GFE-SWR

Flame Detectors

GFE-SWR flame detector range utilizes a microprocessor for sophisticated electronic signal analysis. Its advanced discrimination technology and rugged construction makes it suitable for almost all installations scenarios as it's presented in application table below.

GFE-SWR-UV flame detector is suitable for indoor applications, such as fume hoods and hydrogen storages. Because of its non-corrosive housing it is suitable for indoor industrial areas where corrosion may occur. UV light is emitted in practically every fire, both hydrocarbon and non-hydrocarbon fires.

GFE-SWR-UVIR flame detector is a combination of UV and IR detections, it uses an additional alarm criterion: the analysis of the flame flicker frequency. The UV and IR sensor must both exceed their alarm threshold to initiate a fire alarm. The GFE-SWR-UVIR flame detector has a good false alarms immunity since the UV and IR sensor do not share false alarm sources.

GFE-SWR-IR3 flame detector must exceed its alarm threshold to initiate a fire alarm. The GFE-SWR-IR3 flame detector also use additional alarm criterion: the analysis of the flame flicker-frequency. This version also exhibits good false alarm rejection capabilities.

APPLICATION	UV	UVIR	IR3
Aircraft hangars	×	✓	✓ ✓
Atriums	×	✓	✓ ✓
Bio gas setups and stables	×	✓	✓ ✓
Car, bus, tram and train parkings	×	✓	✓ ✓
Chemical storages, fuel and solvent storage indoors	✓	✓ ✓	✓
Chemical storages, fuels, paint and solvent storage outdoors	×	×	✓
Cold Storages	✓ ✓	✓ ✓	×
Electric power transformers	×	✓	✓
Diesel engine rooms	×	✓ ✓	✓ ✓
Gas engine rooms	✓	✓ ✓	✓ ✓
Fuel service stations and plug-in hybrid charging stations	×	✓	✓ ✓
Fume hoods	✓ ✓	✓	×
Heating Rooms for chemicals	✓ ✓	✓	×
Hydrocarbons storage and processing indoors	✓	✓ ✓	✓ ✓
Hydrogen storage and processing indoors	✓	✓ ✓	×
Hydrogen storage and processing outdoors	×	×	×
Isolators for antennas	✓	✓ ✓	×
Laboratories	✓	✓ ✓	✓
Monitoring of machinery	✓	✓	✓ ✓
Oil and Gas pipe line and pumping stations	×	✓	✓ ✓
Paint spray booths	×	×	✓ ✓
Radio amplifier rooms	✓ ✓	✓	×
Recycling and waste processing plants	×	×	✓ ✓

Modest suitabity: ✓ Good suitability: ✓ ✓

GFE-SWR

Key Features

- Suitable for heavy and light Hydrocarbons such as Gasoline, Diesel, Methanol and Ethanol
- Resistant to artificial and sunlight
- Suitable for indoor and outdoor applications
- GRP IP65 housing
- Relay output for Alarm and Fault conditions
- CPR/EN54-10 certified
- ATEX zone 2/22 certified
- FM3260 & 3611 Approvals
- Rugged sensors make the detector suitable for virtually all fire types
- Sophisticated software enhances the reliability and availability of the detector
- Design of the housing and the swivel mount avoid mounting errors with regards to grounding
- Automatic Sensor Test (Built-in Self-Test) enhances the reliability and availability of the flame detector
- Pressure Compensating Element avoids additional cost of maintenance caused by moisture build up and increases the life time.

TECHNICAL SPECIFICATIONS	
POWER	12-24 Vdc (10-28 Vdc)
CURRENT NORMAL	25 mA at 24 Vdc
CURRENT IN ALARM (24 Vdc)	+/- 75 mA at 24 Vdc
STARTUP TIME	<10 sec
ALARM OUTPUT SETTING	Selectable LEDs and relays latching/non latching, factory setting: latching
RELAY OUTPUTS / ALARM RELAY	De-energized during normal operation, no alarm, SPDT, 30 Vdc – 2 A, 60 W max.
RELAY OUTPUTS / FAULT RELAY	Energized during normal operation, no fault, SPDT, 30 Vdc – 2 A, 60 W max.
CURRENT OUTPUT	Standard available 0-20 mA (stepped, sinking, non-isolated)
ALARM RESPONSE TIME	< 8 sec.
CONE OF VISION	90º minimum
HOUSING	Glass Reinforced Polyester (GRP), Lid screw tightening torque 2 nm minimum
INGRESS PROTECTION	IP65
OPERATING TEMPERATURE	-40ºC to 70ºC
AMBIENT TEMPERATURE	ATEX and FM class 3611: -25ºC to 70ºC
AUTOMATIC AND MANUAL SELF-TEST	Automatic Sensor Test (Built in Self-Test) and manual self-test
DETECTION RANGE	GFE-SWR-UV & GFE-SWR-UVIR: 17 m (n-heptane; 33x33 cm); 25m (alcohol; 50x50 cm) GFE-SWR-IR3: 35 m (n-heptane; 33x33 cm); 35 m (alcohol; 50x50 cm)
DIMENSIONS	125 x 80 x 57 mm
WEIGHT	465 g
COLOR	Red & White
CABLE GLAND	M20 (cable conduit diameter 5.5-13 mm, two steps 5.5-8 mm and 8-13 mm)
PRESSURE COMPENSATING ELEMENT	PCE (Pressure Compensating Element) avoids moisture build up in the detector housing, caused by pressure differences as a consequence of temperature fluctuations
TERMINALS	Suitable for massive cores 0.5 to 1.5 mm² (24 to 16 AWG), tightening torque 0.4 Nm minimum
(OPTIONAL) GFE-SWR-BKT MATERIAL	PA66, 316SS nuts and bolts
(OPTIONAL) GFE-SWR-BKT WEIGHT	280 g
ORDER CODE	
GFE-SWR-UV	ULTRAVIOLET FLAME DETECTOR
GFE-SWR-UVIR	ULTRAVIOLET/INFRARED FLAME DETECTOR
GFE-SWR-IR3	TRIPLE INFRARED FLAME DETECTOR
GFE-SWR-BKT	SWIVEL MOUNTING BRACKET WITH ANGULAR MARKINGS