Technical Data	ENiQ ® Pro V2 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: $\geq$ 15 kN (Ch. 5.5.5, DIN EN 12320)
  - Torsional strength: $\geq$ 200 Nm (Ch. 5.5.6, DIN EN 12320)
  - Cutting strength: $\geq$ 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
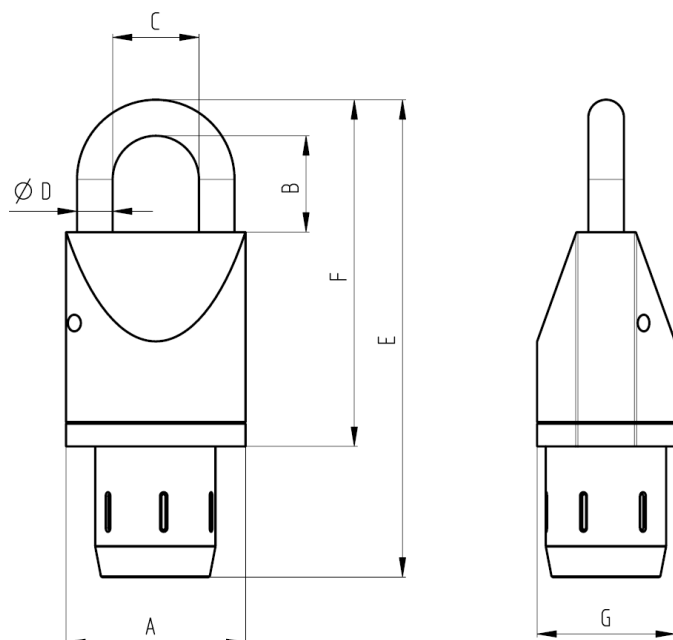
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Power supply:
- Battery pack with 2 lithium cells 3.0 Volt
- Type CR2 (Li-MnO$_2$ system)

Battery life time and data preservation:

At room temperature (+20°C):
- Up to 80.000 locking cycles or
- Up to 3,5 years in case of non-use or
- Up to 3 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:
- Adjustable ranging from 1 to 30 seconds
- Permanent open/close mode

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 49-2/15)

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)
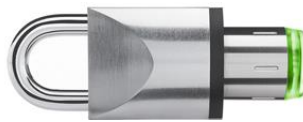 - Anticorrosive according to grade 3 DIN EN 1670 (salt spray test 96 h)

Programming:

Programming via NFC/BLE-with the following prerequisites:
- ENiQ App (NFC/BLE) (see datasheet ENiQ App)
- ENiQ Software via BLE Stick (see separate datasheet of ENiQ AccessManagement Software)
- Storage of max. 5 programming cards

Events:
- Ring buffer for the latest 2.000 events

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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)

- Encryption:
  - Mifare DESFire EV1 / EV2: AES-128 Bit
  - Mifare Classic: Crypto-1 encryption
- Additionally AES-128 Bit encryption with object specific keys

Bluetooth Low Energy (BLE):

- Communication range: typical 15 m
- Frequency: 2.4 GHz
- Transmission power: < 20 dBm
- Conformity to ETSI EN 300 330

- Key exchange: Curve25519–256 Bit (elliptical curve)
- Encryption: XSALSA20–256 Bit
- Signature / Authentication: Poly1305-128 Bit
- Bluetooth version: 5.0 (≥ Firmwareversion 4.3)

Transponder types:

- All actual DOM transponder types
- Other types or transponder from other suppliers have to be checked

Storage of access authorisations in the device:

- Supported transponders:
  - Mifare DESFire / DESFire EV1 / EV2 2k, 4k, 8k
  - Mifare Classic 1k, 4k
  - Mifare Plus S/X 2k, 4k
  - Mifare Ultralight / Ultralight C

- Storage of maximal 5.000 authorisations in the device
- Identification of the transponders by their UID or by other unique data

Storage of access authorisations on the transponders:

- Supported transponder types:
  - Mifare DESFire EV1 / EV2 2k, 4k, 8k
  - Mifare Classic 1k

- Other data on the transponder:
  - „Blacklist" with blocked transponders
  - Authorisation period, weekly schedule at the device
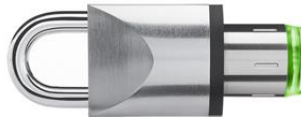
Weekly and day's schedules:

- Storage of max. 256 weekly / day's schedules per device

- Each weekly schedule points to 10 arbitrary day's schedules (7 week days and 3 special days for holidays):

1	2	3	4	5	6	7	8	9	10
Mon	Tue	Wed	Thu	Fri	Sat	Sun	holiday / vacation		
DS1	DS2	DS3	DS4	DS5	DS6	DS7	DS8	DS1	DS2

- Each day's schedule consists of 96 time slots of 15 minutes, in each case definable as authorised or unauthorised:

0^{00}	1^{00}	2^{00}	3^{00}	...	20^{00}	21^{00}	22^{00}	23^{00}

...

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Weekly and day's schedules:	• access rights of the weekly / day's schedules:
	- # 0: no access (unauthorised)
	- # 1: access with no time-limits,
	        active special functions may limit access
	- ## 2-254: freely definable
	- # 255: access with no time-limits,
	        active special functions are ignored

	• Permanent-open and permanent-close weekly schedules • Office function
Holidays:	• Storage of maximum 256 holidays or vacation periods per device • Definition of 3 different kinds of holidays/vacations • Begin / end as from / to date

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