

Explosion Prevention

PSD3-D INFRARED SPARK DETECTOR

Application

In many industrial manufacturing processes, early detection of ignition sources is an important safety measure that will prevent a fire or even an explosion. PSD3-D infrared detectors are the ideal tool to detect sources of heat, such as sparks, glowing particles and flames in ductwork or conveying systems. The PSD3-D infrared detector detects hot particles emitting radiation at wavelengths ranging between 780 and 1100 nm. PSD3-D infrared detectors should be installed so that the front end of the detector is looking into total darkness.

The PSD3-D infrared detectors are typically used to prevent fires or explosions in pneumatic conveyors, dryers, mills, filters, cyclones, etc.

PSD3-D features

- Detector front end approved for use in zone 20
- Compact and robust
- Free contact for process interlock
- Easy to install
- Status LEDs for health, fault and activation

PSD3-D technical features

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| – Acquisition and response time | ca. 1 ms |
| – Field of view | > 95° |
| – Operating temperature range | -20 to 70°C |
| – Process pressure range | -500 to 6000 mbarg when using mounting bracket |
| – Sensitivity | default 780 to 1100 nm |
| – Electrical connection | pre-mounted 3 m multicore shielded cable |
| – Power supply | 12 to 30 V DC, min. 150 mA |
| – Power consumption | max. 100 mA at 24 V DC |
| – External earthing | M8, 17 mm |
| – Materials | Detector front end SS304. Detector body painted aluminium RAL 1016 |
| – Dimensions | Detector front end Ø 16 × 60 mm. Detector body H92 W92 D45 mm |
| – ATEX marking | II 1/2D Ex ta/tb IIIC T85°C Da/Db -20° ≤ Ta ≤ +70°C |
| – Ingress protection level | IP 65 |
| – Mass | ca. 1 kg |



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