# Sfera Keypad Module

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1 Introduction

1.1 Warnings and recommendations

Before proceeding with the installation we recommend that you read the content of this manual very carefully. The warranty will automatically become void in case of negligence, improper use, and tampering by unauthorised personnel. The Sfera Keypad Module must only be used with BTicino 2 wire digital systems.

Front covers that may be used with the Sfera BTicino Keypad Module:

![Front cover 353005](image1)

![Front cover 353001/02/03](image2)
2 Description

2.1 Main functions

The BTicino Sfera Keypad Module can be used by residents to open a door lock using previously stored numerical codes. The device consists of a backlit pushbutton panel with 12 keys and luminous indicators, for controlling that the code has been entered correctly.

This manual refers to the Sfera wired stand-alone Keypad Module or paired with the Sfera Speaker Module (351100/351200/351300).

If the Sfera Keypad Module is installed linked to the Display Module (352500) refer to the Display manual for the code programming.

Programming can be performed in two ways:
- using the TiSferaDesign software supplied with the product (chapter 4);
- following specific procedures, performed directly on the keypad (chapter 3).

In order to configure the master codes remove the front cover and press the programming push-button indicated in the legend (chapter 2.2).

The secret code must consist of minimum 4 and maximum 9 digits.

Three different types of codes may be programmed:

- **MASTER** Code providing access to the programming of other codes. It can only be used for programming, not for access.
- **PASSEPARTOUT** It can be used to open the door lock the entrance panel is associated to. It's not linked with any apartments. It can only be used for access, not for programming.
- **RESIDENT** It can be used to open the door lock the entrance panel is associated to. It’s linked to an apartment of the system. It can only be used for access, not for programming.
2.2 Front view

1 - Digital keypad + key illumination LED.
   ⌀ key for the selection of the door lock release code.
   ☑ key for the replacement of the codes.

2 - Mini-USB programming connector.

3 - Programming pushbutton.

4 - Red LED on steady: access denied, or programming error.

5 - Green LED on steady: access granted, or programming successful.
2.3 Back view

1 - Connection of door lock pushbutton (CP-P1) and tamper (CP-P2 – future application).
2 - Local relay contacts.
3 - Connection to the BUS.
4 - Connector for the connection to subsequent modules.
5 - Connector for the connection to previous modules.
6 - Configurator sockets.
3.1 Master code
(only with Sfera Speaker Module 351100/351200/351300 and the associated Sfera Pushbutton Modules 352000/352100 or only with the Sfera Keypad Module)

For safety reasons, the system gives the installer the possibility of programming a “MASTER” code. This can be used to access the programming of the other codes (passepartout and resident codes). To access programming mode, a master code must be assigned to the device; up to 20 master codes may be saved.

The keypad module will indicate that the code has been accepted or deleted by means of audible signals and the switching on of the green LED. If an unrecognised code is entered, programming will stop. This interruption is confirmed by a long beep, and the red LED coming on.

3.1.1 New master code

1. Press the programming pushbutton until the green LED flashes and a confirmation beep is heard.

2. Press the key.

3. Enter the code (4 to 9 digits).

4. Press the key. A short beep confirms the programming of the new master code.
If the procedure has been successful, the green LED stays on for approximately 1 second before starting to flash again. Enter another code, or finish.

During programming, some rules must be followed:
- keys must be pressed consecutively (maximum 2 seconds between pressures);
- the programming sequence must be started within 30 seconds from the moment the programming pushbutton has been pressed and must be completed in one stage.

If the procedure has been successful, the green LED stays on for approximately 1 second before starting to flash again. Enter another code, or finish.

Press the programming pushbutton, or wait 30 seconds to exit the procedure.

A short beep and the LEDs switching off indicate that the programming procedure has been terminated. The Sfera Keypad Module is now ready for normal operation.
3.1.2 Deleting master codes

1. Press and hold down the programming pushbutton; the green LED flashes.

2. Continue holding down the pushbutton; the device emits 1 beep per second, and a long beep after ten seconds.

3. The red LED flashes and then switches off to confirm that the deletion has been performed.

- The procedure will delete all the stored Master codes.
- During the procedure press the programming pushbutton.
- To stop the deletion procedure release the programming pushbutton.
- To only delete a specific code use the TiSferaDesign software.
3.2 Passepartout code
(only with Sfera Speaker Module 351100/351200/351300 and the associated Sfera Pushbutton Modules 352000/352100 or only with the Sfera Keypad Module)

To access the programming of a “Passepartout” code, a master code is necessary. up to 20 passepartout codes may be saved.

The keypad module will indicate that the code has been accepted or deleted by means of audible signals and the switching on of the green LED. If an unrecognised code is entered, programming will stop. This interruption is confirmed by a long beep, and the red LED coming on.

3.2.1 New passepartout code

1. Enter the master code.
   The device emits a beep, and the green LED starts flashing.
   The programming procedure starts.

2. Press the key.

3. Enter the passepartout code (4 to 9 digits).

4. Press the key; a short beep confirms the programming of the new passepartout code.
If the procedure has been successful the green LED stays on for approximately 1 second, before starting to flash again. Enter another code, or finish.

Press the pushbutton, or wait 30 seconds to exit the procedure.

A short beep and the LEDs switching off indicate that the programming procedure has been terminated. The Sfera Keypad Module is now ready for normal operation.

During programming, some rules must be followed:
- keys must be pressed consecutively (maximum 2 seconds between pressures);
- the programming sequence must be started within 30 seconds from the moment the programming pushbutton has been pressed and must be completed in one stage.
3.2.2 Deleting passepartout codes

1. Enter the master codes three times in succession.

2. The device emits a long confirmation beep.

3. The red LED flashes and then switches off to confirm that the deletion has been performed.

- The procedure will delete all the stored Passepartout codes.
- To only delete a specific code use the TiSferaDesign software.
3.2.3 Replacing the passepartout code

1. Press the menu key until the green LED starts flashing.
2. The green LED flashes.
3. Enter the passepartout code.
4. Press the equal key.
5. Enter the new code.
6. Press the equal key. A short beep confirms the programming of the new passepartout code.
The device emits a long confirmation beep.

If the procedure has been successful the green LED stays on for approximately 1 second before switching off.

During programming, some rules must be followed:
- keys must be pressed consecutively (maximum 2 seconds between pressures);
- the programming sequence must be started within 30 seconds from the moment the programming pushbutton has been pressed and must be completed in one stage.
3.3 Resident code
(only with Sfera Speaker Module 351100/351200/351300 and the associated Sfera Pushbutton Modules 352000/352100)

To access the programming of a “RESIDENT” code a master code is necessary. Up to 4000 codes may be saved, one for each apartment.

The keypad module will indicate that the code has been accepted or deleted by means of audible signals and the switching on of the green LED. If an unrecognised code is entered, programming will stop. This interruption is confirmed by a long beep, and the red LED coming on.

This manual refers to the Sfera wired stand-alone Keypad Module or paired with the Sfera Speaker Module (351100/351200/351300).

If the Sfera Keypad Module is installed linked to the Display Module (352500) refer to the Display manual for the code programming.

3.3.1 New resident code

1. Enter the master code.
The device emits a beep, and the green LED starts flashing.
The programming procedure starts.

2. Use the pushbutton module (352000 and 352100) to select the apartment the resident code must be associated to.
3 Press the \(\text{\(\Theta\)}\) key.

4 Enter the resident code (4 to 9 digits).

5 Press the \(\text{\(\Theta\)}\) key; a short beep confirms the programming of the new resident code.

6 Re-enter the code to confirm.

Correct code: green LED on and short beep.

Wrong code: red LED on and long beep.
If the procedure has been successful the green LED stays on for approximately 1 second before switching off.

A short beep and the LEDs switching off indicate that the programming procedure has been terminated. The Sfera Keypad Module is now ready for normal operation.

During programming, some rules must be followed:
- keys must be pressed consecutively (maximum 2 seconds between pressures);
- the programming sequence must be started within 30 seconds from the moment the programming pushbutton has been pressed and must be completed in one stage.
3.3.2 Deleting the resident code
(only with Sfera Speaker Module 351100/351200/351300 and the associated Sfera Pushbutton Modules 352000/352100)

1. **Enter the master code.**
   The device emits a beep, and the green LED starts flashing.
   The programming procedure starts.

2. Use the pushbutton module (352000 and 352100) to select the apartment for which the resident code must be deleted.

3. **Re-enter the master code.**

4. The device emits a long confirmation beep.

5. The red LED flashes and then switches off to confirm that the deletion has been performed.
3.3.3 Replacing the resident code

1. Press the key until the green LED starts flashing.
2. The green LED flashes.
3. Enter the resident code.
4. Press the key.
5. Enter the new code.
6. Press the key; a short beep confirms the programming of the new resident code.
7 Re-enter the code to confirm.

8 The device emits a long confirmation beep.

9 If the procedure has been successful the green LED stays on for approximately 1 second before switching off.

During programming, some rules must be followed:
- keys must be pressed consecutively (maximum 2 seconds between pressures);
- the programming sequence must be started within 30 seconds from the moment the programming pushbutton has been pressed and must be completed in one stage.
4 Advanced configuration

4.1 Connection to the PC

To transfer the configuration performed using the TiSferaDesign software, or to update the firmware, connect the Sfera Keypad Module to the PC using a USB-miniUSB cable.

When updating the software the device must be powered.

The Sfera Keypad Module connected using a USB cable is recognised by the PC as a virtual port (VIRTUAL COM).
4.2 Door lock control

The TiSferaDesign software may be used to set the maximum number of digits to use when composing the code (4 to 9 digits).

Entering the codes to open the door lock varies depending on the code length (if it is shorter than or the same as the maximum set) and the type of installation. The correct form to use in the specific cases is shown in the tables below.

4.2.1 Door lock control with stand-alone Keypad module 353000

<table>
<thead>
<tr>
<th>Stand-alone keypad module</th>
<th>Door lock</th>
<th>Short opening code</th>
<th>Max. opening code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Door lock connected to the C/NO/NC local relay of the keypad module</td>
<td>0=12345 0=</td>
<td>0=123456789</td>
</tr>
</tbody>
</table>

4.2.2 Door lock control with Sfera Speaker Module 351100/351200/351300 and Keypad module 353000

The link between a Sfera Speaker Module and the Keypad Module allows the management of two door locks. The table below shows how to use the codes correctly.

<table>
<thead>
<tr>
<th>Speaker module + Keypad module</th>
<th>Door lock</th>
<th>Short opening code</th>
<th>Max. opening code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Door lock connected to the S+ S- contact of the speaker module</td>
<td>0=12345 0=</td>
<td>0=123456789</td>
</tr>
<tr>
<td></td>
<td>Door lock connected to the C/NO/NC local relay of the keypad module*</td>
<td>0= 0=12345 0=</td>
<td>0= 0=123456789</td>
</tr>
</tbody>
</table>

*To use this function, make sure that the keypad module is configured with M=3

⚠️ The local relay closing time of the Keypad module is 4” and cannot be modified.
4 Advanced configuration

4.3 Reset

It is also possible to reset the Sfera Keypad Module and delete all the previously set codes; this will bring the module back to all the default settings.

1 Disconnect the power supply (BUS), press and hold down the programming pushbutton and reconnect the power supply.

2 Holding down the pushbutton until an extended beep is heard.

3 The red LED comes on for 4 seconds and then switches back off.

⚠️ In entrance panels with keypad and speaker module, wait one minute after the reset procedure before starting the programming procedure again.
## 5 Appendix

### 5.1 Technical data

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<th>Specification</th>
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<td>Power supply from BUS</td>
<td>18 – 27 Vdc</td>
</tr>
<tr>
<td>Absorption</td>
<td>10 Ma (Stand-by with LEDs off)</td>
</tr>
<tr>
<td></td>
<td>20 Ma (Stand-by with LEDs on)</td>
</tr>
<tr>
<td></td>
<td>45 Ma (max in operation)</td>
</tr>
<tr>
<td>Load of local relay contacts</td>
<td>8 A, 30 Vdc</td>
</tr>
<tr>
<td></td>
<td>8 A, 30 Vac cos(\phi) = 1</td>
</tr>
<tr>
<td></td>
<td>3,5 A, 30 Vac cos(\phi) = 0.4</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>(-25) – (+70) °C</td>
</tr>
</tbody>
</table>