

PRESS RELEASE

VISIC50SF: now every second counts **Early and reliable smoke detection in tunnels**

Smoke in the tunnel sets all the alarm bells ringing. SICK's VISIC50SF detects even the smallest smoke particles early and reliably. It couldn't be any quicker, or any more accurate.

Waldkirch, April 2015 - Seconds often count, when it comes to taking emergency measures. Thankfully, burning vehicles can still be stopped in time before entering a tunnel. However, fires inside the tunnel are more dangerous, so the task is to make sure these are detected in good time. Furthermore, tracking is not made any easier due to the fact that tunnels are continuing to grow in length. Large fires caused by accidents or vehicle explosions are not necessarily those which place the most demands on the detection technology; the vast majority are caused by spontaneous combustion. In these cases, the time it takes for the fire to develop is significantly longer, especially where there is low airflow. But even then this depends on detecting the smallest amounts of smoke with lightning speed and transmitting the alarm to the central fire alarm system.

This is what the new smoke detector from SICK aims to do. The VISIC50SF registers smoke particles within seconds and raises the alarm immediately. This accurate and safe measurement of visibility is now possible for the first time thanks to the integrated scattered light measurement technology. Interference is excluded right from the start. The detector reliably distinguishes between mist and smoke, so there is no reason for false alarms to be triggered. This allows the VISIC50SF to achieve a high level of detection reliability. Small inlet openings prevent insects from interfering with the measurement volumes, while the optical chamber protection and constant monitoring of contamination also effectively prevent interference. Measurement is also unaffected by vibrations and changes in temperature. The false alarm rate in the VISIC50SF is therefore unbelievably low, even with limit values slightly above the usual visibility due to traffic.

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The environmental conditions in the tunnel place further conditions on the smoke detector, including high availability and operational safety. There are therefore some good reasons to install the VISIC50SF optical smoke detector alongside the standard temperature cables used by tunnel operators; both as a complementary measure and for improved protection, since smoke can be detected significantly more quickly than rises in temperature. The measuring range (K value) of the smoke detector lies between 0 and 150 1/km and thereby covers the area required for smoke detection. The software was developed according to the requirements of SIL 1 and guarantees high operational safety. With enclosure rating IP 6K9K the VISIC50SF reliably withstands dirt, dust, moisture and strong exhaust fumes and can even survive tunnel cleaning unscathed. The smoke detector should not be serviced until after a year of use or even more.

Compact and easy to install, you can also save money with the VISIC50SF. Commissioning is quickly completed as the measurement parameters are factory set, and the smoke detector is easy to integrate into existing networks thanks to flexible interfaces. The VISIC50SF is ready to use immediately – for the early detection of fires.