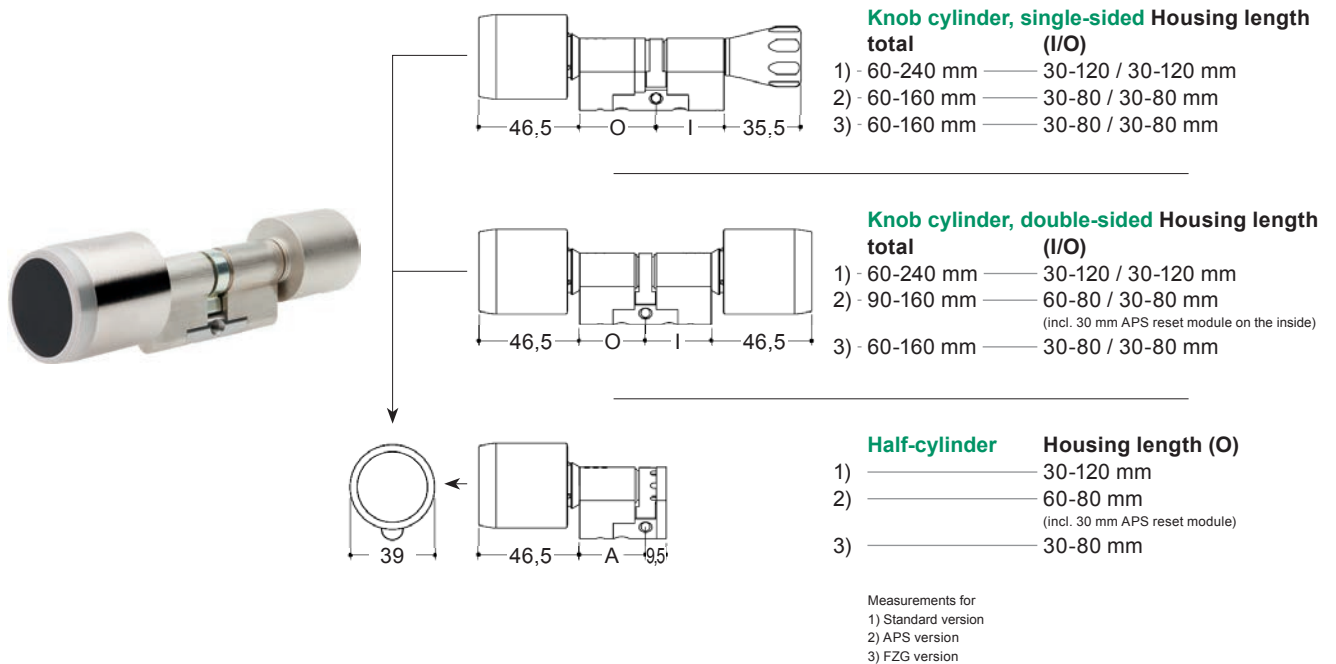


# eLOCK eXpert Cylinder



## Technical data (Hardware)

- Power supply** ————— 2 x 3V CR2 Lithium batteries for each electronic knob
- Battery working life** ————— Operational readiness up to 3 years, at 10 locking transactions a day  
 Total number of locking transactions: Up to 50,000  
 Stand by time: Up to 5 years
- Emergency opening option** ————— With battery change tool set
- Data retention during power outage** ————— Date/time buffered for several years (Buffer battery)  
 Unlimited buffering of event memory
- Time** ————— Accuracy under normal usage: +/- 9 minutes/year  
 Automatic daylight saving time switching
- Interface** ————— NFC interface, in accordance with ISO 14443A
- Application area** ————— **Knob cylinders:** Locks from standard doors, fire protection doors and emergency exit and escape route doors.  
**Half-cylinders:** Locks from key-switch locks and doors that are lockable only on one side.  
 ▶ For the deployment of knob cylinders in anti-panic locks, please take note of the specifications, in terms of Declarations of conformity and Declarations of performance, given by the manufacturer of the deployed lock type.
- Deployment conditions** ————— Interior areas and exterior areas that are protected from the weather  
 Outdoor, version with Waterproof function  
 For all variants, it must be ensured that no water penetrates into the cylinder from the locking lug.
- Protection class (DIN EN 60529)** ————— IP66 - Knob cylinder, standard version (PC), SKG knob cylinder  
 IP65 - Knob cylinder with spindle extension  
 IP44 - APS knob cylinder
- Fire resistance class** ————— T30 according to DIN EN 1634-1 – standard cylinder  
 T120 according to DIN EN 1634-1 – version with fire protection function



**Operating temperature** ————— - 20 °C to + 55 °C

**Storage temperature** ————— - 20 °C to + 55 °C

**Relative humidity** ————— (Operation/storage) max. 95 % without condensation

**Read distance** ————— Up to 15 mm, depending on the construction of the transponder

**Approvals, Norms and Directives** — **▶** CE Conformity  
**▶** RED Directive 2014/53/EU  
**▶** RoHS Directive 2002/95/EG  
**▶** DIN EN 15684; 2013-1 in acc. Certificate with 16B4-F32 classification  
Locks and building hardware – Mechatronic locking cylinders  
**▶** DIN 18252 Profile cylinder for door locks

**Profile form** ————— EURO Profile (PC), in acc. DIN 18252

**Modularity** ————— All cylinders have a modular construction  
Standard version cylinders can be delivered pre-configured but  
can also be reconfigured on site or even modified retrospectively.

**Install position** ————— Permitted install position (essentially, any install position is permitted)

– All cylinder versions ————— 

– “Without rotation block” version —————    



## Options

### Knob cylinder

- ▶ **Single-sided authorisation check** – Battery-operated knob cylinder with electronic outer knob and mechanical inner knob
- ▶ **Double-sided authorisation check** – Battery-operated knob cylinder with electronic outer and inner knob

#### Versions

- ▶ Standard
- ▶ Free-wheeling cylinder – tested in acc. FZG RL\_2010\_1
- ▶ Without rotation block – any install position is permitted.
- ▶ APS Emergency exit route
- ▶ Electronic module spindle extension 5/10/15 mm  
For installation in doors with pull-out protection escutcheons, cylinder covers or frame doors with a round cylinder cut-out on the outside.
- ▶ Waterproof
- ▶ Fire protection (120 minutes)

### Half-cylinder

Battery-operated single-sided cylinder with removable knob

#### Versions

- ▶ Standard
- ▶ Free-wheeling cylinder – tested in acc. FZG RL\_2010\_1
- ▶ Without rotation block – any install position is permitted.
- ▶ APS escape route
- ▶ Electronic module spindle extension 5/10/15 mm  
For installation in doors with pull-out protection escutcheons, cylinder covers or frame doors with a round cylinder cut-out on the outside.
- ▶ Waterproof
- ▶ Fire protection (120 minutes)

### Mechanical knobs

- ▶ Cone shaped (KKN)
- ▶ Smooth (FKN)
- ▶ With recessed grip (GKN)



### Surface finishes

Stainless steel look, other finishes on request



## Technical data (System)

<b>System administration</b>	OPERTIS eLOCK eXpert
<b>Optical signalling</b>	through LEDs (red, green, blue, yellow); <b>acoustic</b> through a buzzer (Can be activated/deactivated for each cylinder through the OPERTIS eLOCK software)
<b>Event memory in the device</b>	Ring buffer the last 10,000 accesses
<b>Coupling duration</b>	3 - 1800 seconds, adjustable through the eLOCK eXpert software
<b>Transponder technology</b>	MIFARE® DESFire®
<b>Memory requirements per transponder</b>	▶ 2K – S – small locking system – max. 154 locking rights ▶ 4K – M – mid-sized locking system – max. 666 locking rights
<b>System sizes</b>	<b>Across the system</b> <ul style="list-style-type: none"><li>– 250,000 Transponders</li><li>– 65,000 End devices</li><li>– Unlimited persons</li><li>– Unlimited end device groups (as a tree structure with a depth of ≤ 20 levels)</li><li>– Unlimited locking groups</li><li>– Unlimited person time profiles</li><li>– Unlimited end device time profiles</li><li>– Unlimited public holiday dates</li></ul> <b>Per end device</b> <ul style="list-style-type: none"><li>– 250,000 Transponders</li><li>– 20 End device groups (max. Depth of the tree structure)</li><li>– Unlimited locking groups</li><li>– Unlimited person time profiles</li><li>– 1 Device time profile</li><li>– 512 Public holiday dates</li><li>– Logging of the last 10,000 accesses (ring buffer)</li></ul> <b>Per transponder</b> <ul style="list-style-type: none"><li>– Locking rights (end devices, end device groups): 154 with small locking systems 666 with mid-sized locking systems, in acc. with the defined size of the locking system</li><li>– 6 Individual time profiles</li><li>– 1 Fixed time profile “Always”</li><li>– Unlimited public holiday dates</li><li>– 5 blacklist entries (lost transponders of the entire locking system), for blocking on the end devices (ring buffer)</li><li>– 20 System/ battery messages (battery low) from the offline end devices (ring buffer)</li><li>– Max. 3 eLOCK eXpert locking systems (applications)</li></ul> <b>Per end device group</b> <ul style="list-style-type: none"><li>– 250,000 Transponders</li><li>– Unlimited locking groups</li></ul> <b>Per locking group</b> <ul style="list-style-type: none"><li>– Locking rights (end devices, end device groups): 154 with small locking systems 666 with mid-sized locking systems, in acc. with the defined size of the locking system</li><li>– Unlimited persons</li></ul>



- Programming** — All locking rights are programmed in the OPERTIS eLOCK eXpert software. All pending programming tasks are listed in the ToDo menu.  
**Data transfer can be done selectively over:**
- ▶ OPERTIS NFC Stick in combination with the OPERTIS eLOCK eXpert software (at end devices and transponders)
  - ▶ OPERTIS ToDo Card (at end devices)
  - ▶ The computer network, online (at wall scanners with online licence)
  - ▶ Wall scanners with online licence (updating the transponder)
- Time profile** — **Person time profile** – Defines the validity period of the transponder  
**End device time profile** – Defines the timepoint (open/close or only close) for the automatic activation/deactivation of Office mode  
One time profile consists of a maximum of 10 slots. Each slot defines a timepoint (from/till) and the corresponding weekdays and special days.
- Office mode** — Special operating mode: Serves to be able to open a door with authorisation checking, e.g. for opening a door during the working day to allow public access. Activation/deactivation is done through a special routine directly at the end device and is reserved for transponders for which this additional authorisation has been released.
- Fire service mode** — is activated exclusively when a fire service transponder is used. If an end device is in fire service mode, the door can be opened without presenting a transponder. Fire service mode is always indicated through a yellow light signal, irrespective of how signalling is defined in the software. Fire service mode is always activated through the authorisation check when a fire service transponder is presented.
- Ticket transponder** — the validity is limited (1 - 8,760 hours) and is activated the first time it is used. A ticket transponder can be released for 24 hours, for example, from the first usage. Each transponder belonging to a locking system can be programmed as a ticket transponder, through a special programming routine.
- Available end devices** — **Wall scanner**
- For doors with automatic control. The wall controller sends a triggering signal, e.g. to the automatic door, car park barrier, elevator door or electric door opener
  - Interior or exterior deployment, depending on components used
  - The wall scanner can use the software's online functions through an online licence. For example, transponders can be updated through a wall scanner with an online licence
- Knob cylinder and half-cylinder**
- Simple and quick installation
  - Modular construction for extra flexibility, e.g. simple, retrospective extension
  - Knob cylinders can be deployed on internal and external doors
  - Large number of options, e.g. APS, with a defined position of the locking lug for doors in escape and rescue routes, FZG, with freewheel function for gear locks in escape door locks, Waterproof, for outdoor use or fire protection (120 minutes).
- Lever Cylinder**
- for thin-walled doors on mailboxes, control cabinets and similar closures that can be closed on one side.
- Comfort system APS**
- Convenient handling
  - Attractive design, through the minimalist design of the antenna caps
  - Can be discreetly integrated into any building design
  - Opening is done by simply presenting an authorised transponder
  - for internal and external fire protection doors and emergency exit and escape route doors



## Ordering information (system-dependent)

### Knob cylinder, single-sided

ES322.1000EX ——— Knob cylinder, length 30/30 mm, single-sided authorisation <sup>1)</sup>

### Knob cylinder, double-sided

ES322.1000BX ——— Knob cylinder, length 30/30 mm, double-sided authorisation <sup>2)</sup>

### Cylinder extensions

- ES322.1001 ——— Supplement for extensions of knob cylinder, 65 to 80 mm
- ES322.1002 ——— Supplement for extensions of knob cylinder, 85 to 110 mm
- ES322.1003 ——— Supplement for extensions of knob cylinder, 115 to 120 mm
- ES322.1004 ——— Supplement for special lengths with an overall length > 120 mm and ≤ 140 mm

### Half-cylinder

ES322.1009X ——— Half-cylinder, length 30 mm

### Half-cylinder extensions

- ES322.1010 ——— Supplement for extensions of half-cylinder, from 35 to 40 mm
- ES322.1011 ——— Supplement for extensions of half-cylinder, from 45 to 55 mm
- ES322.1012 ——— Supplement for extensions of half-cylinder, from 60 to 75 mm
- ES322.1013 ——— Supplement for special lengths with an overall length > 75 mm

### Additional equipment for knob and half-cylinders

- ES322.1007 ——— Supplement for cylinders with APS Emergency exit route function <sup>3)</sup>
- ES322.1014 ——— Supplement for cylinder with spindle extension
- ES322.1015 ——— Supplement for cylinder without rotation block <sup>3)</sup>
- ES322.1016 ——— Supplement for cylinders in FZG\*\*\* version <sup>3)</sup>
- ES322.1019 ——— Supplement for cylinders with Waterproof function
- ES322.1021 ——— Supplement for cylinders with Fire protection function (120 minutes), per electronics

### Power supply

ES0891 ——— CR2 3V Lithium battery

### Accessories

- ES302.1186 ——— Battery change and installation tool set
- ES302.1187 ——— Electronic knob spare parts set
- ES302.1180 ——— Installation block for cylinder construction or adaptation
- ES000.9000 ——— Grease, oil

For cylinder lengths, the first value stands for outside, the second value for inside, e.g.

- 1) ES312.1000EX with length 30/30, authorised on one side:
  - Dimension A = 30 mm with electronic knob on the outside and
  - Dimension I = 30 mm with mechanical knob on the inside of the door
- 2) ES312.1000BX with length 30/30, authorised on both sides:
  - Dimension A = 30 mm with electronic knob on the outside and
  - Dimension I = 30 mm with electronic knob on the inside of the door
- 3) only available factory assembled