



Strong and reliable, safety with a lot of comfort

With ICS you boost the convenience of your system, can rely on planing and investment security as well as the durability and long service life of the system. ICS is a stable reversible key system that is so powerful that sufficient locking system reserves can be taken into account during the planning stage. ICS is ideal for locking systems with complex structures, e.g. in office buildings, schools or student residences.

ICS offers different locking technologies for high protection: the proven curve system, the durable length profile and the distinctive track system with internal recesses.

The ICS key has increased copy protection and can hardly be copied even with modern 3-D printing processes.

Measurements

- standard shackle height: 32,5 mm
- shackle: Ø 8 mm
- case width: 46,5 mm
- length half cylinder: 32/10 mm

Technical characteristics

- modular design (SYMO)
- the scanning takes place in five tracks through 13 spring-loaded locking elements and the durable length profile
- 2 lateral pin rows with 10 undivided locking pins scan the curves on the key sides
- 1 central row of pins with 3 track pins checks the internal, concealed recesses on the narrow sides of the key
- combination of divided and undivided locking elements
- querying the locking authorisation on the key in four levels
- locking authorisation check at up to 15 key positions and one reversible key profile
- cylinder with drilling protection: hardened HSS steel pins in the cylinder core, hardened steel ball and 1st locking element made of hardened steel
- cylinder with pulling protection due to chrome-nickel connecting axle
- pull-off protection
- picking and scanning protection through specially shaped locking pins
- impact key protection
- certified according to DIN EN 1303:2015 160B0C6D (locking security class 6, attack resistance class 2)
- patent protection until 2029

Execution

- reversible key system
- vertical, easy key insertion
- massive lock body made of TITALIUM™, special aluminium
- cylinder body: brass matt nickel plated, cylinder core: base material brass
- with hardened steel shackle with special NANO protect coating for very high corrosion protection
- key can only be removed when closed, positively locked by locking travel
- shackle locked on both sides
- combination with electronic locking system possible

Options / Special equipment

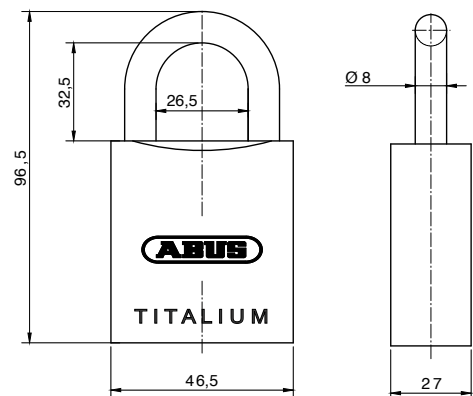
- different shackle height (39,5 mm = 86TI/55)
- 86TI/55: forced closing or automatic locking (depending on the position of the locking cam)
- 86TI/55: forced closure with 45° position of cam, automatic locking with 25° position of cam

Operational area

- indoor, conditionally for outdoor usage, simple doors that are locked with a latch, roller shutters, cabinet systems, barrier fences
- office building, hotels & service stations, residential complexes
- schools, libraries, associations, student residences and nursing homes

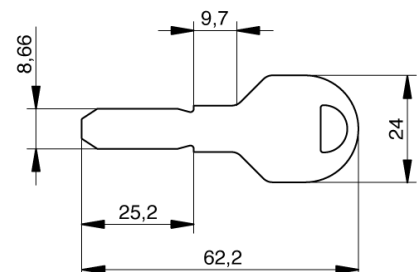
Scope of delivery

- ABUS padlock 86TI/45 with EVVA half cylinder incl. 3 or more keys
- Security card (EVVA)



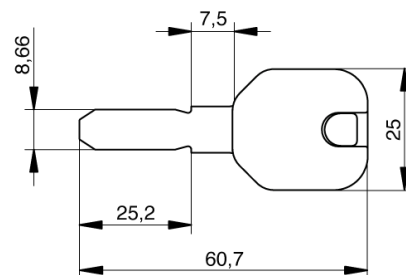
Key

- key thickness: 3 mm
- reversible key made of special resistant nickel silver alloy
- patented concealed curve guidance and optimized curve on the key
- easy key insertion through specially developed key chamfers
- three equally long incisions on the back of the key do not allow any conclusions to be drawn about the depth of the incisions, thus making illegal production of the key almost impossible, even with the most modern 3D printing processes
- high security against decryption
- very resistant, low wear
- high comfort through functional, rounded shape
- optional: ergonomic design key *, key with coloured dot *, key with extended key neck *



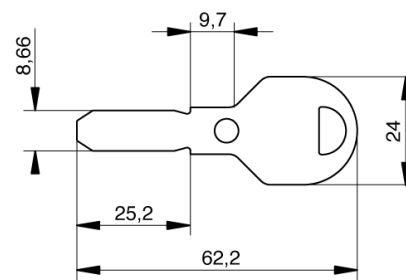
Key with design cap

- colours: black, blue and red, yellow, green and white
- material thickness design cap: 7,2 mm
- plastic caps for special design requirements for the keys
- ergonomic design and high quality for better haptics
- easy optical differentiation
- simple management of locking systems through colour assignment
- consecutive numbering of the key (key with the same locking authorisation receives a consecutive number)
- use exclusively for EVVA keys
- **factory assembly, subsequent opening and retrofitting is not possible**



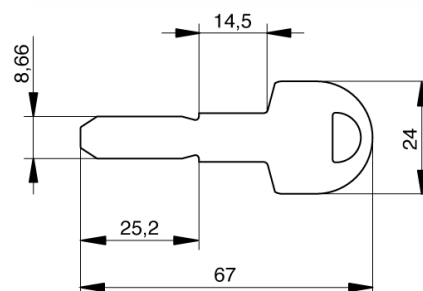
Key with coloured dot

- colours: red, blue, green, yellow, brown, black, violet, pink
- with countersunk colour dot on the key neck
- for optical differentiation
- colour dot may differ from the image on the website



Key with extended key neck

- specially shaped key
- for use with armoured fittings



Technical details

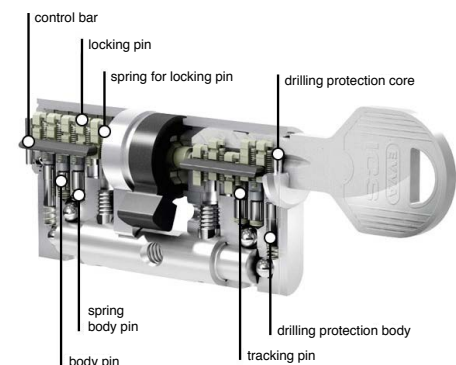
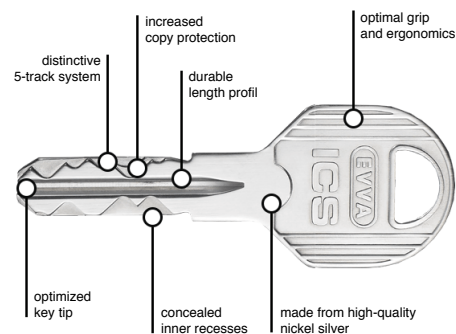
The reversible key system ICS (Inside Code System) offers high protection thanks to the unique combination of three different locking technologies:

- the specially shaped, resistant length profile
- the tried-and-tested curve system that scans the locking authorisation
- The improved pin system: this consists of concealed, internal recesses on the ICS key body - this is unique worldwide! This makes unauthorised key copies almost impossible.
- Security card

The scanning takes place in five tracks through 13 spring-loaded locking elements and the durable length profile, thus ensuring a high level of safety.

The material TITALIUM™

The TITALIUM™ padlocks from security expert ABUS represent a new dimension in security! Manufactured from an innovative material, they stand for high security with a greatly reduced weight. The material TITALIUM™ is based on a light aluminium special alloy, which shines with its strong robustness and lightness at the same time. The special steel shackle is coated with NANO PROTECT™ for very high corrosion protection.



Locking cylinder security

The innovative technologies of the ICS cylinder offer sustainable protection against illegal opening methods:

- **Picking and scanning protection**
Divided and undivided query elements prevent the query positions from being detected. Opening the ICS cylinder with locking tools becomes practically impossible. The fictitious opening positions of the lateral system rows virtually exclude scanning of the ICS cylinder.
- **Drilling protection**
The chrome vanadium elements in the ICS cylinder protect it from destructive opening techniques. Additional security elements offer high resistance to attack.
- **Pulling protection**
The chrome vanadium pins in the cylinder core, together with the steel bar in the Euro profile, provide standard, standard-compliant pulling protection.
- **Impact key protection**
With this complicated opening method, burglar professionals use a so-called impact key to try to bring the query positions in the cylinder into the correct position.

* this selection extends the delivery time