FIRE PROTECTION

MADE IN GERMANY

The right detector for every application

Until now, two different types of detectors were required for the complete protection of production systems (spark and ember nest detection), since traditional spark detectors are only of limited use for the detection of ember nests for physical reasons and additional ember nest detectors would therefore be required.

For economic reasons, however, only spark detectors were generally used in the past, so that fire protection was an economically justifiable compromise.

The new combi detector FSM combines the properties of classic spark detectors and ember nest detectors, thus making it possible to optimize fire protection and to avoid compromise solutions.

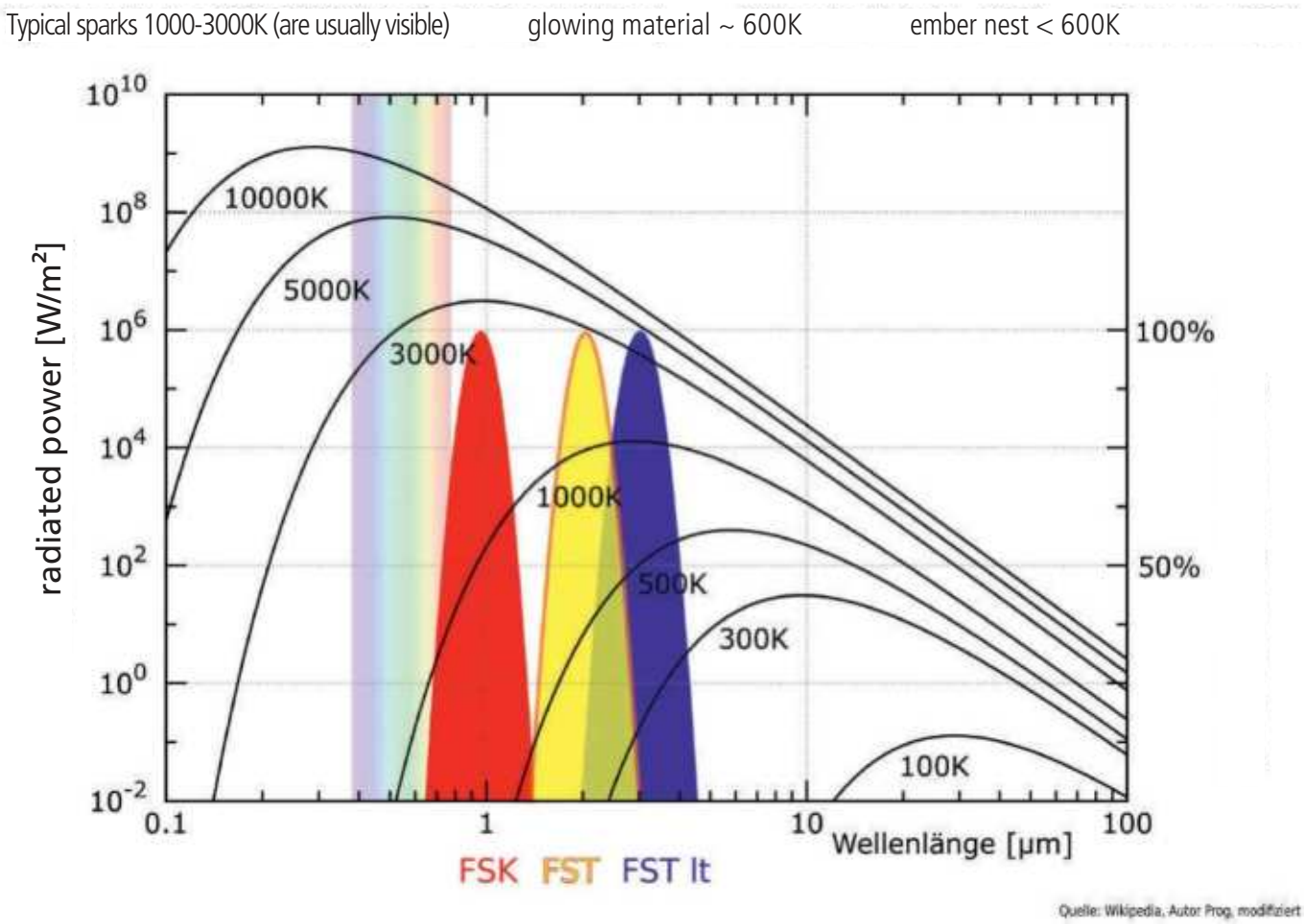
With the development of the combined detector FSM, T&B rounds off its wide range of different detector types and can now offer its customers the best possible detector for every need.

T&B electronic

WE HAVE THE RIGHT SOLUTIONS FOR ALL APPLICATIONS.

The right detector type for every application

Explanation of the presentation



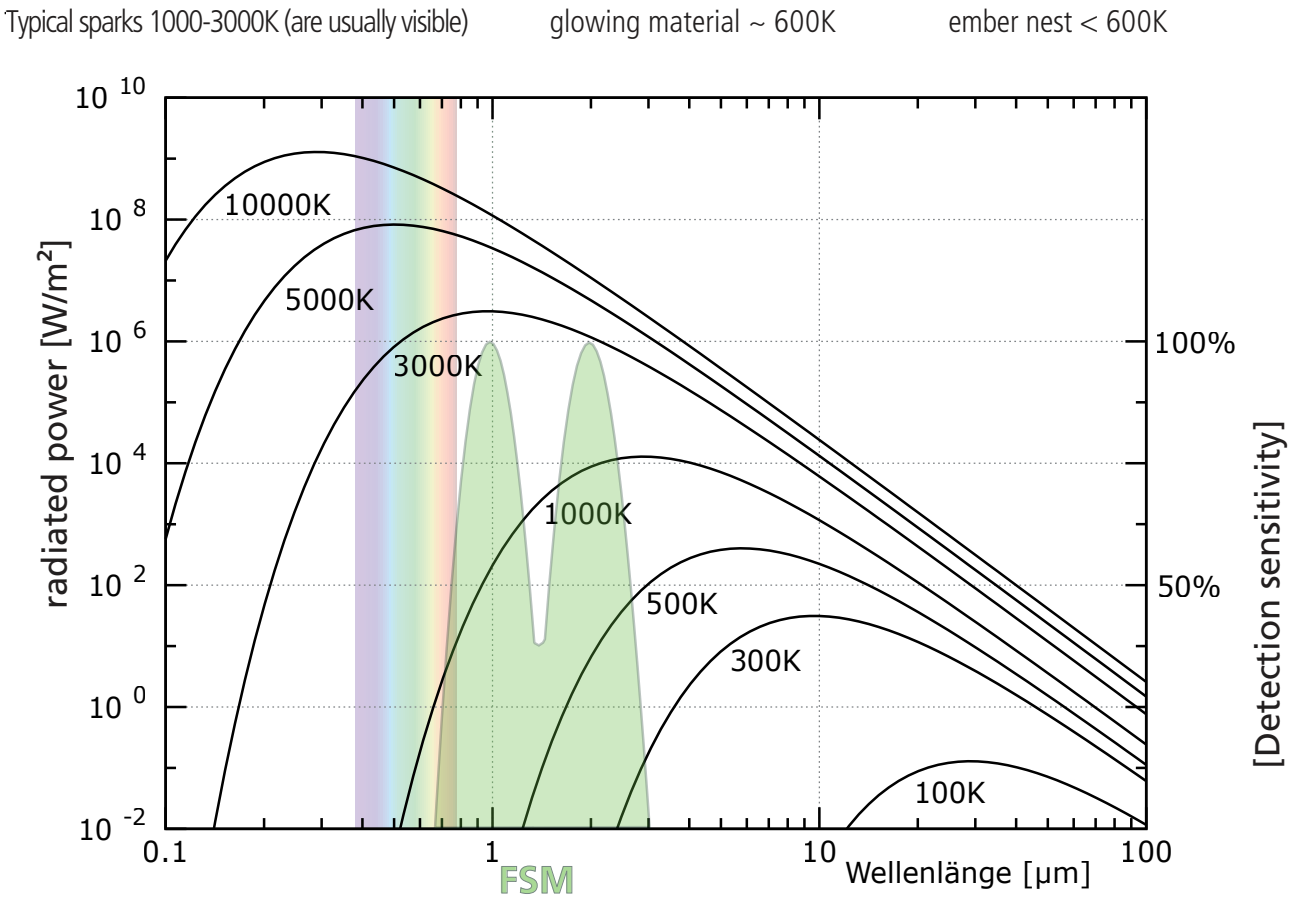
Quelle: Wikipedia, Autor Prog, modifiziert

Basics:
Each body emits a precisely defined spectrum of "heat radiation" according to its temperature. This spectrum consists of a portion of UV radiation, a portion of visible radiation and a portion of IR radiation. Example from the graphic: A body with a temperature of 3000 K radiates UV heat radiation in the range 0.1 to 0.38 µm, visible heat radiation in the range 0.38 to 0.78 µm and IR radiation in the range over 0.78 µm. The task of a spark extinguishing system is to detect this heat radiation in order to recognize dangerous particles.

Implementation:
This can only be economically justified using commercially available detectors. There are four types of detectors that T&B uses, the detector types FSK, FST, FSM and FST-lt. These detectors are sensitive in different spectral ranges, see graphs. Always choose the detector whose maximum sensitivity is closest to the maximum of the radiation intensity of the particle under consideration. Since a particle with a temperature between 1000 and 3000 K (classic spark) has its maximum radiation between 0.8 and 2 µm, the FSK (highest sensitivity at 0.95 µm) is best suited for the detection of these particles.
A particle with a temperature of 600 to 1500 K (glowing material, maximum between 1.5 and 3.5 µm) is best detected by an FST and a particle with a temperature below 600 K is best detected by an FST lt.

The right detector type for every application

If both sparks and glowing material are to be detected (e.g. on the discharge of a processing machine or a pellet press), the FSM combi detector is used.
This combines the detection behavior of FSK and FST, see graphic below.



Quelle: Wikipedia, Autor Prog, modifiziert

T&B therefore has a suitable detector type for all technically relevant temperature ranges and can offer the most sensitive detector type depending on customer requirements.

FIRE PROTECTION

MADE IN GERMANY

Our Products – Your Safety

VdS-certified water spray extinguishing systems

Water spray extinguishing systems are used in areas where there is a risk of rapidly spreading fires and act on the object to be protected quickly and extensively with extinguishing water.

Infrared Early Fire Detection Systems (VdS 3189)

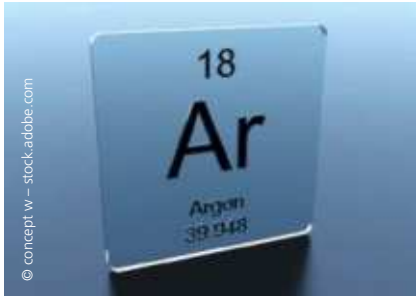
Camera system for area-wide detection of embers and smoldering fires at long range.

Fire alarm systems (DIN 14675)

Fire alarm systems are permanently installed manual or automatic systems for early fire detection, warning of the persons concerned and rapid transmission of the fire alarm to a service provider.

VdS-certified spark extinguishing system

Fully automatic system that detects the smallest ignition potentials in transport systems and extinguishes them in the range of milliseconds.



Argon extinguishing system (VdS 2380 / 3445)

Fully automatic extinguishing system in which the formation of fire is detected and eliminated by oxygen displacement.

Customer-specific protection concepts

As a VdS-approved installer, T&B will work closely with you to create a holistic protection concept tailored to your requirements.

You have questions or would like to get advice? Just get in touch with us:

+61 (0) 2 9669 4000

sales@cmctechnologies.com.au