DATA SHEET

VENTEX® – Passive Explosion Isolation Valve

The VENTEX® passive explosion isolation valve is an valve that prevents flame and pressure propagation through interconnected pipelines. The valve poppet is closed by the pressure of the primary vessel explosion. No control and detection is required. The valve can be used to stop the explosion in either one or both directions.

SPECIFICATIONS

Types		VENTEX® S (single acting)	
		VENTEX® D (double acting)	
		VENTEX® C (check valve)	
Sizes		DN100 – DN600	
Material of Construction	**Housing**	Mild steel 1.0038 (S235JR)	
		Stainless steel 1.4301 (AISI 304)	
		Stainless steel 1.4404 (AISI 316L)	
	Sealing	EPDM	
		VMQ	
		FKM	
		Ceramic fiber gasket	
	Surface treatment	Powder coating C4/C5 (up to 120°C)	
		Powder coating (up to 300°C)	
		Hot-dip galvanizing (up to 300°C) (1)	
		Stainless steel pickled and passivated (up to 300°C)	
Process connection		EN 1092-1 PN10 ASME B16.5 Class 150 - ANSI	
Max. Process temperature (2)(3)		Between 248°F and 572°F	Between 120°C and 300°C
Ambient temperature		-4°F to +140°F	-20°C to +60°C
Dust load		Max. 50g/m³ Min. Flow velocity ≥ 12m/s Particle size ≤ 0.5mm	
Process flow velocity		≤ 30m/s	
Explosion Hazards	**K_{st}**	Organic dust St1/St2 300 bar.m/s Organic dust St3 400 bar.m/s Metallic dust 400 bar.m/s (4) Hybrid mixtures IIA-IIb3 400 bar.m/s (5) (with a gas concentration up to 80%) Hybrid mixtures and turbulent gases IIA-IIB3 400 bar.m/s (5) (without limitation of the gas concentration)	
Compliant		NFPA 69	

Approvals		
ATEX	Marking [6]	Ex GD
	Norms	EN 15089
	Certification	FSA 21 ATEX 1708 X
	Zone inside	Zone 0,1,2,20,21,22
European Conformity CE Approval		CE-0081
Food Contact Materials Approvals		FDA, EC1935

1) Corrosion protection up to 300°C, from 200°C zinc particles could flake off, which does not affect the corrosion protection.
2) The maximum process temperature depends on the version.
3) The maximum explosion pressure is reduced with increased process temperature.
4) For the DN150 the K_{st} for metallic dust is 300 bar.m/s
5) Not allowed in combination with explosion venting, in combination with explosion-suppression permitted as pressure barrier only.
6) Additional marking depends on the switch type used.

OPTIONS

- VENTEX® CIP

This version is specially developed for highly hygienic processes, such as often found in the pharmaceutical and food industry.

  - Optimal cleaning results thanks to polished surfaces and rounded edges and weld seams
  - Tested gas tightness 2barg to the outside in order to avoid undesired external air in the process.
  - Use of FDA and EG 1935/2004 compliant components.

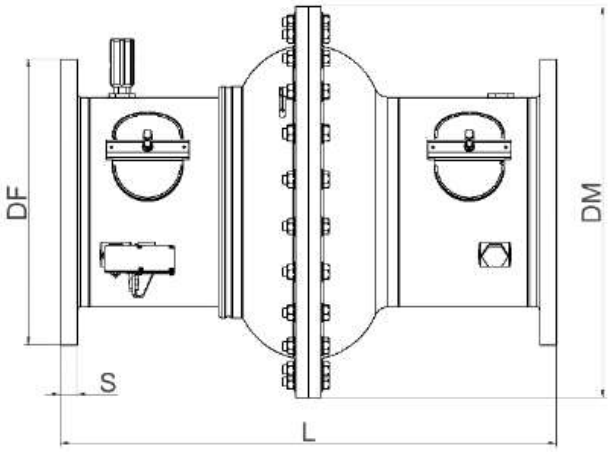
- Switch for position signaling

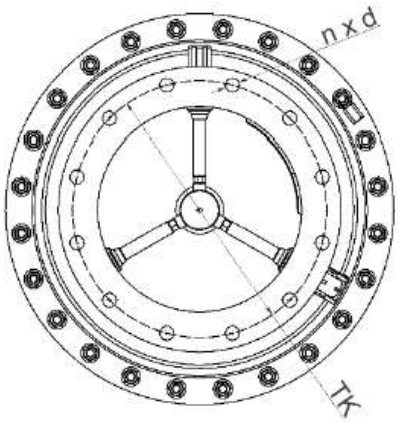
Wilde range of mechanical and inductive switches for position indication for a wide range of requirements with regard to temperature, ATEX-approval, etc. Contact Fike for more information.

INSTALLATION REQUIREMENTS

Bolts, washers and nuts are provided by the customer.

DIMENSIONS





VENTEX													
Size		Length (L)		Connection Flange diameter (DF)				Outside diameter (DM)		Thickness Flange (S)		Weight	
				EN 1092-1 PN10		ASME B16.5 Class 150							
inch	DN	inch	mm	inch	mm	inch	mm	inch	mm	Inch	Mm	lbs	kg
4	100	S: 13.78 ±0.16 D: 15.74 ±0.16	S: 350 ±4 D: 400 ±4	8.66	220	9.06	230	10.24	260	0.59	15	42	19
6	150	19.69 ±0.16	500 ±4	11.22	285	11.02	280	14.57	371	0.59	15	77	35
8	200	24.02 ±0.16	610 ±4	13.39	340	13.58	345	18.90	480	0.94	24	122	55.5
10	250	27.95 ±0.16	710 ±4	15.55	395	15.98	406	21.65	550	0.94	26	172	78
12	300	30.71 ±0.16	780 ±4	17.52	445	19.09	485	24.02	610	1.02	26	177	80.5
16	400	37 ±0.24	940 ±6	22.24	565	23.43	595	28.31	719	1.02	26	297	134.5
20	500	51.18 ±0.24	1300 ±6	26.38	670	27.56	700	32.20	818	1.18	30	445	206.5
24	600	55.91 ±0.24	1420 ±6	30.71	780	32.03	813.5	36.85	936	1.18	30	650	295

1) All material SST 304 (1.4301), non-asbestos gasket between flame filter and hold down.
2) Refer to applicable standards for flange dimensions and bolt circle and bolt hole details.

ORDERING

Please include the following specifications when ordering a VENTEX®.

- Type
- Size
- Material of construction
  - Housing
  - Sealing
  - Surface treatment
- Process connection
- Max. Process temperature
- Options
  - Switch for position signaling