أزيدك للمقاولات العامة
وأعمال الإلكتروميكانيكال
Azeidk for General Contracting & MEP Solutions

FOAM BLADDER TANK WITH CONCENTRATE CONTROL VALVE



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المقر الرئيسي - جدة:
برج الصفا، مقابل عزيز مول، أعلى شركة عبداللطيف جميل، مبنى A، الدور الثالث، مكتب رقم ٣٤٠.
الرياض:
حي الملز، شارع صلاح الدين، بجوار شركة زين، الدور الثاني، مكتب رقم ١٦.

APPLICANTION

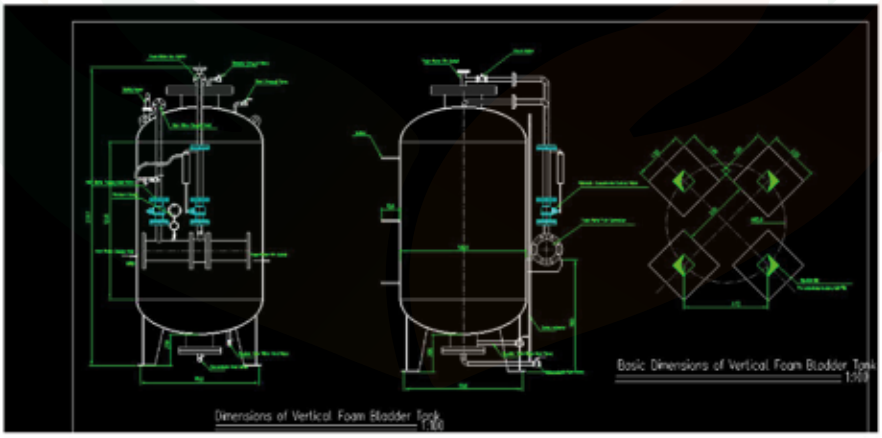
The Foam bladder tank , together with foam ratio flow controller & hydraulic concentrate control valve , form a balanced pressure proportioning system used to mix water and fire fighting foam together to generate an effective extinguishing medium to mix water and fire fighting foam together to generate an effective extinguishing medium .

The bladder tank technology is a reliable and precise mixing method that is widespread in the fire fighting industry. This method allows the water/foam ration to remain stable by automatically adjusting the variable flow rates and pressure conditions that may occur during system operation.

This feature makes bladder tank particularly suitable for multiple hazard systems, sprinkler systems and any other system operation under variable, non predictable, flow and pressure conditions

FUNCTIONAL DESCRIPTION

The bladder tank is a carbon steel pressure vessel containing an elastomeric separation bladed between the water and foam concentrate. The bladder permits water pressure to be Trans feed to the foam concentrate without the two fluids mixing together. A ratio controller, as described in a separate date sheet, generates a water pressure drop by means of a reduced cross section where t water stream passes through it. As the foam concentrate pressure is higher than the pressure at the station controller, the foam starts flowing towers the water and mixing at a calibrated Tate, which is dependent on the water flow rate.



CONSTRUCTION FEATURES

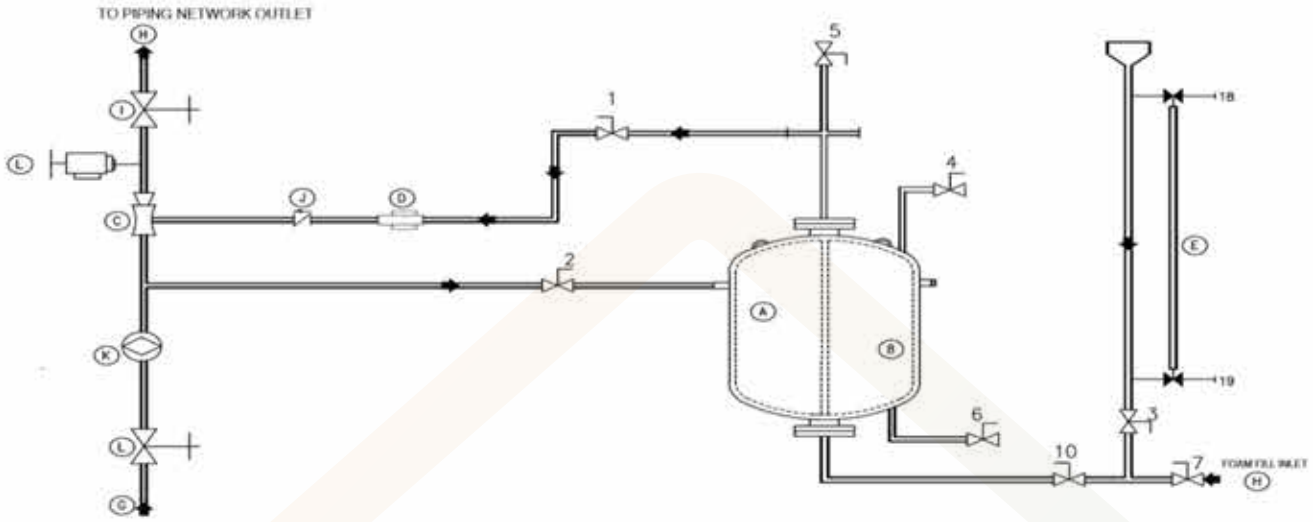
Vertical type on legs or horizontal type on saddles.
Legs and saddles are provided with fixing holes .
Design pressure 12 bar .
100% pressure tested according to the applied design code but not less than 16 bar
Water and foam piping .
Machine welded circuferantial and longitudinal seams for maximum quality and durability .
Welded lifting lugs for easy handling operations .
Thermal relief valve provided on the water side
Tank equipment with inside protection at any opening to ensure no damage to the bladder .
Nameplate in corrosion resistant material.
Nameplate holder to avoid undetected corrosion on the tank's sheel behind the plate.

WORKING PRINCIPLE & SYSTEM STRUCTURE

1) Working Principle

When pressurized water from the supply pump enters the foam ratio controller through the inlet pipe and valve, the majority flows into the main pipeline and the throttling device of foam ratio controller. Based on fluid dynamics principles, a low-pressure zone is formed downstream of the throttling device. A small portion of the water enters the inlet pipe and flows into the storage tank, compressing the diaphragm. Under the pressure of the water, the fire extinguishing agent inside the bladder is forced through the outlet pipe and valve into the low-pressure zone of the foam ratio controller. Here, water and the foam concentrate are automatically mixed in a specific ratio to form a foam solution. This mixture is then transported via pipelines to foam generators and discharge equipment for fire suppression.

2) System Structure



COMPONENT DESCRIPTION

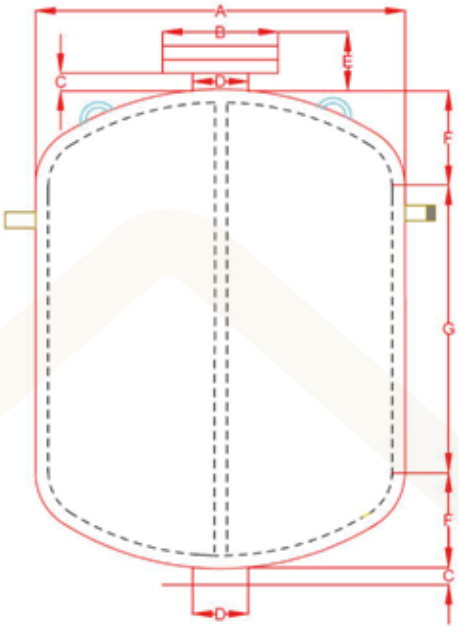
A. Storage Tank
B. Bladder
C. Foam Ratio Flow Controller
D. Hydraulic Concentrate Control Valve
E. Level Indicator
F. Fill Cup
G. Main Water Supply Inlet
H. Foam Water Mix Outlet
I. Isolation Gate Valve (OS & Y)
J. Swing Check Valve
K. Alarm Check Valve /Deluge Valve
L. Foam Water Mix -Testing Outlet Valve
M. Foam Fill Inlet

VLAVE DESCRIPTION (AS PER ABOVE)

1. Manual Concentrate Shut-off Valve (by others)
2. Water Inlet Shut-off Valve (by others)
3. Fill cup Shutt-off Valve
4. Bladder Tank Water Vent Valve
5. Diaphragm Concentrate / Bladder Vent Valve
6. Shell Drain Valve
7. Concentrate Drain / Fill
8. Upper sight Guage Valve
9. Lower Sight Guage Valve
10. Fill Line Master Shutt-off

MAIN PARAMETER

1) Foam Bladder Tank



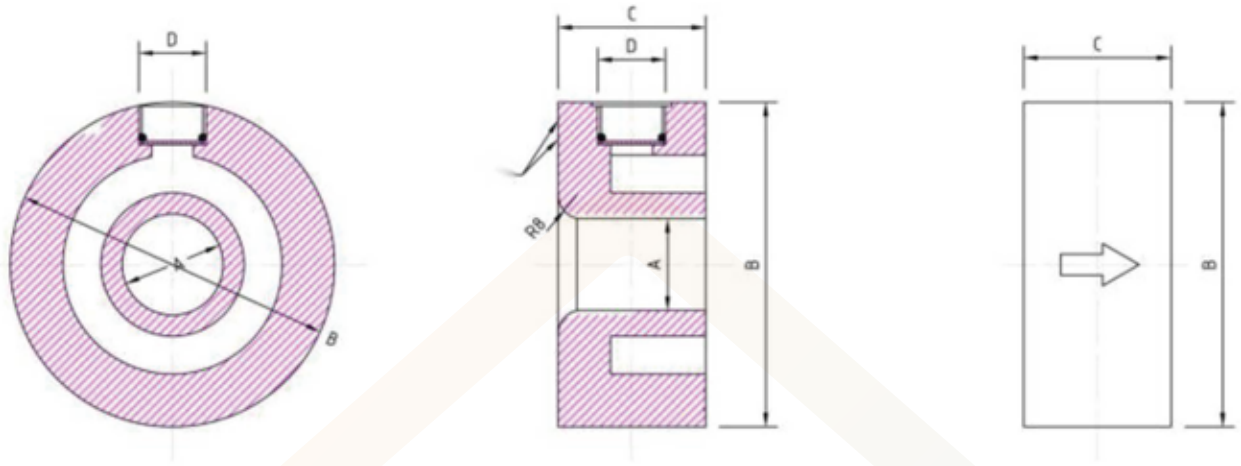
Model	Capacity	A	B	C	D	E	F	G
WB25	25 GLN	420	219	100	100	130	125	700
WB50	50 GLN	520	219	100	100	130	150	800
WB100	100 GLN	700	273	100	100	130	200	750
WB150	150 GLN	700	273	100	100	130	200	1260
WB200	200 GLN	800	273	100	100	130	225	1200

2) Foam Ratio Flow Controller

A ratio controller is a device that, under calibrated conditions, mixes water and foam concentrate in a specific ratio to form a mixed solution. This solution is then delivered to end-use foam generation equipment for fire suppression purposes.

The common ratio controller models are distinguished according to the flow rate, such as PH24/PH32/PH48, etc., which represents the flow rate of 24L/S, 32L/S, 48L/S.
Working pressure range: 0.6MPa-1.2MPa;
Foam ratio flow controller: 3% (Can be choose 6% after adjustment)

A. Structure Of Foam Ratio Flow Controller

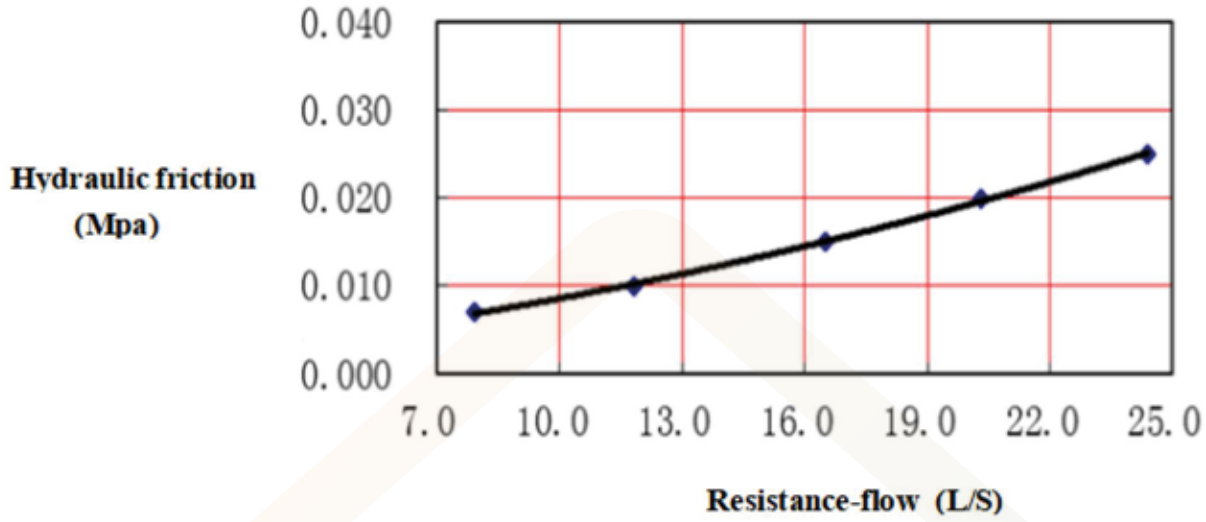


B. Parameter of the sandwich Foam Ratio Flow Controller

Flange size :According to customer require from 2 inch -8 inch . (D50 – D200)
Foam proportioner : According to customer require from 2 inch -8 inch . (D50 – D200)
Flow rate :According to customer requirement .
Size : see the attachment

NO.	Model	A	B	C	D	E	F	G	Pressure loss
1	DN65	40	113	60	M48	1000	DN65	M16*140*4	
2	DN80	40	140	60	M48	1200	DN80	M16*140*8	
3	DN100	48	154	70	M60	1200	DN100	M16*150*8	≤15%
4	DN150	68	210	70	M60	1500	DN150	M18*150*4	
5	DN200	70	260	70	1M60	1500	DN200	M18*160*8	

C. Hydraulic friction ---resistance-flow curve



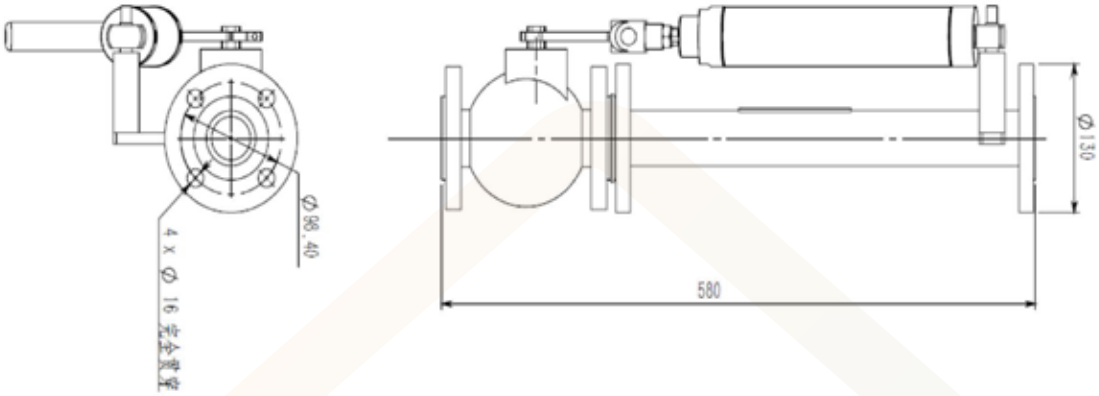
3) Hydraulic Concentrate Control Valve

Foam concentrate control valve is designed for use in bladder tank foam system or inline balance pressure proportioning system.
The valve opens automatically when water supply is established through the inlet pipe of ratio controller of bladder tank or in the inline balance pressure proportioning system.

A. Flange interface installation size description:

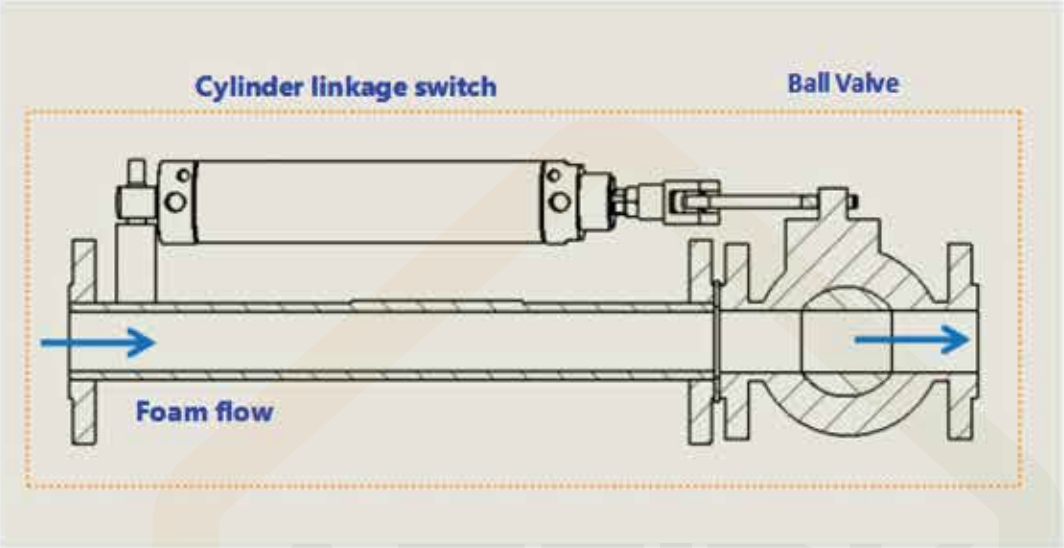
Ball valve type	Specification (mm)	Size					
	Inch	DN	L	D	D1	D2	z-Φd
Q41F-150LBP	11/2”	40	165	125	98.4	73	4-16
Q41F-150LBP	2”	50	178	150	120.7	92.1	4-19
Q41F-150LBP	21/2”	65	190	180	139.7	104.8	/

B. Specification



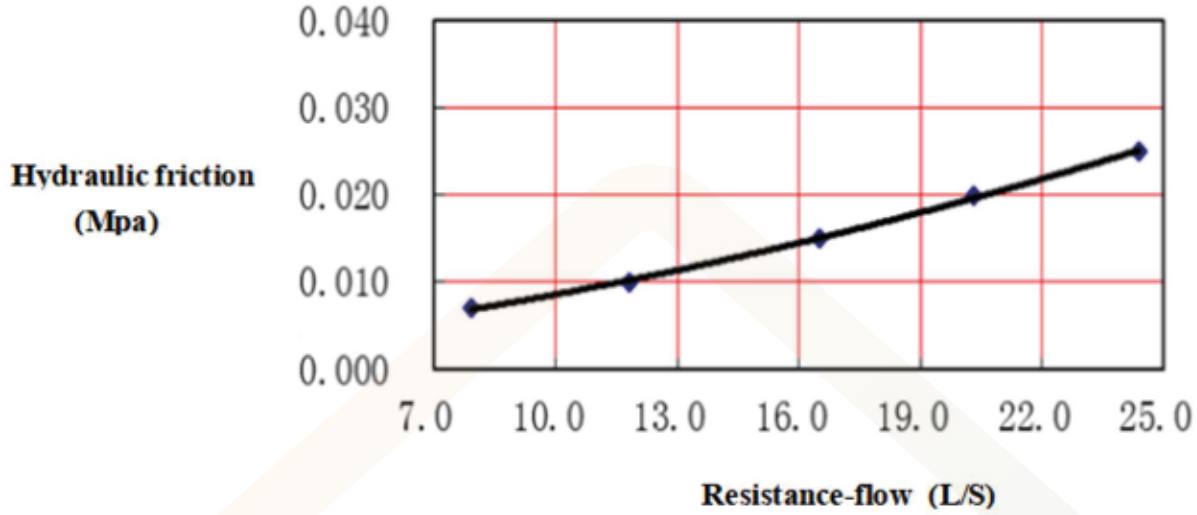
Size L*W*H (mm)	580*300*300
Cylinder starting pressure	2.5KG/f
Connector	DN40,Z-Φd:4-16.D:125.D1:98.4
Material	stainless steel 304/316
Ball valve nominal pressure	1.6Mpa
Ball valve operating temperature	≦150℃
Weight	10KG
Foam mixing ratio	3% Foam and 97% Water, Or 6% Foam or 94% Water

C. Flange Connection Installation Dimensional Specifications



Ball valve Model	Model (mm)	Size					
	Inch	DN	L	D	D1	D2	z-Φd
Q41F-150LBP	1 1/2"	40	165	125	98.4	73	4-16
Q41F-150LBP	2"	50	178	150	120.7	92.1	4-19
Q41F-150LBP	2 1/2"	65	190	180	139.7	104.8	4-19

D. Hydraulic friction



Foam Concentrate Filling

Filling refers to the process of transferring foam concentrate from an external source into the capsule inside the tank. To prevent excessive pulling on the capsule during filling, which could cause damage, clean water must be injected through the water injection port or main pipeline into the space between the capsule and the tank wall before foam liquid filling to create buoyancy for the capsule.

Pre-filling Preparation Steps:
First, to add 50L–200L of clean water (depending on tank capacity) into the tank. Then add the foam concentrate fire extinguishing agent.

1. **Two methods for adding the extinguishing agent: manual or using a filling pump.**

1) Manual Method:
the filling port and pour the foam concentrate extinguishing agent into the rubber bl
op filling when foam overflows from the rubber bladder vent pipe. Close th
ighten the filling cap.

Foam Concentrate Filling

Pre-filling Preparation Steps:

2) Pump Method:
Connect the pump outlet to the drain valve.
Open the drain valve, rubber bladder vent valve, and tank vent valve.
Start the filling pump.
When foam overflows from the rubber bladder vent valve:
First close the drain valve.
Then shut off the pump and close the rubber bladder vent valve.

3) Post-filling Check:
Wait a few minutes after filling.
Open the drain valve. If no foam liquid flows out, the rubber bladder is intact.
Finally, close the drain valve and tank vent valve.

2. After injecting foam concentrate liquid:

When pressurized water enters the pipeline;
First open the water inlet valve, then open the tank vent valve.
Close the tank vent valve once water flows out of it. Then open the concentrate liquid outlet valve.
Wait several minutes until foam is generated at the pipeline outlet's foam producer.

3. After the initial test:

For subsequent use, simply open the water inlet valve followed immediately by the concentrate outlet v
to generate foam.
If the tank remains under constant pressure for extended periods, keep the water inlet and c
utlet valves normally open. During a fire, activating the water supply pump will deliver the
liquid to achieve fire suppression.

Maintenance and Upkeep

1. Operators should conduct regular inspections and maintenance. Ensure all valves on the device can operate normally at any time, with no leaks at valve-pipeline connections.
2. Do not disassemble the device arbitrarily. When replacing components, ensure the proportion mixer orientation is not reversed.
3. Always use the same model fire extinguishing agent from the same manufacturer. Avoid mixing sediment or impurities when refilling.
4. Regularly inspect the capsule for leaks by:
1) Opening the tank vent valve and drain valve
2) Draining stored water
3) Checking for presence of fire extinguishing agent in water
If detected, immediately repair the damaged capsule.
5. Replace fire extinguishing agent periodically according to manufacturer's specified storage duration.
6. Conduct regular testing of safety valves and pressure gauges following national regulations.
7. After each use of foam mixture:
1) Empty pipelines
2) Flush with clean water
3) Close the ball valve on top of proportion mixer
8. Perform regular inspections and maintenance to keep the fire extinguishing device in optimal condition, ensuring constant readiness for immediate deployment.

FOAM CONCENTRATE



	High expansion foam concentrates [1 - 3%]	ALCOHOL TYPE FOAM CONCENTRATES [ATC]		FLUORO PROTEIN FOAM CONCENTRATES		Foam Concentrates for fires of CLASS A	AQUEOUS FILM FORMING FOAM CONCENTRATES [3% - 6%] - UL Listed	
PROPERTY	SFFECO HEF	3 x 3 %	3 x 6 %	3 %	6 %	SFFECO Class A Foam 0.1 - 1%		
APPEARANCE	Clear Liquid	Amber colored viscous Liquid	Amber colored viscous Liquid	Dark Brown colored Liquid	Dark Brown colored Liquid	Yellow colored Liquid	Amber Liquid	Amber Liquid
pH @ 20°C	6.5 - 8.5	6.5 - 8.5	6.5 - 8.5	6.0 - 7.5	6.0 - 7.5	6.5 - 8.5	7.0 - 8.5	7.0 - 8.5
Sp. GRAVITY @ 20°C	1.00 - 1.03	1.00 - 1.03	1.00 - 1.03	1.11 - 1.15	1.08 - 1.12	0.98 - 1.20		
FREEZING POINT	0° C	1.7° C	1.7° C	6.7° C	0° C	0° C	< 0° C	< 0° C
VISCOSITY @ 20°C	< 10 cSt	Non Newtonian Fluid	Non Newtonian Fluid	< 30 cSt	< 30 cSt	⩽ 20 cSt	< 7 cSt	< 5 cSt
SEDIMENT	Max. 0.25%	Max. 0.25%	Max. 0.25%	Max. 0.5%	Max. 0.5%	0.10%		
EXPANSION RATIO	⩾ 200:1	⩾ 7:1	⩾ 7:1	⩾ 6:1	⩾ 6:1	⩾ 7:1	7 - 12	7 - 12
DRAINAGE(25%)	⩾ 2 min	⩾ 7 min	⩾ 7 min	⩾ 4 min	⩾3 min 30 sec	⩾ 3 min	> 120 sec	> 120 sec
Sp. GRAVITY							1.00 - 1.02	1.00 - 1.02
MISCIBILITY							Miscible	Miscible
SLUDGE CONTENT							< 0.1 %	< 0.1 %

AIR FOAM WATER SPRINKLER



Fixed system employing sprinklers have great utility in fire protection of aircraft hangars, chemical process areas, petroleum loading racks, terminals, refineries and flammable liquid storage areas.

MODEL	500	520	550
TYPE	Upright Pendant	--	--
FLOW RATE	86 LPM at 4 Bar	35 LPM at 34 Bar	80 LPM at 3 Bar
MATERIAL	Cast Brass	Brass & Stainless steel	

Deluge Valve

Unleash the Power
of Rapid Fire Protection



NEWAGE
FIRE PROTECTION
INDUSTRIES PVT. LTD.

Model NFPDV

Deluge Valve (DN40 - DN80)

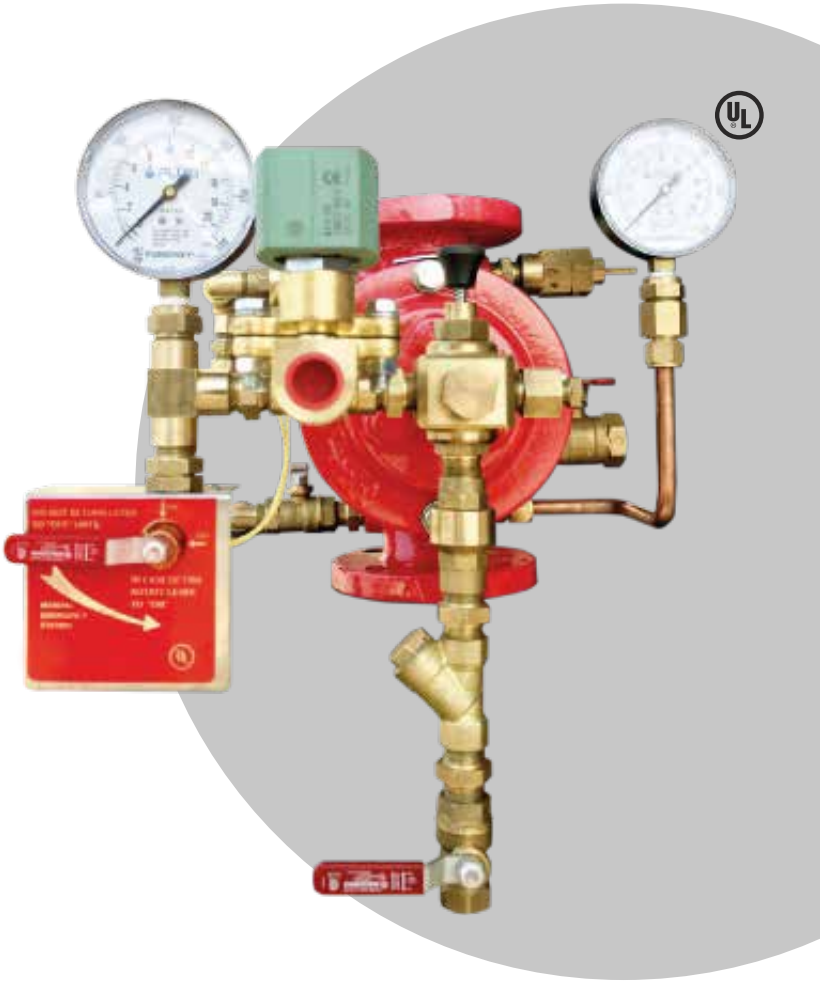
Model NFPDV-E/EM
Electrically Actuated Deluge Valve
Auto Reset/Manual Reset

Model NFPDV-H/HM
Hydraulically Actuated Deluge Valve Pilot
Controlled Auto Reset/Manual Reset

Model NFPDV-P/PM
Pneumatically Actuated Deluge Valve
Auto Reset/Manual Reset

Model NFPDV-PE/PEM
Electrically and Pneumatically Actuated
Deluge Valve Pre-action double interlock System

Model NFPDV-HR/ER
Flow Regulating Deluge Valve
Constant lower preset, downstream pressure



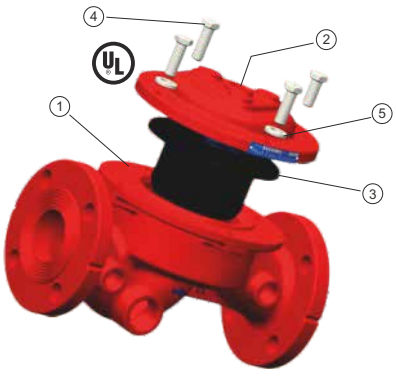
Features

- UL Listed - EX27845
- N.M.M.P. - No Mechanical Moving Parts with Self Supporting Diaphragm
- Simple structure - valve is maintenance free
- Automatic reset - optional manual reset
- Copper trim tubing and brassfittings optional
- Maximum working pressure up to 250 psi (17.25 bar)
- Factory assembled trim package
- Compatible with hydraulic, electric and pneumatic release
- Electrical trim with 2-way solenoid Valve
- Optional Items: Pressure Switch, Water Motor Alarm Gong
- External manual reset, without opening the valve
- Can be used in vertical or horizontal position

Applications

- Deluge & Dry Pipe Systems
- Single or double Interlock Pre-Action
- Fresh Water, Sea water, Foam solution or Foam concentrate
- Foam Systems
- Offshore platforms and helidecks
- Ni Ai Br body deluge valve available for corrosive environments
- Remote controlled valves

Serial No.	Description
1	Body
2	Bonnet
3	Diaphragm
4	Bolts
5	Washers

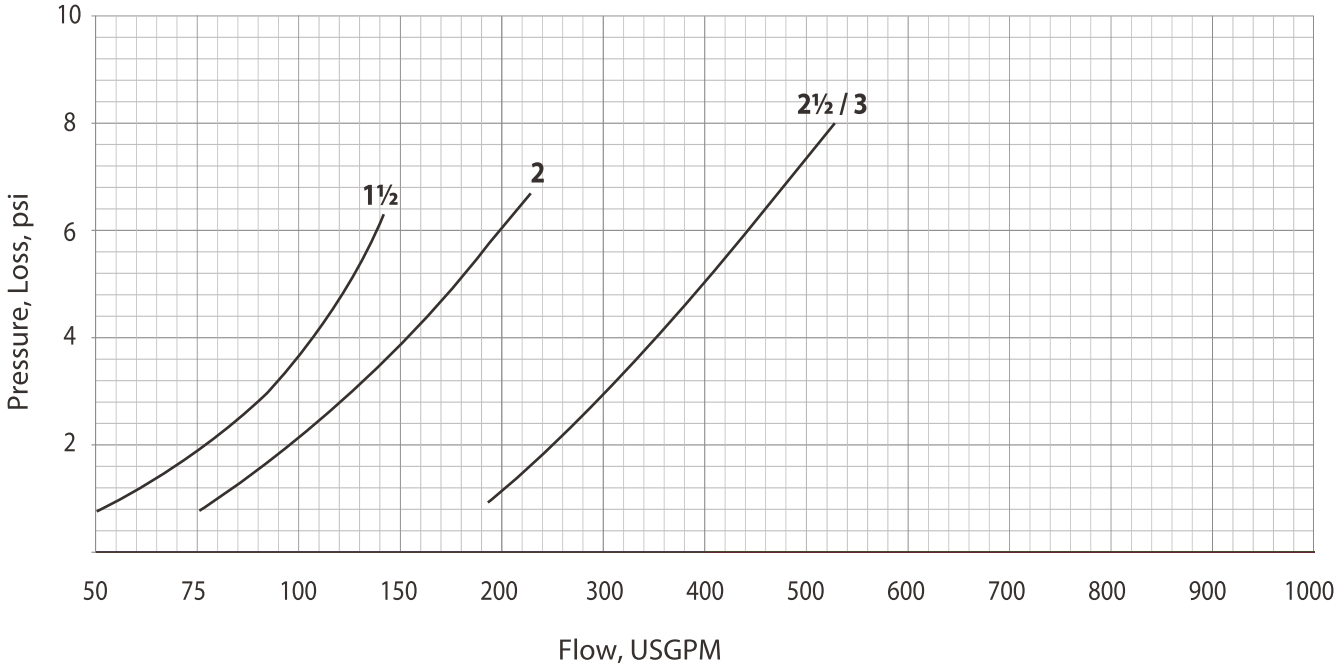


Operation

Newage Mumbai make Deluge Valve, Model NFPDV is a quick opening, working on differential pressure system, diaphragm valve with only one moving part. The valve is held closed by the system water pressure in priming chamber, there by rendering the system piping dry. During fire or test conditions, when the releasing system operates pressure is released from the priming chamber allowing the valve to open and to start the flow of water.

Model NFPDV

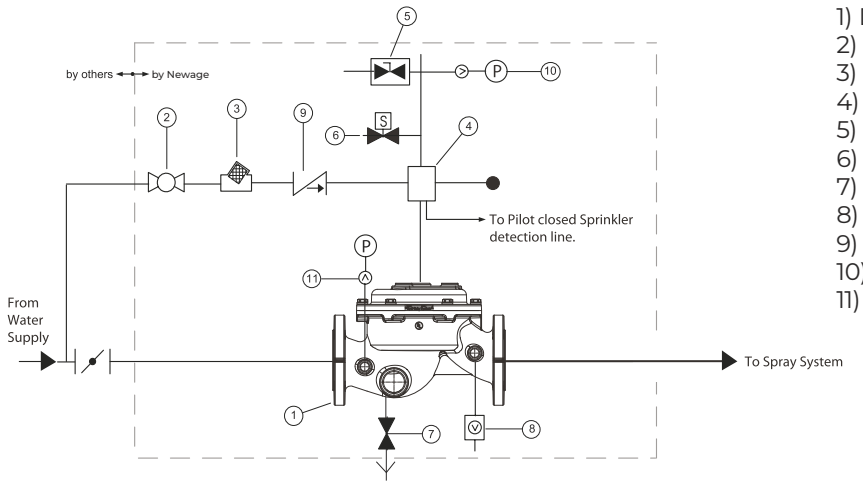
Friction Loss Chart



Specifications

- The Deluge valves are UL Listed, diaphragm sealing globe pattern valve with proven reliable design.
- The valves have an unobstructed flow path with no stem guide or supporting ribs. valve actuation shall be accomplished by a fully peripherally supported, one-piece flexible daiphragm. The diaphragm assembly shall be the only moving part.
- The Valves have a removable cover for guick in-line service, enabling all necessary inspection and servicing.
- The control trim materials shall consist of GI / Copper tubing, bass Valves & accessories including 2-way solenoid valve for electrical trim only, strainer and emergency manual release.
- The trim Kit shall be supplied loose in box or pre-assembled and hydraulically tested at factory.

Control Scheme - Electrically Operated Deluge Valve (Manual Reset Type)

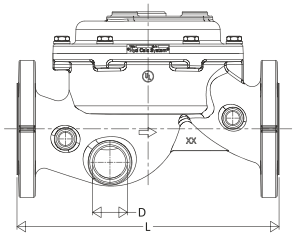


Model NFPDV

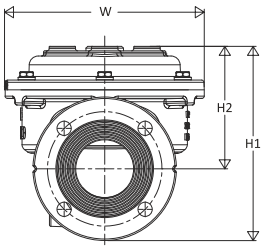
1) Deluge control valve
2) Priming ball valve
3) Strainer
4) Manual reset with check valve
5) Emergency manual release valve
6) 2-way solenoid
7) Drain valve
8) Drip Check valve
9) Check valve
10) Pressure gauge c/w No loss connector
11) Pressure gauge c/w No loss connector
Optional - Water Motor Alarm Gong
- Pressure switch

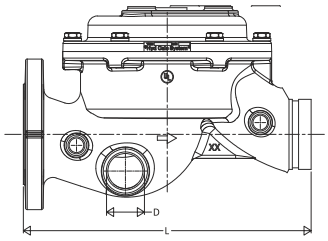
Model NFPDV

Technical Data

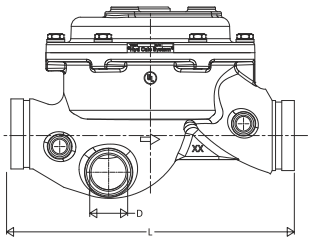


Flange to Flange





Flange to Groove



Groove to Groove

Nominal Size mm / in	Cover Bolt		Drain Thread Size D	Dimensions				Weight (Kgs / Lbs)		
	Size	Qty		L mm/in	H1 mm/in	H2 mm/in	W mm/in	F/F	F/G	G/G
40	M12	3	¾" NPT	256.0	148.2	88.8	159.3	-	-	6.66
1½	M12	3	¾" NPT	10.1	5.8	3.5	6.3	-	-	14.68
50	M12	4	1" NPT	287.6	181.3	104.5	193.0	14.40	12.23	10.06
2	M12	4	1" NPT	11.3	7.1	4.1	7.6	31.75	26.96	22.18
65	M12	6	1½" NPT	365.0	258.6	163.0	265.0	32.13	28.30	24.47
2½	M12	6	1½" NPT	14.4	10.2	6.4	10.4	70.83	62.39	53.95
80	M12	6	1½" NPT	365.0	258.6	163.0	265.0	32.13	28.30	24.47
3	M12	6	1½" NPT	14.4	10.2	6.4	10.4	70.83	62.39	53.95

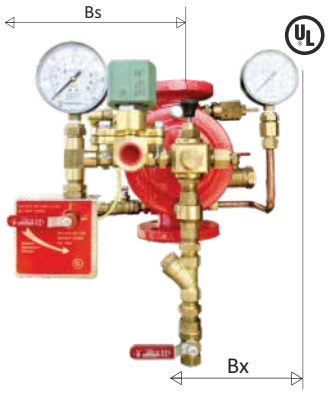
Note : Dimensions for the trim envelope may vary with specific component positioning

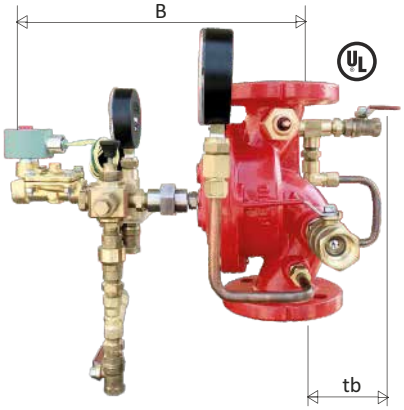
Connections:
- Standard: Flanged, ANSI/ASME B16.42 class 150, Flat Face
- Optional: Grooved, ANSI C606

Water Temperature:
- -5°C to 80°C (180°F)

Available Size:
- 1½", 2", 2½"*& 3"
  *2½" is only available in flanged BS4504 PN16

Pressure Rating:
- Up to 250 psi (17.25 bar)





Nominal Size mm /in	Dimensions:			
	B mm/in	tb mm/in	Bs mm/in	Bx mm/in
40	260	200	245	250
1½	10.20	7.87	9.64	9.84
50	275	200	245	250
2	10.80	7.87	9.64	9.84
65	335	200	245	250
2½	13.19	7.87	9.64	9.84
80	335	200	245	250
3	13.19	7.87	9.64	9.84

Manufacturers Standard Material

Main valve body and cover:
- Ductile Iron ASTM A536

Control Trim System:
- GI pipe & fittings with brass accessories

Elastomers:
- Neoprene

Coating:
- Epoxy painted to RAL 3001

Optional Material

Main valve body:
- Cast Steel ASTM A216 WCB
- Stainless Steel CF8M
- Ni-Al-Bronze ASTM B148

Control Trim:
- Stainless Steel
- Copper with brass accessories

Note: The information contained in this document is subject to change without notice due to continues improvement process. Newage shall not be liable for any errors contained herein.

Model NFPDV

Deluge Valve (DN100 - DN250)

Model NFPDV-E/EM
Electrically Actuated Deluge Valve
Auto Reset/Manual Reset

Model NFPDV-H/HM
Hydraulically Actuated Deluge Valve Pilot
Controlled Auto Reset/Manual Reset

Model NFPDV-P/PM
Pneumatically Actuated Deluge Valve
Auto Reset/Manual Reset

Model NFPDV-PE/PEM
Electrically and Pneumatically Actuated
Deluge Valve Pre-action double interlock System

Model NFPDV-HR/ER
Flow Regulating Deluge Valve
Constant lower preset, downstream pressure



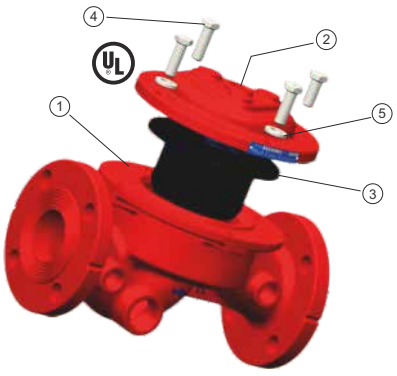
Features

- UL Listed - EX27845
- N.M.M.P. - No Mechanical Moving Parts with Self Supporting Diaphragm
- Simple structure - valve is maintenance free
- Automatic reset - optional manual reset
- Copper trim tubing and brassfittings optional
- Maximum working pressure up to 250 psi (17.25 bar)
- Factory assembled trim package
- Compatible with hydraulic, electric and pneumatic release
- Electrical trim with 2-way solenoid Valve
- Optional Items: Pressure Switch, Water Motor Alarm Gong
- External manual reset, without opening the valve
- Can be used in vertical or horizontal position

Applications

- Deluge & Dry Pipe Systems
- Single or double Interlock Pre-Action
- Fresh Water, Sea water, Foam solution or Foam concentrate
- Foam Systems
- Offshore platforms and helidecks
- Ni Ai Br body deluge valve available for corrosive environments
- Remote controlled valves

Serial No.	Description
1	Body
2	Bonnet
3	Diaphragm
4	Bolts
5	Washers

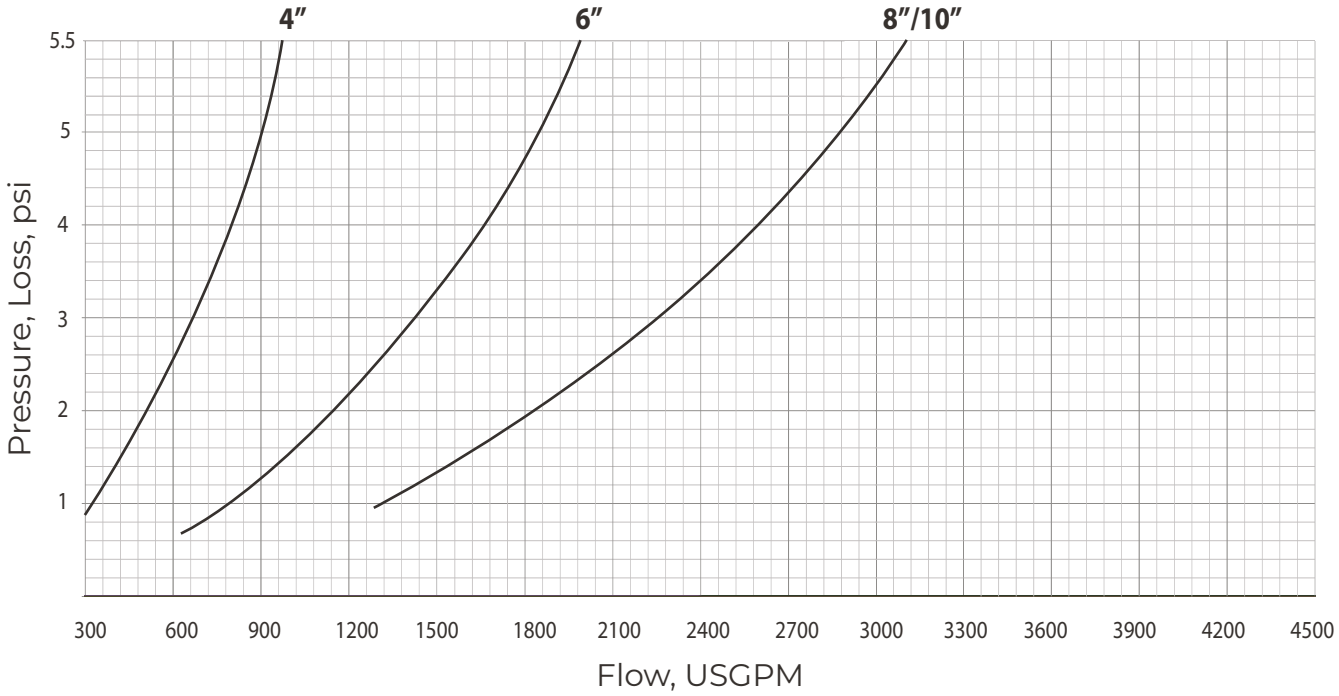


Operation

Newage mumbai, Model NFPDV is a quick opening differential diaphragm deluge valve with one moving part. The valve is held closed by the system water pressure in priming chamber, there by rendering the system piping dry. During fire or test conditions, when the releasing system operates pressure is released from the priming chamber allowing the valve to open and to start the flow of water.

Model NFPDV

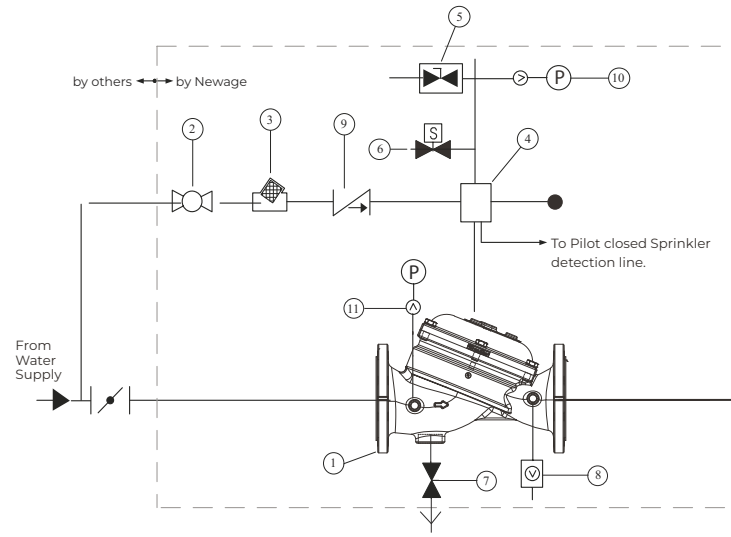
Friction Loss Chart



Specifications

- The Deluge valves are UL Listed, diaphragm sealing globe pattern valve with proven reliable design.
- The valves have an unobstructed flow path with no stem guide or supporting ribs. valve actuation shall be accomplished by a fully peripherally supported, one-piece flexible daiphragm. The diaphragm assembly shall be the only moving part.
- The Valves have a removable cover for guick in-line service, enabling all necessary inspection and servicing.
- The control trim materials shall consist of GI / Copper tubing, bass Valves & accessories including 2-way solenoid valve for electrical trim only, strainer and emergency manual release.
- The trim Kit shall be supplied loose in box or pre-assembled and hydraulically tested at factory.

Control Scheme - Electrically Operated Deluge Valve (Manual Reset Type)

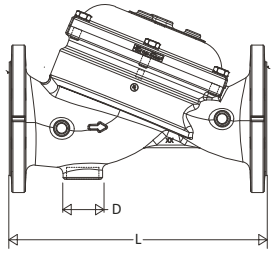


1) Deluge control valve
2) Priming ball valve
3) Strainer
4) Manual reset with check valve
5) Emergency manual release valve
6) 2-way solenoid
7) Drain valve
8) Drip Check valve
9) Check valve
10) Pressure gauge c/w No loss connector
11) Pressure gauge c/w No loss connector
Optional - Water Motor Alarm Gong
- Pressure Switch

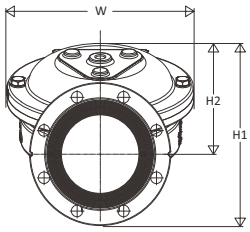
Model NFPDV

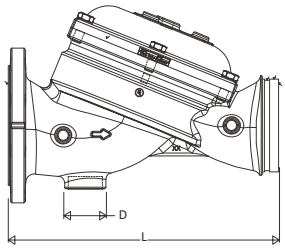
Model NFPDV

Technical Data

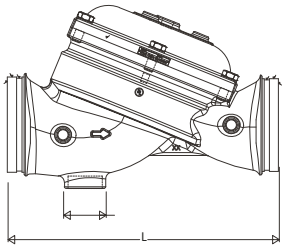


Flange to Flange





Flange to Groove



Groove to Groove

Nominal Size mm / in	Cover Bolt		Drain Thread Size D	Dimensions				Weight (Kgs / Lbs)		
	Size	Qty		L mm/in	H1 mm/in	H2 mm/in	W mm/in	F/F	F/G	G/G
100	M16	6	2" NPT	380.0	301.0	186.0	304.0	40.23	35.27	30.31
4	M16	6	2" NPT	14.96	11.85	7.32	11.97	88.69	77.76	66.82
150	M16	6	2" NPT	490.0	357.5	217.5	369.5	62.50	54.90	47.3
6	M16	6	2" NPT	19.28	14.07	8.56	14.55	137.80	121.05	104.29
200	M16	6	2" NPT	592.0	447.5	275	440.0	106.50	92.67	78.84
8	M16	6	2" NPT	23.31	17.62	10.83	17.32	234.80	204.30	173.81
250	M16	6	2" NPT	580.0	477.5	275.0	440.0	123.30	-	-
10	M16	6	2" NPT	22.83	18.80	10.83	17.32	271.83	-	-

Note : Dimensions for the trim envelope may vary with specific component positioning

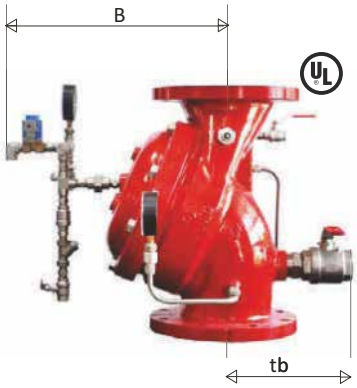
Connections:
- Standard: Flanged, ANSI/ASME B16.42 class 150, Flat Face
- Optional: Grooved, ANSI C606

Water Temperature:
- -5°C to 80°C (180°F)

Available Size:
- 1½", 2", 2½"*& 3"
  *2½" is only available in flanged BS4504 PN16

Pressure Rating:
- Up to 250 psi (17.25 bar)





Nominal Size mm /in	Dimensions:			
	B mm/in	tb mm/in	Bs mm/in	Bx mm/in
100	360	225	242	240
4	14.17	8.86	9.53	9.45
150	385	195	242	290
6	15.16	7.68	9.53	11.42
200	435	195	242	290
8	17.12	7.68	9.53	11.42
250	435	275	242	290
10	17.12	10.82	9.53	11.42

Manufacturers Standard Material

Main valve body and cover:
- Ductile Iron ASTM A536

Control Trim System:
- GI pipe & fittings with brass accessories

Elastomers:
- Neoprene

Coating:
- Epoxy painted to RAL 3001

Optional Material

Main valve body:
- Cast Steel ASTM A216 WCB
- Stainless Steel CF8M
- Ni-Al-Bronze ASTM B148

Control Trim:
- Stainless Steel
- Copper with brass accessories

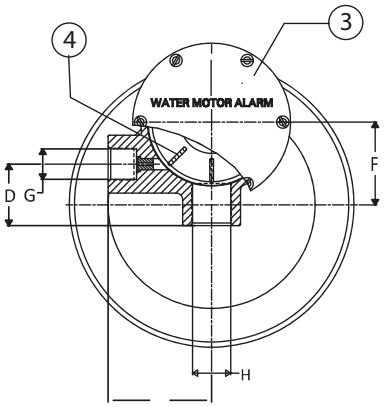
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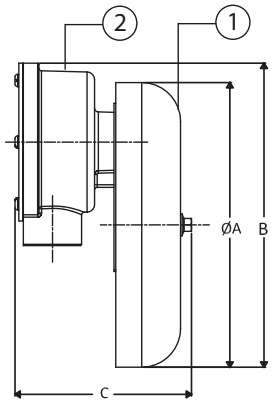
Water Motor Alarm Gong

- Newage water motor alarm gong is a mechanical device hydraulically operated by a flow of water. It can be used with Deluge valves & Sprinkler Alarm valves for Fire Protection Service.
- Newage water motor gong is normally mounted outside the building or near the valve station and energized by water flowing from the system valve, it is designed to sound automatically a continuous piercing alarm when the sprinkler or spray system operates in the event of fire.
- Compact, light weight, Non corrosive construction, No Lubrication, Easy for installation.
- Rated working pressure: 250 psi.
- Operates at very low pressures of 15 psi.
- Strainer shall be installed on the alarm line to protect the water motor alarm gong from clogging.
- Connection: Screwed Connection 3/4" NPT on the inlet and 1" NPT on the drain outlet.
- Extended wall mounting provision is available as optional.
- Finish: Polished.









Material Specification

Part No.	Part Name	Description
100	Gong	Aluminium
4	Housing	Aluminium
150	Cover	Aluminium
6	Impeller	Delrine

Dimensions

Dimensions (mm / inch)								Weight Kgs/ Lbs
A	B	C	D	E	F	G	H	
220	235	136.4	47.5	80	64	¾"NPT	1"NPT	1.9
8.66	9.25	5.37	1.87	3.15	2.52	¾"NPT	1"NPT	4.19

Note: Design and Materials are subject to change without notice.

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4, Champaklal Udyog Bhavan, Sion (E), Mumbai - 400 022. India.

Works: Khopoli | Maharashtra | India

www.newagefireprotection.com | CIN NO. U74900MH2008PTC187858

Special System Water Control Valves, Deluge Type

COMPANY

Newage Fire Protection Industries Pvt Ltd
4, Champaklal Udyong Bhavan, Sion E
Mumbai, Maharashtra 400022 India

EX27845

Deluge valve, Model DV NP 100 in the 2, 2 1/2, 3, 4, 6, 8, 10 in. nominal sizes with flanged ends for use in horizontal and vertical position for a rated working pressure not to exceed 250 psig. For operation by dry pilot line, manually, electrically or wet pilot line of sprinklers. Height of pilot line above valve limited as shown in the Installation Instructions. For accessories used with these valves, see listing under "Accessories for Special Systems". The valves are for hydraulically calculate systems only.

Deluge type valves, Model NFPDV, 1-1/2, 2, 2-1/2, 3, 4, 6, 8 and 10 in. size in. sizes deluge valves for horizontal or vertical installations for pressure not exceeding 250 psig. For operation by, dry pilot, wet pilot, electric or manual activation Height of pilot line above valve limited as shown in the Installation Instructions. For accessories used with these valves, see listing under "Accessories for Special Systems".

Last Updated on 2023-06-19

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Model TJR Resilient-Seated Gate Valves Outside Screw and Yoke

General Description

TYCO Model TJR Resilient-Seated Gate Valves are used in Fire Protection Systems for on/off operation. End connection configurations including Flange x Flange, Flange x Groove, and Groove x Groove are available. All of the end connection configurations have tapping bosses.

The ductile Iron body weighs approximately 50% less than conventional cast iron valves, which allows easier handling on site and reduced shipping costs.

The fully encapsulated EPDM ductile iron Wedge ensures bubble-tight sealing.

Valve components are either inherently corrosion-resistant or protected with fusion-bonded epoxy resin coating for a long, dependable service life and enhanced UV protection in exposed installations.

This valve is one of the lightest, most durable gate valves on the market today. Its design features and material selection criteria fulfill the need for a dependable, long life and easy to operate gate valve.

NOTICE

Never remove any piping component nor correct or modify any piping deficiencies without first de-pressurizing and draining the system. Failure to do so may result in serious personal injury, property damage, and/or impaired device performance.

It is the designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data are not exceeded. Material and gasket selection should be verified for compatibility with the specific application. Always read and understand the installation instructions.

TYCO Gate Valves described herein must be installed and maintained in compliance with this document, in addition to the standards of any other authorities having jurisdiction. Failure to do so may result in serious personal injury or impair the performance of these devices.

The owner is responsible for maintaining their mechanical system and devices in proper operating condition. The installing contractor or device manufacturer should be contacted with any questions.

Technical Data

Sizes
2 in. (DN50) to 16 in. (DN400)

Approvals
UL and ULC Listed
FM Approved

Maximum Working Pressure
- 2 in. (DN50) to 12 in. (DN300): 300 psi (20,7 bar)
- 14 in. (DN350) and 16 in. (DN400): 250 psi (17,2 bar)



End Connections
Flange x Flange, Flange x Groove or Groove x Groove
(Ref. Table A for size applicability)

Flanges
ASME B16.1/ASME B16.42
EN 1092-2/ISO 7005-2
Drilled to ANSI 150 or PN10/PN16 or AS 2129 (Table E)

Materials of Construction
Ref. Figure 1

Tapping Bosses
Two factory-plugged NPT threaded tapping bosses are located on the up- and downstream sides of the wedge for connection to valve trim. Tapping boss NPT Inch sizes:

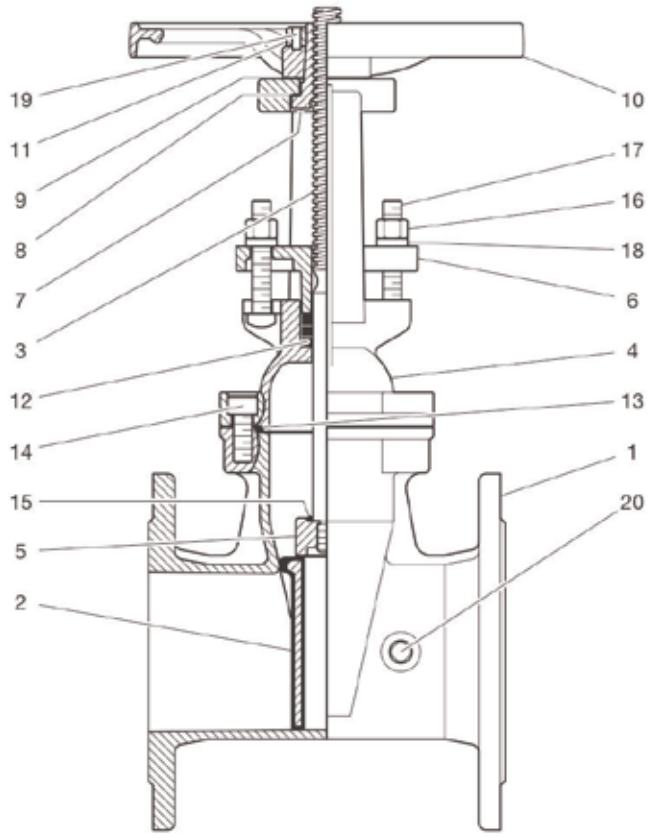
2 in. (DN50) to 6 in. (DN150) 1/2
8 in. (DN200) 3/4
10 in. (DN250) to 16 in. (DN400) 1

Installation

In piping systems, TYCO Resilient-Seated Gate Valves should be located where operation, inspection, and maintenance are readily accessible.

IMPORTANT
Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

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No.	Description	Qty.	Material
1	Body	1	ASTM A536 65-45-12
2	Wedge	1	EPDM
3	Stem	1	AISI SS240
4	Bonnet	1	ASTM A536 65-45-12
5	Disc Nut	1	ASTM A351 CF8
6	Packing	1	ASTM A536 65-45-12
7	Nut	1	ASTM B62
8	Nut Shim	1	ASTM B16
9	Handwheel Shim	1	ASTM B16
10	Handwheel	1	ASTM A536 65-45-12
11	Handwheel Nut	1	Carbon Steel Galvinized
12	Packing	3	PTFE
13	Seal Ring	1	EPDM
14	Hexagonal Screw	4-10	8.8 Rating
15	O-Ring	1	EPDM
16	Hexagonal Nut	2	ASTM SS304
17	Bolt	2	ASTM SS304
18	Spring Washer	2	ASTM SS304
19	Cylindrical Screw	1	ASTM SS304
20	Plug	2	ASTM SS304

FIGURE 1
OUTSIDE SCREW AND YOKE GATE VALVE ASSEMBLY

Care and Maintenance

The Model TJR TYCO Resilient-Seated Gate Valves must be maintained and serviced in accordance with this section.

Before closing a fire protection system main control valve for maintenance work on the fire protection system that it controls, obtain permission to shut down the affected fire protection system from the proper authorities and notify all personnel who may be affected by this decision.

After placing a fire protection system in service, notify the proper authorities and advise those responsible for monitoring proprietary and/or central station alarms.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the NATIONAL FIRE PROTECTION ASSOCIATION - for example, NFPA 25 - in addition to the standards of any authority having jurisdiction. The installing contractor or product manufacturer should be contacted relative to any questions. Any impairments must be immediately corrected.

Automatic sprinkler systems are recommended to be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national codes.

See Figure 1 for valve components referenced in this section.

Debris lodged in the sealing area of the Wedge (2) may cause the valve to close hard. Backing off the Handwheel (10) and closing it again, several times if necessary, can correct this problem.

The valve should never be forced to seat by applying a wrench or extension to the Handwheel (10), as it may distort the valve components or score the sealing surfaces. All replacement parts must be obtained from the manufacturer to assure proper operation of the valve.

At initial valve installation the Hexagonal Nuts (16) should be left only finger tight to allow the Packing (12) to remain in a relaxed state during normal valve operation. For applications where the valve is subject to vibration, a non-hardening thread sealant may be applied to the Hexagonal Nuts (16) to prevent self-loosening and subsequent disengagement of the Packing (12).

If leakage past the O-Ring (15) occurs, evenly tighten the Hexagonal Nuts (16) until the leakage ceases.

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Nominal Valve Size	Nominal Pipe Size	Nominal Dimensions Inches (mm)			P Tapping Boss Size ANSI Inch NPT	Nominal Handwheel Turns to Fully Operate (Open or Shut)	Approx. Weight F x F Lbs. (kg)	Approx. Weight F x G Lbs. (kg)	Approx. Weight G x G Lbs. (kg)
ANSI Inches DN	O.D. Inches (mm)	L	CL1	CL2					
2 DN50	2.375 (60,3)	7.00 (178)	15.55 (395)	13.07 (332)	1/2	13	38.8 (17,64)	36.7 (16,7)	34.7 (15,8)
2-1/2 DN65	2.875 (73,0)	7.50 (190)	16.14 (410)	13.31 (338)		16	41.6 (18,91)	39.1 (17,8)	36.5 (16,6)
– DN65	3.000 (76,1)	7.50 (190)	16.14 (410)	13.31 (338)		16	41.6 (18,91)	39.1 (17,8)	36.5 (16,6)
3 DN80	3.500 (88,9)	8.00 (203)	18.9 (480)	14.96 (380)		20	48.7 (22.13)	48.3 (22,0)	48.0 (21,8)
4 DN100	4.500 (114,3)	9.00 (229)	22.56 (573)	17.72 (450)		20	59.8 (27,16)	56.3 (25,6)	52.8 (24,0)
– DN150	6.500 (165,1)	10.00 (254)	29.53 (750)	23.31 (592)		25	103.2 (46,9)	98.9 (45,0)	94.6 (43,0)
6 DN150	6.625 (168,3)	10.50 (267)	29.53 (750)	23.31 (592)		25	103.2 (46,9)	98.9 (45,0)	94.6 (43,0)
8 DN200	8.625 (219,1)	11.50 (292)	37.64 (956)	29.45 (748)	3/4	34	158.4 (72,0)	160.6 (73,0)	162.8 (74,0)
10 DN250	10.750 (273,1)	13.00 (330)	46.26 (1175)	34.96 (888)	1	42	244.2 (111,0)	238.7 (108,5)	233.2 (106,0)
12 DN300	12.750 (323,9)	14.00 (356)	51.89 (1318)	39.57 (1005)		50	367.4 (167,0)	359.7 (163,5)	352.0 (160,0)
14 DN350	14.014 (355,6)	15.00 (381)	47.44 (1205)	62.09 (1577)		20	631.4 (287,0)	–	–
16 DN400	16.000 (406,4)	15.98 (406)	54.45 (1383)	70.87 (1800)		20	827.2 (376)	–	–

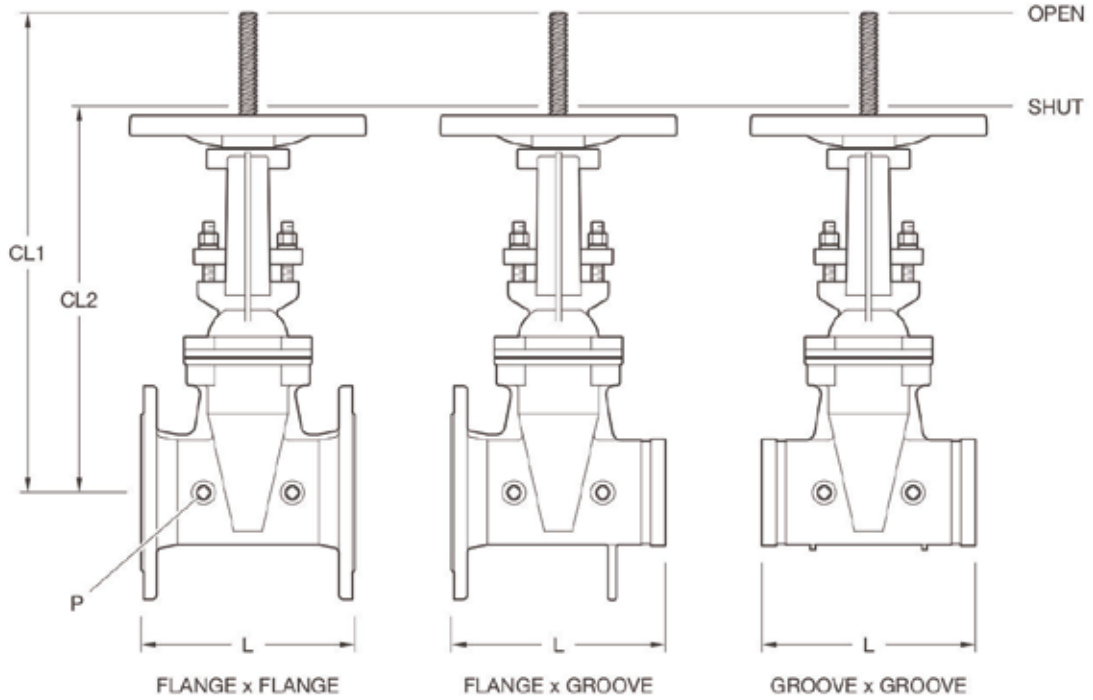


FIGURE 2
OUTSIDE SCREW AND YOKE GATE VALVE DN50 TO DN300
NOMINAL DIMENSIONS

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Nominal Valve Size	Nominal Dimensions in Inches (mm)								
ANSI Inches DN	ANSI Class 150			ISO 7005-2 PN16			AS 2129 (Table E)		
	Dim. A	Dim. B	Qty. N	Dim. A	Dim. B	Qty. N	Dim. A	Dim. B	Qty. N
2 DN50	4.75 (120,5)	0.75 (19)	4	4.92 (125,0)	0.75 (19)	4	4.48 (114,0)	0.71 (18,0)	4
2-1/2 DN65	5.50 (139,5)	0.75 (19)	4	5.71 (145,0)	0.75 (19)	4	5.00 (127,0)	0.71 (18,0)	4
3 DN80	6.00 (152,5)	0.75 (19)	4	6.30 (160,0)	0.75 (19)	8	5.74 (146,0)	0.71 (18,0)	4
4 DN100	7.50 (190,5)	0.75 (19)	8	7.09 (180,0)	0.75 (19)	8	7.00 (178,0)	.071 (18,0)	8
6 DN150	9.50 (241,5)	0.88 (22)	8	9.45 (240,0)	0.88 (23)	8	9.25 (235,0)	0.87 (22,0)	8
8 DN200	11.75 (298,5)	0.88 (22)	8	11.61 (295,0)	0.88 (23)	12	111.49 (292,0)	0.87 (22,0)	8
10 DN250	14.25 (362,0)	1.00 (25)	12	13.98 (355,0)	1.13 (28)	12	14.02 (356,0)	0.87 (22,0)	12
12 DN300	17.00 (432,0)	1.00 (25)	12	16.14 (410,0)	1.13 (28)	12	15.98 (406,0)	1.02 (26,0)	12
14 DN350	18.75 (476,3)	1.13 (28,6)	12	18.5 (470,0)	1.102 (28)	16	19.49 (495,0)	1.22 (31,0)	16
16 DN400	21.25 (539,8)	1.13 (28,6)	16	20.7 (525,0)	1.22 (31)	16	21.73 (552,0)	1.22 (31,0)	16

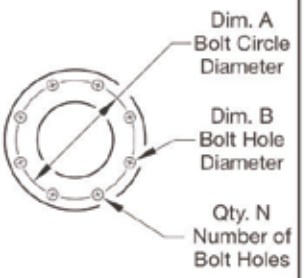
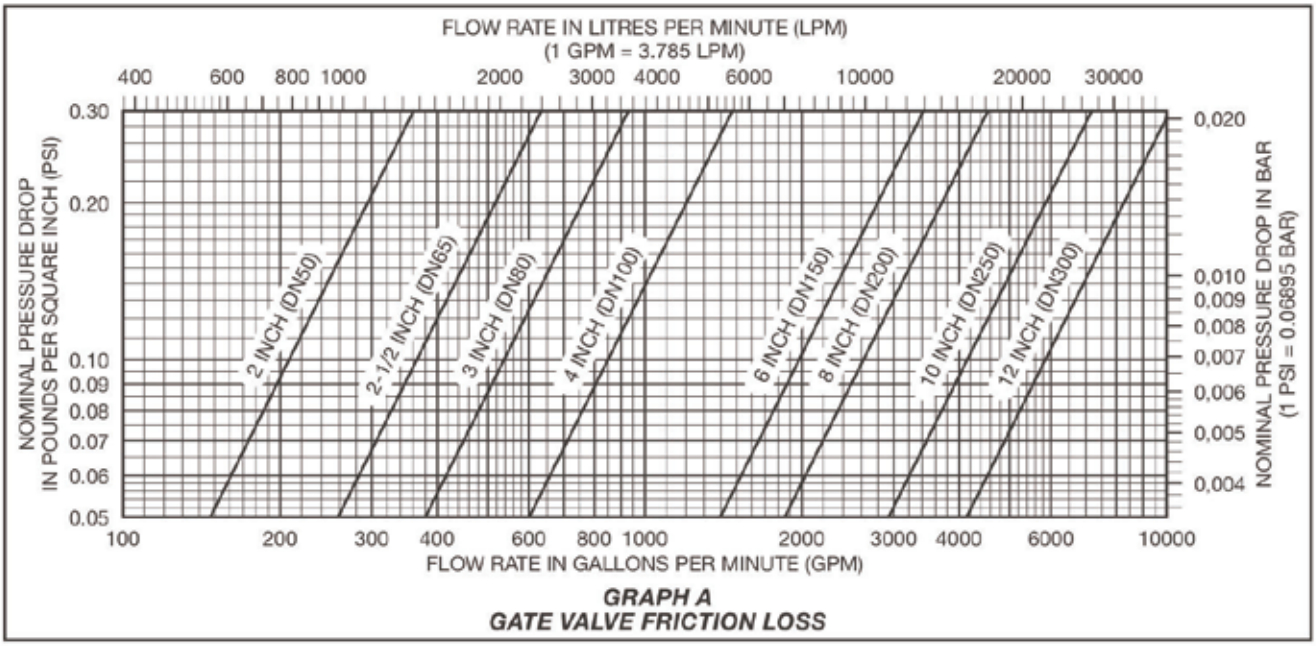


FIGURE 3
GATE VALVE FLANGE
NOMINAL DIMENSIONS



GRAPH A
GATE VALVE FRICTION LOSS

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Nominal Valve Size	Nominal Pipe Size	Part Number					
ANSI Inches DN	O.D. Inches (mm)	Flange x Flange ANSI Class 150	Flange x Flange ISO 7005-2 PN16	Flange x Groove ANSI Class 150	Flange x Groove ISO 7005-2 PN16	Flange x Flange AS 2129 (Table E)	Groove x Groove
2 DN50	2.375 (60,3)	TJRX0500003	TJRX0500001	TJRT0500603	TJRT0500601	TJRX0500005	TJRG0500604
2-1/2 DN65	2.875 (73,0)	TJRX0650003	TJRX0650001	TJRT0650733	TJRT0650731	TJRX0650005	TJRG0650734
– DN65	3.000 (76,1)	–	–	TJRT0650763	TJRT0650761	–	TJRG0650764
3 DN80	3.500 (88,9)	TJRX0800003	TJRX0800001	TJRT0800893	TJRT0800891	TJRX0800005	TJRG0800894
4 DN100	4.500 (114,3)	TJRX1000003	TJRX1000001	TJRT1001143	TJRT1001141	TJRX1000005	TJRG1001144
– DN150	6.500 (165,1)	–	–	TJRT1501653	TJRT1501651	–	TJRG1501654
6 DN150	6.625 (168,3)	TJRX1500003	TJRX1500001	TJRT1501683	TJRT1501681	TJRX1500005	TJRG1501684
8 DN200	8.625 (219,1)	TJRX2000003	TJRX2000001	TJRT2002193	TJRT2002191	TJRX2000005	TJRG2002194
10 DN250	10.750 (273,1)	TJRX2500003	TJRX2500001	TJRT2502733	TJRT2502731	TJRX2500005	TJRG2502734
12 DN300	12.750 (323,9)	TJRX3000003	TJRX3000001	TJRT3003243	TJRT3003241	TJRX3000005	TJRG3003244
14 DN350	14.0 (355,6)	TJRX3500003	TJRX3500001	–	–	TJRX3500005	–
16 DN400	16.0 (406.4)	TJRX4000003	TJRX4000001	–	–	TJRX4000005	–

TABLE A
OUTSIDE SCREW AND YOKE GATE VALVE
PART NUMBERS

Limited Warranty

For warranty terms and conditions, visit www.tyco-fire.com.

Ordering Procedure

Contact your local distributor for availability. When placing an order, indicate the full product name and Part Number (P/N). Refer to Table A for a complete list of part numbers.

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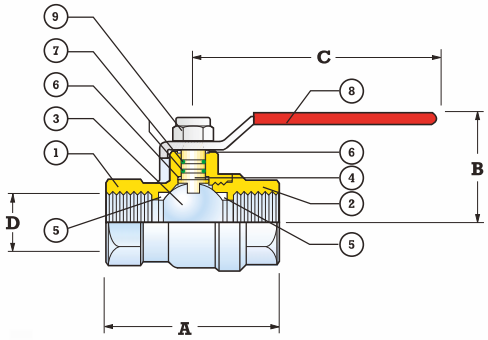
PB100 FULL BORE QUARTER TURN BALL VALVE RANGE

FEATURES

- Brass body.
- Full bore.
- Quarter turn operation.
- Blow out vandal proof assembly.
- ½" to 2" sizes
- PTFE ball seals.
- Nitrile 'O' ring seals.
- IS0 7 (BS 21) Taper Threads.
- IS0 228 (BS 2779) Parallel Threads.
- ANSI (NPT) American Threads.
- Chrome plated finish.
- PN25 rated.



PB100



RANGE

Patt. No.	Sizes					
	½"	¾"	1"	1¼"	1½"	2"
PB100	•	•	•	•	•	•
PB100PT	•	•	•	•	•	•
PB100AT	•	•	•	•	•	•

DIMENSIONS (MM)

Description	Sizes					
	½"	¾"	1"	1¼"	1½"	2"
A Face to Face	50	58	69	81	88.5	110
B Centre Line to Lever	46	50	52	70	76	83
C Lever Length	100	100	110	135	135	165
D Port Bore	14.5	19	25	30	38	47.5
WEIGHT kg	0.165	0.260	0.384	0.617	0.832	1.394

FLOW RATES*

	Sizes					
	½"	¾"	1"	1¼"	1½"	2"
Cv	19.9	48.0	81.9	141.6	234.0	341.6
Kv	17.0	41.0	70.0	121.0	200.0	292.0

* Cv – flow rate in US GPM at a pressure drop of 1 psi.
* Kv – flow rate in m^3 per hour at a pressure drop of 1 bar.

MATERIAL SPECIFICATION

No.	Component	Material
1	Body	Brass
2	End Piece	Brass
3	Ball	Chrome Plated Brass
4	Stem	Brass
5	Seats	PTFE
6	Friction Washer	PTFE
7	'O' Rings	Nitrile Rubber
8	Lever	Dip-Coated on CP Steel
9	Handle Nut	Steel

MAXIMUM PRESSURE CONDITIONS

Size	Maximum Pressure Conditions (bar)		Test Pressures (bar)	
	Temperatures up to 120°C	Temperatures up to 20°C	Shell	Seat
½ to 2"	4	25	37.5	27.5

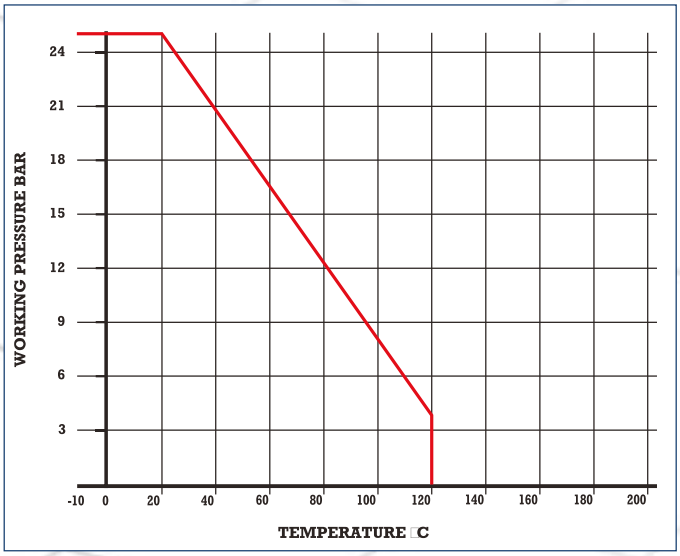
SUITABLE FOR

Steam	Water	Oil	Air	Gases			
				Inert	Combustible	Corrosive	Oxygen
✓	✓	✓	✓	×	×	×	×

PRESSURE EQUIPMENT DIRECTIVE CATEGORY

Sizes					
½"	¾"	1"	1¼"	1½"	2"
SEP	SEP	SEP	SEP	SEP	SEP

PRESSURE AND TEMPERATURE RATINGS



TECHNICAL DATA SHEET
for use by Architects & Engineers

Gas Extinguishing Panel
Model No: LF-EX



Features

- Rigid Steel Powder Coated Cabinet
- Built-in Battery and Internal Charger
- System Status Indication
- Indicators for Charge Fault & Battery Fault
- Monitored Alarm Circuits for Both Open and short Circuit
- Manual Operating Switch on Front Fascia
- 2 Monitored Detection on Zones
- Monitored Gas Release
- Knockouts on top and bottom sides for Easy Installation
- Relay Contacts
- Control Key Switch
- Release Timer
- Silence/tone and/or First Tone Alarm
- Automatic or Manual Operation
- Reset/LED Test Button

Description

The LF/EX Fire Alarm and Gas extinguishing Control Panel is manufactured based on advanced technology while maintaining high quality during assembly. It is of solid state circuitry and is designed and tested to meet the requirements of industrial or commercial applications.

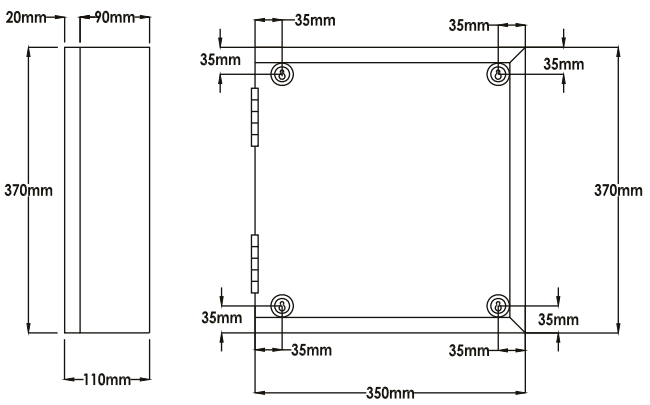
It provides operator interactive control of the fire alarm and gas extinguishing system. Push buttons are provided on the front fascia for manual/automatic modes of extinguisher operation, first stage alarm, silence and reset.

The LF/EX is interfaced with two detection zones of a conventional fire alarm panel which are utilized to provide double knock (coincidence) detection throughout the gas protected area.

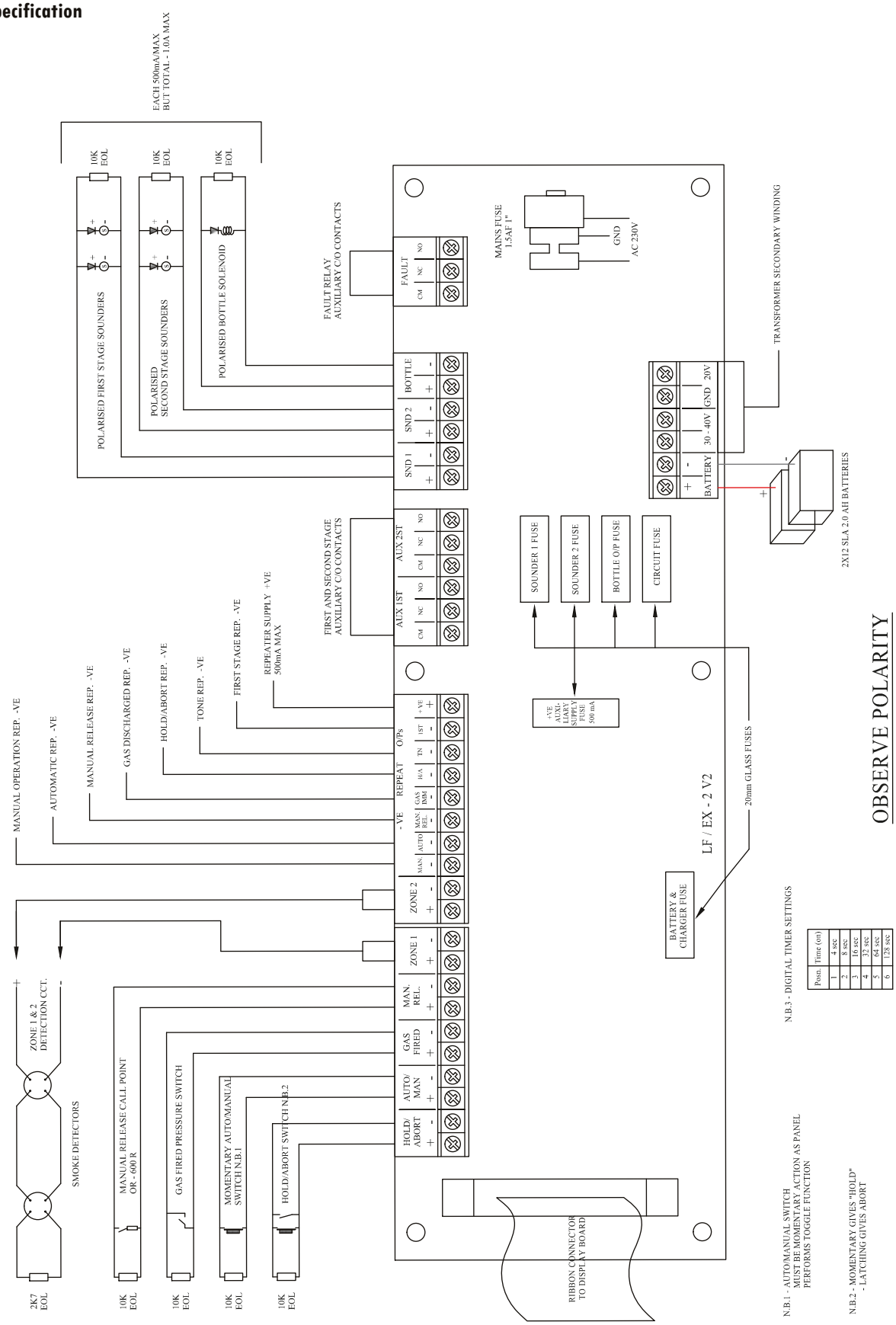
A callpoint situated on the front of the unit can be operated to manually release the extinguishant. It has multi-colored LED indicators for easy reference of fault isolation.
For security purposes, the Control Panel is fitted with a control key switch which locks all the push-button functions so only authorized personnel would be allowed to operate the system.

Technical Specification

Mains Voltage	230VAC @ 50/60 Hz +15%, -10%
Charger Voltage	25~30VDC (Set Internally to 27.6V)
Battery Voltage	24 V SLA (2x12V)
Battery Space	7.0 AH Maximum
Mains Supply Protection	1.5 AF 20x5mm Glass Fuse
Battery and Charger Voltage Protection	1.5 AF 20x5mm Glass Fuse
Reverse Battery Protection	Battery Fuse
Sounder Output (1st and 2nd Stage)	24 VDC Nominal
Sounder Output Protection	500mAF 20x5mm Glass Fuse
Auxiliary Supply Output	24 VDC Nominal
Auxiliary Supply Protection	500mAF 20x5mm Glass Fuse
Auxiliary Relay Contacts (1st & 2nd Stage) (Common Fault)	30V AC/DC 1.0 A Each
Bottle Output	24 VDC Nominal
Bottle Output Protection	500mAF 20x5mm Glass Fuse
Zone Voltage	24 VDC
Quiescent Zone Current	8mA per Circuit
Max Zone Circuit Resistance	50 Ω
Max Sounder Circuit Resistance	25 Ω
Max Resistance - Other Circuits	50 Ω
Quiescent Battery Current (Tone Muted)	100mA Nominal
Quiescent Battery Current (Tone Not Muted)	125mA Nominal
Max Total Load Current (Snd, Bottle and Aux+VE)	1.5A (Although each may be fuse to rating)
Circuits Monitored for O/C and S/C	Bottle Output, 1st and 2nd Stage and Outputs, Zones 1 and 2
Circuits Monitored for O/C only	Hold/Abort, Auto/Manual, Gas Fired, and Manual Release. (S/C gives active condition although a resistance of up to 500 Ω will still give an active condition.
Maximum Loading	2mA per Zone
No. of Gas Area	One
Release Time for Extinguishant	4 sec. to 5 min. (Pre-settable).



Technical Specification





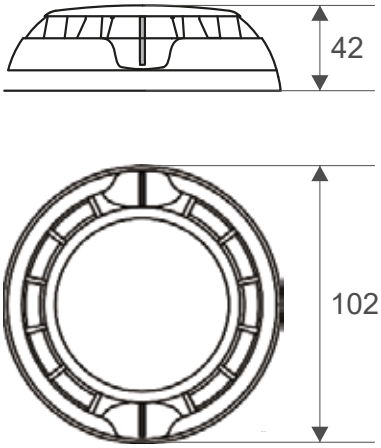
Description

The S30 is an optical-smoke detector with digital processing algorithm. The detector is designed to detect smoke in the very early stage of the fire situation. The S30 is suitable for installing in any conventional fire alarm system designed with fire alarm panel with fire alarm threshold between 10mA and 15mA.

Technical & Environmental Specification

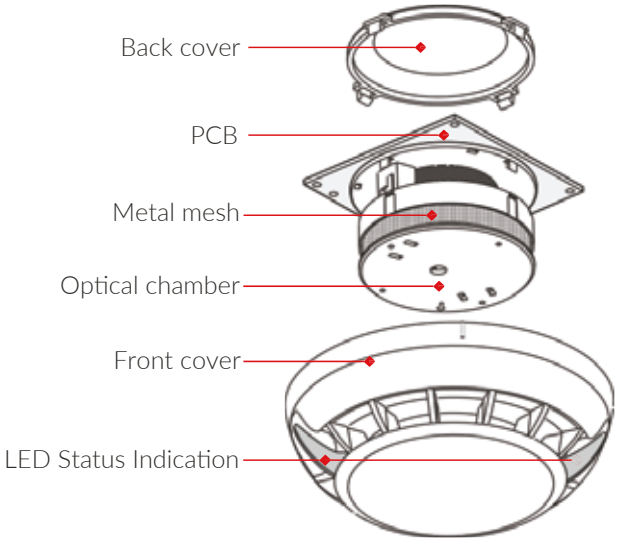
Operating Voltage Range	9 - 30 V DC (Nom. 12/24VDC)
Average current consumption in quiescent state	< 50µA
Alarm state current: *B24*	20 mA / 12-30V
Output in alarm state at terminal RI *(Towards terminals +IN /+OUT)*	20mA (max)/ -3.3V
Wire Gauge for terminals	0.4mm² 2.0mm²
Operational temperature range	-10°C +60°C
Relative humidity resistance	(93 ± 3)% @ 40°C
Dimensions (incl. base)	ø102mm, h 42mm
Weight (incl. base)	160g

Dimension Details



Application

The S30 is a high sensitive optical smoke detector. It is suitable for applications where early detection of smoke or fire is with great importance, for example office buildings, supermarkets, schools, etc.



Packing Information

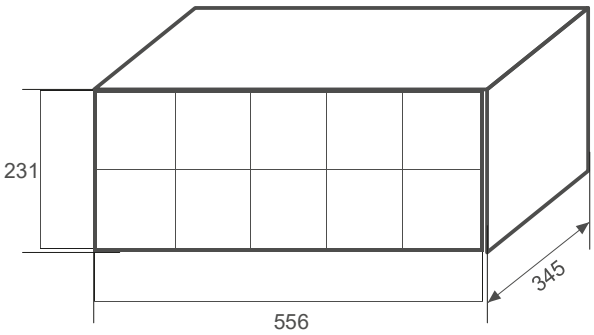
Master box
10 units S30, no bases included, dimensions
335 x 109 x 109 mm.

All detectors are protected with a plastic cap.



Carton box
100 units S30, (10 master boxes),
no bases included, dimensions 556 x 345 x 231 mm.

All detectors are protected with a plastic cap.



Compatible Product Range

- EAGLE 1 - Conventional Fire Alarm Panel, 1 fixed zones
- EAGLE 2 - Conventional Fire Alarm Panel, 2 fixed zones
- EAGLE 4 - Conventional Fire Alarm Panel, 4 fixed zones
- EAGLE 6 - Conventional Fire Alarm Panel, 6 fixed zones
- EAGLE 8 - Conventional Fire Alarm Panel, 8 fixed zones
- EAGLE 12 - Conventional Fire Alarm Panel, 12 fixed zones
- EAGLE 16 - Conventional Fire Alarm Panel, 16 fixed zones
- EAGLE B24 - Standard Base



Description

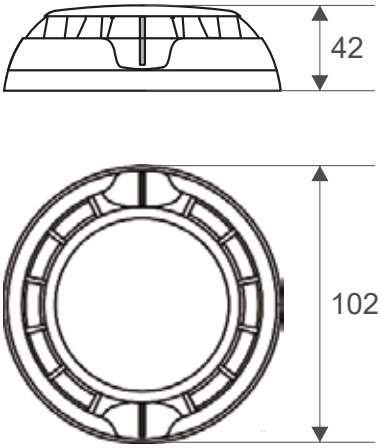
The F10 is a fixed temperature detector with digital processing algorithm. The detector is designed to detect temperatures above 60°C (class A2S, according EN54-5).

The F10 is suitable for installing in any conventional fire alarm system designed with fire alarm panel with fire alarm threshold between 10mA and 15mA.

Technical & Environmental Specification

Operating Voltage Range	9 - 30 V DC (Nom. 12/24VDC)
Average current consumption in quiescent state.	< 50µA
Alarm state current: - *with base type B24 and B24D*	20 mA / 12 30V
Class (in accordance with EN54-5)	A2/S
Output in alarm state at terminal RI *(Towards terminals +IN /+OUT)*	20mA (max)/ -3.3V
Wire Gauge for terminals	0.4mm² 2.0mm²
Operational temperature range	-10°C +60°C
Relative humidity resistance	(93 ± 3)% @ 40°C
Dimensions (incl. base)	ø102mm, h 42mm
Weight (incl. base)	160g

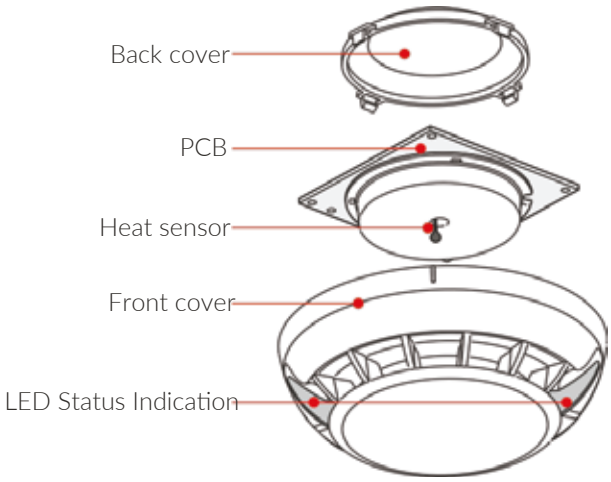
Dimension Details



Application

The F10 is suitable for environments, where sudden large temperature changes are considered as normal, rooms with high concentration of vaporous, exhaust gases, dust, etc.

For example: kitchens, garages, boiler rooms or other places where it is not convenient to install fire alarm optical smoke detectors.

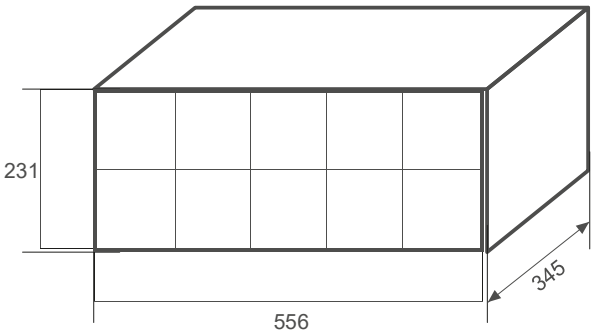


Packing Information

•Master box - 10 units S30, no bases included,dimensions 335 x 109 x 109 mm.
All detectors are protected with a plastic cap.

•Carton box - 100 units S30, (10 master boxes), no bases included, dimensions556 x 345 x 231 mm.
All detectors are protected with a plastic cap.





Compatible Product Range

- EAGLE 2 - Conventional Fire Alarm Panel, 2 fixed zones
- EAGLE 4 - Conventional Fire Alarm Panel, 4 fixed zones
- EAGLE 8 - Conventional Fire Alarm Panel, 8 fixed zones
- EAGLE 12 - Conventional Fire Alarm Panel, 12 fixed zones
- EAGLE 16 - Conventional Fire Alarm Panel, 16 fixed zones
- EAGLE B24 - Standard Base

Unit 8, Calibre Industrial Park, Laches Close, Four Ashes, Wolverhampton, WV10 7DZ, United Kingdom | T +44 1902 798 706 F +44 1902 798 679 | E sales@lifeco-uk.com | www.lifeco-uk.com

TECHNICAL DATA SHEET
for use by Architects & Engineers

Siren, Siren with Strobe
Model No: LF/B10





Features
- Quick response time
- 100±5dB (@24v DC)
- Piezoelectric horn
- High performance at low cost
- Integrated electronics
- High intensity strobe
- With reverse polarity protection
- Easy maintenance
- Easy to Install
- 2-Wire Operation
- Ceiling or sidewall mount

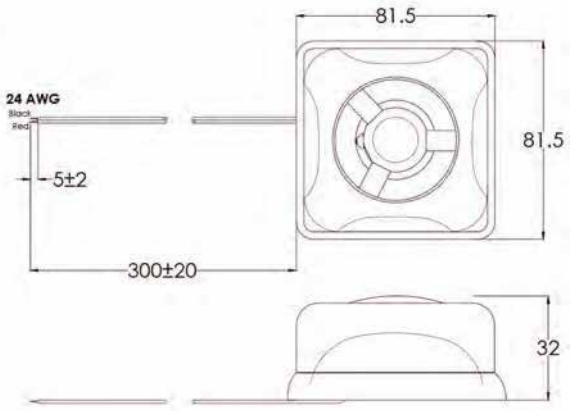
Description
The LF-SI/SS Audible strober and sirens are designed for maximum performance, reliability and cost effectiveness. It adopts a built-in integrated circuit, a piezoelectric sounder and high intensity strobe which when combined, produces high energy conversion efficiency for effective output of light and sound while utilizing a minimum amount of power.

The LF-SI/SS can be mounted by opening thr front cover and installing the body of the device to a standard 3" square box.

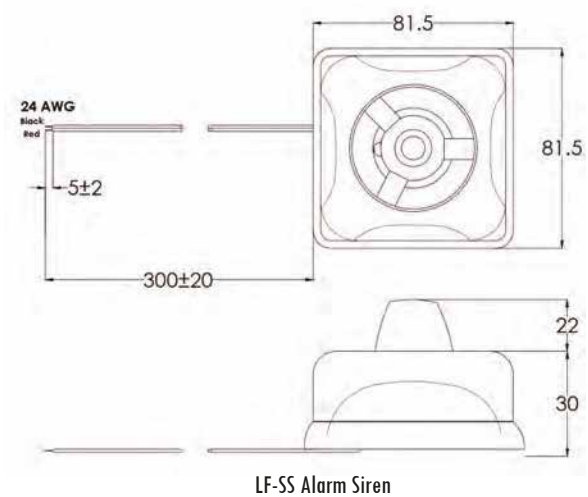
The mounting holes are hidden when the cver is placed. Together with the modern style of the strobe unit and the contour of the device, makes it appealing with any building wall design.

The indicator's design widely applies to all kinds of industrial and commercial constructions with its high resistance to humidity, wide operating temperature range, high reliability and ease of installation and configuration.

Dimension Details



LF-SI Sweep Siren



LF-SS Alarm Siren

Technical & Environmental Specification

Input voltage	24VDC 12~30VDC	
Sound output	100±5dB	
Operating temperature	-10°C ~ +60°C	
Material	ABS / Polycarbonate	
	LF-SI	**LF-SS**
Operating current	22~28mA	50~65mA
Tone type	Sweep siren	Alarm siren
Color	Red	Red

manuaL reLease statIon

LF/RS, LF/AS



manuaL reLease statIon (LF/rs)

Supply voltage	: 24 V DC
Electrical monitoring	: 470R series resistor
Operating temperature	: -20° C to +80° C
Colour	: Red With transparent cover (optional)

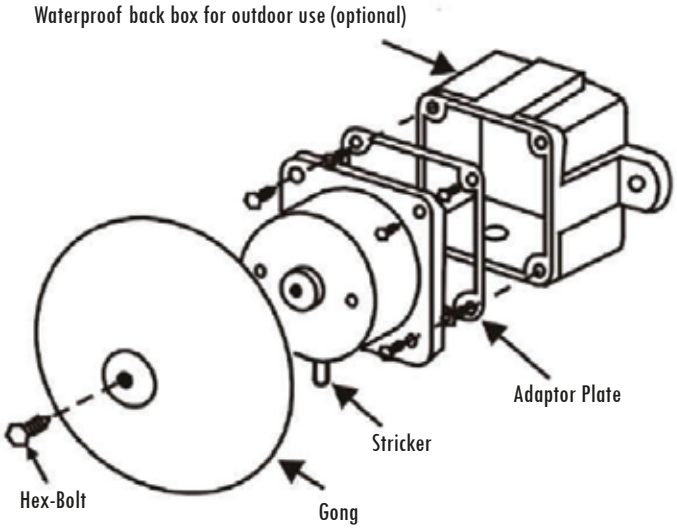
One N.O. momentary contact rated.
2.5 Amps @ 24 VDC (5 mA minimum)

TECHNICAL DATA SHEET
for use by Architects & Engineers

Fire Alarm Bell
Model No: LFB16/18/110



Exploded View



Features
- Microprocessor based design
- High dBA Sounds Output
- Low power consumption
- Available in 6", 8" 10" Housing
- Quickly and Easily installed

Installation Instruction
- Remove bell gong by loosening hex bolt.
- Wire bell in circuit.(Notice Polarity)
- Mount bell mechanism on 4" square standard outlet box with the striker facing down.
- Replace the gong and tighten hex bolt.
- The bell must be mounted a minimum of 8ft above the floor, or as close to the ceiling as possible.
- Polarized bell provides Red(-) and Black(-) lead wires. When you install the bell, must observe the polarity.

Technical & Environmental Specification

	LFB16	LFB18	LFB110
Gong size	16"	18"	10"
Voltage	24VDC	24VDC	24VDC
Current	20mA	20mA	20mA
Sound level	95dB@10ft	83dB@10ft	85dB@10ft

Dimension Details

