

EXPLOSION PROTECTION

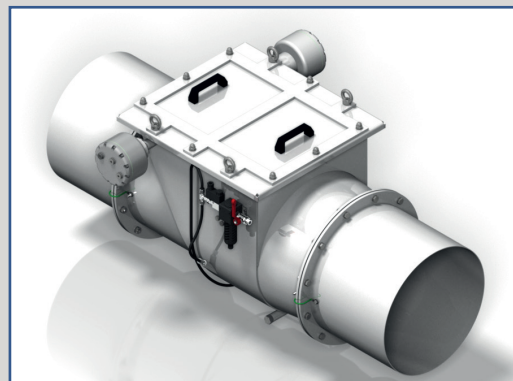
Valvex™ Passive Explosion Isolation Valve

Description

The Fike Valvex™ Passive Explosion Isolation Valve is the new member of the Fike family of passive explosion protection solutions.

The Valvex™ Passive Explosion Isolation Valve is specifically designed for explosion protection applications. Several years of dedicated research resulted in unique insights into mechanisms of explosion propagation and efficiency of passive explosion isolation devices.

The Valvex™ Passive Explosion Isolation Valve is designed to prevent flame and pressure propagation through interconnecting pipes, ducts or conveying lines to additional process equipment or operating locations.



Data Sheet

Features and Benefits

- Specifically designed for explosion protection applications
- Minimal pressure drop
- Minimal dead spaces, preventing dust drop out
- Integrated seal
- Self resetting
- Minimum maintenance requirements
- Compact, small installation dimensions
- Designed for low cost of ownership
- Ease of inspection even while in operation
- ATEX certified
- Aids conforming to legal requirements (ATEX, NFPA, ...)

Available options:

- (1) Automatic cleaning mechanism
- (2) Automatic dust layer detection

Safety Function

The Valvex™ Passive Explosion Isolation Valve consists of a heavy duty coated steel body containing a gate, which pivots around an axle perpendicular to the process flow. In the absence of flow, the gate will be closed. Air flow will open the gate to allow normal process conveyance conditions. When an explosion occurs in the adjacent vessel, the flow will reverse causing the gate to quickly slam shut onto its seat, thereby stopping explosion pressure and flame propagation.

Specifications

Type	Valvex™ Passive Explosion Isolation Valve
Available sizes	DN100 - DN150 - DN250 - DN300: Jacob flanges (DIN10296-1, 2 mm wall thickness) DN400: bolted flanges (DIN24154-R11 T2)
Explosion hazard	$K_{st} \leq 200 \text{ bar.m/s}$ $P_{max} \leq 10 \text{ bar}$
Temperature range	-20°C to 60°C
Operating pressure	± 0.5 bar
Hazardous area classification	ATEX / IECEx II 2 D
Body Material	Carbon steel-coated RAL9003
Wetted parts	Coated carbon steel, 303 SST, 304 SST, silicone, EPDM
Air pulse cleaning (optional)	
Ingress protection degree	IP65 ⁽¹⁾
Electrical specification (air purge solenoid)	24VC - 5W
Air supply pressure	6.5 bar (± 1 bar)

(1) when options are fitted

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All above data are subject to change without notice. They must not be used unless confirmed in writing.

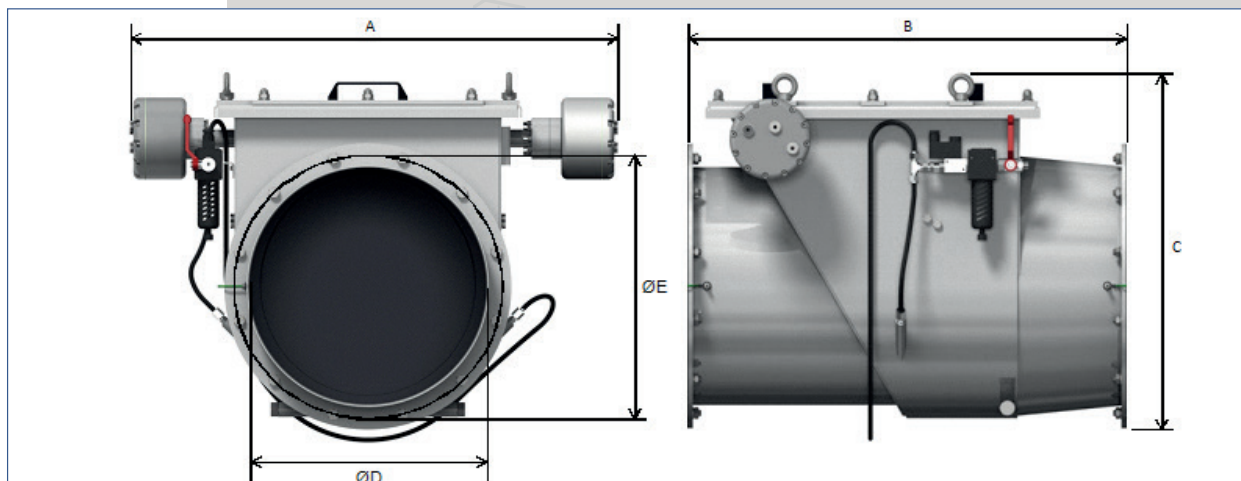
Fike Europe B.v.b.a • Toekomstlaan 52 • B2200 Herentals • Belgium

Tel. +32 14 210031 • Fax +32 14 210743 • email fike-europe@fike.com • website: <http://www.fike.be>

Fike United Kingdom • Maidstone • England

Tel. +44 1 622 677081 • Fax +44 1 622 685737 • email sales@fike.co.uk • website: <http://www.fike.co.uk>

Dimensions



Valvex™	Dimensions					Bolts	
Size	A (mm)	B (mm)	C (mm)	Ø D (mm)	Ø E (BC) (mm)	Dim.	Qty.
DN100	415	400	269	99	- (1)	- (1)	- (1)
DN150	465	450	289	149	- (1)	- (1)	- (1)
DN250	565	600	404	249	- (1)	- (1)	- (1)
DN300	615	650	454	299	- (1)	- (1)	- (1)
DN400	822	744	604	400	448	12	M10

(1) ValvEx™ valves between DN100 and DN300 have DIN10296-1 flanges which do not require bolts and nuts, only a gasket and clamp. Several types (clamp with integrated gasket, screw clamp, quick connect clamp, ...) are available. Contact a local supplier for additional information.



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