



FDL241-9

Sinteso™
S-LINE

ASA Linear smoke detector



ASAtechnology™

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- **Reliable smoke detection in large-volume rooms (inside application)**
 - **Detection distance from 5 – 100 Meter**
 - **Signal processing with ASAtechnology™**
 - **Works according to the principle of light attenuation by smoke**
 - **Selectable response behavior, up to 3 sensitivity levels can be selected**
 - **Event-controlled detection behavior**
 - **Transmission of 4 different danger levels to control unit**
 - **Microprocessor-controlled signal evaluation**
 - **Automatic self-test**
 - **Automatic compensation for soiling**
 - **High immunity against extraneous light and electromagnetic influences**
 - **Transmitter and receiver in one housing**
 - **Distance measuring between transmitter and receiver**
 - **Communication via FDnet (individual addressing), or collective signal evaluation (change-over)**

- **Environmental**

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

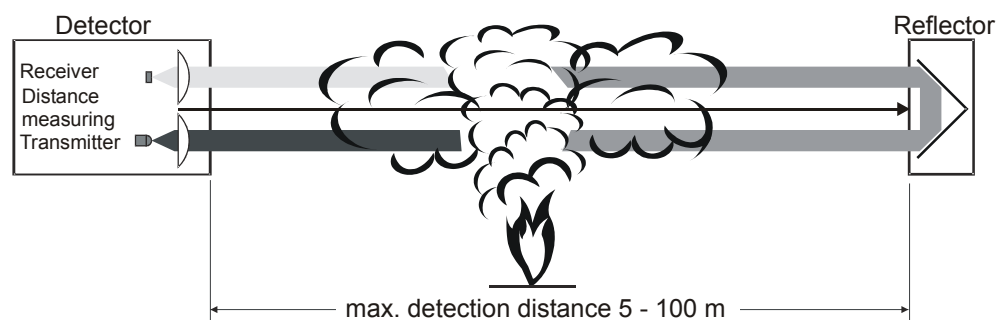
- **Characteristics**

- the detector and base housing is made of a robust, glass fiber reinforced synthetic material
- protected electronic
- built-in response indicator
- self-test function
- integrated line separator
- detector heating in case of danger of moisture condensation
- 3 sensitivity levels and event-controlled detection behavior
- addressable signal processing
 - 4 danger levels facilitate the initiation of dedicated actions as well as early warning in case of erroneous application
 - 4 function states; in addition to the normal status, the detector signals Information, Interference or Fault, depending on the urgency of the cause
- collective signal processing
 - the detector signals alarm and fault states to the control unit

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- **Function**

- The detector consists of a light emitter and a light receiver. The light emitter emits a bundled infrared ray, which is scattered back by the prism-shaped reflector to the light emitter. The receiver converts the received infrared signal in an electric signal, which is evaluated by the microprocessor-controlled electronics.
- Smoke penetrating the measuring section attenuates the infrared signal. When the signal reaches predefined measuring values, the detector transmits the corresponding danger level to the control unit.
- distance measurement for the recognition of foreign matters
- The built-in response indicator signals the alarm status locally.



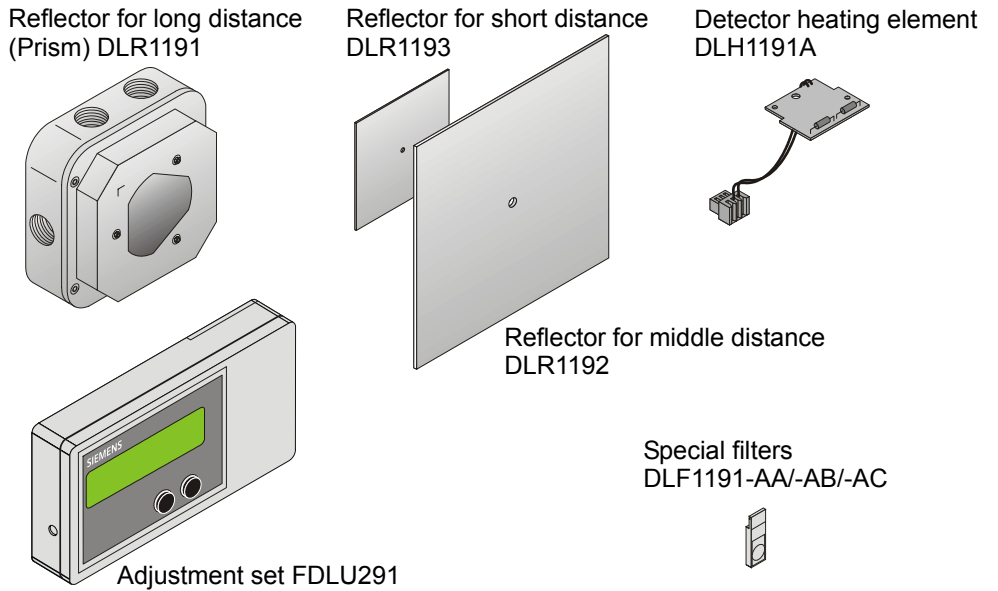
- **Environmental influences**

- digital signal follower circuit
 - Gradual changes in the infrared signal received owing to dust on the lens or the detector automatically compensates other environmental influences.
- multiple coincidence circuit
 - Suppresses electrical and optical interference signals. The DLF1191-AC filter is provided in the event of particularly strong incidence of extraneous light.
- prism-shaped reflectors
 - light rays arriving are reflected parallel
 - vibrations of the installation surface have no effect on the detector

● **Application**

- large store-rooms and production workshops
- areas with complex roof structures or historically valuable ceilings
- covered courtyards
- atrium-type buildings
- reception halls

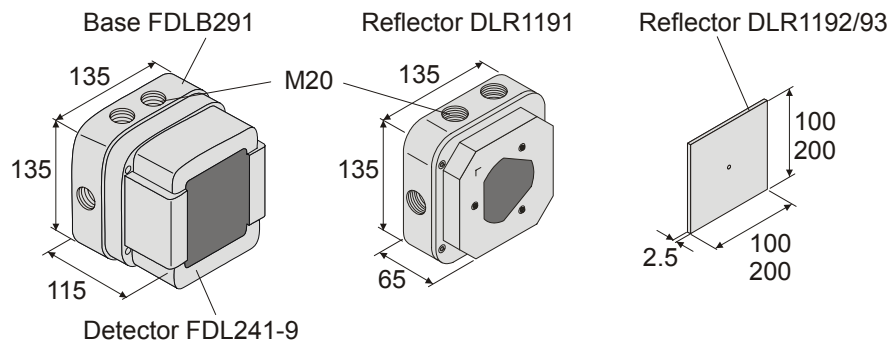
Accessories



Installation

- Easy mounting of the housing on stable surfaces; wood and steel constructions are rather unsuitable as temperature and humidity fluctuations, wind or snow pressure may exert an influence.
- 6 openings with M20 thread for cable glands
- ext. response indicator connectable
- Between the detector and the reflector there must be permanent, unhindered visual contact. Obscuration by operational dust, vapor or smoke generation may impair the system. Any objects in motion, e.g. overhead traveling cranes, ladders, portable items, cobwebs etc, must not interrupt the monitoring ray.
- The optics can be rationally adjusted to the reflector by single-handed alignment by means of the adjustment device FDLU291.
- For various distances, different reflectors are available.

Dimensions



Technical data

Detector	Operating voltage addressable / collective	12... 33 V DC / 18... 28 V DC	
	Operating current (quiescent) addressable / collective	1.5 mA	
	Response indicator (AI) ext. connectable and programmable	1	
	Operating temperature	-25... +60 °C	
	Storage temperature	-30... +75 °C	
	Humidity at T ≤ 30 °C	≤ 100 % rel.	
	at T ≥ 30 °C	≤ 35 g/m ³	
	Communication protocol	FDnet or collective	
	Connection terminals	0.2... 1.5 mm ²	
	Color	pure white (RAL9010)	
	Protection category EN60529 / IEC529	IP65	
	Standards	EN54-12	
	Approvals - VdS	G204063	
	QS standards	Siemens Standard SN 36350	
	System compatibility FDnet	AlgoRex, SIGMASYS	
	System compatibility collective	CS11, CZ10	
	Detector heating	Operating voltage	20... 30 V DC
		Operating current	30... 50 mA
		Resistor	600 Ω

Details for ordering

Type	Part no	Designation	Weight
FDL241-9	A5Q00002298	Linear smoke detector	0.440 kg
FDLB291	A5Q00003941	Base	0.305 kg
-	A5Q00004478	Metal screwed cable gland M20	0.039 kg
DLF1191-AA	4933030001	Filters for distances of 7... 10 m	0.005 kg
DLF1191-AB	4933160001	Filters for distances of 5... 8 m	0.005 kg
DLF1191-AC	5221480001	Filter against incidence of extraneous light	0.005 kg
DLH1191A	4787970001	Detector heating element	0.010 kg
DLR1191	4787710001	Reflector for long distance (Prism)	0.510 kg
DLR1192	4788490001	Reflector for middle distance (400 cm ²)	0.075 kg
DLR1193	4787840001	Reflector for short distance (100 cm ²)	0.025 kg
FDLU291	A5Q00004905	Adjustment tester incl. accessories (case)	0.840 kg