



DF1191, DF1192

AlgoRex
Synova™

Infrared flame detectors



collective/SynoLINE300/600, AnalogPLUS/SynoLOOP, interactive

- **DF1191 flame detector for simple inside applications, detection with one infrared sensor**
- **DF1192 flame detector for the most demanding application (inside and outside), detection with 3 infrared sensors**
 - Detection in various wavelengths, microprocessor-controlled signal evaluation
 - Selective evaluation of flicker frequency
 - Selectable application algorithms
 - Excellent immunity to false alarms thanks to a combination of fuzzy logic and Wavelet analysis
- **Highest resistance to electromagnetic influence, sunlight and heat radiation, humidity and corrosion**
- **Can also be connected to 3rd party control units with collective signal evaluation**
- **Wide operating temperature range**

Characteristics

- **Environmental**

- ecologically processing
- recyclable materials
- electronic and synthetic material simple separable

- **Characteristics**

- the detector housing made of aluminum also serves as a screen against electro-magnetic interference (EMB)
- the base housing consists of a robust, glass-fiber reinforced synthetic material
- protected electronics
- built-in alarm indicator (AI)

Infrared flame detector DF1191

- **Function**

- 1 infrared sensor

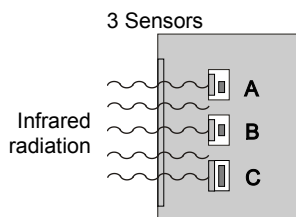
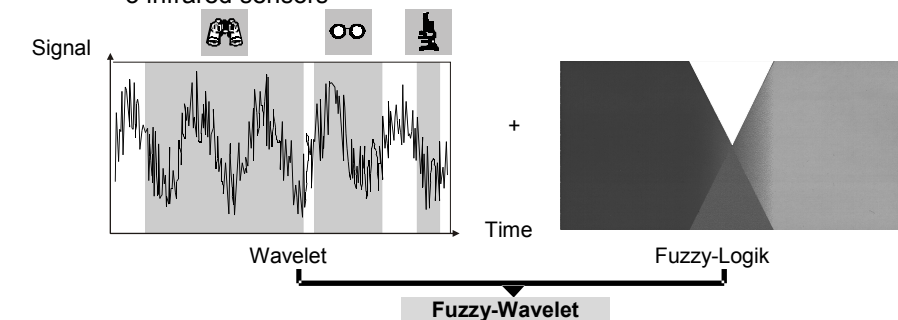
- **Application**

- for simple applications, additional to smoke detectors
- Detection of smokeless combustible liquid and gas fires, as well as smoke-forming open fire involving carbonaceous materials as contained in wood, plastics, gases, oil products etc.
- only used without source of interference as sun, halogen light, blackbody radiation

Infrared flame detector DF1192

- **Function**

- 3 infrared sensors



The detection elements of the infrared flame detector consist of two pyroelectric sensors and a silicon photo diode.

Sensor A:

The pyroelectric sensor A reacts to infrared flame gas in the characteristic CO₂ spectral range between 4.0...4.8 μm .

Sensor B:

The pyroelectric B measures the infrared radiation of sources of interference in the range between 5.1...6 μm

Sensor C:

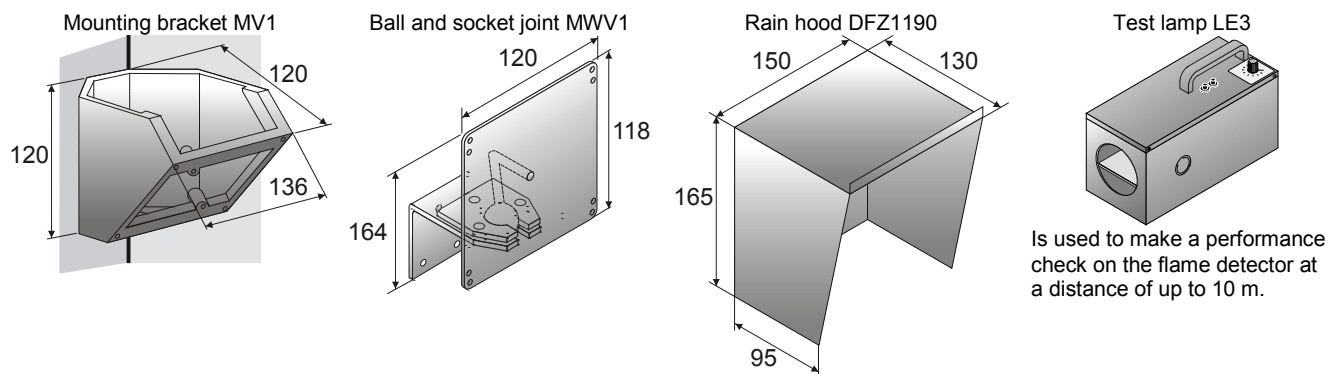
The silicon photo diode measures the solar radiation in the range between 0.7...1.1 μm

- One sensor measures the hot carbon dioxide in a specific flame wavelength; the two other sensors simultaneously measure the interference radiation in other wavelengths.
- With intelligent signal processing through fuzzy algorithms and wavelet analysis, the DF1192 achieves excellent detection reliability while maintaining the highest immunity to interference radiation and sunlight.
- In order to safeguard against a possible decision emergency, the detector contains an additional emergency activation channel.

● Application

- Detects smokeless liquid and gas fires as well as smoke-generating open fires resulting from the combustion of carbonaceous materials such as wood, synthetics, gases, oil products, etc.
- large industrial warehouses
- hangars for military and civil aircraft
- chemicals production plants, chemicals stores
- petrol storage and pump stations
- arc welding workshops
- ferries and cargo boats
- ships' engine rooms
- power plants
- transformer stations
- printing works
- motor test beds
- malls
- wood stores
- underground tunnels

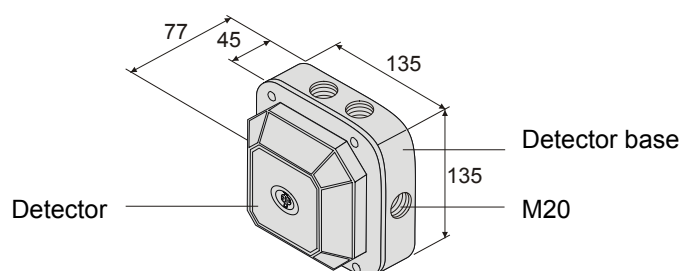
Accessories



Installation

- easy installation of the housing on stable, vibration-free surfaces; the detector is only inserted after installation check, shortly before commissioning
- 6 threads M20 for screwed cable glands
- connection via two-wire installation with the control unit
- ext. alarm indicator connectable
- pluggable connection between flame detector and base
- mounting bracket MV1 for room surveillance to fix the detector at the right inclination angle
- ball and socket joint MWV1 for the orientation to an object
- rain hood DFZ1190 for outside applications

Dimensions



Technical data

	DF1191	DF1192
Load factor		
– KMK / APMK / IMK	6 / 5 / 3	6 / 5 / 3
Alarm indicator (AI)	2	2
ext. connectable and programmable		
Operating temperature	-25...+70 °C	-35...+70 °C
Storage temperature	-40...+75 °C	-40...+75 °C
Humidity	≤95 % rel.	≤95 % rel.
(no heavy condensation of window)		
Connection terminals	0.2...1.5 mm ² (AWG 24...15)	0.2...1.5 mm ² (AWG 24...15)
Color	white, ~RAL 9010	white, ~RAL 9010
Protection category EN 60529 / IEC 60529	IP44	IP67
Standards	EN54-10, EN54-17	EN54-10, EN54-17
Approvals		
– VdS	G299085	G299085
– LPCB	126bc/02	126bc/03
System compatibility	Compatible with all low voltage control units with interactive, AnalogPLUS/SynoLOOP and collective/SynoLINE300/600 signal evaluation	

08  0786	DF1191, DF1192	Siemens Switzerland Ltd, Gubelstrasse 22 CH-6301 Zug, Switzerland Technical data: see doc. 001673
DF1191, DF1192 - Flame detector incl. short-circuit isolator for use in fire detection and fire alarm systems installed in buildings		
305/2011/EU (CPR): EN 54-10 / EN 54-17 ; 2004/108/EC (EMC): EN 50130-4 / EN 61000-6-3		
Declared performance and conformity can be seen in the Declaration of Performance and the EC Declaration of Conformity, which is obtainable via the Customer Support center: Tel. +49 89 9221-8000 or http://siemens.com/bt/download		
DoP No.: 0786-CPR-20495; DoC No.: CED-DF1191, DF1192		

Details for ordering

Type	Part no	Designation	Weight
DF1191	BPZ:5166590001	Flame detector (1 Sensor)	0.500 kg
DF1192	BPZ:5166620001	Flame detector (2 Sensors / 1 Photo diode)	0.500 kg
DFB1190	BPZ:5165360001	Detector base	0.250 kg
DFB1190-AA	BPZ:5227400001	Detector base for SynoLINE300	0.250 kg
–	A5Q00004478	Metal screwed cable gland M20 x 1.5	0.039 kg
MV1	BPZ:3950450001	Mounting bracket	0.285 kg
MWV1	BPZ:3674840001	Ball and socket joint	0.860 kg
DFZ1190	BPZ:5302660001	Rain hood	0.640 kg
LE3	BPZ:3669510001	Detector test lamp	5.640 kg

Siemens Switzerland Ltd
Infrastructure & Cities Sector
Building Technologies Division
International Headquarters
CPS Fire Safety
Gubelstrasse 22
CH-6301 Zug
Tel. +41 41 724 24 24
www.siemens.com/buildingtechnologies

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Manual S11 / FD-C
Section 5