



## MCS half cylinder with ABUS padlock 86TI/45

SKU EV.MCS.HZ.ABUS.VH86TI45

MCS (Magnetic Code System) guarantees triple security through one magnetic and two mechanical codings. The permanent magnetisation holds constantly. The cylinder core contains 8 rotating magnetic rotors to which the 4 magnetic pills of the key are assigned. If is the key from keyway removed, they always assume a different position. Each magnetic pill can be magnetised differently on each side.

MCS is ideal for locking systems with high demands on perfection and security. Especially for objects where highly sensitive and irretrievable valuables have to be protected.

Locking system reserves can already be taken into account when planning the locking system.

### Measurements

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

### Technische Merkmale

- magnetic code system in modular design
- double authorization queries during the locking process
- freely rotating magnetic rotors to which the four magnetic pills of the MCS key are assigned
- 7 additional springless mechanical horizontal locking elements
- mechanical control by a length profile system and positively controlled locking pin detection on both key sides
- carbide drilling protection in core and body
- pulling protection by chrome nickel connecting axle
- breakaway and core pulling protection
- picking and scanning protection
- impact key protection
- certified according to DIN EN 1303:2015 16010C6D
- patent protection until 2035

### Execution

- reversible key system
- vertical, easy key insertion
- high wear resistance
- solid lock body made of TITALIUM™, special aluminium - high security at low weight
- 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 path
- shackle locked on both sides
- combination with electronic locking system possible

### Options / Special equipment

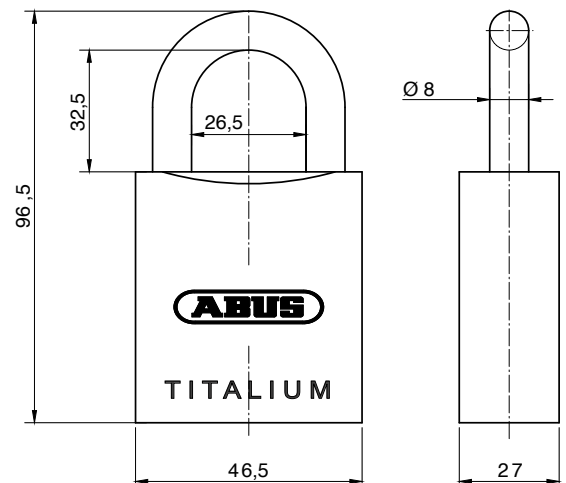
- different shackle height (39,5 mm = 86TI/55)
- 86TI/55: forced closing or automatic locking (depending on the position of the closing cam)
- 86TI/55: forced closure with 45° position of cam, automatic locking with 25° position of cam

### Operational area

- indoor, conditionally for outdoor usage
- simple doors that are locked with a latch
- roller shutters, cabinet systems, barrier fences
- cellar and lattice boxes, sheds, chain lock, etc.
- luxury trade, research institutions
- hospitals, International airports, residences
- office building

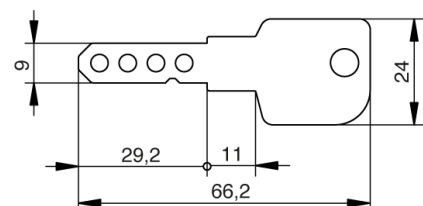
### Scope of delivery

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



### Key

- key thickness: 2,4 mm
- magnetic key made of special resistant nickel silver alloy
- permanent magnets made of samarium-cobalt-5 guarantee a long life
- maximum key copying security
- very resistant, low wear
- optional: ergonomic design key \*, key with colour dot \*



## Technical details

### Magnetic code system - maximum key copying security

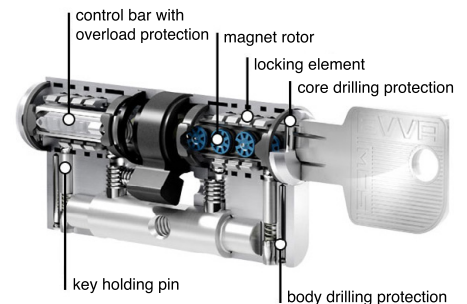
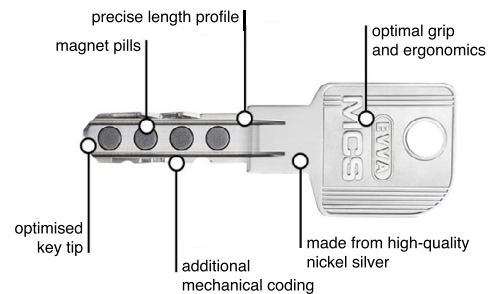
The MCS cylinder contains a total of eight freely rotating magnetic rotors to the left and right of the key channel, to which the four magnetic pills of the MCS key are assigned. When an MCS key with a matching magnetic coding is inserted, all magnetic rotors are brought into the correct locking position. 2 mechanic bars above these assign the locking authorisation.

The mechanical control is carried out by a profile system (length profile) and by a positively controlled locking pin detection on both key sides with manipulation control. The permanent magnets made of Samarium-Cobalt-5 guarantee a long service life and cannot be remagnetized or demagnetized by conventional tools.

The unique magnetic keys guarantee maximum security against key copying. Each lock and each key is unique.

### 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 MCS cylinder offer sustainable protection against illegal opening methods:

- **Picking and scanning protection**

The freely rotating magnetic rotors of the MCS cylinder are spatially separated from the key channel and therefore cannot be scanned or manipulated. This means that it is not possible to scan the magnetic coding in the MCS cylinder.

- **Protection against drilling**

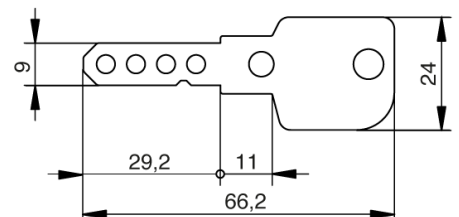
The carbide elements in the MCS cylinder core provide effective protection against drilling.

- **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.

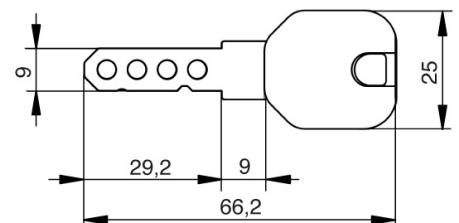
### Key with coloured dot

- 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 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



\* this selection extends the delivery time