



EXPLOSION PROTECTION

Fike Explosion Isolation Pinch Valve (EIPV)

Description

The Fike Explosion Isolation Pinch Valve (EIPV) System, used in conjunction with other Fike Explosion Protection System components, is designed to provide an economical way to prevent deflagration propagation through interconnecting pipes or conveying lines to additional process equipment or operating locations.

The Fike EIPV system consists of a heavy duty cast valve body containing a rugged elastomer sleeve, high speed solenoid valves, a pneumatic accumulator, high and low pressure switches, shut off, vent and manual operation valves and an electronic control module. The actuating pressure is supplied from standard plant air source, regulated to 6 barg (85 psig) and stored in a pneumatic accumulator vessel mounted onto the valve body. The accumulator stores sufficient pneumatic energy to close the pinch valve quickly and maintain closure against a deflagration even without an active air supply.



Features and Benefits

- Provides a mechanical block to explosion flame and pressure
- Uses readily available plant air. No explosive charges required to activate the valve
- Supervised accumulator pressure
- · Fast closure minimizes installation distance from vessel
- No reaction forces upon closure
- Full-port design prevents pressure drop and clogging under the most difficult conditions
- Elastomer sleeve extends to the full face of the flange thus eliminating bacterial contamination
- Can be used as a process valve
- Virtually maintenance free. Can be operated and reset by user
- · Vertical or horizontal mounting
- Proven concept, large scale tested at Fike
- Third party tested and certified (CE, ATEX)

Safety Function

The elastomer sleeve of the Fike EIPV system serves as the process flow section and is connected to the process via two circular flanges. Upon explosion detection, compressed air is released at high speed into the valve body such that the sleeve is pinched to full closure within milliseconds. This full closure provides a mechanical block to flame and pressure thereby stopping explosion propagation beyond the valve.











Specifications

EIPV	Fike Part Number	Dimensions (inches / mm)						Studs		Weight Lbs / kg
Pipe Size	Cast Iron Body	w	L	OAH	ØP	ØF	ØBC	Size	Qty	Cast Iron Body
4 inch	E70-057-1-04	22"	12.5"	32.5 "	4"	9"	7.50"	5/8 - 11	8	160 Lbs
DN100		559 mm	318 mm	826 mm	100 mm	229 mm	170 mm	M16	4	73 kg
6 inch	E70-057-1-06	30"	20"	37.5 "	6"	11"	9.50	3/4 - 10	8	250 Lbs
DN150		762 mm	508 mm	953 mm	150 mm	279 mm	225 mm	M16	8	113 kg
8 inch	E70-057-1-08	35"	22"	41"	8"	13.5 "	11.75"	3/4 - 10	8	400 Lbs
DN200		889 mm	559 mm	1041 mm	200 mm	343 mm	280 mm	M16	8	181 kg
10 inch	E70-057-1-10	39.5 "	24"	47"	10"	16"	14.25"	7/8 - 9	12	635 Lbs
DN250		1003 mm	610 mm	1194 mm	250 mm	406 mm	335 mm	M16	12	288 kg
12 inch	E70-057-1-12	48"	26"	51"	12"	19"	17.00"	7/8 - 9	12	905 Lbs
DN300		1219 mm	660 mm	1295 mm	300 mm	483 mm	395 mm	M20	12	411 kg

Standard flange rating: SLIP ON FLANGE DNxxx PN6 or ANSI 150 (Inch sizes). Other flange type and rating available on request, contact Fike.