SIEMENS

Flame detector

DF1101-Ex

For indoor and outdoor applications

3-sensor processing

– Detection at various wavelengths

– Microprocessor-controlled signal processing

Selective evaluation of flickering sequence

Choice of application algorithms

Excellent false alarm immunity thanks to a combination of patented fuzzy logic and wavelet analysis

Maximum resistance to

– electromagnetic interference

– sunlight and thermal radiation

– moisture and corrosion

Connection to the collective/SynoLINE600, interactive or AnalogPLUS/SynoLOOP fire detection system via input/output module DC1192

Connection to the addressed FDnet/C-NET fire detection system via transponder FDCIO223

Features

– Aluminum detector housing for shielding against electromagnetic interference
– Base housing made from hard-wearing glass-fiber-reinforced plastic
– Connection to the control panel via a wire pair
– Protected electronics
– Built-in alarm indicator
– External alarm indicator can be connected
– Collective signal processing
– Ignition protection category 'intrinsic safety' Ex i
  IEC 60079-0 and IEC 60079-11

Eco-friendly

– Environmentally friendly processing
– Reusable materials
– Electronic parts and synthetic materials can be easily separated

Chemical production facilities, warehouses for chemicals

Oil refineries

Gas depots and pump stations

Natural gas transshipment points

Propane and butane gas filling systems

All zone 1 and 2 areas at risk of explosion where flame fires of carbonaceous materials are to be expected

The flame detector measures infrared radiation and can therefore detect liquid and gas fires without smoke and organic material fires with smoke.

Pyroelectric sensor A measures the infrared radiation in the characteristic CO_2 spectral range between 4.0 and 4.8 µm.

Pyroelectric sensor B measures the infrared radiation of deceptive phenomena, such as hot objects, in the range between 5.1 and 6.0 µm.

Sensor C is a silicon photo diode and measures solar radiation in the range between 0.7 and 1.1 µm.
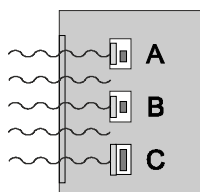
A sensor measures the hot CO_2 at a specific wavelength of the flame; the other two sensors measure interference radiation at other wavelengths at the same time.

With the intelligent signal processing using fuzzy algorithms and wavelet analysis, the flame detector achieves excellent detection reliability with maximum immunity to interference emitters and sunlight at the same time.

In order to safeguard against a possible decision emergency, the flame detector contains an additional emergency activation channel.
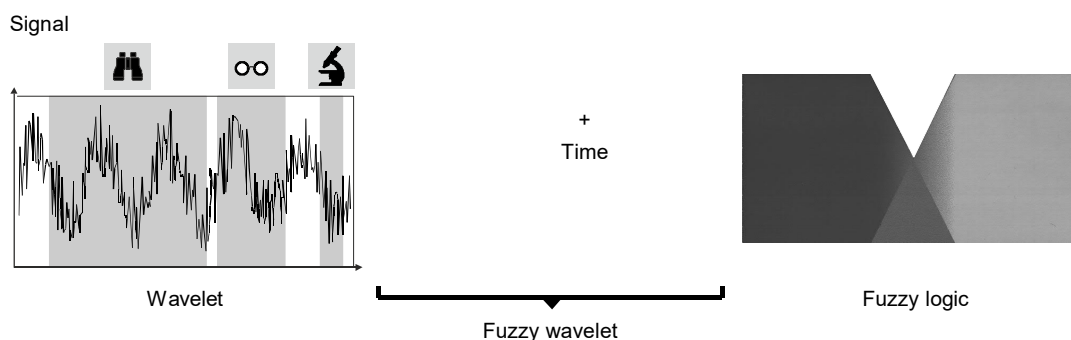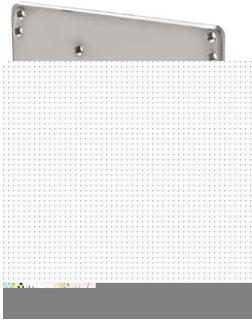

| DF1101-Ex | Flame detector | BPZ:5166750001 | 0.500 |

DFB1190	Base	BPZ:5165360001	0.250
-	M20 x 1.5 metal cable gland	A5Q00004478	0.036
MV1	Mounting bracket	BPZ:3950450001	0.285
MWV1	Ball and socket joint	BPZ:3674840001	0.860
DFZ1190	Rain hood	BPZ:5302660001	0.640
Stabex HF	Test lamp	BPZ:4620910001	0.250

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	For room monitoring For fixing flame detector at 45°

	For fixing flame detector at the angle and in the direction required For accurately aligning the flame detector to an area

	Rain hood made of stainless steel For protecting the flame detector during outdoor applications

	For testing the function of flame detectors

Operating voltage	DC 16…28 V
Operating current (quiescent)	0.5 mA
Ext. alarm indicator (AI)	2
Connection factor KMK	6
Connection terminals	0.2…2.5 mm^2
Operating temperature	-35…+70°C
Storage temperature	-40…+75 °C
Air humidity	95 % rel. (no significant moisture condensation on the viewing window)
Color	~RAL 9010 pure white
Protection category (IEC/EN 60529)	IP67
Ex classification	II 2 G Ex ib IIC T4 Gb (-35 °C Ta 70 °C)
Standards 　　For flame detectors 　　For Ex areas	 EN 54-10 IEC 60079-0, IEC 60079-11
Approvals 　　VdS 　　EC-type examination certificate 　　LPCB 　　DNV GL (marine)	 G299085 PTB 02 ATEX 2161 LPCB 126bb/01 MEDB00003UN
Compatibility 　　FDnet/C-NET 　　Collective signal processing / SynoLINE600, interactive, AnalogPLUS / SynoLOOP	 With transponder FDCIO223 and safety barrier SB3 With input/output module DC1192 and safety barrier SB3
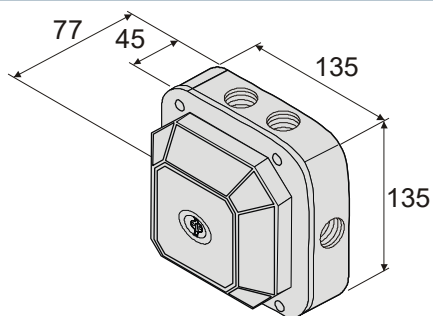
08 CE 0786	Siemens Schweiz AG; Theilerstrasse 1a CH-6300 Zug Technical data: see doc.
DF1101-Ex - Flame detector for use in fire detection and fire alarm systems installed in buildings.	
305/2011/EU (CPR): EN 54-10 ; 2014/30/EU (EMC): EN 50130-4 / EN 61000-6-3 ; 2014/34/EU (ATEX): EN 60079-0 / EM 60079-11	
The declared performance and conformity can be seen in the Declaration of Performance (DoP) and the EU Declaration of Conformity (DoC), which is obtainable via the Customer Support Center: Tel. +49 89 9221-8000 or https://siemens.com/bt/download	
DoP No.: 0786-CPR-20497; DoC No.: CED-DF1101-Ex	