CSP

Multisensor smoke and heat detector

DMP-100

Firmware version 2.00

Optical smoke detector

DRP-100

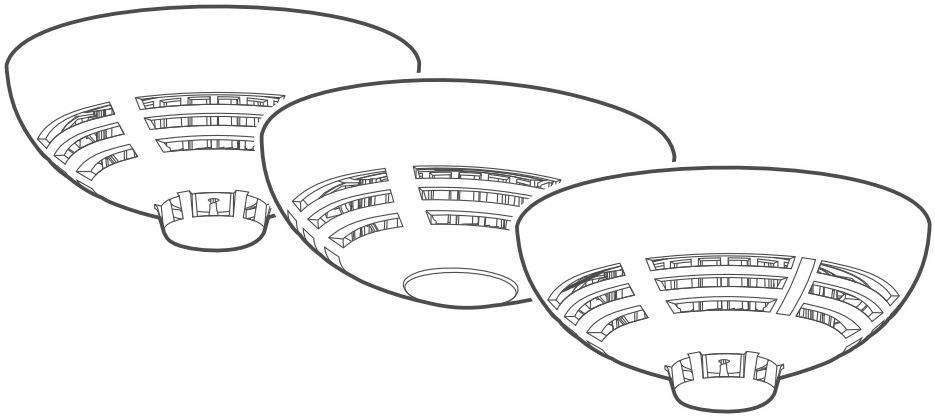
Firmware version 2.00

Fixed temperature / rate-of-rise heat detector

DCP-100

Firmware version 2.00

EN



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IMPORTANT

The device should be installed by qualified personnel.

Prior to installation, please read carefully this manual in order to avoid mistakes that can lead to malfunction or even damage to the equipment.

Disconnect power before making any electrical connections.

Changes, modifications or repairs not authorized by the manufacturer shall void your rights under the warranty.

The following symbols may be used in this manual:

 - note,

 - caution.

1. Introduction

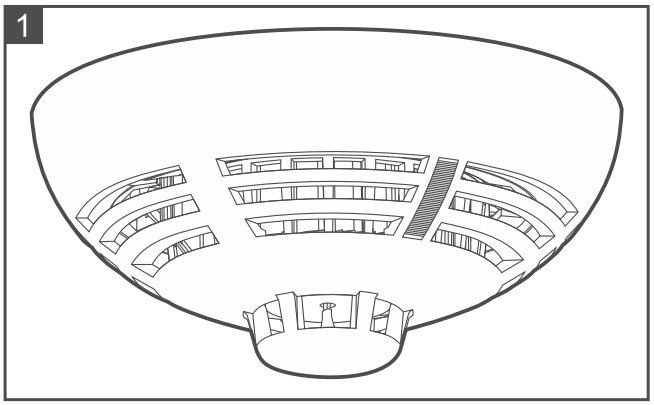
This manual covers the following detectors:

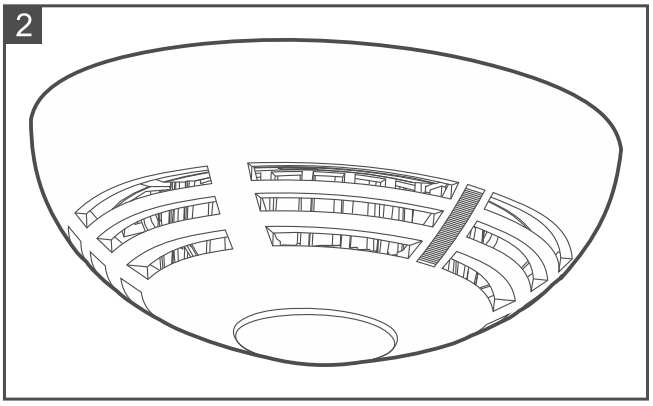
DMP-100 - conventional multisensor smoke and heat detector (Fig. 1);

DRP-100 - conventional optical smoke detector (Fig. 2);

DCP-100 - conventional fixed temperature / rate-of-rise heat detector (Fig. 1 – a red ring is painted on the enclosure of detector to differentiate it from the DMP-100).

These detectors can detect the early stages of fire development when there is some visible smoke (DMP-100 and DRP-100) and/or temperature rise (DMP-100 and DCP-100). They are designed to be used in conjunction with the CSP-104, CSP-108, CSP-204 and CSP-208 fire alarm control panels.





2. Features

- EN54-7 compliant visible smoke sensor (DMP-100 and DRP-100).
- EN54-5 compliant heat sensor (DMP-100 and DCP-100).
- Detection of optical chamber fouling (DMP-100 and DRP-100).
- Red LED indicator.
- Installation in DB-100 base.
- Optional connection of remote alarm indicator.

3. Functional description

3.1 Smoke detection (DMP-100 and DRP-100)

An optical method is used for the detection of visible smoke. When the concentration of smoke in the optical chamber exceeds a given threshold, an alarm is triggered. The detector automatically compensates for gradual changes in the optical chamber caused by deposition of dust. In the case of DMP-100 multisensor detector, the smoke sensor operating parameters are adjusted according to the temperature changes recorded by the heat sensor (thermistor).

3.2 Heat detection (DMP-100 and DCP-100)

The heat sensor operates according to the requirements of Class A1R (EN 54-5). The alarm will be triggered after exceeding a certain threshold temperature (54°C - 65°C) or in the event when the temperature rises too rapidly (see Table 1).

Rate of rise of air temperature	Lower limit of response time	Upper limit of response time
1 °C/min	29 min	40 min 20 s
3 °C/min	7 min 13 s	13 min 40 s
5 °C/min	4 min 9 s	8 min 20 s
10 °C/min	1 min	4 min 20 s
20 °C/min	30 s	2 min 20 s
30 °C/min	20 s	1 min 40 s

Table 1. Rate-of-rise response time limits for the heat sensor.

3.3 Optical alarm signaling

The alarm is signaled by steady light of the red LED, thus making it easier to locate the detector which issued the alarm. If the detector is mounted in a hard-to-reach location and the LED is not visible, a remote alarm indicator installed in a visible place can be connected to the detector.

4. Installation

The detectors are designed for indoor installation. In the typical home or office applications, the detector should be installed on the ceiling, at a distance of at least 0.5 meters from the walls or other objects.

Do not install the detector in places with high concentration of dust, with formation and condensation of water steam and/or in the vicinity of air conditioning vents.

The detector should not be installed near heaters and cookers.

The detector is designed for installation in the DB-100 base, to which cables are connected. Having installed the detector into its base, protect it temporarily with the plastic dust cover included in the detector delivery set, if any work which might cause fouling of the detector is being carried out in the building.

It is advisable to keep the dust cover in case repair work is conducted in the future.

5. Maintenance

The detectors should be subject to regular checks to ensure they are working correctly. Periodic checks should be conducted at least every six months.

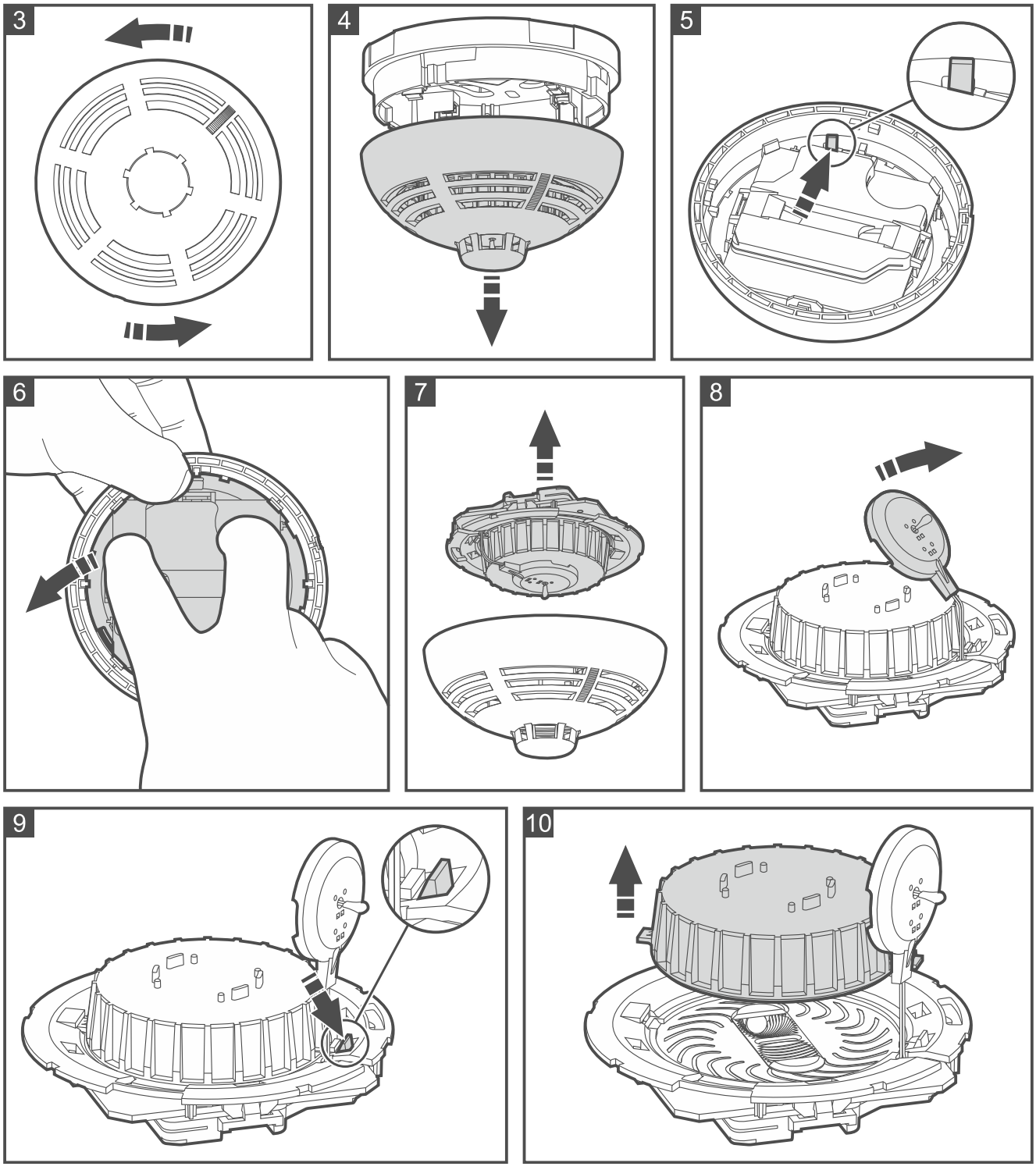
5.1 Cleaning the optical chamber

The DMP-100 and DRP-100 detectors are monitoring the state of the optical chamber. Deposition of dust in it may lead to malfunctioning of the device. It is recommended that you have the optical chamber cleaned at least once a year. Cleaning the chamber is necessary when the LED indicates fouling of the chamber (one flash every 30 seconds).

Below, the procedure of cleaning the DMP-100 optical detector is described. For the DRP-100 detector, in which no thermistor is installed, proceed in the same way, skipping the steps 4 and 8.

1. Turn the detector counter-clockwise (Fig. 3) and remove it from the DB-100 base (Fig. 4).
2. Pull the release lever to unlock the electronics module and turn it counter-clockwise (Fig. 5 and 6).

3. Remove the electronics module with the optical chamber (Fig. 7).
4. Remove the plastic element with the thermistor from the optical chamber cover (Fig. 8).
5. Release the mounting catch (Fig. 9) and remove the optical chamber cover (Fig. 10).



6. Using a soft brush or compressed air, clean the labyrinth in the cover, as well as the base of the optical chamber, paying attention to the recesses where LEDs are installed.
7. Replace the optical chamber cover.
8. Replace the plastic element with the thermistor on the optical chamber.
9. Secure the electronics module with the optical chamber in the cover and turn it clockwise.
10. Insert the detector into the DB-100 base and turn it clockwise.

6. Specifications

Supply voltage		10.5...26 V DC
Quiescent current	DMP-100	0.04 mA
	DRP-100	0.03 mA
	DCP-100	0.022 mA
Alarm current	DMP-100	23 mA
	DRP-100	23 mA
	DCP-100	23 mA
Class according to EN 54-5 (heat sensor)		A1R
Minimum static response temperature		54 °C
Maximum static response temperature		65 °C
Operating temperature range		-25...+50 °C
Maximum humidity		93±3%
Enclosure dimensions	DMP-100 / DCP-100	ø108 x 49 mm
	DRP-100	ø108 x 42 mm
Weight	DMP-100	94 g
	DRP-100	94 g
	DCP-100	94 g

The DCP-100 heat detector conforms to the essential requirements of the EU Regulations and Directives:

CPR 305/2011 Regulation of the European Parliament and of the Council of 9 March 2011 laying down harmonized conditions for the marketing of construction products and repealing the Council Directive 89/106/EEC on construction products;

EMC 2014/30/UE Electromagnetic Compatibility Directive;

LVD 2014/35/EU Low Voltage Directive.

The CNBOP-PIB Certification Body in Józefów issued the Certificate of Constancy of Performance 1438-CPR-0316 for the construction product DCP-100 detector, confirming its compliance with the requirements of EN 54-5:2017+A1:2018.

The Certificate and the Declaration of Constancy of Performance can be downloaded from the **www.satel.pl** website.

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Declaration of Performance DOP/CPR/0316

EN 54-5:2017+A1:2018

Fire safety in construction works.

DCP-100 conventional, detachable, spot type heat detector

for fire alarm systems used in buildings.

Declaration of Performance DOP/CPR/0316.

Use – fire safety

Technical specifications – please refer to this manual.

The DRP-100 smoke detector conforms to the essential requirements of the EU Regulations and Directives:

CPR 305/2011 Regulation of the European Parliament and of the Council of 9 March 2011 laying down harmonized conditions for the marketing of construction products and repealing the Council Directive 89/106/EEC on construction products;

EMC 2014/30/UE Electromagnetic Compatibility Directive;

LVD 2014/35/EU Low Voltage Directive.

The CNBOP-PIB Certification Body in Józefów issued the Certificate of Constancy of Performance 1438-CPR-0340 for the construction product DRP-100 detector, confirming its compliance with the requirements of EN 54-7:2018.

The Certificate and the Declaration of Constancy of Performance can be downloaded from the **www.satel.pl** website.

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EN 54-7:2018

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Fire safety in construction works.

DRP-100 conventional spot type optical smoke detector, operating on light scattering principle, for fire alarms used in buildings

Declaration of Performance DOP/CPR/0340

Use – fire safety

Technical specifications – please refer to this manual.

The DMP-100 smoke and heat detector conforms to the essential requirements of the EU Regulations and Directives:

CPR 305/2011 Regulation of the European Parliament and of the Council of 9 March 2011 laying down harmonized conditions for the marketing of construction products and repealing the Council Directive 89/106/EEC on construction products;

EMC 2014/30/UE Electromagnetic Compatibility Directive;

LVD 2014/35/EU Low Voltage Directive.

The CNBOP-PIB Certification Body in Józefów issued the Certificate of Constancy of Performance 1438-CPR-0341 for the construction product DMP-100 detector, confirming its compliance with the requirements of EN 54-7:2018 and EN 54-5:2017+A1:2018.

The Certificate and the Declaration of Constancy of Performance can be downloaded from the **www.satel.pl** website.

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EN 54-7:2018

EN 54-5:2017+A1:2018

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Fire safety in construction works.

DMP-100 conventional spot type multisensor smoke and heat detector, operating on light scattering principle, fixed temperature / rate-of-rise, for fire alarm systems used in buildings.

Declaration of Performance DOP/CPR/0341

Use – fire safety

Technical specifications – please refer to this manual.