



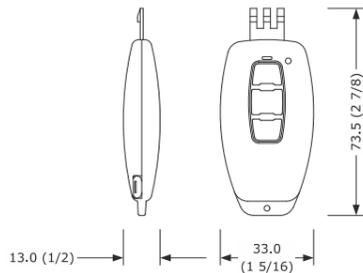
PLEASE READ CAREFULLY
and save this document
CONSIDER THE ENVIRONMENT

E ENGLISH

- Use the TC3KEY with controllers which belong to the TC3 series.

1 MEASUREMENTS

Measurements in mm (inches).



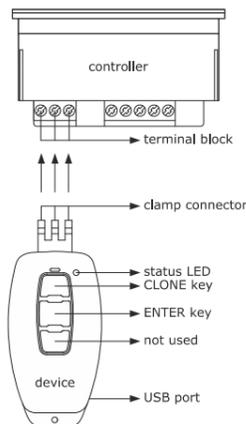
USE PRECAUTIONS

- Ensure that the working conditions are within the limits stated in the *TECHNICAL SPECIFICATIONS* section.
- Do not use the TC3KEY close to heat sources, equipment with a strong magnetic field, in places subject to direct sunlight, rain, damp, excessive dust, mechanical vibrations or shocks.

2 ELECTRICAL CONNECTION

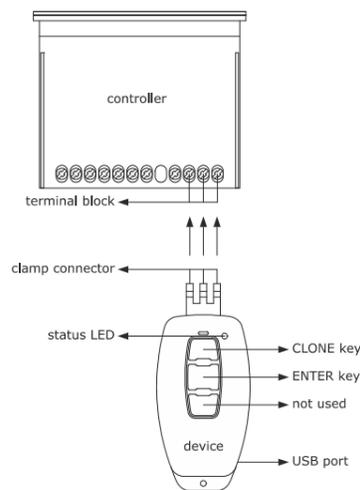
Important: Do not place the TC3KEY's exposed signal conductors against a conductive surface. If two conductors become electrically connected the TC3KEY may short circuit.

The following figure shows an electrical connection to the TC3X21:



The following figure shows an electrical connection to the following controllers:

- TC3B21
- TC3B22
- TC3B23
- TC3221
- TC3222
- TC3223
- TC3224N9R



PRECAUTIONS FOR ELECTRICAL CONNECTION

- If the TC3KEY has been moved from a cold to a warm place, the humidity may have caused condensation to form inside. Wait about an hour before connecting it to the controller.
- Disconnect the TC3KEY from the controller before doing any type of maintenance.
- For repairs and for further information, contact a PENN sales representative.
- Disconnect the controller from the mains before connecting a serial interface or an RS-485 TC3KEY to the controller.

3 USE

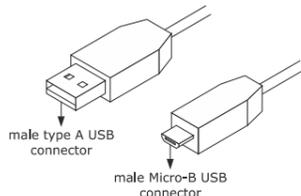
3.1 Initial information

Important

- If you use an electrical or pneumatic screwdriver, adjust the torque to a maximum of 0.5 N•m (4 in. lb).
- Unscrew the terminal block of the controller until it is completely open and remove any previously wired cables.
- If the controller has a fixed screw terminal block, don't screw the terminal block to connect the TC3KEY. It is not necessary to screw a fixed screw terminal block to the TC3KEY.
- If the controller has a plug-in screw terminal block, screw the terminal block to connect the TC3KEY.
- The configuration upload or download normally takes a few seconds.
- If the key successfully completes a configuration upload or download, the status LED glows green continuously for 1 s. If the configuration upload or download fails, the status LED flashes red. If the status LED flashes red, repeat the upload or download.

Important: Make sure the controller is not powered.

Note: Make sure you have a male type A USB or male Micro-B USB cable. The USB cable is not provided.



Note: Make sure you have an USB power supply.

3.2 Configuration upload

To copy the configuration from the controller to the TC3KEY, complete the following steps:

1. Attach the clamp connector of the TC3KEY to the bottom of the terminal block of the controller. For more information, see *ELECTRICAL CONNECTION*.
2. Connect one end of the USB cable to the USB port of the TC3KEY.
3. Connect the other end of the USB cable to the USB port of the USB power supply.
4. Press the CLONE key for 1 s. The status LED glows red continuously for 1 s.
5. Press and release the ENTER key when the status LED glows red continuously. The status LED flashes red for a few seconds. Then it glows green continuously for 1 s. The upload is successfully complete.
6. Disconnect the ends of the USB cable.
7. If the controller has a fixed screw terminal block, disconnect the clamp connector of the TC3KEY. If the controller has a plug-in screw terminal block, remove the female part of the terminal block.

3.3 Configuration download

To copy the configuration from the TC3KEY to the controller, complete the following steps:

Important

- The configuration download is allowed only if the firmware of the controller of origin coincides with the firmware of the controller of destination; if it does not coincide, the configuration download will fail and the status LED will show red light continuously for 1 s.
- If the configuration download fails, it could be necessary to restore the default factory settings of the controller. Refer to the installation guide that matches your controller.

1. Attach the clamp connector of the TC3KEY to the bottom of the terminal block of the controller. For more information, see *ELECTRICAL CONNECTION*.
2. Connect one end of the USB cable to the USB port of the TC3KEY.
3. Connect the other end of the USB cable to the USB port of the USB power supply.
4. Press and release the CLONE key. The status LED flashes red for a few seconds. Then it glows green continuously for 1 s. The download is successfully complete.
5. Disconnect the ends of the USB cable.
6. If the controller has a fixed screw terminal block, remove the clamp connector of the TC3KEY. If the controller has a plug-in screw terminal block, remove the female part of the terminal block.

4 TECHNICAL SPECIFICATIONS

Container:	Black, self-extinguishing
Category of heat and fire resistance:	D
Measurements:	33.0 x 73.5 x 13.0 mm (1 5/16 x 2 7/8 in x 1/2)
Degree of protect. provided by the covering:	IP00
Connection method:	
Clamp connector	Female Micro-B USB connector
Operating temperature:	From 0 to 55 °C (from 32 to 131 °F)
Storage temperature:	From -25 to 70 °C (from -13 to 158 °F)
Operating humidity:	Relative humidity without condensate from 10 to 90%
Compliance:	
Europe	CE Compliant. Johnson Controls declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive and RoHS Directive.
USA	FCC Compliant to CFR47, Part 15, Subpart B
Canada	Industry Canada (IC) compliant to Canadian ICES-003
Power supply:	USB power supply
Software class and structure:	A
Displays:	Upload or download status LED

5 PRODUCT WARRANTY

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty

6 SOFTWARE TERMS

Use of the software that is in (or constitutes) this product, or access to the cloud, or hosted services applicable to this product, if any, is subject to applicable terms set forth at www.johnsoncontrols.com/techterms. Your use of this product constitutes an agreement to such terms.

7 SINGLE POINT OF CONTACT

APAC	Europe	NA/SA
JOHNSON CONTROLS C/O CONTROLS PRODUCT MANAGEMENT NO. 32 CHANGJIJIANG RD NEW DISTRICT WUXI JIANGSU PROVINCE 214028 CHINA	JOHNSON CONTROLS WESTENDHOF 3 45143 ESSEN GERMANY	JOHNSON CONTROLS 507 E MICHIGAN ST MILWAUKEE WI 53202 USA

8 CONTACT INFORMATION

Contact your local branch office:
www.johnsoncontrols.com/locations
Contact Johnson Controls:
www.johnsoncontrols.com/contact-us

Important
The device must be disposed of according to local regulations governing the collection of electrical and electronic waste.

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