FIRE AND SMOKE DETECTION FOR RAIL

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Climbing higher.
Together

CHARACTERISTICS

For two decades, Diehl Aviation has been developing integrative fire protection solutions for rail transport that ensure both fast and automatic fire detection and safe firefighting. The synergies from aviation are great: for example, a current standard that prescribes high robustness against false alarms on board aircraft can also be used in railroads. In addition to state-of-the-art fire detection and extinguishing technology, the product portfolio also includes complete system integration in rail vehicles. The development of sensors and software is also carried out 100 percent in-house. In addition, Diehl Aviation‘s rail experts work together with TÜV to ensure all necessary safety approvals for the systems. In the rail sector, customers from Diehl Aviation includes the leading manufacturers of rail vehicles, such as Alstom, Bombardier Siemens and Talgo, as well as global rail transport companies.

BENEFITS

- InHouse HW development up to SIL2 (EN50129)
- InHouse SW development up to SIL2 (EN50128, EN50657 generic software)
- Fire detection according to EN54-7
- false alarm robustness according to SAE AS8036
- available as system or stand-alone detector
- Variable cup color according to customer needs –
  one part number for all designated areas of an train

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FEATURES

- Highly customizable system solution
- Up to 60 DIEHL – Devices (Smoke Detectors SD9479 or IO-Modules IOM9417) controllable by one Smoke Detection Control Unit SDCU9415 / SDCU9418
- Reduced wiring effort by decentralized wiring concept of external equipment
- Time and logic dependencies of smoke events are customizable
- Matches highest safety standard by daisy-chain communication loop
- System certification according EN50126 up to SIL2
- No preventive/scheduled maintenance required
- Single point of diagnostic / maintenance of the fire protection equipment by SDCU9415 / SDCU9418
- High and reliable smoke-detection performance according EN54-7 and related standards
- Innovative false-alarm robustness technology of smoke detection (SD9479) according SAE AS8036A (an aviation standard against false alarm nuisance sources like water mist, dust, deo-spray, insecticide, etc.)
- Wide range of system and maintenance data provided for TCMS • Different train communication interfaces (CAN-open, Ethernet, Relay)

TECHNICAL DATA

application	Rail
dimensions	54mm cup diameter
	94mm housing diameter
	54mm total height
normal operating temperature range	-40°C to 85°C
interfaces	discrete and CAN
connector	TE Connectivity AMP Dynamic D-3100 D Series (178307-2)
complied standards	AS8036A (false alarm robustness)
	EN54-7 (fire detection) (TF1-TF7)
	RTCA-DO160G (qualification) EN50155

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