

Position Paper

Euralarm Position Paper on Thermographic Fire Detectors (TFD)

Introduction

The use of thermographic fire detectors (TFD) is increasing. However, there is no published European standard for TFD cameras while ISO 7240-33 is still under preparation.

TFD cameras can respond to flames and can be certified in accordance with EN54-10 (Flame detectors - Point detectors) as flame detectors. The essential characteristics of EN 54-10, which are fulfilled by a TFD solution, are in this case listed in its DoP.

If the product is used as a flame detector, installation rules for flame detectors must apply in any case. If the product is not used as a flame detector, some confusion and problems may arise in the market on the meaning of the certification. For this reason, Euralarm is providing the following recommendations.

Euralarm recommendations

1. Basically, the TFD should follow the ISO 7240-33 while no European standard is available.
2. Extend the scope of CEN TC72/WG24 (Video fire detectors) or create a new sub working group/task force within WG 24 including relevant experts for TFD. Nevertheless, Euralarm recommends writing 2 separate standards, one for VFD and one for TFD.

The work on the 2 separate standards can start in parallel sub working groups but shall not affect the timeline of each other. The ISO7240-33 shall be used as a reference document by the sub working group working on a TFD standard.

After all, 2 separate standards shall be available under EN 54 similarly as ISO 7240.

3. Even if EN 54-10 was originally not foreseen for a TFD, it may be tested according EN 54-10 but the following information bringing clarity and transparency for the user/installer must be provided:
 - a. Which settings, limitations, configurations and all other values were used during EN 54-10 testing.
 - b. Data must be indicated at least in the technical documentation (thermal radiometry, parameters used, configuration...)
4. If a TFD device is certified as a flame detector according to EN54-10, the following conditions apply:
 - a. A DoP (Declaration of Performance) must be provided with the product or must be available on a website according to the Delegated Regulation 157/2014.

- b. If it is used as a flame detector the certified limitations must be applied on site. For example, if a TFD is certified based on the EN54-10 class 1 the maximum detection distance of 25 meters is given. Further restrictions of the monitoring range for opening angles smaller than 90 in accordance with CEN/TS 54-14 or local code of practices exist.
 - c. If it is not used as a flame detector limitations (described in b) do not apply, but compliance with EN 54-10 cannot be claimed either. This information should be provided for the installers.
6. If a TFD is installed as a certified EN54-10 flame detector, then the EN 54-4 PSE is mandatory. If TFD is installed as a TFD, Euralarm recommends that the power supply should also be compliant to EN54-4 (Power supply equipment).
7. Euralarm recommends that the outputs for fire and fault should be connected either directly to the CIE or through a I/O module in accordance with EN54-18 (Input/output devices).
8. Regarding system approach and compatibility assessment, national rules must be followed in any case. Particular specificities for example the use of Ethernet (e.g. PoE) may be defined on a national level.

About Euralarm

Euralarm represents the fire safety and security industry, providing leadership and expertise for industry, market, policy makers and standards bodies. Our members make society safer and secure through systems and services for fire detection and extinguishing, intrusion detection, access control, video monitoring, alarm transmission and alarm receiving centres. Founded in 1970, Euralarm represents over 5000 companies within the fire safety and security industry valued at 67 billion Euros. Euralarm members are national associations and individual companies from across Europe.

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Note: The English version of this document is the approved Euralarm reference document.

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