FDEV395
Spark Detector

Description

The FDEV395 Spark Detector is an electronic device suited to detect sparks in combustible materials transport pipes and channels, headed to a storing silo.

During the transporting phase, a spark, produced in the previous manifacturing stages, can be transported mixed with the materials.

If this spark is not detected and neutralized very quickly, once it arrives inside the silo, it can cause a fire or an explosion. So the precise and quick detection of the spark, can be used to prevent great damages and dangers to both people and things and consequently to elevate the security level of the installation.

The FDEV395 detector is able to reveal sparks that cross its viewing range even if they have a great velocity (up to 100 km/h).

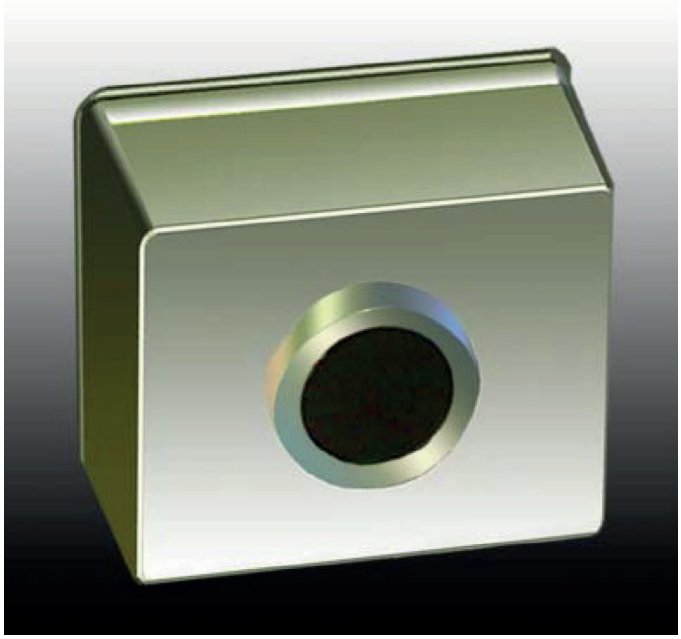
The detector is equipped with an optical head sensible to infrared radiation, that has a viewing range of more than 90 degrees (solid angle) and a suitable electronic circuit that provides the amplification and managing of the signal.

When the FDEV395 detector intercepts a spark it provides the powering of a relay suitable to switch on optical and acoustic alarms. Moreover a fire extinguishing system (splinker) can be activated. For the former function it is suggested to use our EV 521 control unit that has a great using flexibility.

In the case of pipes of large (greater than 0.5 m.), to avoid areas not protected, you need to use 2 detectors installed diametrically opposite. If a water spraying automatic extinguishing system is also present,the spark extinguishing can be verified. The use of two opposing detectors may be required even if the conveying pipe has a shape other than cylindrical, for example square, rectangular, etc. to avoid dead zones and outside the field of vision of the detector optics. To get maximum security you can use multiple detectors installed along the pipe and 2 stations off.

The detector's box is made of fusion light alloy with IP67 protection, and so the internal electronics are protected from dust, shocks and from ambient conditions, that can be also corrosive, permitting to use the detector outdoor for a long time without any problem. The maintenance of this detector is very simple and not frequently required.

EV395 is supplied complete with mounting brackets.



Technical Data

- > Power supply: 24 V cc or ac
- > Power consumption: 20 mA (no alarm) - 50 mA (alarm)
- > Optical viewing solid angle: 90 degrees
- > Max detecting distance: about 50 cm
- > Sensitivity regulation
- > Regulation of relay powering time: 1-10 sec
- > Pins to connect a remote test button
- > Alarm LED
- > Output relay: 6A/24V
- > Fusion light alloy metal box
- > Protection index: P67
- > Dimentions: 140x135x85
- > Weight: 0,7 Kg

Advantages

- > Signalling quickness and precision
- > Remote functioning test available
- > Solid metal box
- > Easy installation
- > Easy maintenance

Applications

- > Wood industry: sawdust, shavings
- > Textile industry: cotton, all other fibres
- > Food industry: cereals

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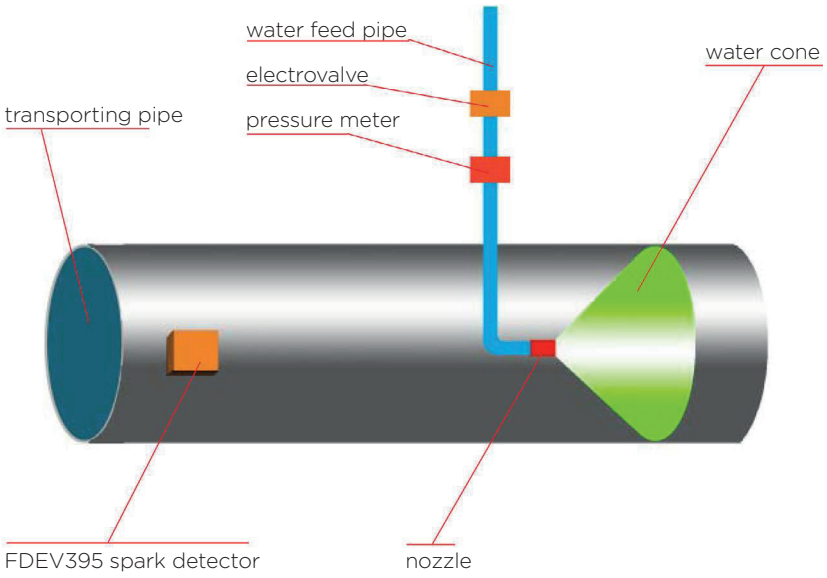
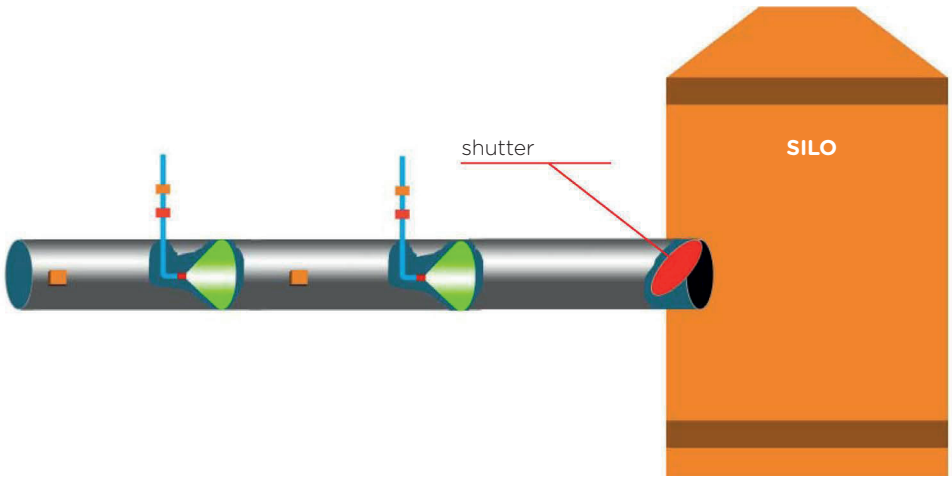
Installation example with one FDEV395



Installation example with two FDEV395



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