tapkey

Technical Data — DOM Tapkey BLE Pro

Variants:

- DOM Tapkey BLE Pro double cylinder and half cylinder
- Even the standard version includes all mechanic and electronic security features:
  - Body and core drilling protection
  - Separate control electronic for actor in the core

- DOM Tapkey BLE Pro EE double cylinder (emergency exit)
  application in escape and emergency routes where a well-defined cylinder cam position is required
  - EE-IM: operation by special mechanical key from inside
  - EE-OI: without inside knob

- DOM Tapkey BLE Pro KL (German: „Kurz-Lang" cylinder)
  reduced outside length of 27,5 mm (see cylinder lengths)

- DOM Tapkey BLE Pro GL (cylinder für glass doors)
  reduced inside length of 10-27,5 mm (see cylinder lengths)

- DOM Tapkey BLE Pro OI (without inside knob)
  blind cylinder on the inside

- DOM Tapkey BLE Pro BS (reader on both sides)
  reading of transponders also on the inside

- DOM Tapkey BLE Pro KZSV (German: Kernziehschutzverlängerung)
  - for assembly in fittings with core pulling protection
  - protruding outer shaft by 8,5mm

- DOM Tapkey BLE Pro CH (22 mm Swiss round profile)

- DOM Tapkey BLE Pro 382 lever cylinder (e.g. for letter boxes)
  - length 31,8 mm, for mounting holes ⌀26×22 mm
  - 90° turning movement with self-holding end positions
  - adjustable lever position: 4×90°

Technology:

- 13.56 MHz Mifare
- 2.4 GHz (BLE: Bluetooth Low Energy)

Feature combinations:

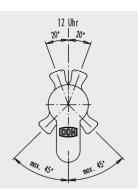| Variants	Code	DZ	HZ	EE	KL	GL	OI	BS	KZSV	CH
Double cylinder	DC			X	X	X	X	X	X	X
Half cylinder	HC			o	o				X	X
EE (Emergency Exits)	EE				o	o	X	o	X	X
Short-Long	KL					o	X	o	X	X
Glas door cylinder	GL						o	X	X	X
without inside knob	OI								X	X
Reader on both sides	BS								X	X
core pulling protection	KZSV									X
Swiss round profile	CH									

Legend: X available
         o not available

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Position of cylinder cam (only for DOM Tapkey BLE Pro EE):

- The DOM Tapkey BLE Pro EE has a spring driven reset mechanism to turn the cylinder cam to a fixed position.
- Due to the cylinder construction the reset mechanism does <u>not</u> work within the angular dead centers $12^{00} \pm 20°$ and $6^{00} \pm 45°$.

! For the version IM the correct resetting function of the cam is only ensured in case of unplugged key.

Power supply:

- battery pack with 2 lithium cells 3.0 Volt
- type CR2 (Li-MnO$_2$ system)

Battery life time and data preservation:

At room temperature (+20°C):
- Up to 35,000 locking cycles <u>or</u>
- Up to 2 years years stand-by time in case of non-use <u>or</u>
- Up to 1.5 year by typical 10 locking cycles per day

Intelligent battery management:
- Multilevel temperature compensated battery warning system
- 10 year data preservation without battery

Time / Date:

- Buffering typically 1 minute (in case of battery change)

- Clock drift at room temperature: ± 10 minutes/year
  at -25°C and +65°C: -50 minutes/year

Durability:

- At least 100.000 cycles (according DIN EN 1303 and EN 15684 grade 6)

Clutch duration:

- 8 seconds

Cylinder length:

- Max. 80/80 mm, higher lengths on request
- Glass door cylinder with inner length from 10 to 27.5 mm
- Version KL with outer length 27.5 mm
- Extendable in 5 mm steps (glass door cylinder: inner side in 2.5mm steps)

- For backset < 30 mm the application is to be checked

Knobs:

- Outside knob: stainless steel, size: $\varnothing$ 37.5 mm, length 44.8 mm
- Inside knob: pot metal, size: $\varnothing$ 30.1 mm, length 30 mm
- For double cylinder with two-side readability both knobs: stainless steel, size: $\varnothing$ 37.5 mm, length 44.8 mm

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DOM

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Approvals and certifications:	• VdS-BZ+ approval, certificate M116308 • SKG*** approval (certificate no. 442-393.04/05) Both not for Swiss round cylinder and not for 382 lever cylinder)
	• Test fire resistance T90 (ift 18-001080-PR02) (not for 382 lever cylinder)
	• Certification according to EN 15684 (PIV test report 49-4/18)

Stelle	1	2	3	4	5	6	7	8
DOM Tapkey BLE Pro	1	6	B	4	A	F	3	2

	• Tested as free-wheeling cylinder according to test directive FZG, version 2010_01 of PIV in preparation
Environmental:	• Temperature: -25°C to +65°C (class 4 EN 15684) • Humidity: 20-99% no condensation (class 4 EN 15684) • Protection class (PIV test report 44-3/15) - IP66 (outside knob) for all variants - IP 65 (complete Europrofile cylinder, all variants)
	• Anticorrosive according to DIN EN 1670 class 3 and grade 4 of EN 15684 • SO_2 corrosion test according to VdS 2156-2 and DIN EN ISO 6988 (15 cycles with 0,2 l SO_2)
	• According to VdS guideline 2156-2 the DOM Tapkey BLE Pro cylinder is designed for a weatherproof installation.
Programming:	Programming via NFC/BLE-enabled smartphones with the following prerequisites: • Android APP as of Android 5.0 (NFC/BLE) • iOS APP iOS 9 or higher / iPhone 5 (BLE) • Programming of transponders exclusively via Android APP with NFC • Google ID or Tapkey ID required
Events:	• Ring buffer for the latest 1.000 events
Inductive transponder interface:	• reading range: up to 3 cm • frequency: 13,56 MHz • field strength in 10 m distance: < 42 dB µA/m • in conformity with ETSI EN 300 330 • supports passive transponders (ISO 14443 A) & NFC (ISO/IEC 18092) • encryption: Mifare DESFire EV1 / EV2: AES-128 Bit
Bluetooth Low Energy (BLE)	• Communication range: up to approx. 10 m • Frequency: 2.4 GHz • Transmission power: < 20 dBm • Conformity to ETSI EN 300 330
Encryption / Security on the interfaces (NFC/BLE and backend)	TLCP: Tapkey BLE Pro ←→ APP ←→ Tapkey Trust Service: • AES-128, CMAC (NIST 800-38B), RNG (ANSI X9.31) Communication to backend: HTTPS, RSA with 4.096bit, SHA 256, TLS 1.0 or higher
Transponder types:	• DOM Tapkey Standard Tag
Storage of access authorizations	*Access authorization on Transponder:* • up to 12 devices *Access authorization on Android / iOS smartphone:* • No limit of devices • No limit of users (Google or Tapkey IDs) > 5 users fee-based (see licence model)

These data correspond to the actual development status and are subject to change at any time without notice.