

MANUAL CALL POINTS

ROP-3000 and ROP-3000H

POLON 3000 FIRE ALARM SYSTEM

INSTALLATION AND MAINTENANCE

MANUAL

IK-E400-001-GB

Zmiana 2

Manual call points ROP-3000 and ROP-3000H which is the subject of this instruction, meet the essential requirements of the following regulations of the European Parliament and of the Council (EU) and European Union directives:

- CPR** CPR/305/2011 Regulation (EU) of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products repealing Council Directive 89/106/EEC;
- EMC** Directive 2014/30/EU on electromagnetic compatibility.

The product has been issued by CNBOP-PIB, notified body No. 1438, a certificate of constancy of performance confirming the possession of technical features/parameters required by EN 54-11:2001+A1:2005, EN 54-17:2005+AC:2007.

The Manufacturer's technical features/parameters exceeding the requirements of the listed standards and other features/parameters of the product specified in this manual not specified in the listed standards are confirmed by the Manufacturer.

The certificate and the Declaration of Performance are available on the website www.polon-alfa.com

The contents of this manual should be thoroughly read and understood before installation and operation of the device. Failure to follow the instructions included in this manual may be dangerous or result in the violation of applicable regulations.

Failure to follow the recommendations in this manual may prove dangerous or result in a violation of applicable regulations.

As the manufacturer, **POLON-ALFA** is not liable for any damages resulting from the improper device operation that is not in accordance with this manual.

Note – Manufacturer reserves the rights to make changes to this document

A worn-out product, unfit for further use, should be handed over to one of the points dealing with the collection of waste electrical and electronic equipment.



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1 PURPOSE

The ROP-3000 and ROP-3000H manual call points are designated for operation in addressable loops of the POLON 3000 control panel. They are addressable devices installed in order to transfer information about a noticed fire by their manual actuation. Both version of manual call points are equipped with internal short-circuit isolators.

The ROP-3000 manual call point in the standard execution is intended for indoor installation.

The ROP-3000H manual call point (with a higher ingress protection level) is intended for outdoor installation.

Standard execution of ROP is available in 2 versions - for semi-flush (in wall plaster) and surface (on wall plaster) mounting installation.

Manual call points with a higher ingress protection level are intended for semi-flush (in wall plaster) installation. A special auxiliary RM-60-R masking frame is applied for surface mounting; it is not a part of the standard equipment and should be ordered separately.

2 TECHNICAL SPECIFICATION

MCP type	B acc. to PN-EN 54-11:2004
Operation voltage (from detection line)	16.5 V ... 24.6 V
Max. current consumption in quiescent mode	< 140 μ A
Allowable cable wire diameter	(0.8 ÷ 1.2) mm
Address coding range	1 ÷ 128
Ingress protection	
ROP-3000	IP 30
ROP-3000H	IP 55
Operating temperature range	
ROP-3000	from - 25 °C to + 55 °C
ROP-3000H	from - 40 °C to + 70 °C
Allowable relative humidity	up to 95 % at 40 °C
Dimensions	(102.5 x 98 x 45.5) mm
Mass	160 g
Case colour	red

3 SAFETY CONDITIONS

3.1 Repairs and maintenance

Maintenance and periodic inspections must be carried out by authorized personnel of companies trained or approved by POLON-ALFA.

All repairs must be carried out by the manufacturer.

POLON-ALFA is not responsible for the operation of equipment maintained and repaired by unauthorized personnel.

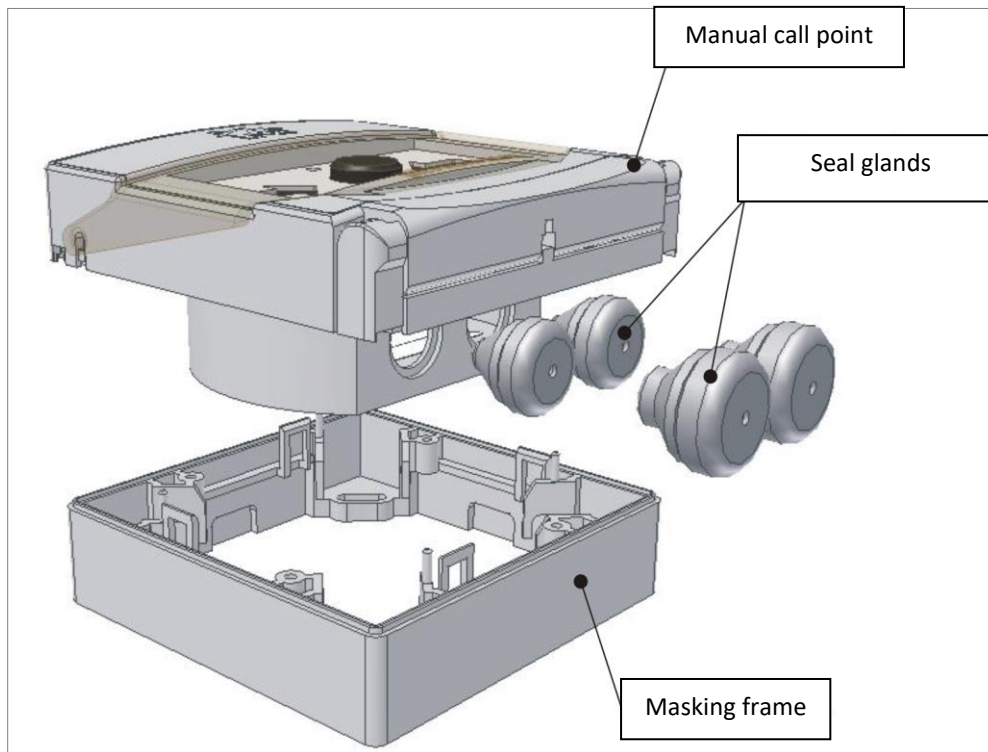
3.2 Anti-dusting eye protection

Safety goggles and dust masks should be used during work that generates a lot of dust, especially when drilling holes in ceilings in order to fix enclosures of detector bases.

4 DESIGN DESCRIPTION

The manual call point consists of a body and a base connected with a hinge.

The manual call point body contains its main parts: a printed circuit board with an electronic circuit, micro-switch and connector to install detecting line wires. A two-colour illuminating diode, indicating the alarm or fault mode, is located in the device upper part behind the glass.



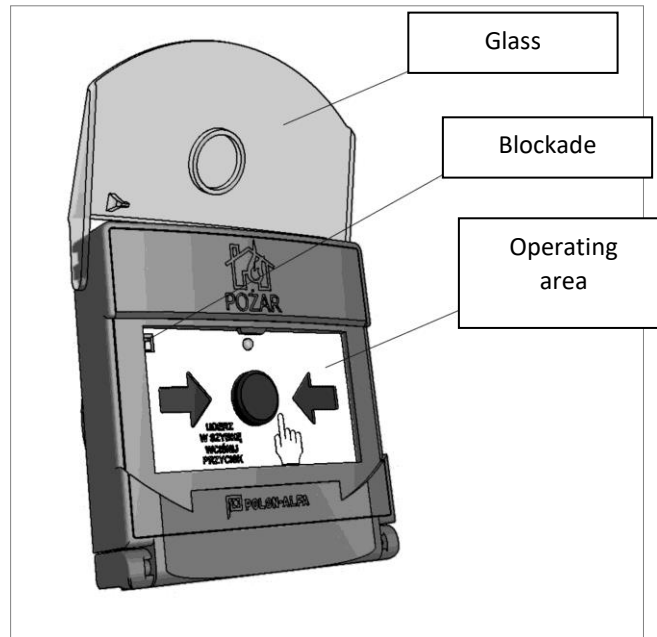
Rys. 4.1 Manual call point general view

The manual call point of higher level of ingress protection is mounted on the wall plaster (surface mounting), utilising the RM-60-R masking frame. For wire sealing, the FET 3-5 sealing glands are attached, which are applicable for wires of the external diameter of 3 to 5 mm. In case bigger cables are used (of the diameter from 5 to 7 mm), the FET 5-7 seal glands should be ordered separately. In order to apply the FET 5-7 seal glands it is necessary to increase the diameter of the openings drilled in the body up to 16.5 mm.

5 PRINCIPLE OF OPERATION

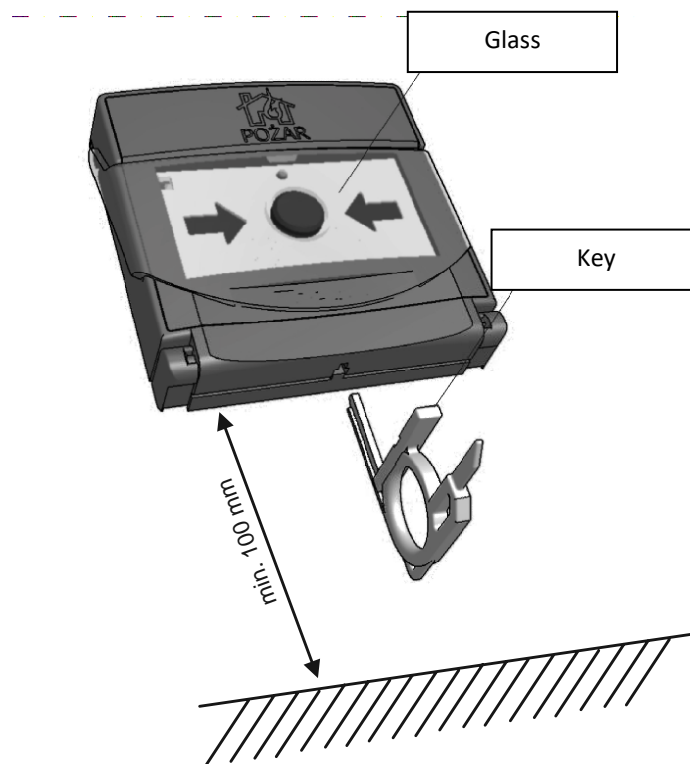
The manual call point actuation – initiation of an alarm – is carried out by hitting a plastic cover (which bends aside) and pressing the push button then.

The colour of arrows changes from black to yellow and the call point transmits information about the button pressing to the control panel which send to the call point a signal actuating the LED indicator. Red flashes indicate the manual call point actuation.



Rys. 5.1 Manual call point with cover bent aside

In order to reset the manual call point alarm state it is necessary to press the cover down towards the body as shown in Fig. 5.2 and insert the key (T end) from the bottom until the arrows in the operation area change their colour from yellow to black. After the key removal, the cover is blocked again in its normal position.



Rys. 5.2 Alarm mode reset

Note:

If the cover is not hit but pulled aside (inconsistently with the instruction placed on the call point) and the push button is not pressed (the call point alarm mode is not activated), it is necessary to press the cover down towards the operation area and block it in this position inserting the key from the bottom of the call point.

6 INSTALLATION

6.1 Place of installation and mounting

The call points, depending on their type, are designed to be installed either indoors or outdoors, in easily accessible visible places, preferably close to transport routes, 900 - 1400 mm above the floor in accordance with CEN/TS 54-14:2018.

It is advised to determine the installation hole spacing (diagonally – figure 6.1.1 and figure 6.1.2 or horizontal - figure 6.1.3 for standard execution of on wall plaster version of manual call point) utilizing a pattern, not the device itself or its masking frame.

The call point is fastened to a flat surface using two $\varnothing 6$ anchor expansion bolts and **cylindrical head** screws that are delivered together with the call point.

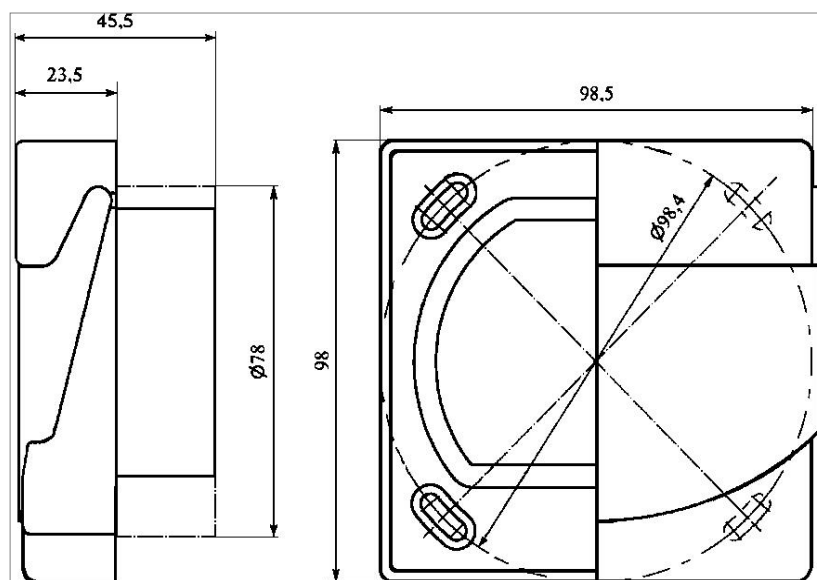
In case of semi-flush mounting, a hole of 80 mm diameter (typical for electric installation box) and 22 mm depth should be drilled in the wall.

Do mocowania ostrzegacza o podwyższonej szczelności natynkowo należy zastosować ramkę maskującą RM-60-R.

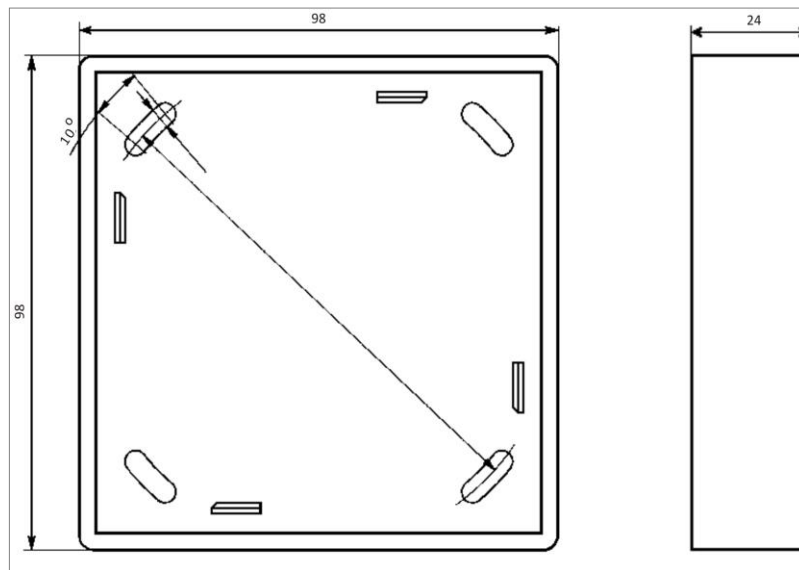
For the call point on surface fastening, the RM-60R masking frame is applicable.

Since a considerable strength is needed to open the cover, it is advised to strengthen gypsum-carton boards on which the manual call point is mounted.

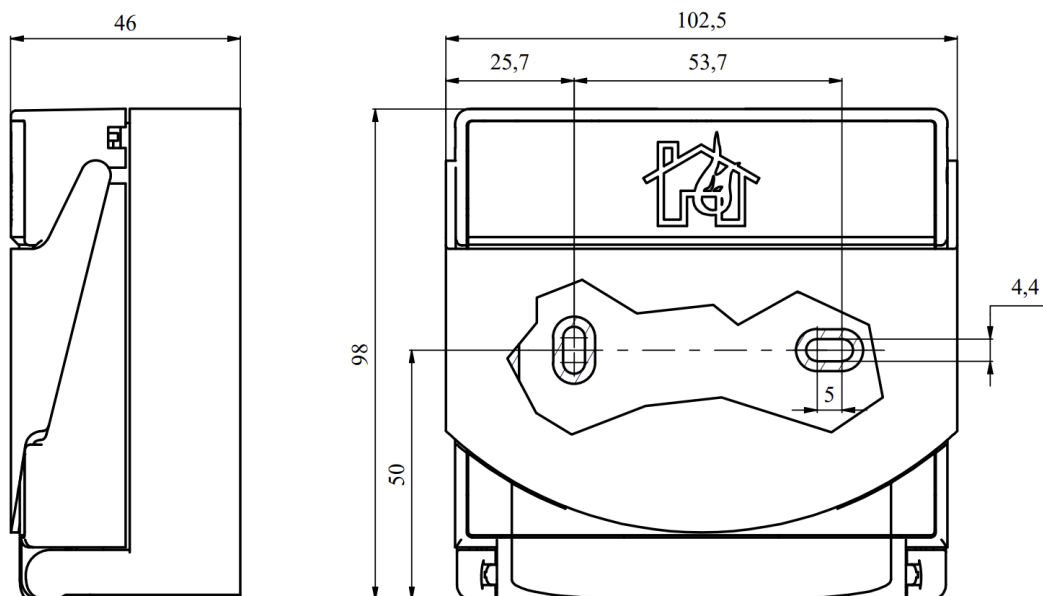
Assure at least 100 mm of free space at the both sides and below manual call point (from walls and other units), in order to use reset key, as shown on figures 5.2 and 6.3.2.



Rys. 6.1.1 Manual call point dimensions and fastening holes (standard execution of **IN** wall plaster version)



Rys. 6.1.2 RM-60-R masking frame dimensions and fastening holes



Rys. 6.1.3 Manual call point dimensions and fastening holes (standard execution of **ON** wall plaster version)

6.2 Wire arrangement

Alarm installation wires shall be led in accordance with the low-voltage (below 42 V) installation obligatory rules and connected to the contacts placed on the printed board of the call point.

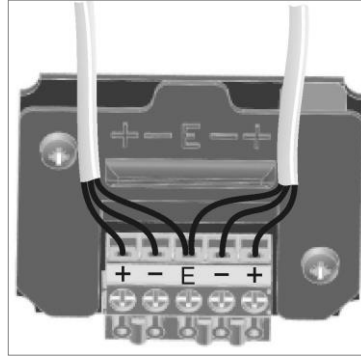
In case of manual call points installed outdoor (hermetic), the wires must be led from the bottom of call point trough seal glands.

For the manual call point easy connection some wire reserve shall be left of the length as follows (by installation going from top of MCP):

- ca. 40 cm in case of surface mounting installation,
- ca. 30 cm in case of semi-flush installation.

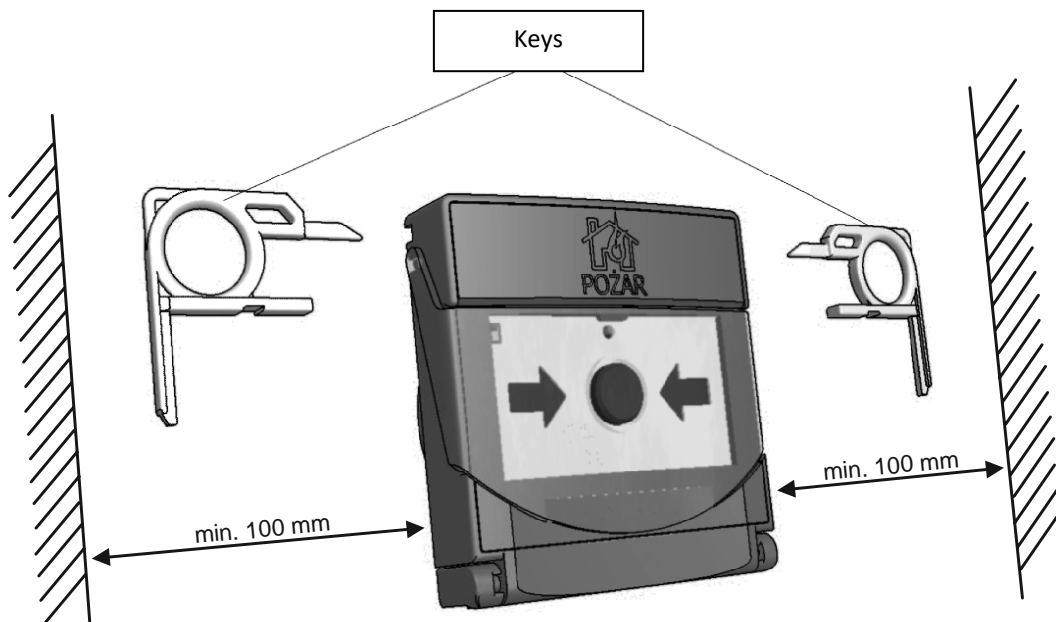
6.3 Wire connection

Loop-shaped detecting line wires are connected to “+” and “-” contacts, separately for an input and an output. In case of screened wires, the screens are joined together and connected to the contact on the board marked as “E”. The way of connection settling is shown in Figure 6.3.1.

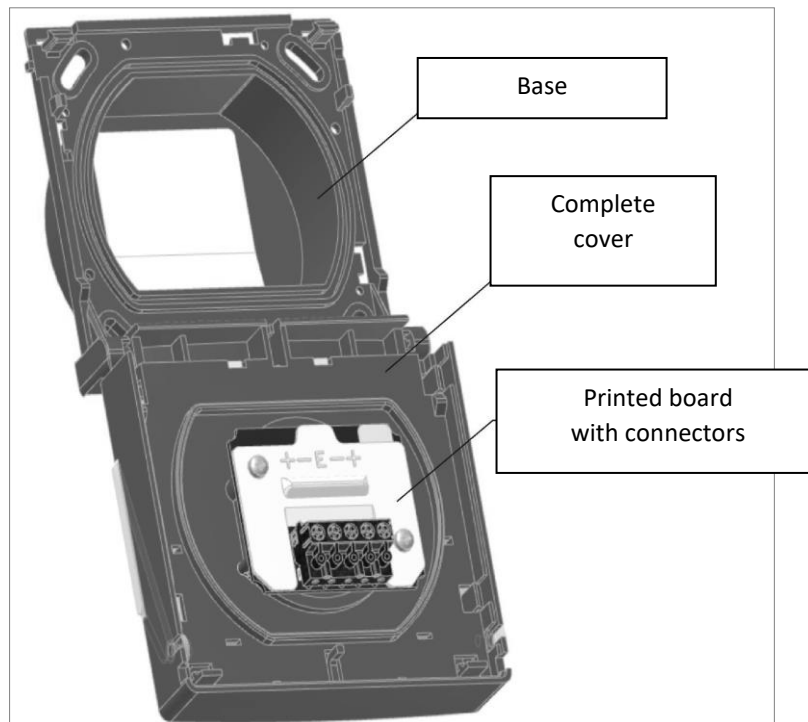


Rys. 6.3.1 Detection line connection diagram

To access the printed circuit board where the connector is located, it is necessary to push two keys (with flat ends) from the side what will bend the manual call point casing aside.



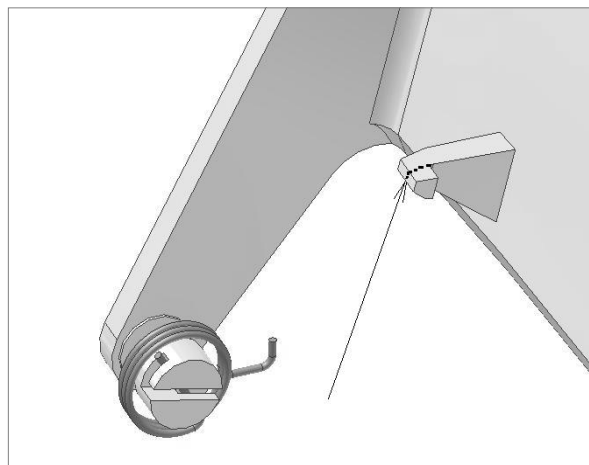
Rys. 6.3.2 Manual call point opening method



Rys. 6.3.3 Manual call point after opening

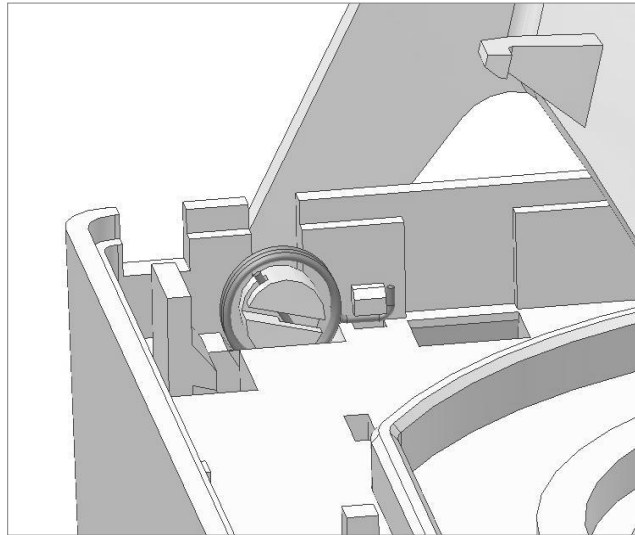
6.4 Plastic cover replacement

In case the cover replacement is needed, it is necessary to bend the casing aside (see Figure 6.3.2), pull the cover out and take the spring out. Then the spring should be placed on a hinge of a new cover as it is shown in Figure 6.4.1.



Rys. 6.4.1 Cover spring assembly

Then it is needed to insert the cover into the casing rails and hook the spring on a ledge in the call point casing acc. To Figure 6.4.2.



Rys. 6.4.2 Spring fastening to casing

A set of 3 spare plastic covers is described as SZ-60.

7 MAINTENANCE AND SERVICING

The manual call point unfailing operation depends on ensuring proper operation conditions, appropriate assembly execution and systematic periodical inspections. From time to time the call point casing should be checked (mechanical condition) and cleaned.

The periodical inspections should be carried out at least once a year by a suitably trained maintenance technician or an authorized person. Such an inspection consists in the manual call point activation and checking whether an alarm signal is passed to the control panel.

Properly operating call points, periodically inspected and tested do not require any additional maintenance.

8 PACKAGE, TRANSPORTATION, STORAGE

The manual call points are packed in bulk containers. An installation and maintenance manual is attached to the device.

The call points in a factory packaging can be carried in closed boxes in normal conditions with land or sea transport means. The devices should be protected against strong shakes and ambient temperature below -40 °C and above $+70\text{ °C}$. They should be stored in closed premises that are free of corrosive gases or vapours, at ambient temperature from $+5\text{ °C}$ to $+40\text{ °C}$ and relative humidity between 40 % and 80 %, away from heating devices. The storage period should not exceed 24 months.



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