



# FCS-LWM-1 Linear Heat Detector



LWM 1 is a linear heat detector for detecting fire. Its functionality is based on the change in resistance of an electrical conductor caused by a rise in temperature.

## Functions

The four copper wires on the sensor cable are each surrounded by a color-coded (orange, white, red, blue) material with a negative temperature coefficient and encased in a thermally resistant external coating. Two copper wires are connected to the bare end of the sensor cable to form two loops. The end of the sensor cable is then hermetically sealed. Both loops are continually monitored. In the event of an interruption or short circuit, the control unit outputs a trouble message.

If the temperature rises, the electrical resistance between the two loops changes. The control unit detects this change and triggers the alarm if the defined response temperature is exceeded. Both short sensor lengths and longer sections with small temperature increases are detected.

## Certifications and Approvals

VdS approval number: G 205  
066

- ▶ Resistant to mechanical and chemical influences, corrosion, humidity and dust
- ▶ Simple installation and initial set-up
- ▶ Minimal maintenance costs through continual self-monitoring of the sensor cable.
- ▶ Configurable response temperature
- ▶ Test switch for maintenance (simulates alarm and malfunction).
- ▶ use in constricted spaces and under extreme environmental conditions.

## Parts Included

Quant.	Component
1	detector box with control unit

## Technical Specifications

### Electrical

Voltage	10 - 30 V DC
Maximum current consumption	25 mA (at 24 V DC)
<ul style="list-style-type: none"> <li>• standby</li> <li>• with DIFFALARM/MAX ALARM</li> <li>• malfunction</li> </ul>	25 mA (at 24 V DC) 15 mA (at 24 V DC)
Switch-on current	< 100 mA (at 24 V DC)

### Mechanical

Material/Color	ABS/grey, similar to RAL 7035
Dimensions (H x W x D)	200 mm x 120 mm x 80 mm
Weight	appr. 550 g
Display	LED green: in operation, continuously lit LED red: ALARM DIFF, continuously lit LED red: ALARM MAX, continuously lit LED yellow: malfunction, flashing light
Test keys	2 x for simulating alarm, malfunction and LED test
Protection type	IP 65
Temperature range	- 20 °C to + 50 °C

## Ordering Information

FCS-LWM-1 Linear Heat Detector                      FCS-LWM-1

**Europe, Middle East, Africa:**  
 Bosch Security Systems B.V.  
 P.O. Box 80002  
 5600 JB Eindhoven, The Netherlands  
 Phone: +31 40 2577 284  
 Fax: +31 40 2577 330  
 emea.securitysystems@bosch.com  
 www.boschsecurity.com

**Americas:**  
 Bosch Security Systems, Inc.  
 130 Perinton Parkway  
 Fairport, New York, 14450, USA  
 Phone: +1 800 289 0096  
 Fax: +1 585 223 9180  
 security.sales@us.bosch.com  
 www.boschsecurity.us

**Asia-Pacific:**  
 Bosch Security Systems Pte Ltd  
 38C Jalan Pemimpin  
 Singapore 577180  
 Phone: +65 6319 3450  
 Fax: +65 6319 3499  
 apr.securitysystems@bosch.com  
 www.boschsecurity.com

**Represented by**