

HRD Suppressor Type E

Explosion Protection System Components

Advantages:

- Can be installed for environmental temperatures of up to 70°C
- Opens within 1.5 ms
- Time to discharge 30-85 ms
- Robust valve technology, protected against corrosion



Overview

Industrial process vessels including silos, filters, cyclones, mixers and dryers can contain an explosible concentration of combustible products. In cases where ignition sources cannot be excluded, the risk of an explosion prevails. An explosion suppression system rapidly deploys suppressant reducing the pressure effects of the explosion to an acceptable level.

Application

The EHRD-suppressor is designed for installation on all types of vessels, ducts and pipes for dusts of class St1 - St3, gases and hybrid mixtures in the following industries: chemical, food processing, coal, pharmaceutical, wood processing, feed processing, recycling, pulp, and automobile.

Operation

The suppressor valve is closed with a domed disc and a sealing ring. Beneath the domed disc are the actuation devices comprising a detonator and a line cutting charge.

Should an explosion be detected, the actuators are triggered by a control unit. Within approximately 1.5 milliseconds the line cutting charge cuts a grooved hole approx 300 degrees around the domed disc. The suppressor is pressurized with nitrogen. Once the domed disc is cut the nitrogen presses the disc down and the whole cross section is made available for the extinguishing powder to flow out. By means of a special nozzle system an optimal deployment of the extinguishing powder is achieved.

Specifications

Type	5 litre container	20 litre container	45 litre container
Total weight	24 kg	56 kg	116 kg
Filling weight	4 kg	16 kg	35 kg
Extinguishing Agent	KIDDEX™	KIDDEX™	KIDDEX™
Operational pressure	60 bar+5% / 20 °C	60 bar+5% / 20 °C	60 bar+5% / 20 °C
Flow section	3" (75 mm)	3" (75 mm)	5" (125 mm)
Max. temp. ambient	+70 °C	+70 °C	+70 °C
Min. temp. ambient	-20°C	-20°C	-20°C
Colour	Red RAL 3000	Red RAL 3000	Red RAL 3000
Trigger element	Detonator and line cutting charge	Detonator and line cutting charge	Detonator and line cutting charge

Approvals

CE-Type Examination Certificate according to Directive 94/9/EC (ATEX)	
Equipment Certification	SIRA 03 ATEX 9532 X
	DNV-2008-OSL-ATEX-21291U Rev.1
System Certification - Explosion Suppression	FSA 07 ATEX 1578
System Certification - Extinguishing Barrier	FSA 07 ATEX 1579
Type of protection	II 1/2D T85°C IP65
	II 1/2G T6
Use	Zone 21, mounting at Zone 20

Contact Information

For additional information, please contact one of the following locations:

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