FDSCL01
Explosion Proof Spark Detector

Description

The FDSCL01 Spark Detector is an electronic device suited to detect spark in pipes and channels that transport varoius types of combustible materials headed to a storing silo. The execution is explosion proof EX-d IIC-T6 - ATEX certified. So the detector is suitable to be installed in classified environments where the installations must be explosion proof.

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 environment. The FDSCL01 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 with a suitable electronic circuit that provides for amplification and processing of the signal.

When the FDSCL01 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 head systems) can be activated. For the former function it is suggested to use our FDEV521 or SCU04 control unit that has a great using flexibility.

In the case of pipes of large (greater than 0.5 m.) Should be used 2 detectors FDSCL-01 installed diametrically opposite to avoid dead zones and outside the field of view of the optical rivelatore.L'impiego of two opposing detectors can be required even if the conveying pipe has a shape other than cylindrical, for example square, rectangular, etc. In the case of use of automatic extinguishing water jet, CO2, etc. you can also have a control of the extinction of the spark.

The detector's box is made of fusion light alloy with IP65 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 detector is supplied with a inox steel fixing stirrup to be easily fixed on the pipes. The maintenance of this detector is very simple and not frequently required.

Supplied Materials

The standard supply materials include:

- 1- FDSCL-01
- 1 - SUP-01 - inox steel fixing stirrup

Technical Data

- Power supply: 12/24 V dc and ac
- Power consumption: 20 mA (no alarm) - 50 mA (alarm)
- Solid viewing angle: 90 gradi
- Max detection distance: about 50 cm
- Sensitivity regulation
- Relay activation time regulation: 1-10 sec
- Terminals to connect a remote working test button
- Alarm led
- Output relay: 6A/24V
- Light alloy metal container
- Cables mounth: 3/4" ISO 7/1
- Explosion proof execution EX-d IIC T6 - IP66
- Certifications: CESI 01 and ATEX 092
- Dimensions: 200x130 mm
- Weight: 2 Kg

Teledata

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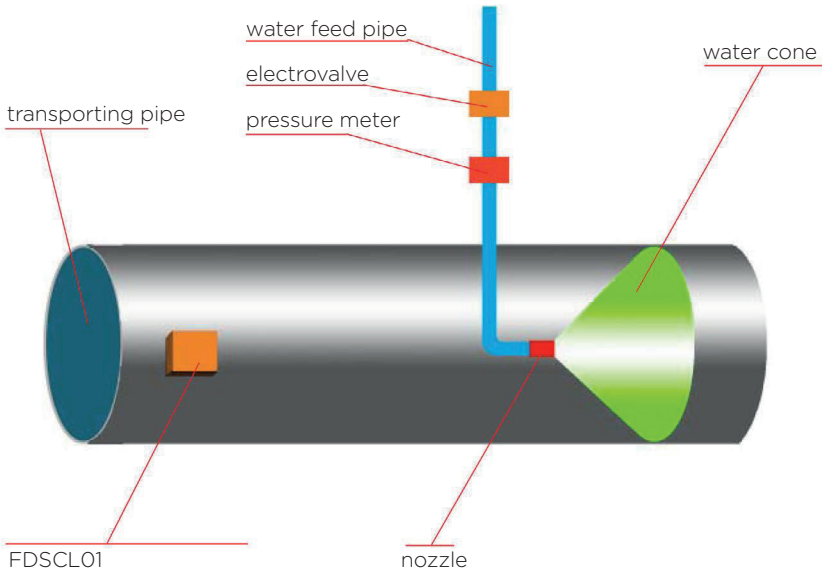
Advantages

- signalling quickness and precision
- Rremote fuctioning test available
- Solid metal box
- Easy installation
- Easy maintenance

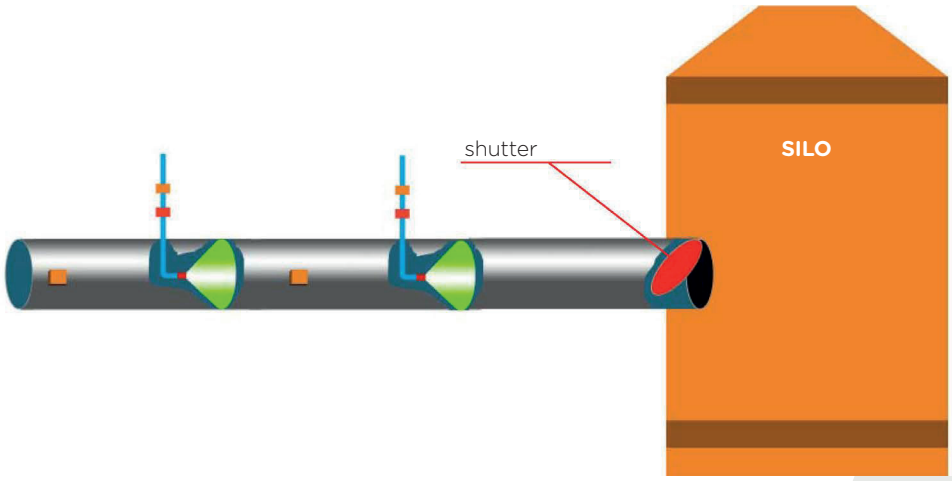
Applications

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

Installation example with one FDSCL01



Installation example with two FDSCL01



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