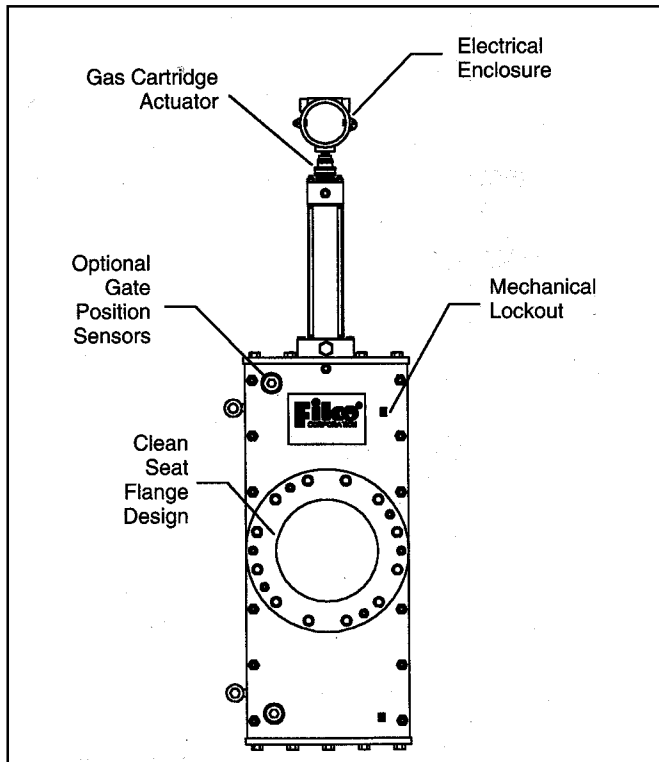


Explosion Isolation Valve

Explosion Protection Component Sheet #3550



Explosion Isolation Valve

DESCRIPTION

The Fike Explosion Isolation Valve consists of:

- Stainless steel full ported conduit gate
- pipe flanges to fit ANSI 150 bolting
- bolted mild steel housing
- cushioned gate
- mechanical lockout
- optional gate position sensor
- gas cartridge actuator (GCA)

Valve closure is achieved when the GCA is activated by the System Controller, causing release of gasses into the actuator. Closure is accomplished in less than 5 milliseconds per inch of valve diameter.

Bidirectionality (flame from either side of the valve) and clean seat design are inherent to the conduit style valve.

OPERATION

The principle function of the valve is to rapidly close openings to eliminate flame/deflagration passage. Rapid closure of the

valve gate blocks the passageway and inhibits flame passage. Operation of the valve is accomplished by electrical activation of a GCA which drives the clean seated gate to the closed position. The valve is compatible with applications requiring flame block from up-flow and down-flow locations.

CONSTRUCTIONS

Pressure loss through the valve is virtually nonexistent. A clean seat conduit design eliminates buildup of process materials and all internal obstruction to the pneumatic transport process system.

Integration of the valve into the facility is simple and compatible with production volume demands.

Personnel exposure to moving parts has been eliminated. Reliable operation is facilitated by reducing the exposure to environmental and/or process hazards.

Gate removal from the valve assembly is accomplished from either the top or bottom of the gate housing to simplify field servicing in the event gate examination is needed.

The Explosion Isolation Valve utilizes modular construction to allow on-site refurbishment and/or rebuilding.

SPECIFICATIONS

Line Temp. Limit	-20°F to + 500°F
Amb. Temp. Limit	-20°F to 130°F
Operating Pressure	Continuous, (Consult factory for higher or lower temperature limits.) Min-Max, full vacuum to +2.0 BarG (29.0 PSIG)
Deflagration Pressure	10 BarG (145.0 PSIG)
Line Size/Bolting	150 ANSI, see table 1 DIN sizes available upon request Sanitary design available upon request
Materials of construction	
Process Contact:	
Gate*	316 SST
Flanges*	316 SST
Seals (flange/gate)	Teflon encapsulated silicone
Body	Mild Carbon Steel
Paint Specification	Non SST external surfaces, baked urethane enamel

*Consult factory for alternate materials



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July, 2000
Revised Issue

Front View

Side View

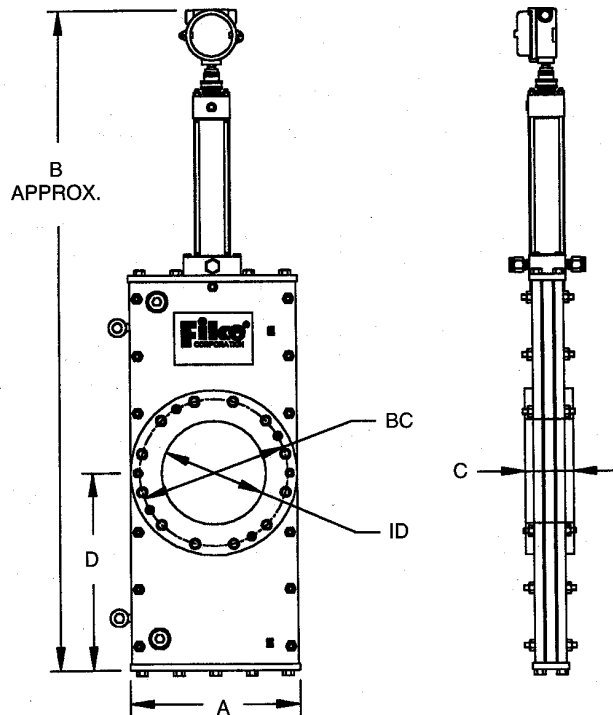


TABLE 1
Dimensions

Valve Size	ID	Bolt BC	A	B	C	D	Approx. Weight, Lbs.
2"	2	4 3/4	5 1/2	26	3 1/2	4 1/2	60
3"	3	6	9 1/8	38	4 1/2	9 11/16	150
4"	4	7 1/2	9 1/8	38	4 1/2	9 11/16	150
6"	6	9 1/2	11 1/8	47	4 1/4	12 15/16	195
8"	8	11 3/4	13 3/4	55	4 7/16	15 15/16	305
10"	10	14 1/4	16 1/4	63	4 7/8	19 1/16	415
12"	12	17	21	78	8 1/8	23 1/4	575
14"	14	18 3/4	23	89	8 1/8	27 1/4	850
16"	16	21 1/4	25	98	8 1/8	30 1/4	1140
18"	18	22 3/4	28	107	8 1/8	34 1/4	1355
20"	20	25	30 1/2	113	6 5/8	36 1/2	1090
24"	24	29 1/4	36	136	6 5/8	45 1/4	1280

All specifications are subject to change without notice.