

► MultiFlame DF-TV7

Optical flame detector



Technical specifications

Optical flame detector: hydrocarbons and carbon compounds

- **DF-TV7-T** multi-spectrum infrared flame detector
- **DF-TV7-V** combined IR and UV detection

Start-up time: 15s.

Self test: periodic optical self-test through the window

Calibration: factory setting, does not require rework

Output signals: 4-20 mA Active type (source) max load impedance 700 Ω

Alarms: 2 configurable relays, max. 1A / 30 Vdc, 3 states (normal, fire and fault alarm)

Power supply: 24 Vdc, (18 - 28 Vdc)

Consumption: 70 mA nominal, 155 mA during the self-test

Housing: 316L stainless steel

Protection: IP66

Weight: 5.1 kg

Operation: from -40°C to +65°C, 99% RH (non-condensable)

Sun protection: temp. surface area max. 85 °C (optional)

Functional safety: according to standard IEC / EN 61508

- **DF-TV7-T:** SIL3 with an MTBF of 191,500 hours
- **DF-TV7-V:** SIL2 with an MTBF of 162,000 hours

Certifications:

- ATEX: II 2 G Ex d IIC T6 Gb (from -40°C to +65°C)
- IECEx: IEC 60079-0 / IEC 60079-1

Product description

The **Oldham Simtronics MultiFlame DF-TV7** optical detector has been designed to detect hydrocarbon fires, while minimizing false alarms. SIL2 or SIL3 certified depending on the model (highest safety level), its very high performance makes it the most efficient detector on the market.

The **MultiFlame DF-TV7** is fully configurable thanks to the **TLU600** portable communication terminal offering great flexibility to the user. The **MultiFlame** product family offers two configuration types:

- **DF-TV7-T** multi-spectrum IR technology
- **DF-TV7-V** combined UV and IR technology

► MultiFlame DF-TV7-T: Multi-spectrum IR

The **DF-TV7-T** is a multi-spectrum infrared flame detector using 3 individual wavelengths. The use of three distinct infrared bands and a sophisticated signal processing algorithm provide excellent performance while maintaining an extremely low false alarm rate.

The detector can be supplied with:

- A standard cartridge, covering the widest range of applications
- A high sensitivity cartridge for special applications where maximum sensitivity is required

► MultiFlame DF-TV7-V: UV + 2 IR combination

The **DF-TV7-V** is a flame detector that combines a UV sensor and 2 infrared bands. This version is particularly suitable for difficult conditions involving rain, wind, fast light variation, modulations of hot springs or industrial light and other difficult environmental conditions.

The **DF-TV7-V** can also be configured for special applications, where use in IR or UV alone is required. The UV detector can be sensitive to radiation from electric arcs, x-rays and gamma rays.

► TLU 600 remote control

Detector status is visible on the remote control screen, configuration and testing can be performed through this wireless remote control.



Specifications	DF-TV7-T (3 IR)	DF-TV7-V (UV / 2 IR)
Detection range	80m for a fire of 0.1m ² (0.3m x 0.3m) of n-heptane and 65m for gasoline	45m for a standardized fire of 0.1m ² (0.3m x 0.3m) of n-heptane and 30m for gasoline
Field of view	Maximum horizontal angle: 120 ° Horizontal angle at 50% of span: 104 ° Vertical angle at 50% of span: 82 °	Horizontal angle at 50% of span: 97 °, Vertical angle at 50% of span: 55 °

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