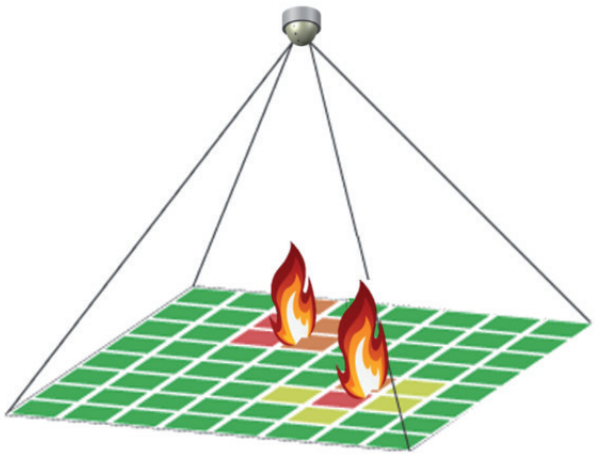
SmiR™

AM GENERAL CONTRACTOR

The smart infrared array detector for early and reliable fire detection



The device allows easy installation and maintenance by mean of a pre wired base and plug-in type head sensor.

Ceiling mounting allows to have a wide field of view and to track incoming fire events wherever they are located in the monitored area.

- The SMIR is a compact, low profile intelligent CAN based infrared array detector specifically designed for early and reliable detection of fire events in rolling stock application.
- The detector can be pre-wired at the base and the head can be easily locked and removed thanks to its plug-in mechanism.
- The device requires considerably less maintenance time than the standard sensors currently in use in the railway landscape.
- SMIR relies on a powerful algorithm that implements fast and reliable detection of early fire by precisely identifying flames, temperature, temperature gradient and avoiding false alarms.
- The algorithm is not affected by environmental conditions or airflow as it happens with traditional fire detectors.
- SMIR performs a robust self-diagnosis, results are transmitted in real-time via CAN bus; it is fitted with LEDs indicating power-up, standby, out of order and alarm status.

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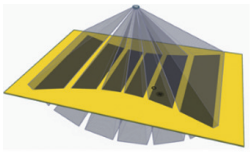
Technical Specification

Power Requirements

- ***Input Voltage:*** 24VDC Nominal Voltage (14.4 VDC ÷36 VDC, peak up to 40V for 100msec)

Physical Characteristic



- ***Housing:*** Polycarbonate-ABS
- ***IP Rating:*** IP 40 protection
- ***Dimensions:*** 110x60mm
- ***Installation:*** Panel mounting plug-in design, base included
- ***FoV:*** 160°x90°

Environmental Limits

- ***Operating Temperature:*** -25°C to 70°C, EN 50155 class T3
- ***Storage Temperature:*** -40°C to 85°C
- ***Relative Humidity:*** annual average <= 75% and 95% for 30 consecutive days in the year

Standards and Certification

SIL EN50155 EN 50121

- ***Railway:*** EN 50155
- ***Safety:*** SW SIL 2 according EN 50128
- ***Fire Behaviour:*** EN 45545
- ***Shock and Vibration:*** EN 61373
- ***EMC:*** EN 50121-3-2
- ***Fire Detection:*** UNI 11565, EN 54-5, EN 54-10

Interface

CAN

- ***Ports:*** Dual redundant CAN EN 50159 compliant

MTBF

- ***Time:*** > 1.000.000 hrs
- ***Standard:*** IEC 62380

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