

MultiFlame

Wide field of view
Excellent false alarm immunity
Continuous auto-check of optical lens

DF-TV7-V Multi-spectrum UV/2IR Flame Detector

The Simtronics MultiFlame DF-TV7-V is a combined ultraviolet / infrared flame detector offering excellent flame detection whilst maintaining outstanding false alarm immunity.



Description

The MultiFlame DF-TV7-V is designed to respond to unwanted hydrocarbon fires whilst maintaining a high degree of false alarm immunity.

The device offers a wide range of output options, as standard and is suitable for use in SIL 2 applications, the unit may be interfaced directly with a wide range of fire panels, controllers and PLC's etc.

The unit is fully configurable using a wireless handheld terminal (TLU600) or optionally via HART (TM) giving true flexibility to the installer. Time delays, sensitivity and output configuration are all set up via the TLU; a hazardous area approved hand-held unit.

Wireless testing of the optical and output circuits are also possible using the TLU.

Applications

- Refineries
- Drilling and Production Platforms
- Fuel Loading Facilities
- Compressor Stations
- LNG/LPG Processing and Storage
- Gas Turbines
- Chemical Plants

Features

Certified SIL 2 by an external body

Combined UV and multi IR technologies

Wide field of view

Relays, 4-20mA, 0-22mA and Hart outputs

Continuous auto-check of optical lens

Selectable sensitivity and time delays

Wireless detector configuration and testing using TLU

Benefits

Very high operation safety level

Excellent false alarm immunity

Fewer detectors needed due to enhanced fire detection coverage

Standard industry interfaces

Ensures safe and proper device operation

For configuration to each application

Easy maintenance, no need of test lamp



TLU Wireless (IR) Hand-held Terminal

Technical Data

GENERAL

Technology	Multi-spectrum Ultra Violet Dual Infra Red
Fire Types	Hydrocarbon fires
Range, n-heptane	45m (147ft) 0.3x0.3m (1sq ft)
Range, gasoline	35m (114ft) 0.3x0.3m (1sq ft)
Field of view	Maximum horizontal angle 120° Horizontal angle @ 50% 97° Vertical angle @ 50% 57°
Response time	adjustable from 1 to 20 seconds (typical 3.5s.)
Warranty	2 years, back to factory

OUTPUT SIGNAL

Standard	4-20mA or 0-22mA (configurable by the user) max. load impedance 700Ω (Std.) HART Protocol 7th edition (option) Lonworks for Syntel (option)
Alarms	2 x configurable Relays max 1A / 30V
Visual	Normal Operating, alarm, fault

ELECTRICAL

Power supply	24 Vdc, range (18 - 28 Vdc)
Power consumption	2W normal, 4W during test
Connection	0.3 mm ² (22 AWG) - 1.5 mm ² (16 AWG) Shielded cable recommended

ENVIRONMENTAL

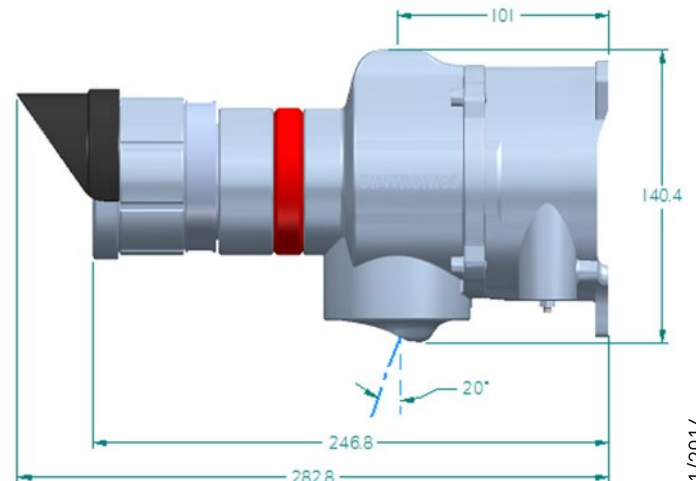
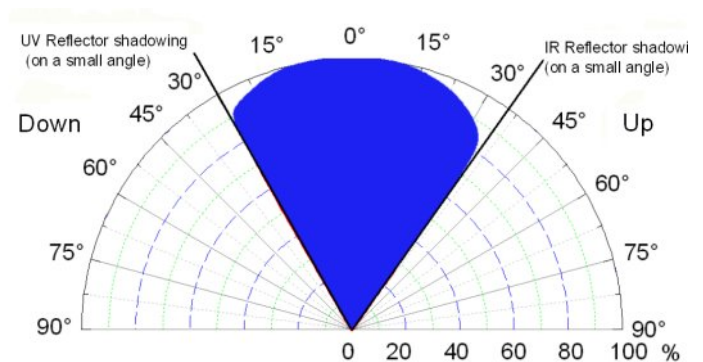
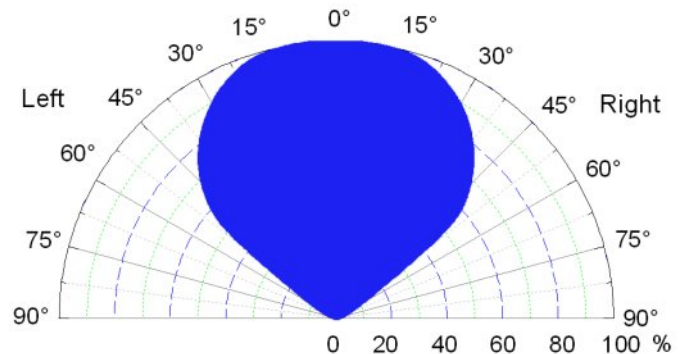
Storage:	-40°C to +70°C [-40°F to 158°F]
Operation	-40°C to +65°C [-40°F to 149°F]
Option	Sunshade, max. temp. 85°C (185°F)
Humidity	99% RH (non-condensing)
Ingress	IP66
RFI/EMI	Complies with EN50130-4

EXPLOSION PROOF HOUSING

Material	316 L stainless steel
Weight	5kg (10 lbs)
Dimensions	246.8 x 140.4 x 115 mm (L, H, W) 9.8 x 5.5 x 4.5 inches

ACCESSORIES

TLU600	Infrared remote control unit ⊕ Ex II 1 G Ex ia II C T4
LT15	Ex Test lamp ⊕ Ex II 2 G Ex d II C T6-T5
AS048-X	SS316 swivel bracket (with 2" or 2,5" pipe mounting)
AS056-450	Sunshade
AS040	Long type visor (vertical upper angle reduction)
AS041	Long type visor (horizontal and vertical angle reduction)
AS045	Air shield
AS215	Tag plate



APPROVALS

SIL	SIL2 approval without redundancy IEC 61508-1 to 7 Certificate LCIE SF-*-T-20131104R0
ATEX	⊕ Ex II 2 G Ex d II C T6 Gb [-40°C to +65°C] Certificate LCIE 13 ATEX 3025 X
IECEX	IEC 60079-0 : 2011 / IEC 60079-1 : 2007-04 Certificate LCIE 13.0022X
CE DPC	EN 54-10:2002 + A1:2005 ****-CPD-***** (pending)