

INT-KSG

Keypad

Installer Manual





WARNINGS

The keypad should be installed by qualified personnel.

Read carefully this manual before proceeding to installation.

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

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The INT-KSG keypad is provided with touch keys and a large display which enables presenting functions in four lines after entering the menu. The dynamic menu adjusts automatically to the user's authority level and the system configuration. When in the screensaver mode, the display can show a wide array of information in a customized form. The new alarm system control feature (macro commands), specially created for the keypad, enables a variety of functions to be called quickly and easily just by touching a few keys.

The keypad is dedicated to operating and programming the INTEGRA control panels with firmware version 1.08 or later. For programming of keypads' settings DLOADX version 1.08.001 or newer is required.

1. Features

- Large display with backlight.
- LEDs indicating the state of partitions and system.
- Touch keypad with backlighting:
 - 12 keys, designated according to the telephone standard, for entering data and quick access to some functions;
 -  key (identical to the # key);
 - 4 keys to navigate through menu;
 - 3 keys to trigger alarms from the keypad;
 - 4 keys to call macro commands: ▲.
- Built-in sounder.
- 2 programmable zones:
 - support for NO and NC type detectors, as well as roller shutter and vibration detectors;
 - support for EOL and 2EOL loops;
 - programming end-of-line resistor values.
- Tamper contact reacting to the housing opening or detaching from the wall.
- RS-232 (TTL) port for updating the keypad firmware.

2. Installation and hook-up



All electrical connections may only be made with disconnected power supply.

The INT-KSG keypad is designed for indoor installation. The place of installation should be readily accessible to the system users. The distance between the keypad and the control panel may be up to **300 m**. Using the typical unscreened straight-through cable is recommended for making the electrical connections (it is not advisable to use the "twisted-pair" type of cable).

1. Open the keypad housing (see Fig. 1).
2. Pass the cables through the opening in the housing base.
3. Secure the housing base to the wall.
4. Screw down the wires connecting the keypad to the control panel keypad bus to the DTM, CKM and COM terminals (see Fig. 3). The wires should be run in one cable.
5. Connect the wires to the terminals of additional zones, if any detectors are to be connected to them.

- 6. Connect power supply to the keypad (terminals +12V and COM). The power supply can be provided from the control panel mainboard, an expander with power supply unit installed in the system, or from an additional power supply unit.
- 7. Place the front panel onto the catches, snap close the housing and insert the fastening screw.

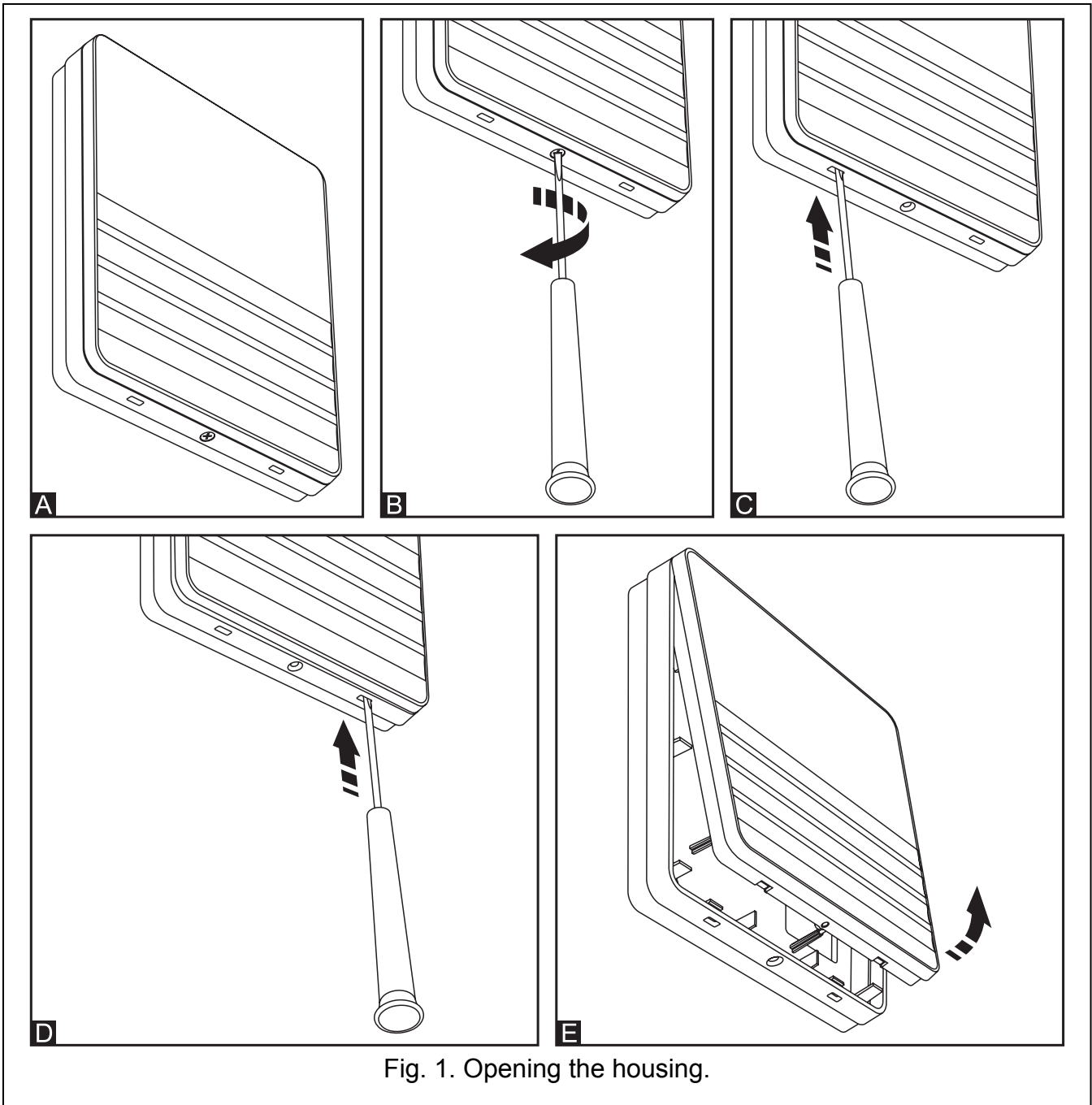


Fig. 1. Opening the housing.

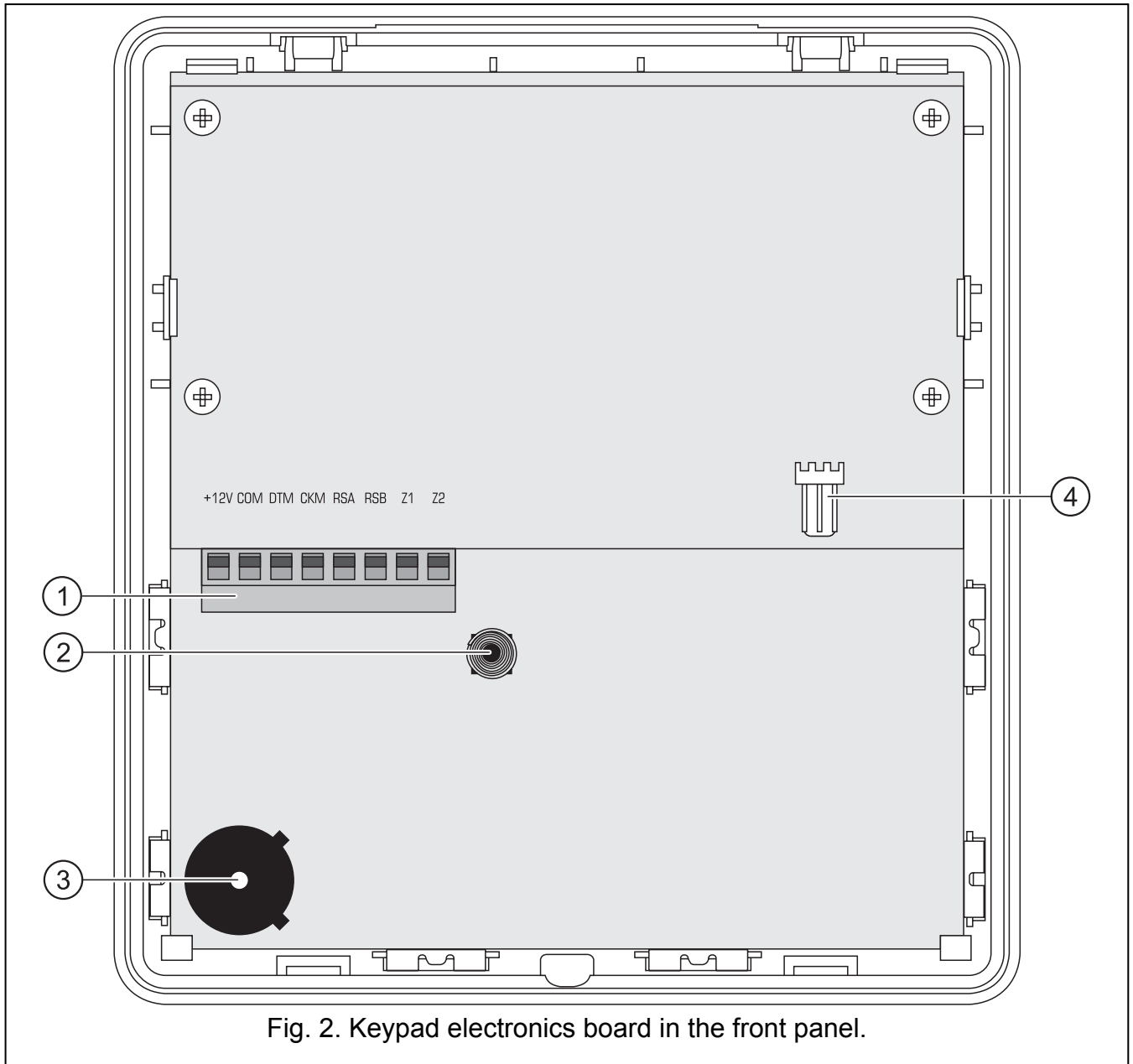


Fig. 2. Keypad electronics board in the front panel.

Explanations for Fig. 2:

1 - terminals:

+12V - power supply input.

COM - common ground.

DTM - data.

CKM - clock.

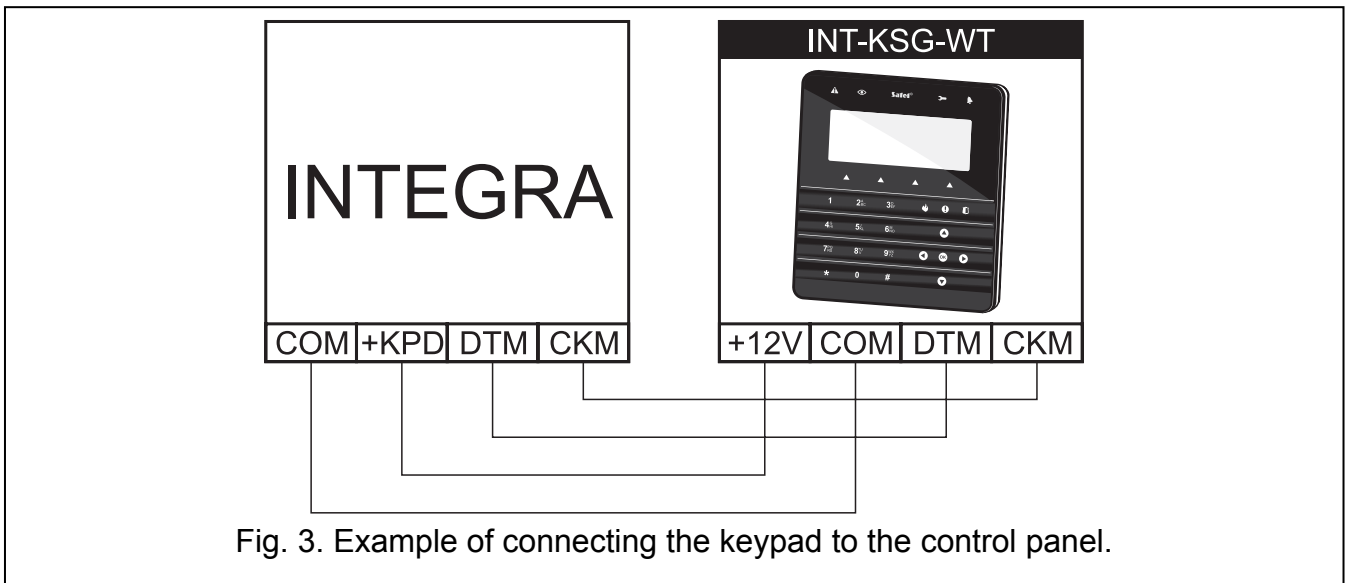
RSA, RSB - unused terminals.

Z1, Z2 - zones.

2 - tamper contact (NC).

3 - sounder.

4 - RS-232 (TTL) port – enables connecting the keypad to the computer COM port by means of the SATEL made cable, available with the DB9FC/RJ-KPL kit, and updating the keypad firmware afterwards.



3. Addressing

Each keypad to be connected to control panel must have its own individual address from the 0 to 3 range (INTEGRA 24 and INTEGRA 32 control panels) or from the 0 to 7 range (INTEGRA 64, INTEGRA 128 and INTEGRA 128-WRL control panels). By default, address 0 is set in all keypads.

Note: When started, only the control panel with factory default settings can provide support for all keypads connected to the bus, irrespective of the addresses set in them. In all other cases, the control panel will block operation of the keypads having identical addresses.

The address set in the keypad determines the numbers to be given to the keypad zones (see the INSTALLER MANUAL for INTEGRA control panels).

3.1 Programming keypad address by means of service function

1. By means of any supported keypad, enter the control panel service mode ([SERVICE CODE]* ►SERVICE MODE).
2. Start the function KEYPADS ADDR. (►STRUCTURE ►HARDWARE ►IDENTIFICATION ►KEYPADS ADDR.).
3. The "This LCD address (n, 0-x)" message will appear on the displays of all keypads connected to the control panel (n – keypad address; 0-x – range of supported addresses).
4. Enter a new address in the selected keypad(s). The address change will be confirmed by four short and one long beeps.
5. To terminate the address change function, touch the * key. The function will be terminated automatically after 2 minutes from being started. Termination of the function is equivalent to restarting the keypad (return to the main service mode menu will follow in the keypad from which the function has been started).

3.2 Programming keypad address without entering service mode

This method is useful when – due to repeating addresses – the keypad support has been disabled and entering the service mode is impossible.

1. Disconnect keypad power supply (KPD) and signal wires CKM and DTM.
2. Short the keypad terminals CKM and DTM.

3. Switch on keypad power supply.
4. A message indicating the current address will appear on the display.
5. Enter a new address. The keypad will confirm execution of the function by four short and one long beeps. If it is necessary to change the entered address, touch the * key (keypad restart will follow and a corresponding message will appear on the display).
6. Disconnect the keypad power supply.
7. Open the keypad terminals CKM and DTM.
8. Connect the keypad correctly to the control panel.

4. Keypad identification

The system can only be programmed and operated from keypads that have been identified by the control panel. The keypad identification function should be run at the first startup of the control panel, and then each time when adding a new keypad or changing address in a keypad supported by the control panel. Disconnecting an identified keypad from the bus will trigger the tamper alarm.

The identification function can be run by using the keypad (SERVICE MODE ►STRUCTURE ►HARDWARE ►IDENTIFICATION ►LCD KEYPADS ID.) or DLOADX program („Structure” window →„Hardware” tab →„Keypads” branch →„Keypads identification” button).

5. Configuration of keypad settings

Parameters and options of the INT-KSG keypad can be programmed by means of any LCD keypad (SERVICE MODE ►STRUCTURE ►HARDWARE ►LCD KEYPADS ►SETTINGS ►*keypad name*) or DLOADX program ("Structure" window →"Hardware" tab →"Keypads" branch →*keypad name*). Creating the macro commands and configuring the screensaver is only possible in the DLOADX program.


5.1 Keypad parameters and options


Shown in square brackets are the names used in LCD keypads.

Name – individual name of the keypad (up to 16 characters).

Partitions managed by keypad [Partitions] – the partitions which can be armed/disarmed or alarm in which may be cleared from the keypad. These functions are available to the users having a suitable authority level and access to those partitions.

Note: *Using the service code you can operate all partitions, irrespective of which partitions are operated by the keypad.*

Show alarms of partitions [Alarms] – the partitions, the alarm from which will be indicated on the keypad by  LED, sound, or a text message.

Show fire alarms of partitions [Fire alarms] – the partitions, the fire alarm from which will be indicated on the keypad by  LED, sound, or a text message.

CHIME signal of zones [Chime zones] – the zones the violation of which will be indicated by beeps in the keypad.

Zone disabling CHIME [Chime bps. zone] – number of zone, which, if violated, will disable the CHIME feature for specified time.

Bypass time [Chime bps. time] – time during which the CHIME signal will be disabled after violation of the zone which disables the signaling. If the value 0 is programmed, the signaling will not be disabled.

Keypad	State inspections	User functions definition	Macro Commands	Screensaver	EOL resistance value
Name: INT-KSG (0)		Date/Time format: 1 Jan, 12:00:00			
Partitions managed by keypad: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32		LCD backlight: auto 0-1/2			
Show alarms of partitions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32		keys backlight: auto			
Show fire alarms of partitions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32		Alarm messages <input checked="" type="checkbox"/> Partitions <input checked="" type="checkbox"/> Zones			
CHIME signal of zones: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128		Alarms <input checked="" type="checkbox"/> FIRE <input checked="" type="checkbox"/> PANIC <input checked="" type="checkbox"/> AUX. <input type="checkbox"/> 3 wrong codes			
Zone disabling chime: 0 Bypass time: 0		Additional options <input type="checkbox"/> Silent PANIC alarm <input checked="" type="checkbox"/> Sign. entry delay <input checked="" type="checkbox"/> Sign. exit delay <input checked="" type="checkbox"/> Sign. alarms <input checked="" type="checkbox"/> Keys sound <input type="checkbox"/> Sign. trbl in part. arm <input type="checkbox"/> Sign. new trouble <input checked="" type="checkbox"/> Show code entering <input type="checkbox"/> Show keypad name <input checked="" type="checkbox"/> Exit delay clearing enable <input type="checkbox"/> Show viol. zones <input type="checkbox"/> Auto-Arm delay countdown <input type="checkbox"/> Displ. mode switching <input type="checkbox"/> Show disarm messages <input checked="" type="checkbox"/> Communication RS <input checked="" type="checkbox"/> Quick control			
Quick Arm partitions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32					
Show entry delay of partitions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32					
Show exit delay of partitions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32					
Zone 113: 'Zone 113' <input type="radio"/> in LCD keypad <input checked="" type="radio"/> Not used		Zone 114: 'Zone 114' <input type="radio"/> in LCD keypad <input checked="" type="radio"/> Not used			
Auto-backlight <input type="radio"/> Entry delay in part.: 1 <input type="radio"/> viol. of zone: 64 <input checked="" type="radio"/> no					
Tamper signaled in part.: 1: First floor		Copy			

Fig. 4. Keypad parameters and options in DLOADX program.

Quick Arm partitions [Quickarm part.] – the partitions which will be armed on touching successively the keys: **0#**, **1#**, **2#** or **3#** (see USER MANUAL).

Show entry delay of partitions [Entry time p.] – the partitions, for which counting the entry delay will be indicated by text appearing on the LCD display.

Show exit delay of partitions [Exit time part.] – the partitions for which counting the exit delay will be indicated by text appearing on the LCD display.

Keypad zones – the options define whether or not the given keypad zone will be used in the alarm system.

Note: *Properties of the keypad zones are similar to the other system zones (see manuals for the INTEGRA control panels).*

Auto-backlight – the backlight can go on optionally after a specific event in the system, e.g. starting the entry delay countdown in a selected partition, or violating a selected zone.




Date/Time format – selection of the format of time and date display on the keypad.

LCD backlight – selection of the display backlight type.

Keys backlight – selection of the keypad backlight type.

Alarm messages – the options define whether text messages on alarms in partition and zones are to be shown (the message contains name of partition/zone).

Alarms – the options define whether the given keypad allows for triggering the alarms below:

- fire – touch and hold the  key for approx. 3 seconds.
- panic – touch and hold the  key for approx. 3 seconds.
- auxiliary [medical] – touch and hold the  key for approx. 3 seconds.
- 3 wrong codes – enter an invalid code three times.

Additional options – a set of additional options to start some functions of the keypad:


Silent PANIC alarm [Silent panic] – the panic alarm triggered from the keypad can be signaled as the silent alarm (without being signaled on the alarm outputs).

Signaling entry delay [Entry time s.] – the keypad can signal acoustically the entry delay countdown.

Signaling exit delay [Exit time sig.] – the keypad can signal acoustically the exit delay countdown.

Signaling alarms [Alarm signal.] – the keypad can signal acoustically the alarms.

Key sounds – touching the keypad keys can be confirmed by beeps.

Signaling troubles in partially arm [Trbl. in p.arm.] – the keypad can signal troubles by means of the  LED, if some of the operated partitions are armed (the troubles are not signaled if all partitions are armed).

Signal new trouble [New trbl. sign.] – the keypad can audibly signal the occurrence of a new trouble. For the option to operate it is necessary to enable the option TROUBLE MEMORY UNTIL REVIEW in the control panel.

Show code entering [Show code ent.] – entering the code can be presented on the keypad display by asterisks.

Show keypad name [Name (2nd row)] – the keypad name can be presented in the lower line of the display.

Exit delay clearing enable [Fin. exit time] – the exit delay time in partitions with the EXIT DELAY CLEARING option enabled can be shortened after touching in turn the 9# keys.

Show violated zones [Zone violation] – violating the CHIME signal triggering zone may additionally result in the zone name being displayed.

Auto-Arm delay countdown signaling [Auto-arm delay] – the countdown before partition arming by timer can be signaled acoustically.

Display mode switching [Dspl. mode chg.] – with the option enabled, you can toggle the display between the standby mode and the partition status display mode by using the 9 key.

Show disarm messages [Show disarming] – disarming one of the keypad operated partitions can be signaled by sounds or displayed messages. The option refers to situations when the partition is disarmed by means of another keypad or without the use of a keypad.

Quick control [Control (8#)] – you can run the CONTROL user function by touching successively the 8# keys (with no need for entering the user code).

Sound volume – the function makes it possible to control loudness level of the keypad sounder. The function is unavailable in the DLOADX program.

Inspection [Reviews] – you can select which of the functions started by holding the number keys will be available in the keypad.

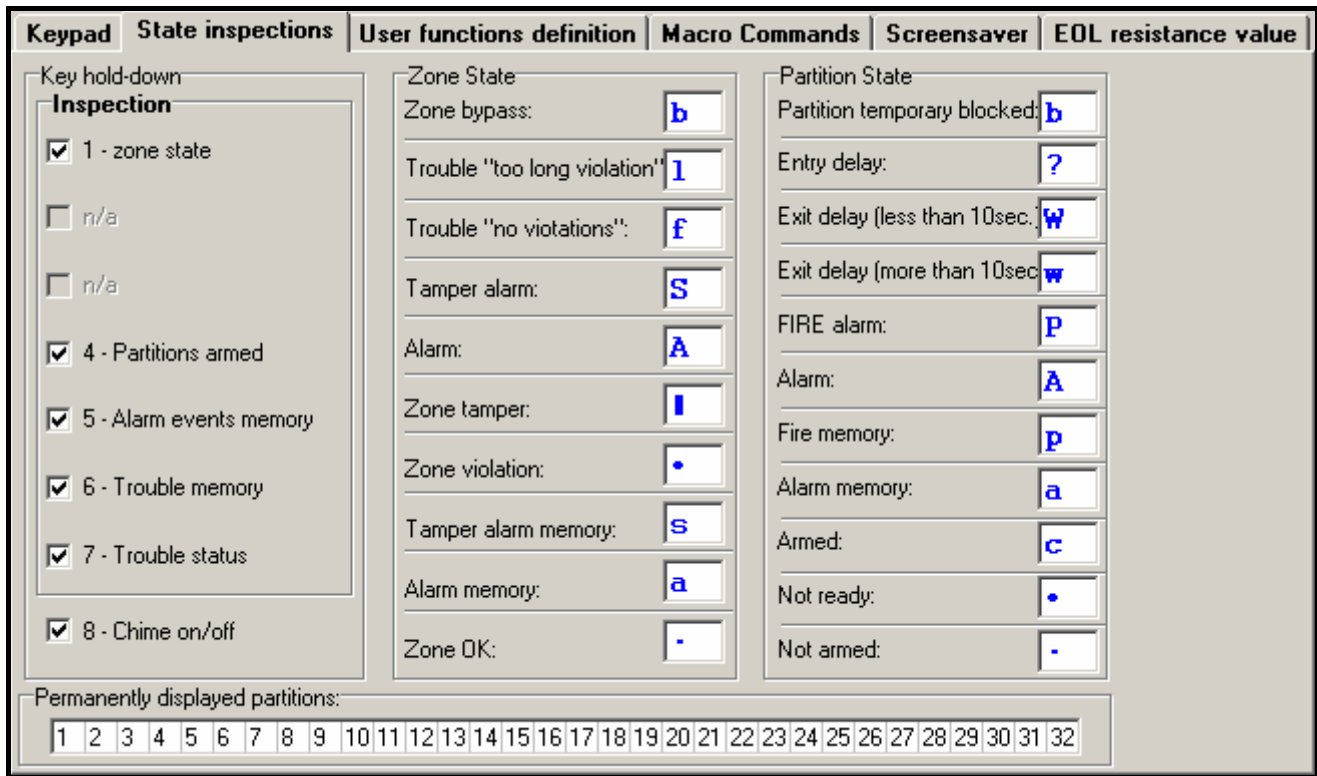


Fig. 5. "State inspections" tab, DLOADX program.

Permanently displayed partitions [State part.] – you can select the partitions whose state will be permanently presented in the lower line of the display. Up to 16 partitions can be selected. The partitions are displayed successively: for example, if the partitions 3, 6 and 7 are selected, their state will be displayed in the first, second and third position of the display.

Zone state [Zone characters] – you can define the symbols which will illustrate the state of zones.

Partition state [Part. characters] – you can define the symbols which will illustrate the state of partitions.

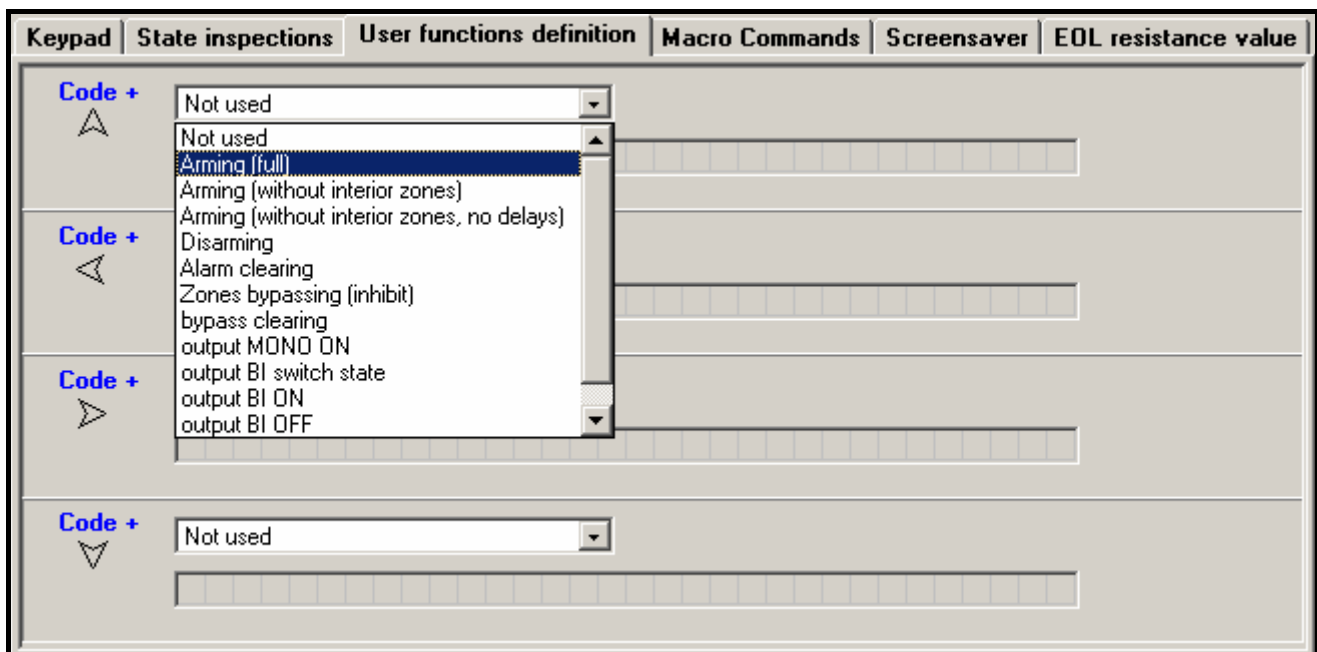


Fig. 6. "User functions definition" tab, DLOADX program.

Code+arrows – you can define which functions will be started on entering the code and touching the selected arrow key.

Tamper signaled in partition [Tamper in part.] – selection of the partition in which alarm will be signaled if the keypad tamper contact is opened or the keypad is disconnected from the control panel.

5.2 Macro commands

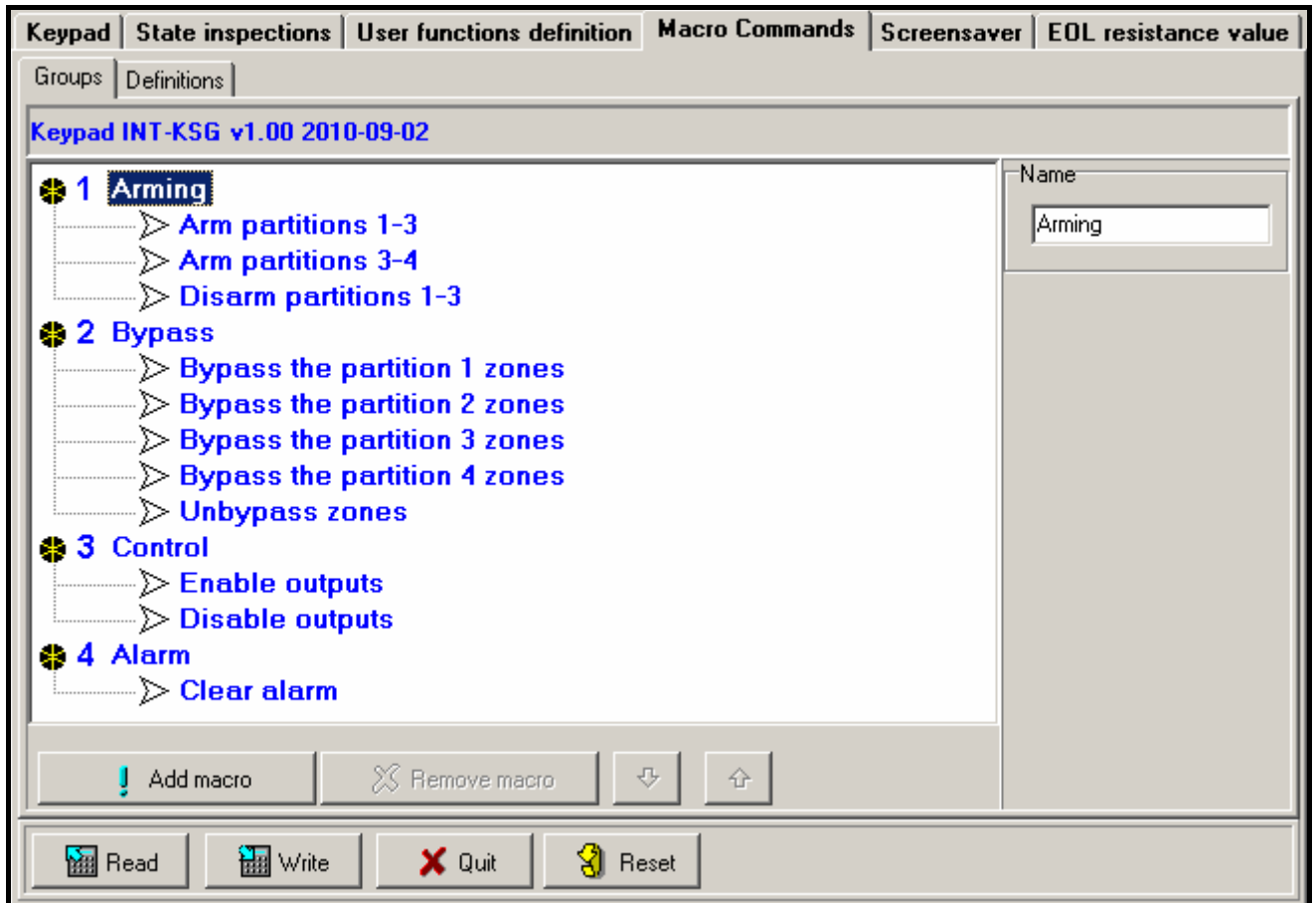



Fig. 7. "Groups" tab, DLOADX program.

Note: The macro commands related data are stored in the keypad memory. Before you proceed to defining the macro commands, read out the data from the keypad ("Read" button), and, after the programming is completed, write them to the keypad ("Write" button). These data are not read and written after you click the  button in the program main menu.

Macro command group – the list of macro commands that will be displayed in the keypad on touching the ▲ key. 4 groups of macro commands can be defined.

Macro command group name – an individual name presented at the bottom of the display above the ▲ key (up to 8 characters).

Macro command – a sequence of actions, composed of single commands, to be executed by the control panel on running the macro command.

Macro command name – an individual name of macro command (up to 32 characters).

Code – the code to be used for authorization when executing the macro commands. The code must have a suitable authority level for the macro commands to be possible to be executed.

Authorization required – if this option is enabled, the macro command will only be run after user authorization by means of a code. The code entered in the "Code" field will be ignored.

Disabled if armed – if this option is enabled, the macro command will not be available, when any of the partitions operated by the keypad is armed.

Autoexecute – if this option is enabled and there is just one macro command in the group, touching the ▲ key will not display the list of macro commands, but will run the macro command at once (if the AUTHORIZATION REQUIRED option is enabled, authorization by means of a code will be necessary).

Command – the function that can be assigned to a macro command, executed by the control panel. It can be:

- arming selected partitions in a defined mode;
- disarming selected partitions;
- clearing alarm in selected partitions;
- inhibiting selected zones;
- unbypassing selected zones;
- enabling selected outputs;
- disabling selected outputs.

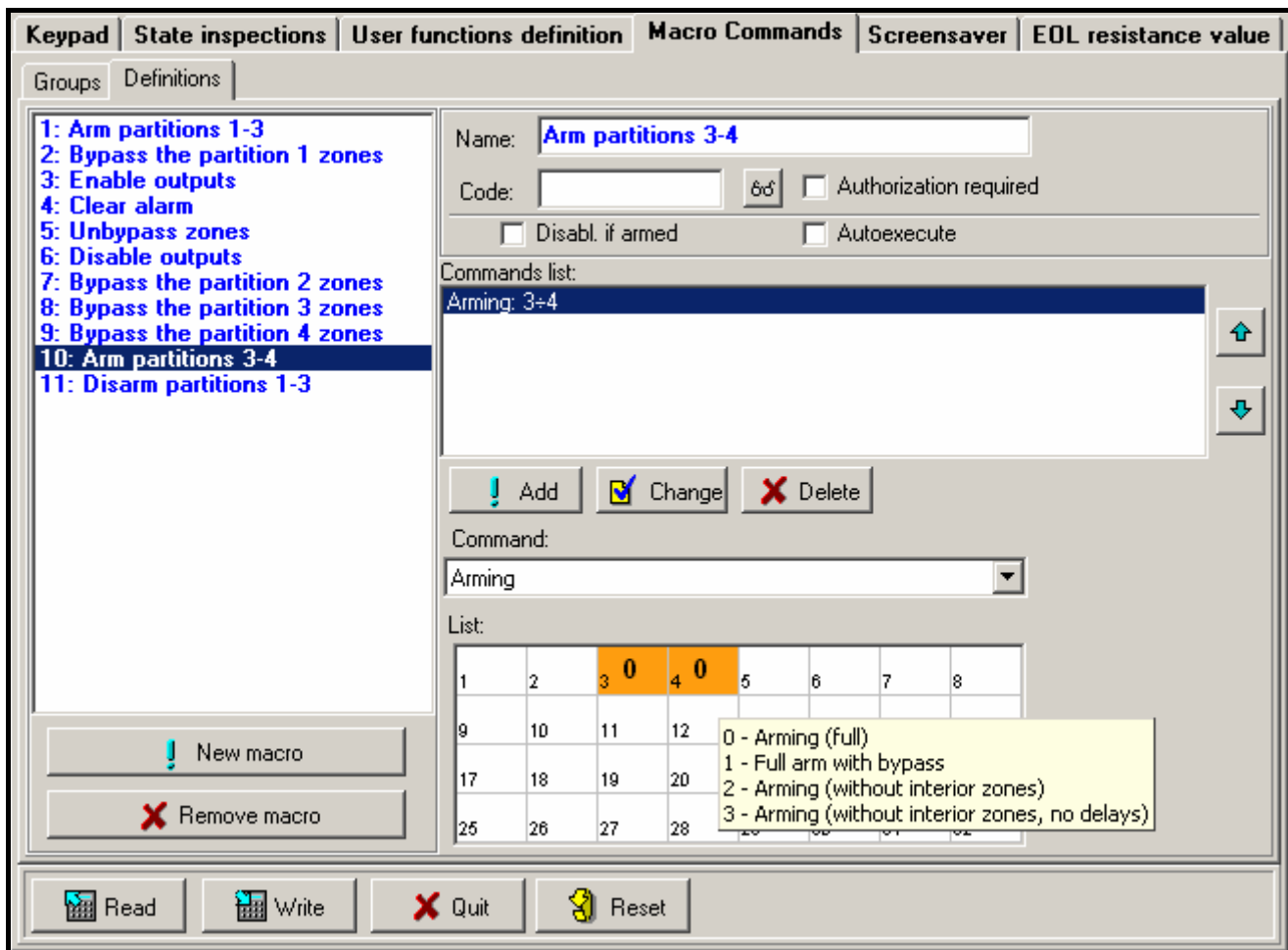


Fig. 8. "Definitions" tab, DLOADX program.

Notes:

- The partitions must be controlled by user code.

- *The zones must not have the **BYPASS DISABLED** option enabled.*
- *The outputs must be the **24. MONO SWITCH**, **25. BI SWITCH**, **105. SHUTTER UP**, **106. SHUTTER DOWN** or **REMOTE SWITCH** type (they need not be assigned to any group of outputs).*


Creating a group of macro commands

1. Click the "Groups" tab.
2. Click the group to be edited.
3. Enter the group name.
4. Click the "Add macro" button. Select the macro command to be added from the drop-down menu.
5. Click the "Write" button. The data will be written to the keypad.

Creating a macro command

1. Click the "Definitions" tab.
2. Click the "New macro" button. A new macro command will appear in the list.
3. Enter a name for the new macro command.
4. If the macro command is to be run without entering the code by the user, enter the code with a suitable authority level.
5. If running the macro command is to be each time preceded by user authorization, enable the **AUTHORIZATION REQUIRED** option.
6. If the macro command is not to be available, when any of the partitions operated by the keypad is armed, enable the **DISABLED IF ARMED** option.
7. If the macro command is to be run instantly on touching the ▲ key, enable the **AUTOEXECUTE** option (if so, only this single macro command is to be assigned to the group).
8. Select from the list one of the commands to be executed by the new macro command.
9. Select the partitions (arming / disarming, alarm clearing), zones (bypassing / unbypassing) or outputs (enabling / disabling outputs) controlled by the command. Click twice to select/deselect the required field.
10. Click the "Add" button. A new command will appear in the list of commands assigned to the macro command. After clicking the command you can still make a correction to the list of partitions / zones / outputs controlled by the command. After making the changes, click the "Change" button.
11. If necessary, repeat the steps 8-10 to add next commands.
12. Click the "Write" button. The data will be written to the keypad.

5.3 Screensaver

Note: *The screensaver related data are stored in the keypad memory. Before you proceed to configuring the screensaver, read out the data from the keypad ("Read" button), and, after the programming is completed, write them to the keypad ("Write" button). These data are not read and written after you click the  button in the program main menu.*

The screensaver mode turns on after the keypad is idle for 60 seconds, when no menu is displayed. When in the screensaver mode, the following information can be displayed:

- any text defined by the installer,
- state of selected partitions (select single partitions whose status will be displayed),
- state of selected zones (select single zones whose status will be displayed),

- state of selected outputs (select single outputs whose status will be displayed),
- temperature (indicate the control panel zone to which the temperature detector is assigned, and determine whether the temperature is to be displayed in degrees Celsius or Fahrenheit),
- date and time (particular elements, like the day, month, year, hour, minutes and seconds are to be configured individually),
- name of the keypad.

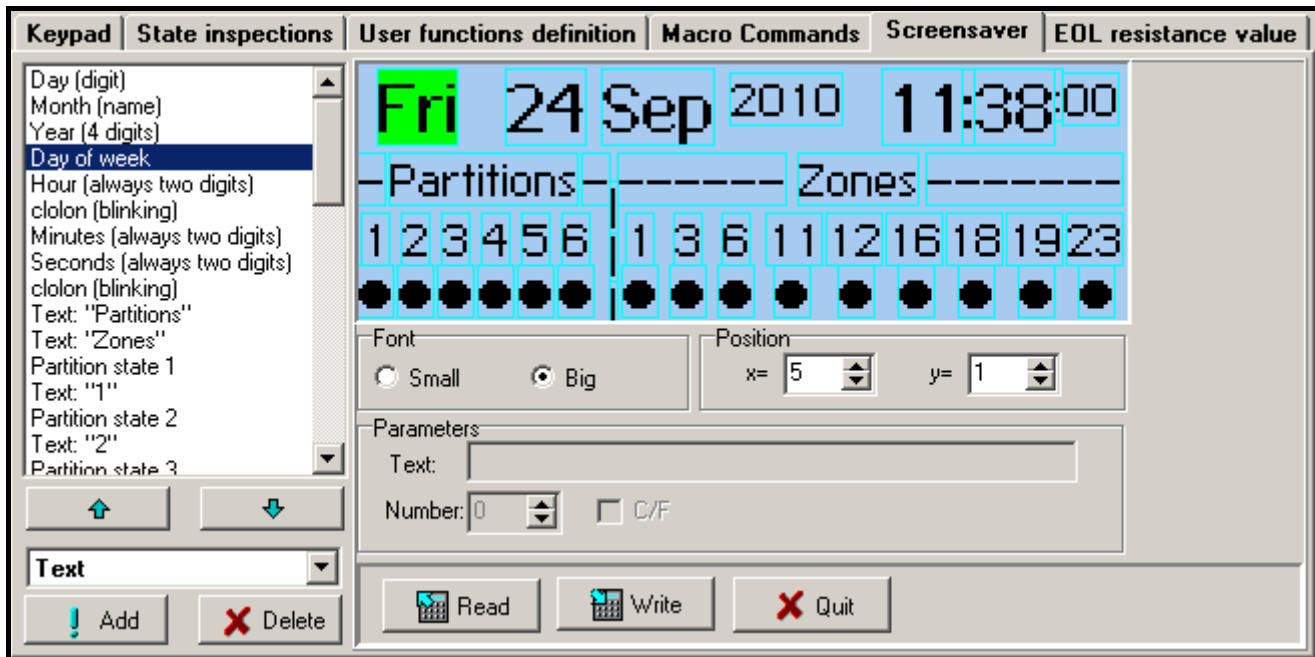



Fig. 9. "Screensaver" tab, DLOADX program.

There are two font sizes available for use in the screensaver mode. Using the "drag and drop" method, you can easily select the place where the given information will be presented on the display.

5.4 End-of-line resistance

Note: The resistance data are stored in the keypad. Before you proceed to programming the resistor values, read out the data from the keypad ("Read" button), and, after the programming is completed, write them to the keypad ("Write" button). These data are not read and written after you click the  button in the program main menu.

For the keypad zones, the value of resistors used in EOL and 2EOL loops is programmable within the range from 500 Ω to 15 k Ω . The value of R1 and R2 resistors for 2EOL loop (see Fig. 10) is to be programmed individually. The value of single EOL resistor is a sum of values programmed as R1 and R2.

Notes:

- The sum of values programmed for R1 and R2 resistors must not be lower than 500 Ω or higher than 15 k Ω .
- It is possible to program value 0 for R2 resistor. In such a case, each of the resistors used in 2EOL loop must have a resistance equal to half the value defined for R1 resistor.

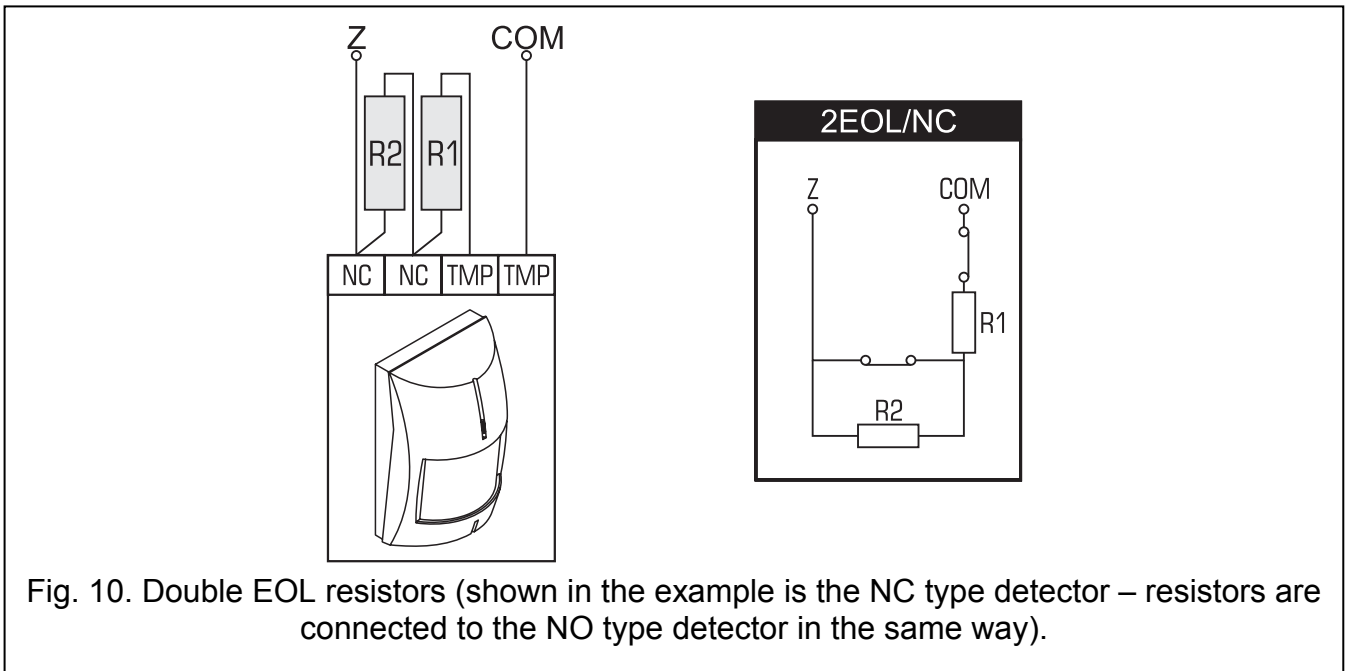


Fig. 10. Double EOL resistors (shown in the example is the NC type detector – resistors are connected to the NO type detector in the same way).

6. Specifications

Supply voltage	12 V DC ±15%
Standby current consumption	165 mA
Maximum current consumption	175 mA
Environmental class according to EN50130-5	II
Working temperature range	-10°C...+55°C
Maximum humidity	93±3%
Housing dimensions (width x height x thickness).....	143 x 156 x 22 mm
Weight.....	320 g