



# VISIC50SF-1000

VISIC50SF

**SMOKE DETECTORS**

**SICK**  
Sensor Intelligence.



## Ordering information

Type	Part no.
VISIC50SF-1000	1068731

Our regional sales organization will help you to select the optimum device configuration.

Other models and accessories → [www.sick.com/VISIC50SF](http://www.sick.com/VISIC50SF)



## Detailed technical data

## Technical specifications

<b>Description</b>	Smoke detector for early fire detection in tunnels with internal heater for correction on fog				
<b>Measured values</b>	Visibility (K-value)				
<b>Measurement principles</b>	Scattered light forward				
<b>Measuring ranges</b>	<table border="0"> <tr> <td>Visibility (K-value)</td> <td>0 ... 150 km<sup>-1</sup></td> </tr> <tr> <td>Temperature measurement (option)</td> <td>-30 ... +70 °C</td> </tr> </table>	Visibility (K-value)	0 ... 150 km <sup>-1</sup>	Temperature measurement (option)	-30 ... +70 °C
Visibility (K-value)	0 ... 150 km <sup>-1</sup>				
Temperature measurement (option)	-30 ... +70 °C				
<b>Response time (t<sub>90</sub>)</b>	≤ 5 s				
<b>Resolution</b>	<table border="0"> <tr> <td>Visibility (K-value)</td> <td>1 km<sup>-1</sup></td> </tr> </table>	Visibility (K-value)	1 km <sup>-1</sup>		
Visibility (K-value)	1 km <sup>-1</sup>				
<b>Repeatability</b>	<table border="0"> <tr> <td>Visibility (K-value)</td> <td>≤ 1 %</td> </tr> </table>	Visibility (K-value)	≤ 1 %		
Visibility (K-value)	≤ 1 %				
<b>Ambient temperature</b>	-20 °C ... +55 °C				
<b>Storage temperature</b>	-30 °C ... +85 °C				
<b>Ambient pressure</b>	860 hPa ... 1,080 hPa				
<b>Ambient humidity</b>	10 % ... 100 % Relative humidity; non-condensing				
<b>Conformities</b>	ASTRA "Guideline - Ventilation of Road Tunnels" (2008) RABT 2006				
<b>Electrical safety</b>	CE				
<b>Enclosure rating</b>	IP6K9K				
<b>Analog outputs</b>	2 outputs: 4 ... 20 mA, 500 Ω Electrically isolated; short-circuit proof. Outputs are preset for smoke detection and temperature.				
<b>Digital outputs</b>	3 relay contacts: 48 V, 0.5 mA, 24 W Preset for failure, limit value and maintenance				

<b>Modbus</b>		✓
	Remark	Not available when a TAD is used
	Type of fieldbus integration	RTU RS-485
<b>Indication</b>		LC display, inside Status LEDs: "Operational", "Maintenance required", and "Fault"
<b>Input</b>		Functional keys
<b>Operation</b>		Via LC-display and function keys
<b>Dimensions (W x H x D)</b>		266 mm x 159 mm x 117 mm (for details see dimensional drawings)
<b>Weight</b>		≤ 2.8 kg
<b>Material</b>		Stainless steel 1.4571
<b>Mounting</b>		Wall mount, vertical, wall inclination up to 45° or ceiling mount using an adapter
<b>Energy supply</b>	Voltage	18 V DC ... 28 V DC, ± 10 % Other voltages with optional connecting unit or TAD control unit
	Current consumption	≤ 1 A
	Power consumption	Without heating: ≤ 5 W With heating: ≤ 20 W
<b>Test functions</b>		Contamination monitoring of glass pane Drift and plausibility check Automatic self-test Functional monitoring of the optional heating
<b>Options</b>		Temperature sensor TAD control unit Connection unit Internal heating

## Classifications

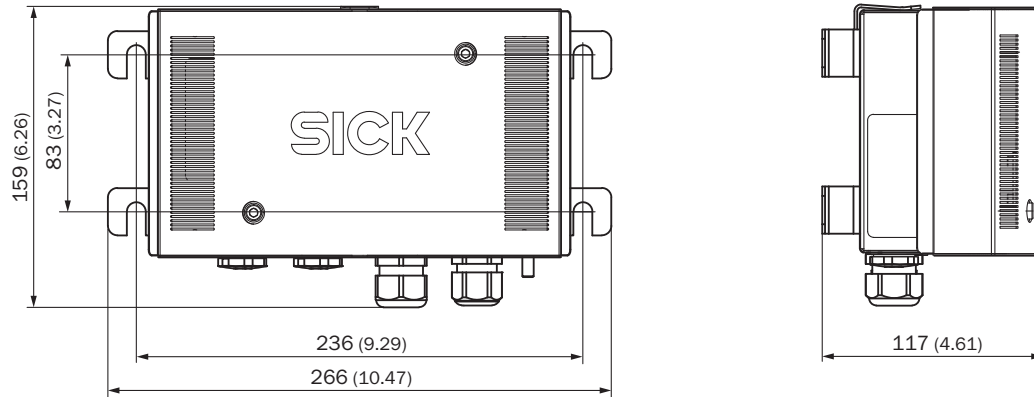
<b>ECLASS 5.0</b>	27150305
<b>ECLASS 5.1.4</b>	27150305
<b>ECLASS 6.0</b>	27150305
<b>ECLASS 6.2</b>	27150305
<b>ECLASS 7.0</b>	27150305
<b>ECLASS 8.0</b>	27150305
<b>ECLASS 8.1</b>	27150305
<b>ECLASS 9.0</b>	27150305
<b>ECLASS 10.0</b>	27150305
<b>ECLASS 11.0</b>	27150305
<b>ECLASS 12.0</b>	27150305
<b>ETIM 5.0</b>	EC001190
<b>ETIM 6.0</b>	EC001190
<b>ETIM 7.0</b>	EC001190
<b>ETIM 8.0</b>	EC001190

UNSPSC 16.0901

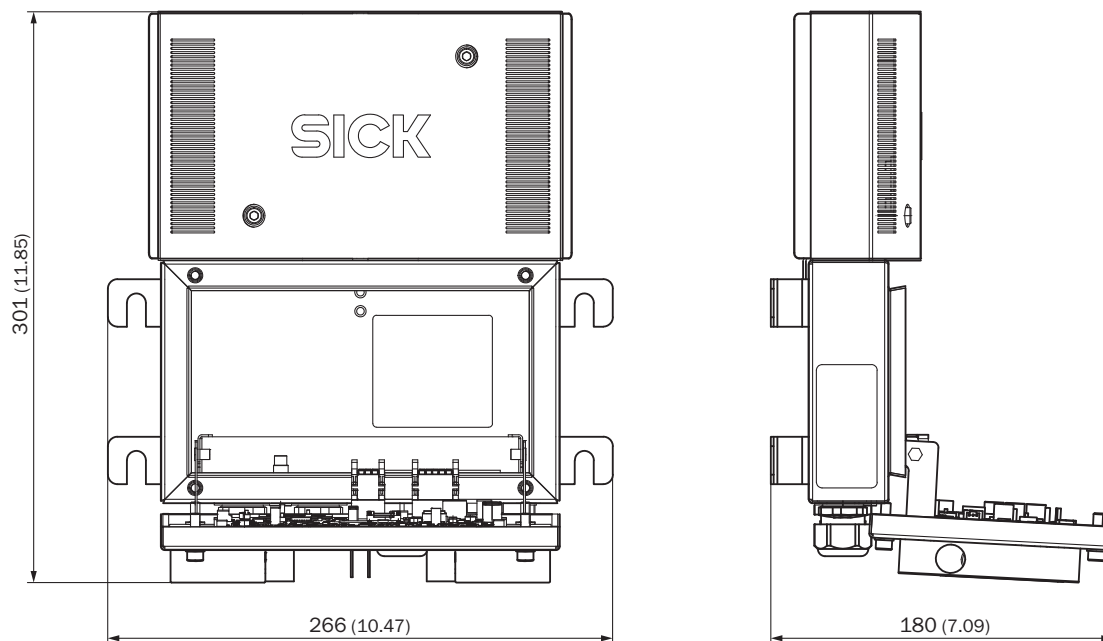
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### Dimensional drawing (Dimensions in mm (inch))

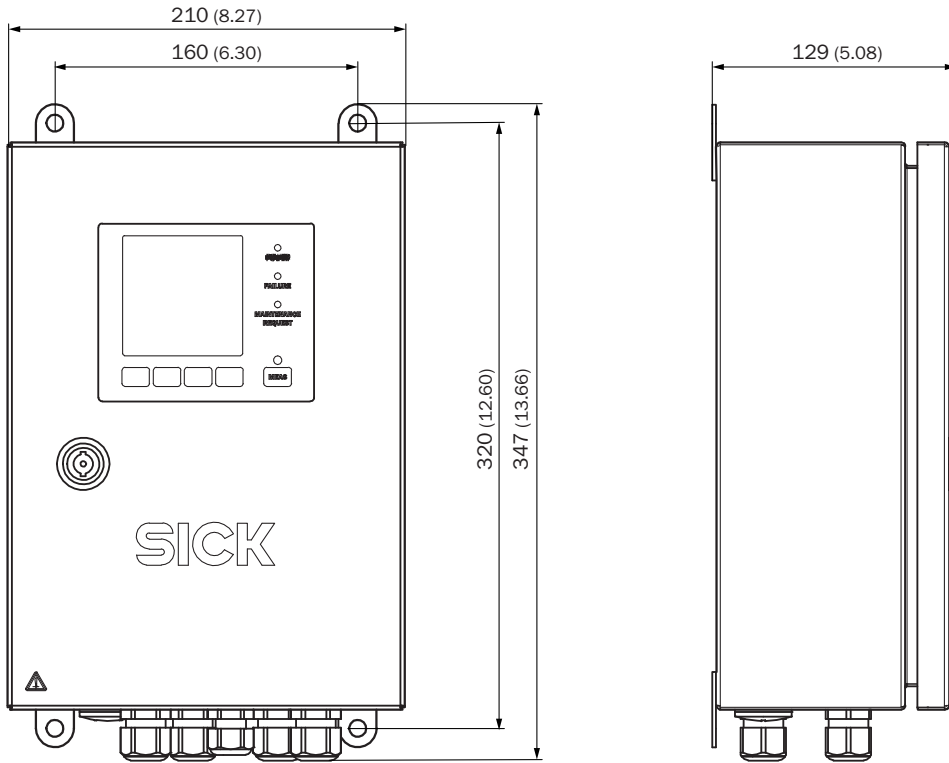
VISIC50SF sensor unit closed



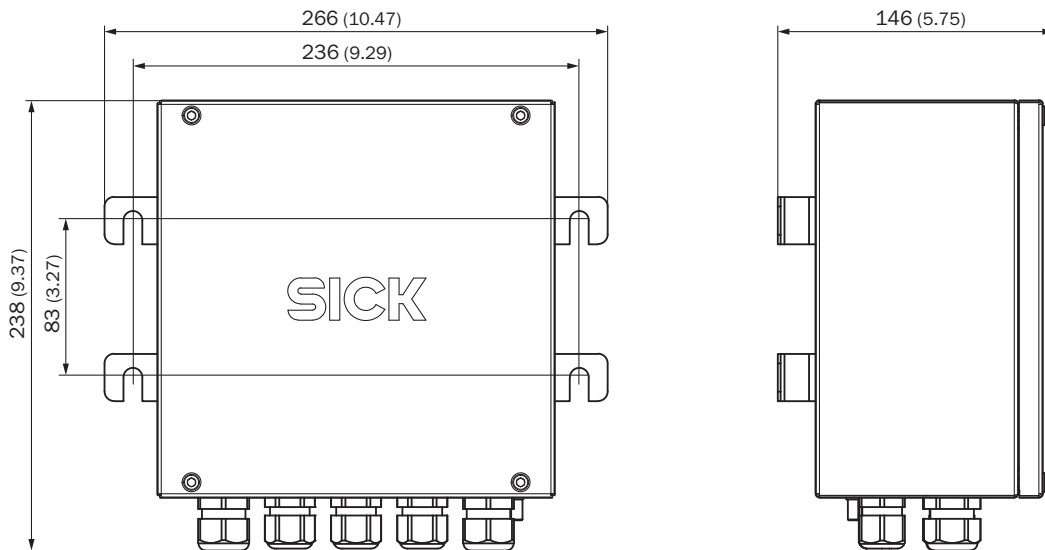
VISIC50SF sensor unit open with clipped-on front cover



TAD control unit

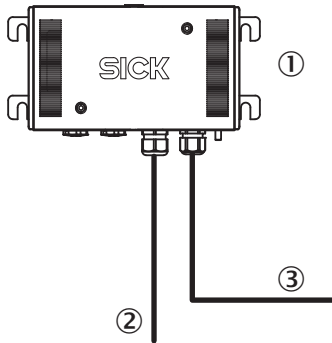


VISIC50SF connecting unit



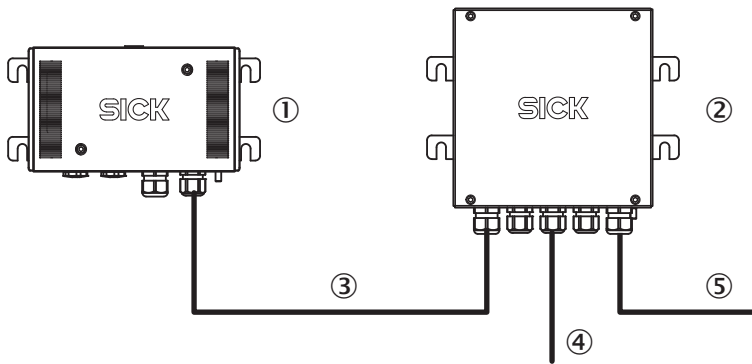
## Connection types

Standard version



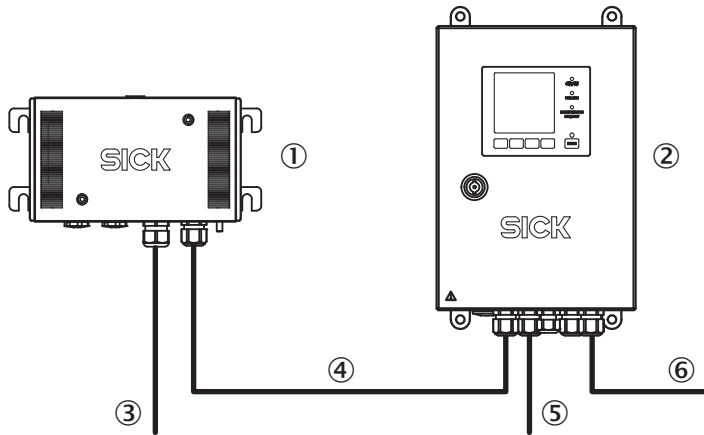
- ① VISIC50SF sensor unit
- ② Power supply (24 V)
- ③ Analog and digital signals or data bus

Version with terminal box



- ① VISIC50SF sensor unit
- ② VISIC50SF connecting unit
- ③ Analog and digital signals or data bus, incl. power supply (24 V)
- ④ Power supply (230 V)
- ⑤ Analog and digital signals or data bus

Version with TAD control unit



- ① VISIC50SF sensor unit
- ② TAD control unit
- ③ Power supply (24 V)
- ④ Analog and digital signals or data bus (max. length = 1,200 m)
- ⑤ Power supply (230 V)
- ⑥ Analog and digital signals or data bus

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)