



# Model 942-EV

## End-of-Line (Emergency) Pressure Relief Vent/Valve

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Drawing on extensive experience in the pressure relief field, the BS&B FlameSaf® (emergency) pressure relief vent/valve offers a dependable, internationally certified and precisely engineered design to prevent excessive pressure build-up and rupture of valuable tankage during abnormal operation or as a result of exposure to fire. Designed for the highest standards of precision and safety, these vents use FEP diaphragms to provide tight seals between pallet and seat, which coupled with the 10% overpressure feature result in reliable and accurate response to even minimal changes in pressure. Users benefit from optimized operating conditions close to MAWP (Maximum Allowable Working Pressure) while ensuring operation that safeguard both personnel and environment.

### Features

- Suitable for both normal and/or emergency pressure relief
- Complies with API 2000 Seventh Edition / EN ISO 28300
- Certified to ATEX – Directive 94/9/EC
- Weight-loaded pallet design; discharges to atmosphere
- Achieves full open (relieving pressure) at just 10% overpressure
- Provides premium sealing with FEP diaphragms (metal-to-metal available for special requirements or higher settings)
- Leakage rates much tighter than API 2000/EN ISO 28300 requirements
- Weather-hood and screen protect pallet/seat from environment and contamination
- Pallet, seat & stem-guide made from stainless steel
- Modular design reduces requirements for inventory of space parts

### Protection

Gas/air or steam/air mixtures II ½ G c IIB T X

### Flange Connection Type

EN or DIN: ISO 7005 - PN10

JIS B 2220 - 10k

ANSI: ANSI B.16.5 - 150 RF

Other types available upon request

Materials of Construction					
	FEP	Ductile Iron	Carbon Steel	Stainless Steel	Other Materials on request
Diaphragm	✓			✓	✓
Valve Set/ Pallet				✓	✓
Valve Seat				✓	✓
Body		✓	✓	✓	✓

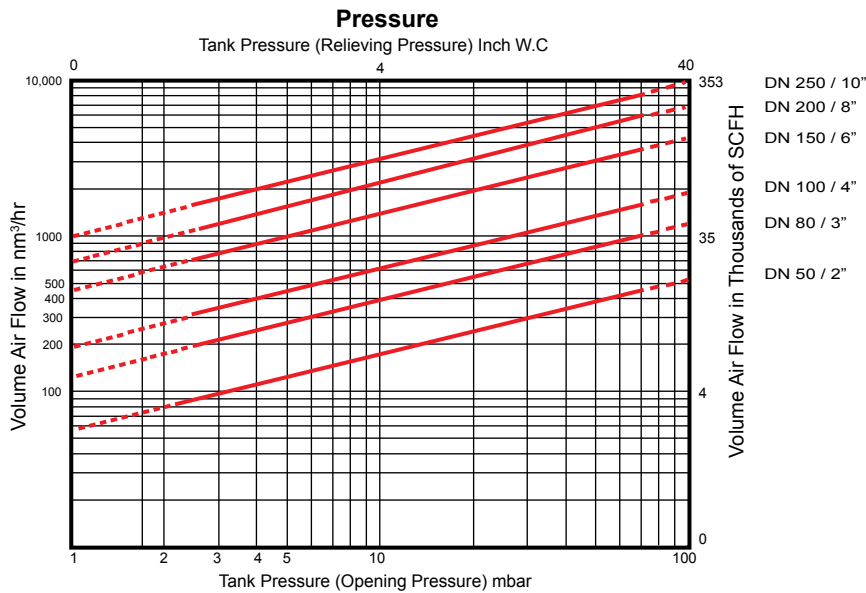
Available in sizes DN 50 (2"), DN 80 (3"), DN 100 (4"), DN 150 (6"), DN 200 (8"), DN 250 (10")



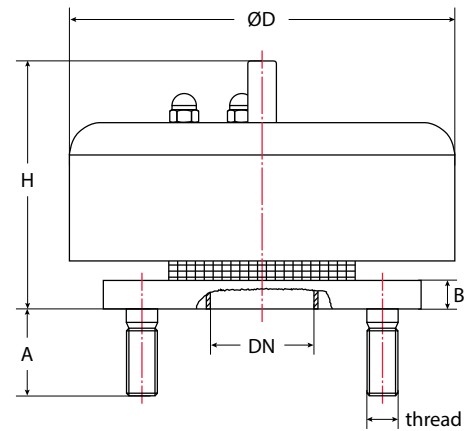
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EC Type Examination	
Designation	942-EV 50 to 250
Protective System	(Emergency) Pressure Relief Valve (End-of-Line)
ATEX Certificate Number	IBExU14ATEX1069 X
Compliance with	Guideline 94/9/EC (ATEX 95), EN ISO 28300, EN1127-1, EN 13463-1, EN13463-5, API Standard 2000 7th Edition (March 2014)

## Tank Pressure/Volume Flow Chart



## Dimensional Drawing



### Dimensions (in mm / inches)

DN	50 / 2	80 / 3	100 / 4	150 / 6	200 / 8	250 / 10
A	43 / 1.69	48 / 1.89	48 / 1.89	58 / 2.28	58 / 2.28	58 / 2.28
B	16.5 / 0.65	20 / 0.79	20 / 0.79	22 / 0.87	22 / 0.87	22 / 0.87
Ø D	200 / 7.87	250 / 10	300 / 11.81	360 / 14.17	435 / 17.13	535 / 21.06
H	130 / 5.12	155 / 6.1	170 / 6.69	250 / 9.84	275 / 10.83	330 / 12.99
Thread	M16 or 5/8" UNC			M20 or 3/4" UNC		M20 or 7/8" UNC

To select the nominal size (DN), please use the Tank Pressure / Volume Flow Charts above

### Operating Conditions

Temperature	-4 °F (-20 °C) – 320 °F (160 °C)
Maximal 80% of ignition temperature stored medium	
Pressure: Atmospheric	0.8 bar [11.6 psi] to 1.1 bar [15.95 psi] (absolute)

### Valve Settings

Set Pressure	+2.5 mbar [1 inch W.C.] to +70 mbar [28 inch W.C.]
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