

KESO KEK i-turn

Documentation

1	Introduction	3
2	Product description	4
3	Application site	4
4	Ordering information	4
5	Dimensional drawing	5
6	Requirements	6
7	Operation	6
8	Programming with KESO k-entry™	6
9	Alarm and status signals	8
10	Installation	9
11	Replacing the batteries	10
12	Emergency power / emergency opening	11
13	Technical data	12
14	Accessories and individual parts	13
15	Appendix	14
16	Service & support	15
17	Notes	16

1 Introduction

This documentation is part of the KESO KEK i-turn thumbturn product family. It contains important information on product handling and set-up operations. For this reason, you should familiarise yourself with the content and, in particular, observe the instructions on safe handling, operation and installation. When passing on this product to third parties, ensure that they are also very familiar with this handling information.

This documentation is based on information that was correct at time of printing. KESO AG accepts no liability for the correctness and completeness of the content of this documentation. The figures or graphics shown may differ from the supplied components.



We reserve the right to make changes to reflect technical advancements. This manual is not covered by our "Update Service".

KESO AG accepts no claims under warranty and no liability in cases of unauthorised modifications or improper installation contrary to our assembly instructions and without our prior consent.

1.1.1 Disposal



All articles listed in this documentation must not be disposed of as normal household waste. It is the consumer's responsibility to dispose of the product at a recycling collection point for electrical and electronic waste. Disposing of this waste separately helps to optimise reprocessing of all materials suitable for recycling and to reduce health and environmental risks.

1.2 General safety instructions



= Instructions you must follow to ensure trouble-free operation.

1.3 Intended use

This product may only be used for applications specified in the catalogues and technical descriptions, and only with devices and parts recommended or approved by KESO AG. Any other use will be considered as incorrect. In the event of improper use, KESO AG will not accept any liability for any possible damages and will not guarantee the perfect and correct functioning of the components. Intended use implies adherence to all the instructions laid out in this technical documentation. Correct and safe operation also includes transporting, storing, installing and assembling the product as specified as well as careful and precise handling and maintenance.

KESO KEK i-turn

2 Product description





The KESO KEK i-turn thumbturn is an electronic cylinder. It is intended for indoor use only in locations where stricter control and safety requirements need to be met. The KESO KEK i-turn thumbturn can be easily and quickly installed into existing doors without any wiring. It can be adapted perfectly to structural conditions and fulfils high architectural standards. k-entry™, authorisations can be managed centrally in combination with the KESO management software. Like all KESO KEK products, the KESO KEK i-turn thumbturn is NOK (network on key) compatible.

3 Application site

For indoor use only.

The threshold values as specified in the technical data must be observed (see Item 13).

4 Ordering information

Photo	Item No.	Designation/Description
	21.43V.060.00.00.KT	KESO KEK i-turn thumbturn double cylinder Standard length: 30/30 mm Extension: both sides, in 5 mm increments; maximum 80/80 mm
	21.43W.060.00.00.KT	KESO KEK i-turn thumbturn single cylinder Standard length: 30/10 mm Extension: one side, in 5 mm increments; maximum 80/10 mm

4.1 Scope of delivery

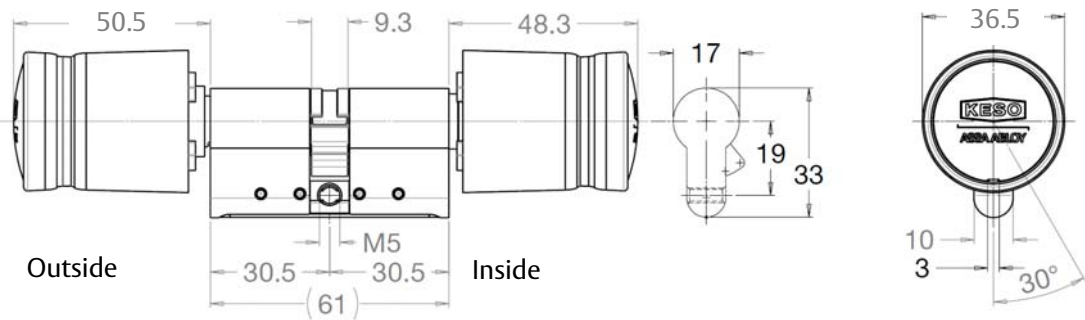
- 1 unit KESO KEK i-turn thumbturn cylinder with standard actuator
- 1 unit 65 mm fixing screw
- 1 unit Battery
- 1 unit Screw set
- 1 unit Assembly instructions
- 1 unit Tool for replacing the batteries

KESO KEK i-turn

5 Dimensional drawing

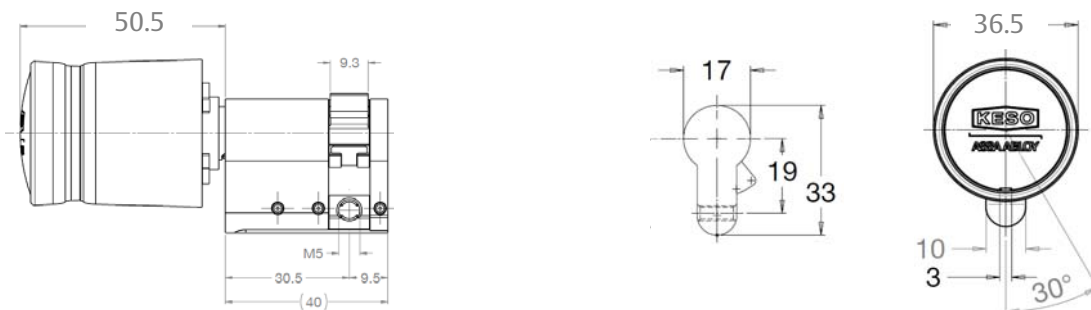
5.1 KESO KEK i-turn thumbturn double knob cylinder in EU profile

Article No.: 21.43V
 Euro profile cylinders: Diameter \varnothing 17 mm with valve cut-out



5.2 KESO KEK i-turn thumbturn single cylinder in EU profile

Article No.: 21.43W.
 Euro profile cylinders: Diameter \varnothing 17 mm with valve cut-out



6 Requirements







6.1 Hardware/software requirements

Authorisations managed and programmed using KESO *k-entry™ Management Software*. Authorisations transferred using KESO KEK Programmer PPG V2 and the corresponding KAPI programming cable.


6.2 Battery requirements

The KESO KEK i-turn thumbturn is fully battery-operated. Note the signals which indicate the battery is running low. In cold weather, or if fitted in "cold" environments, check the battery status several times a year. You can check the battery status using the KESO KEK Programmer PPG V2 or a multimeter. The electronically stored data is not lost when you replace the battery. When using the optional NOK function, the battery status is automatically logged by the identification medium and transferred to the KESO *k-entry™ Management Software* via the NOK terminal.

Important note:


-  Do not touch electronic components while changing the battery. Static discharge can damage or even destroy electronic components.
-  Observe correct polarity when inserting batteries. Inserting the batteries incorrectly can damage or even destroy electronic components.
-  KESO does not recommend using rechargeable batteries, as they do not have sufficient capacity to match the power requirements.
-  As old batteries can leak, it is advisable to check the battery status at regular intervals. KESO AG is not liable for consequential damage caused by defective batteries. We do not offer a warranty for batteries.
-  Batteries must be disposed of separately in compliance with legislation in your country.
-  Frequent programming reduces battery life.

7 Operation

-  The reader's contactless sensor is situated in the outside knob. The reader is highly energy-efficient, a characteristic which results in a long battery life. When on standby, the reader is in "sleep mode". You can wake the reader by moving the identification medium (key, tag, card) within the reader range.

8 Programming with KESO *k-entry™*


The KESO *k-entry™ Management Software* is used as the standard tool for programming and management.

-  Warning: always carry out programming and deletion operations with the door open to prevent the door from closing accidentally.

8.1 Minimum user training


Programming with the KESO *k-entry™ Management Software* is basically the same as programming with all other KESO KEK products.

8.2 Separate icons for KESO KEK i-turn thumbturn

 The KESO KEK i-turn thumbturn has its own icon in the KESO k-entry™ Management Software.

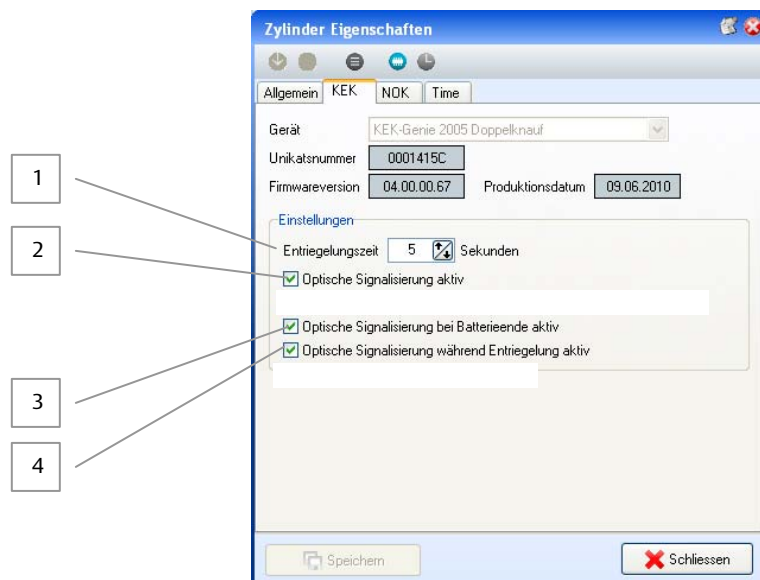
8.3 Programming interface

The KAPI programming interface is situated in the outside knob.

 This interface may only be used in combination with the KESO KEK Programmer PPG V2 and the corresponding KAPI cable (see Item 14.6).

8.4 KESO k-entry™ Management Software settings

The KEK settings for the KESO KEK i-turn thumbturn can be programmed using the KESO k-entry™ Management Software.



1. **Release time:**
Once access has been enabled, the outside knob remains engaged for the pre-set time. You can set a time interval of between 0.5 and 25.5 seconds.
2. **Optical signal - active:**
Indicates authorisation and battery status on the outside door knob.
3. **Optical signal indicating end of battery life - active:**
Low battery status is indicated by a multistage alarm signal (optical) on the outside door knob.
4. **Optical signal during release - active:**
The green LED lights up for the duration of the pre-set release time (see Item 1).

8.4.1 Function check

The KESO KEK i-turn thumbturn must be reprogrammed every time the device properties are changed. Once changes are complete, check the functions using the authorised identification medium.

9 Alarm and status signals

Alarm and status signals can be set or changed at any time using the KESO k-entry™ Management Software (see Item 8.4).

Such messages are set by default for each delivery as follows:

Function	Default status	Comment
Supply period ON	active	All system identification media are authorised for access. Once the product is programmed for the first time, this mode is inactive and cannot be reset.
Release time	5 sec	Range between 5 and 25.5 seconds
Optical signal	active	If inactive, the battery life is extended
Optical signal of battery end-of-life	active	
Optical signal during release	active	

9.1 Access authorised

Default setting:

- If access is authorised, the green LED flashes.

9.2 Access denied

Default setting:

- If access is denied, the red LED flashes.

9.3 Low battery status



Low battery status is indicated by a multistage alarm signal (optical).

KESO recommends checking the battery power status at least once a year using the KESO KEK Programmer PPG V2 or a multimeter.

9.3.1 Pre-alarm threshold

If the battery level drops below the pre-warning threshold, the green and red LEDs flash alternately when a KEK identification medium is held in proximity to the knob.



You should replace the batteries at your earliest convenience.

9.3.2 Alarm threshold

If the battery level drops below the alarm threshold, the green and red LEDs flash alternately and at a fast rate when a KEK identification medium is held in proximity to the knob. The red LED will then also flash every five seconds after this. If the battery level is about to reach the specified minimum, the red and green LEDs flash every five seconds.



The batteries should be replaced as soon as possible.

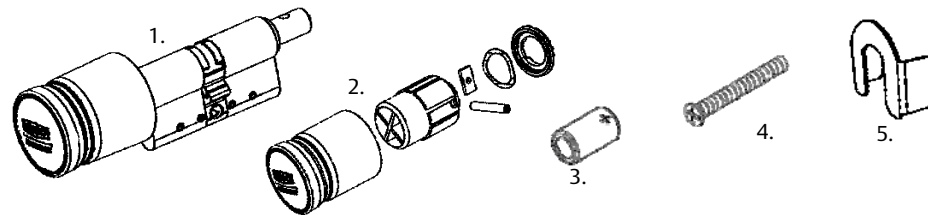
KESO KEK i-turn

10 Installation



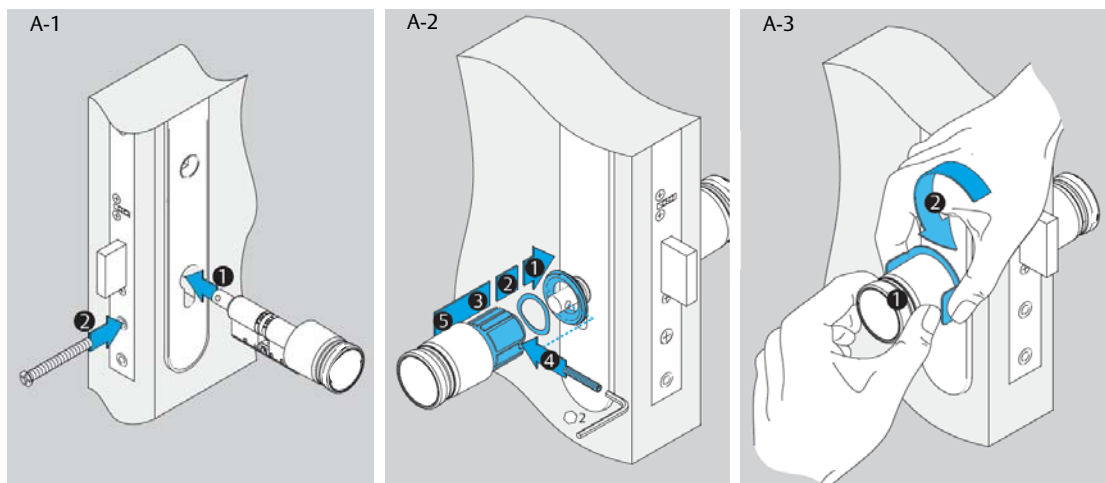
Follow the installation instructions; your warranty becomes invalid if the product is used or installed incorrectly. Read this installation guide carefully before installing. If you have any queries regarding installation, please contact your dealer.

10.1 Individual parts of double door knob

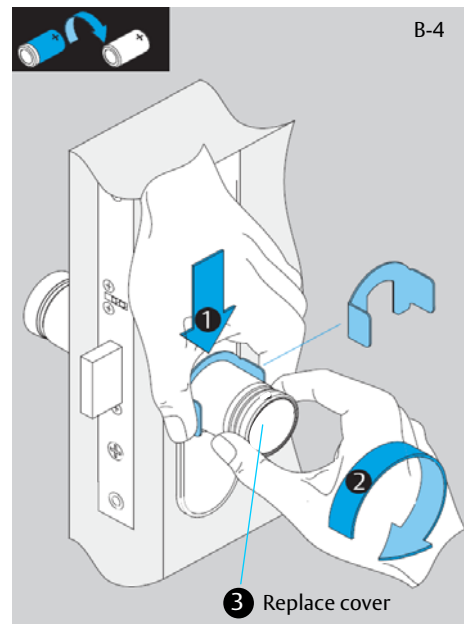
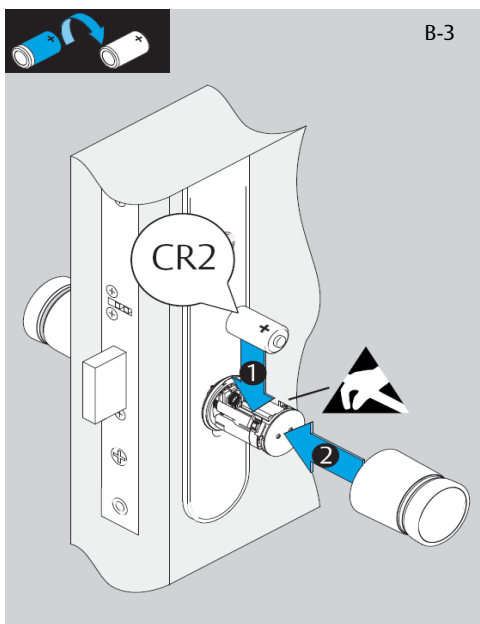
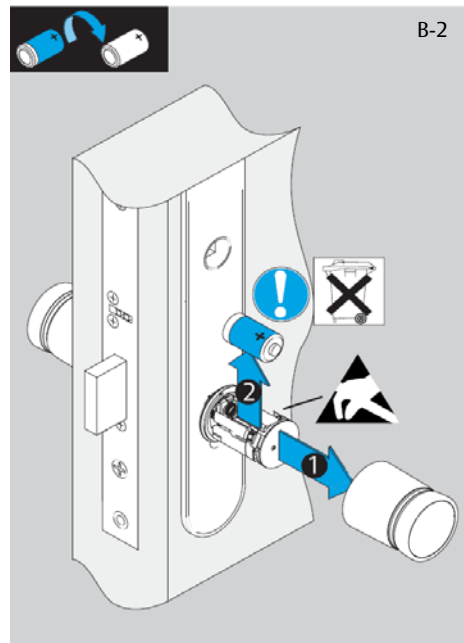
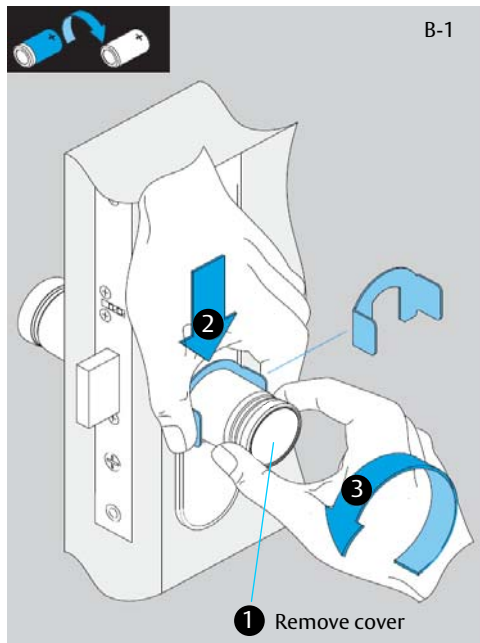


Pos.	Units	Description	Item No.
1	1	Cylinder body with assembled outside door knob	
1.1		Outside door knob mechanism	E.072
2	1	Inside door knob mechanism	E.071
3	1	Lithium battery, type CR2	K.533
4	1	65 mm fixing screw	G.100/65
5	1	Assembly tool	K.554

10.2 Cylinder assembly in double door knob



11 Replacing the batteries



KESO KEK i-turn

12 Emergency power / emergency opening


12.1 Electronic

The emergency power function only works in combination with the KESO KEK Programmer PPG V2 and the corresponding KAPI programming cable.

Important note:



An authorised KESO identification medium must be inserted into, or placed on the KESO KEK Programmer PPG V2.

- 1.) Insert the KAPI programming cable into the KESO KEK i-turn thumbturn interface.
- 2.) Connect the KAPI programming cable to the KESO KEK Programmer PPG V2.
- 3.) Hold/insert an authorised KEK identification medium into/onto the KESO KEK Programmer PPG V2
- 4.) Start the KESO KEK Programmer PPG V2 and click on the menu item  «Emergency opening». Emergency opening is now complete. The thumbturn is engaged and can now be opened.



12.2 Mechanical

A mechanical emergency opening cannot be implemented from the outside.

KESO KEK i-turn

13 Technical data

13.1 Product compatibility

- 13.1.1 Electronic firmware
 - from AIO firmware; V4 and above
- 13.1.2 Software
 - KESO k-entry™ Management Software version V5 and above
- 13.1.3 KESO Programmer
 - KESO KEK Programmer PPG V2 (firmware V1.02 Pro Rev. F and above)

13.2 KESO KEK i-turn thumbturn general data

Range of use:	backsets of 35 mm and above (without cylinder projection)
Outside knob length:	50.5 mm
Knob diameter:	36.5 mm
Cylinder material:	brass, matt nickel-plated
Knob material:	rubberised plastic, black
Power supply:	one 3.0 Volt Lithium battery, type CR2
Battery life:	about 40,000 lock procedures or 2 years
Battery end recognition:	automatic
Protection rating:	IP 50
Reader method:	contactless (RFID)
Operating temperature:	0 to +50° C
Humidity:	15 to 70%, non-condensed
Time slots:	24, each divided into 8 time intervals
Special days:	3 (e.g. works holidays, holidays, public holidays)
Event logging:	500 events (FIFO) with date, time, door designation, person, operation
User keys:	8,000 per electronic system
Programming interfaces:	KAPI cable in connection with the KESO KEK Programmer PPG V2
Certification:	CE
Application type:	interior stand-alone

13.2.1 Data regarding KESO KEK i-turn thumbturn double knob cylinder

Standard cylinder length:	min. 30.5/30.5 mm max. 80.5/80.5 mm
Extendable on inside:	5 mm increments up to a max. 50 mm extensions
Extendable on outside:	5 mm increments up to a max. 50 mm extensions
Inside knob length:	48.3 mm
Total length of double door knob:	min. 158.8 mm max. 258.8 mm

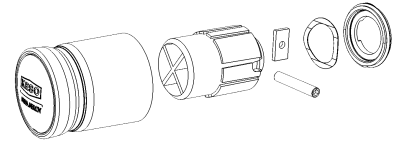
13.2.2 Data regarding KESO KEK i-turn thumbturn single cylinder

Standard cylinder length:	min. 30.5/9.5 mm max. 80.5/9.5 mm
Extendable on outside:	5 mm increments up to a max. 50 mm extensions
Total length of half door knob:	min. 90.5 mm max. 140.5 mm

14 Accessories and individual parts

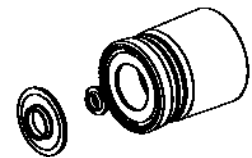
14.1 Inside door knob mechanism

Article no.: E.071



14.2 Outside door knob mechanism (without electronics)

Article no.: E.072



14.3 Black cover

Article no.: E.066/92
Packing unit: 10 units per pack



14.4 Battery

Article no.: K.533
Packing unit: one unit
Brand: Energizer
Type: lithium, type CR2
Voltage per battery: 3.0 Volt



14.4.1 Batteries

The battery should be replaced by a new one after 40,000 actuations or after two years at the latest.



Carbon-zinc batteries or rechargeable batteries have less power, which can lead to malfunctions.

14.5 Assembly tool

Article no.: K.554



14.6 KAPI programming cable

Article no.: K.???



15 Appendix

15.1 Maintenance / Care / Repair



To ensure trouble-free operation of all electronic systems, we recommend calling in an approved service partner to carry out annual maintenance. Approved service partners will be pleased to provide you with information regarding maintenance contracts. In all other cases, please contact KESO AG. We will provide contact details for a qualified partner, who will be pleased to contact you to discuss maintenance contract options and offer you a maintenance contract. The customer is responsible for installing firmware updates. Error-free functioning of the product cannot be guaranteed if you fail to update the firmware version. The latest firmware can be downloaded from www.keso.com. To clean KESO products and accessories, wipe with a damp or anti-static cloth. Never use aggressive cleaning agents or clean with silicon oil as this can cause malfunctions. Only use cleaning agents that contain no corrosive substances.

Never repair or modify KESO products or accessories yourself. Send defective devices or cables for repair to KESO AG, or to one of our subsidiaries, using the original packaging.

15.2 ESD Rules



Electronic assemblies may be damaged by static discharge during assembly/maintenance. Never use defective electronics.

15.3 Product services



Never repair KESO products or accessories yourself. Send defective devices in their original packaging and accompanied by the delivery note to an authorised KESO dealer or to KESO AG for repairs.

16 Service & support

16.1 Specialist service

The first point of contact is your dealer.

16.2 KESO Support

- Software and hardware updates

<http://www.keso.com/de/site/KESO/Downloads/Software/>

- Telephone KESO support

You can contact our support team between Monday and Friday from 7:30 am to 12 pm and again from 1 pm to 5 pm on the telephone number +41 44 787 34 33.

The support team is available to answer any technical questions you may have regarding your KESO product.

- Personal KESO consultation/training

We provide a personal consultation and training service for technical matters regarding products. We would be happy to make you an offer. Please take a look at the program of open courses which we offer.

- Personal KESO support

Should a fault occur or you have a problem which you are unable to solve with the help of the support menu or over the telephone, please complete the support form and send it to KESO AG / Support → Fax. +41 44 787 36 63

If you would like to take advantage of the KESO AG personal support service, you will be informed about the costs incurred when you schedule an appointment with our team.



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