

REDEX® Flap Explosion isolation flap valve

This represents an attractive and, at the same time, **technically sophisticated** solution for protecting **pressure-relieved systems** passively against explosion propagation.

Your advantages:

- Durable thanks to the robust and high-quality design
- High flexibility of use due to sophisticated certification and technology
- No additional detection or control necessary due to the passive functionality
- Low maintenance costs owing to quick maintenance operation without dismantling the valve from the pipe
- Optimal system operation through low pressure losses
- Best protection thanks to mechanical locking system
- Simple monitoring of the function and possible dust deposits by means of inductive switches

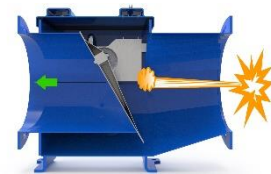
Functionality:



In the **rest position** with no air flow, the flap disc is in the closed but not locked position. In this position, the functional reliability is monitored by means of a switch.



In **normal operation**, the flap disc is in open position and the medium flows around it.



In **case of an explosion**, the pressure wave pushes the flap disc into the closed and locked position. Due to that, the propagation of flames and pressure waves will be prevented. A switch monitors the function respectively the locked position of the flap valve.

Optimal protective measure for filters:

The REDEX® Flap suits, among other things, perfectly as raw gas side decoupling element in combination with pressure-relieved filters:



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Approvals and conformities:



ATEX
EU-Type Examination Certificate:
- FSA14 1653X
- GEX19 1000X



Certified according EN 16447
Conform to NFPA 69

Specifications and execution:

- Approval spectrum:
- For organic dusts up to Kst 300¹
 - Airflow and explosion direction opposite
 - For pressure-relieved systems
 - Pull applications according to EN 16447: 2014
- Applicable in zones:
- | | Zone inside | Zone outside ² |
|---|-------------|---------------------------|
| - | 20 | - 21 |
| - | 21 | - 22 |
| - | 22 | |
- Installation position:
- Horizontal
- Min. closing pressure:
- ≥ 0.05 barg
- Procedural application limits:
- Min. approx. 12 m/s air flow velocity to avoid dust deposits
 - Max. 35 m/s
 - Max. dust load approx. 100 g/m³
- Housing material:
- Mild steel 1.0038
 - Powder-coated RAL 5017 (traffic blue)
 - Special coatings on request
- Connection flanges:
- DIN 24154 class 2
- Max. operating temperature:
- 80°C³ (DN140-DN400)
 - 100°C (DN450-DN710)
- Max. ambient temperature:
- 80°C³ (DN140-DN710)
- Switch for position signalisation:
- A switch for detecting the rest position
 - A switch to detect the locked position

¹ The Kst value depends on the nominal size – detailed information see installation guideline FT0008 / FT0019

² The zone outside depends on the switch used. Please consider the device category on the nameplate and the technical data sheet of the specific explosion isolation flap valve.

³ The max. possible operating/ambient temperature depends on whether a switch is installed or not. Please consider the technical data sheet and the nameplate of the specific explosion isolation flap valve.

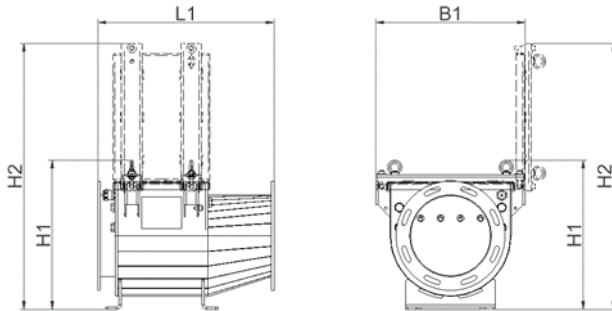
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External dimensions DN140-DN710⁴:

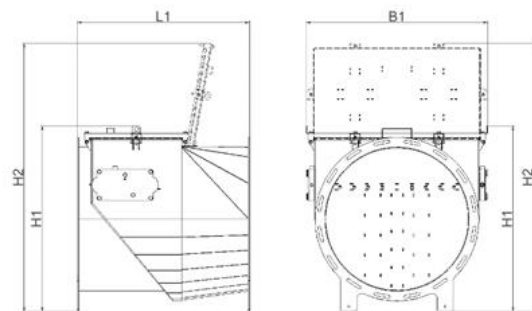
Dimensions [mm]	Nominal size												
	DN140	DN160	DN200	DN250	DN280	DN315	DN355	DN400	DN450	DN500	DN560	DN630	DN710
Length (L1)	420	440	440	590	620	620	620	620	661	714	796	826	856
Width (B1)	314	334	374	466	496	531	571	616	642	707	772	837	902
Height (H1)	324	335	372	468	497	532	574	619	635	700	760	845	925
Height cover open (H2)	554	586	663	837	895	966	1047	1137	937	1022	1122	1237	1347
Net weight [kg]	21	22	23	48	55	59	65	71	90	100	120	140	150

All dimensions in mm, unless otherwise indicated

DN140-DN400:



DN450-DN710:



Additional information:

- FT0008/FT0019 detailed installation guideline including installation distances and pressure drop values
- FB0004/FB0018 operating instruction
- FD0009 transport packaging

This document is for informational purposes only and cannot be used for all installation situations and executions of the product. Please feel free to contact us for further and more detailed information.

⁴ You can find all additional dimensions in our installation guideline FT0008 respectively FT0019