DATA SHEET

EXPLOSION ISOLATION VALVE - FAST ACTING VALVE FAV

Fast Acting Valve

DESCRIPTION

Explosion venting and explosion suppression are designed to protect process vessels from overpressurization. Explosion isolation is intended to keep explosions from spreading throughout a process. By isolating the explosion, the effect is limited to the equipment where the explosion initially occurred.

The Fike Explosion Isolation System proceeds through 3 basic sequences to provide successful activation: detection, initiation and closure of the valve.The Fike explosion isolation valve is the critical element in the sequence of successful explosion isolation. The rapid closure provides the physical barrier which prevents flame propagation beyond the isolating valve location.

FEATURES AND BENEFITS

- Bi-directional design makes one valve applicable for stopping explosions from both directions
- Horizontal or vertical use
- Free, non restricting passage; no pressure drop
- The integrated soft sealing results in a clean, leaktight seat
- All parts are designed for low maintenance and easy service
- The Fike explosion isolation valve provides protection against the propagation of dust explosions (including St 3 applications), gases and hybrid mixtures
- Can be equipped with a manually operated pneumatic open/close module, and an open/close position indication

SPECIFICATIONS

Type		Fast Acting Valve FAV									
Available sizes	DN	DN50	DN80	DN100	DN150	DN200	DN250	DN300	DN350	DN400	DN500
	INCH	2”	3”	4”	6”	8”	10”	12”	14”	16”	20”
Explosion hazard		Combustible dusts (incl. St 3) gases and hybrid mixtures									
Response time (closure)		50 ms maximum (typically 5 ms/inch)									
Initiator		Valve Actuator Assembly (GCA)									
Maximum operating temperature		200°C									
P_{EX}		13 barg (tested)									
Enclosure protection indices		IP66									
Hazardous area classification		Atex II 1/2 G/D EEx d IIC T6 / IP66 T85°C									
System performances tested at		FSA, Mannheim / DMT, Dortmund / Ciba Geigy, Basel / Fike									
Painting specifications		Valve body: Black high-build 2-component coating									
Material specification		Valve body: Carbon steel Gate: 1.4003 (SST) Flanges (wetted parts): 1.4404 (316L SST) O-ring: Teflon coated silicone (2 pieces) Piston actuator: Aluminium									
Options		Gate: 1.4404 (316L SST) Position indicators: Valve open/closed (Reed switch) Pneumatical open/close module									

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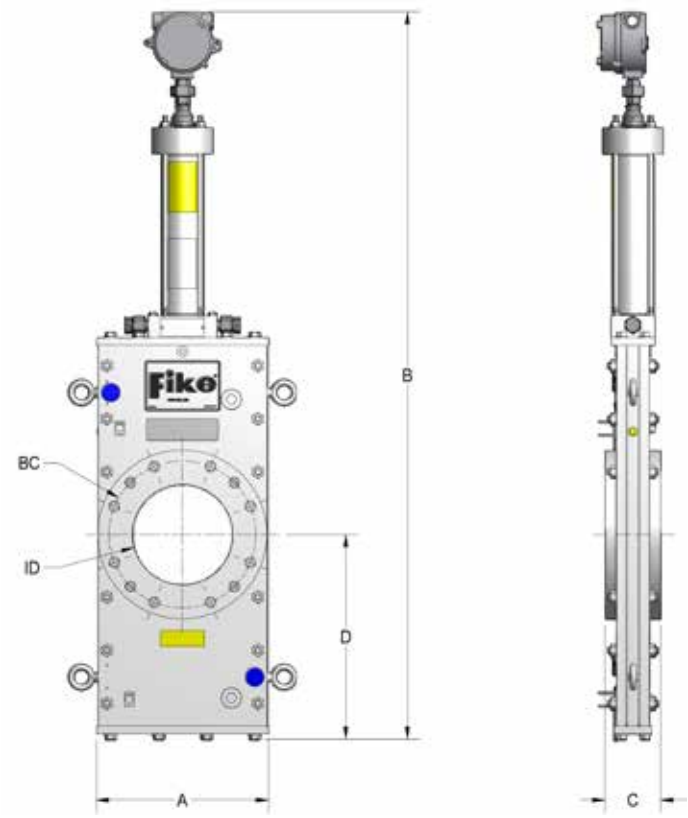

Valve Size	Valve Actuator Assembly Qty	ANSI bolting / DIN Bolting	Bolt Diameter	Max. torque (Nm)	ID (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
2”	1	150	5/8”	190	52.6	165	762	112	130	45
DN50		PN10/16			50.8					
3”	1	150	5/8”	190	78.0	229	963	112	248	80
DN80		PN10/16		195	82.5					
4”	1	150	5/8”	190	102.4	229	963	112	248	80
DN100		PN10/16		195	107.1					
6”	1	150	3/4”	360	154.2	285	1240	126	340	100
DN150		PN10/16	M20	380	159.3					
8”	2	150	3/4”	360	202.7	343	1444	126	412	180
DN200		PN16	M20	380	207.3					
10”	2	150	7/8”	640	254.5	406	1642	217	490	220
DN250		PN16	M24	660	260.4					
12”	2	150	7/8”	640	304.8	533	1912	195	600	350
DN300		PN16	M24	660	309.7					
14”	2	150	1”	809	336.5	584	2195	209	702	450
DN350		PN16	M24	617	339.6					
16”	2	150	1”	809	406.4	635	2136	209	760	500
DN400		PN16	M27	960	390.4					
20”	2	150	1 1/8”	1426	508.0	777	2906	208	935	700
DN500		PN16	M30	1200	492.0					

U.S. Patent 6,131,594 and Foreign Patents

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