantity	
Size of valve	
End connection	

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  - Accessories
- System Valves
  - Wet
  - Dry
  - Preaction Equipment
  - Accessories
- Spray System Open Nozzles
  - High Velocity Nozzles
  - Medium Velocity Nozzles
  - Window Nozzles
  - Hydroshield Nozzles
  - Mushroom Type Nozzles
- Foam equipment
  - Bladder Tanks
  - Proportioners for Bladder Tanks
  - Foam Discharge Equipment
  - Foam Concentrates
- Alarm Check Valves for Water Spray and Foam
  - Clapper Deluge Valves
  - Diaphragm Deluge Valves
- Monitors
  - Manual Monitors
  - Remote Monitors
  - Monitor Towers
  - Monitors Trolleys
- Valves
  - Butterfly Valves
  - Gate Valves
  - Check Valves
  - Pressure Control Valves
  - Test and Drain
  - Hose, Hydrant and Fire Connection Valves
  - Fire Department Connections

The equipment presented in this data sheet is to be installed in accordance with the latest published Standards of the national fire protection association (NFPA), FM Global, LPCB, VdS or other similar organizations, also with the provisions of governmental codes or ordinances whenever applicable.
This documentation is not contractual. AG Fire Sprinkler reserves the right to any kind of change without notice.

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