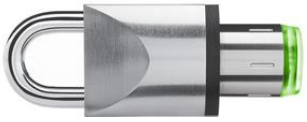
tapkey



DOM

Technical Data | DOM Tapkey Pro BLE Padlock

General:

- Padlock without forced closing

Technology:

- 13,56 MHz (RFID / NFC)
- 2,4 GHz (BLE: Bluetooth Low Energy)

Material:

- Housing: Solid brass, surface matt chrome plated
- Bottom plate: Polyamide (PA66)
- Shackle: Steel (10B21), surface brilliant chrome plated
- Knob of cylinder: Stainless steel 1.4305

Durability:

- Padlock: at least 10,000 cycles
  (according to DIN EN 12320, grade 1)
- Cylinder: at least 100,000 cycles
  (according DIN EN 1303 and EN 15684 grade 6)

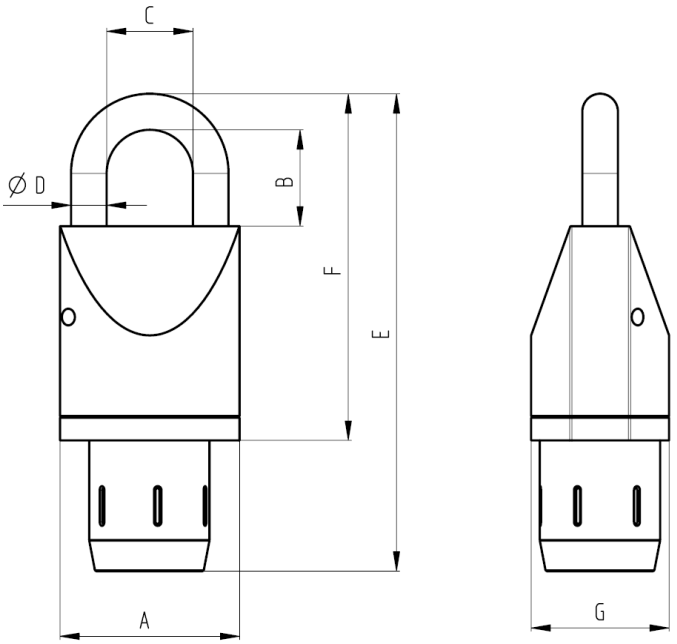
Mechanical strength:

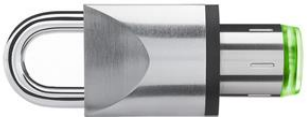
- Strength of shackle:
  - Tensile strength: ≥ 15 kN (Ch. 5.5.5, DIN EN 12320)
  - Torsional strength: ≥ 200 Nm (Ch. 5.5.6, DIN EN 12320)
  - Cutting strength: ≥ 25 kN (Ch. 5.5.7, DIN EN 12320)

- Impact resistance of padlock housing and shackle:
  - Tested with 5 shocks at -20°C
    (falling mass of 1,250 g from a height of 800 mm)

Dimensions:

• Width		A =	56 mm
• Thickness		G =	43 mm
• Length	without knob	F =	109 mm
	with knob	E =	150 mm
• Shackle diameter		D =	11.1 mm
• Inner shackle height		B =	30 mm
• Inner shackle width		C =	27 mm





Technical Data | DOM Tapkey Pro BLE Padlock

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 or
- Up to 2 years in case of non-use or
- Up to 1,5 years for typical 10 locking cycles per day

Intelligent battery management:
- Multilevel temperature-compensated alarm system in case of voltage drop
- 10 years 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 +70°C: –50 minutes/year

Clutch duration:

- 8 seconds

Signalling:

- Optical signalling by 4 multicolour LEDs
- Circular lighting segments in knob cover

Certifications:

- Certification of the cylinder according to EN 15684
  (PIV test reports 49-4/18)

Digit	1	2	3	4	5	6	7	8
Grade	1	6	B	4	A	F	3	2

- Certification of the padlock according to DIN EN 12320
  (PIV test report 51-2/15):

Digit	1	2	3	4
Grade	1	1	3	3

Environmental:

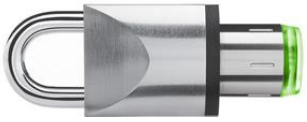
- Padlock in combination with Pro cylinder:
  - Temperature: -25°C to +65°C
  - Humidity: 20-96% no condensation
  - Anticorrosive according to grade 3 DIN EN 12320 (salt spray test 96 h)
- Locking cylinder:
  - Temperature: -25°C to +65°C (grade 4 EN 15684)
  - Humidity: 20-99% no condensation (grade 4 EN 15684)
  - Protection class: IP66 (knob), IP65 (complete cylinder)
  - Anticorrosive according to grade 3 DIN EN 1670 (salt spray test 96 h)

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



Technical Data	DOM Tapkey Pro BLE Padlock
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/EV3: AES-128 Bit
Bluetooth Low Energy (BLE):	• Communication range typical 10 m • Frequency: 2,4 GHz • Transmission power: < 20 dBm • Conformity to ETSI EN 300 328 • Bluetooth version: 5.0 (≥ Firmwareversion 3.2)
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 4.096 bit, SHA 256, TLS 1.0 or higher
Transponder types:	• DOM Tapkey Standard Tag
Storage of access authorizations	• Access authorization on the 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 license model)

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