

Greater protection and convenience

penta by dormakaba





Do you need more security?

Configure penta according to your requirements

The dormakaba penta reversible key system combines convenient operation and customised protection for your master key system. Its versatility makes it ideal for securing and organising access to any building – not only to family homes and residential complexes but also to public buildings and industrial properties.

Areas of application

- Healthcare
- Office buildings
- Hotels & catering
- Airports
- Banking & insurance
- Education
- Industry & production
- Shopping & retail sector
- Privately owned housing
- Government & administration
- Sport & culture
- Transport & logistics

Your advantages at a glance

- Long-term protection by European patent EP2890856B1*
- High level of security through compliance with relevant standards, for example EN 1303 and DIN 18252
- Certificates according to VdS-B+ and VdS-BZ+
- Technical construction protects against the most common opening methods
- Modular system structure for economic adjustment to new requirements
- Reversible key without sharp edges can be inserted from both sides
- penta cross with additional active element for high copy protection
- Optional security elements and special functions for even higher levels of protection
- Flexible in its use with basic to highly complex master key system types
- Structured planning and organisation of complex master key systems
- Can be combined with electronic access systems from dormakaba

Security combined with convenience

Reversible key and lock cylinder

Ergonomic reversible key –
can be inserted
from both sides

**No sharp corners or
edges –** no tears in
clothes and bags

Robust nickel silver –
for a long service life

High quality clips –
in 12 different colours

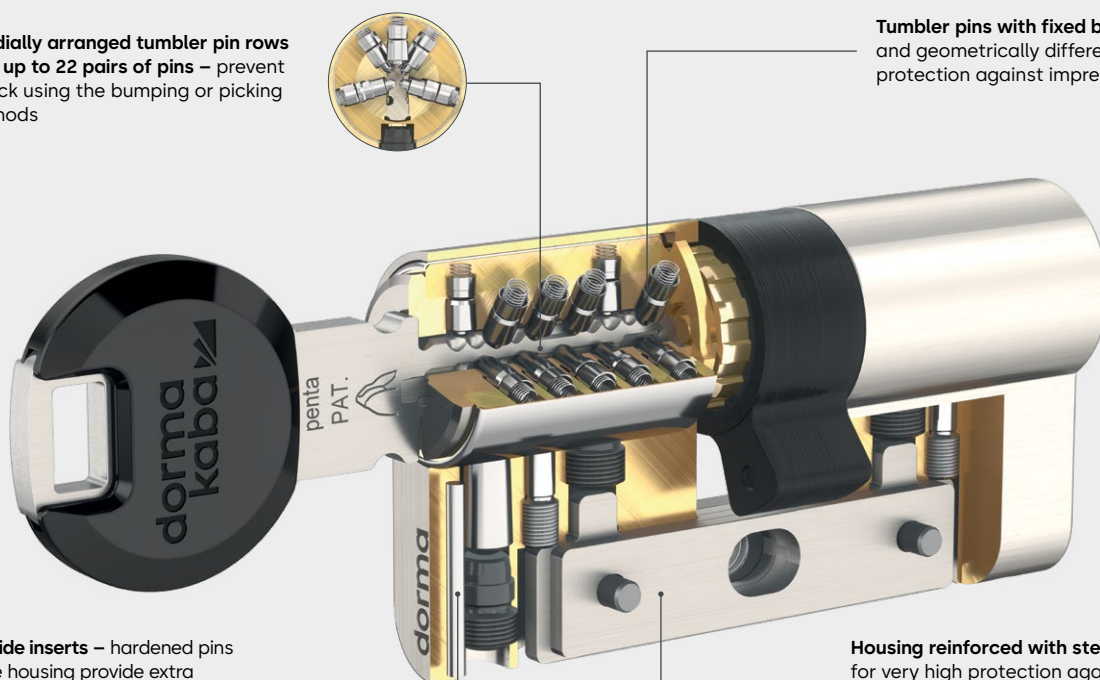
Coded drilling pattern –
the anti-picking positions of the tumbler pin
are not visible on the key

**5 radially arranged tumbler pin rows
with up to 22 pairs of pins –** prevent
attack using the bumping or picking
methods

Tumbler pins with fixed block length –
and geometrically different versions for high
protection against impressioning

Carbide inserts – hardened pins
in the housing provide extra
protection against drilling (optional)

Housing reinforced with steel shims –
for very high protection against pulling
(optional)



All-round protection as standard

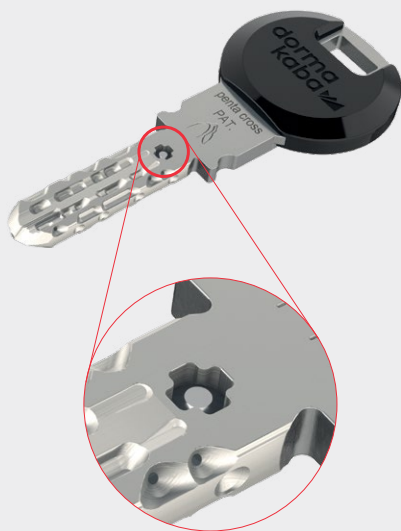
- The high number of undivided pin pairs and the hardened steel materials used protect against the most common opening methods.
- Using the bumping method (Rapido method), to open the lock cylinder is not realistic under real operating conditions.

Even more technical features on request

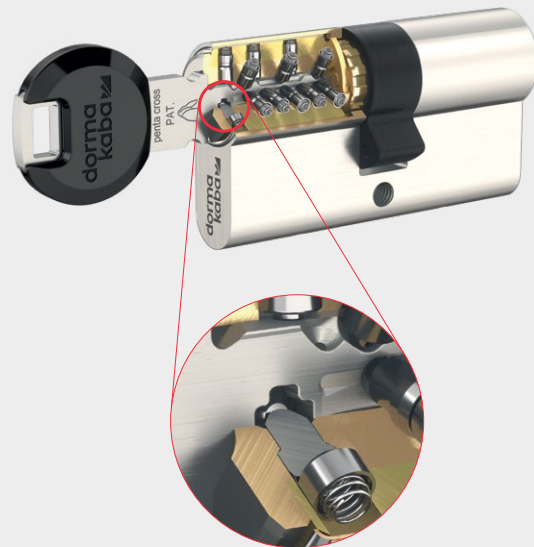
- Depending on the requirements, additional security features, such as steel reinforcement shims, anti-drill or pulling protection, can be selected.
- Dust, insect or weather protection help depending on the installation.
- Different rotary knob variants offer greater convenience (e.g. design thumbturn knob) and coupling functions (e.g. key override from both sides or priority function).

penta cross – copy protection at the highest level

In the penta cross system, there is a cross-shaped recess with a movable active element in the key. When the key is inserted, the movement of the active element is queried by matching security elements in the lock cylinder. The matching lock cylinder can only be opened and closed if the movable active element is present in the key.



Cross-shaped recess with a movable active element



The security elements in the lock cylinder are matched to the movable active element in the key

Our commitment

Security and sustainability



Patent protection

penta is protected by European patent EP2890856B1* - valid until 2033.
penta cross is additionally protected by EP3280854B1* – valid until 2036



Mountain
Peak

Brand protection

Our systems are additionally marked with a logo that is protected as a figurative mark and that makes them easy to identify. This figurative mark symbolises that this is an original key produced by dormakaba. Duplicate keys are exclusively manufactured by dormakaba..

Security card

Every new penta and penta cross master key system and every serial cylinder is supplied with a security card containing all the security information about the system. This is used to manage the master key system data and to identify the owner when ordering key copies.



Standards and certificates

penta and penta cross

- EN 1303 Key Related Security Grade 6 and Attack Resistance Grade D for versions with steel reinforcement in the housing
- Safety standards/Certificates (expanded):
 - DIN 18252 Grade C and D
 - VdS Grade B+ and BZ+ for corresponding special design
- Fire protection: Lock cylinder tested according to EN 1634-1 and EN 1634-2

*Not valid in all countries – see worldwide.
espacenet.com for details

Our Sustainability Commitment

We are committed to foster a sustainable development along our entire value chain in line with our economic, environmental and social responsibilities toward current and future generations.

Sustainability at product level is an important, future-oriented approach in the field of construction. In order to give quantified disclosures of a product's environmental impacts through its entire life cycle, dormakaba provides Environmental Product Declarations (EPDs), in which the results of the life cycle assessment (LCA) are presented. Please download the EPD and read more about our sustainability commitment [here](#) or use the QR code provided.

Environmental product declaration: EPD

- Declaration number: EPD-DOR-20210182-CBA1-EN
- In line with ISO 14025 and EN 15804+A2
- Publisher and declaration holder: Institut Bauen und Umwelt e.V.



You design your master key system

The possibilities are endless

Support with planning

penta and penta cross can be used freely with all master key system types – from the one-key-for-all solution for home use, to large, complex sites with different access authorisations. The basis is a key plan, according to which selected keys can open a series of specific doors. To design the key plan, we examine and evaluate our customers' requirements in detail. This means that you will have better control, save costs incurred by duplicate keys and reduce the total number of keys.

Flexibility with dormakaba keylink

The innovative dormakaba keylink planning method means penta and penta cross locking systems are almost unlimitedly expandable while also guaranteeing a consistently high security standard in all expansion phases. The planning method dormakaba keylink is based on company organisation and access grids. Mechanical access rights can thus be individually planned and changed at any time without replacing lock cylinders in your master key system.

Different applications require different solutions



Private homes



Residential complexes



Office buildings or company sites



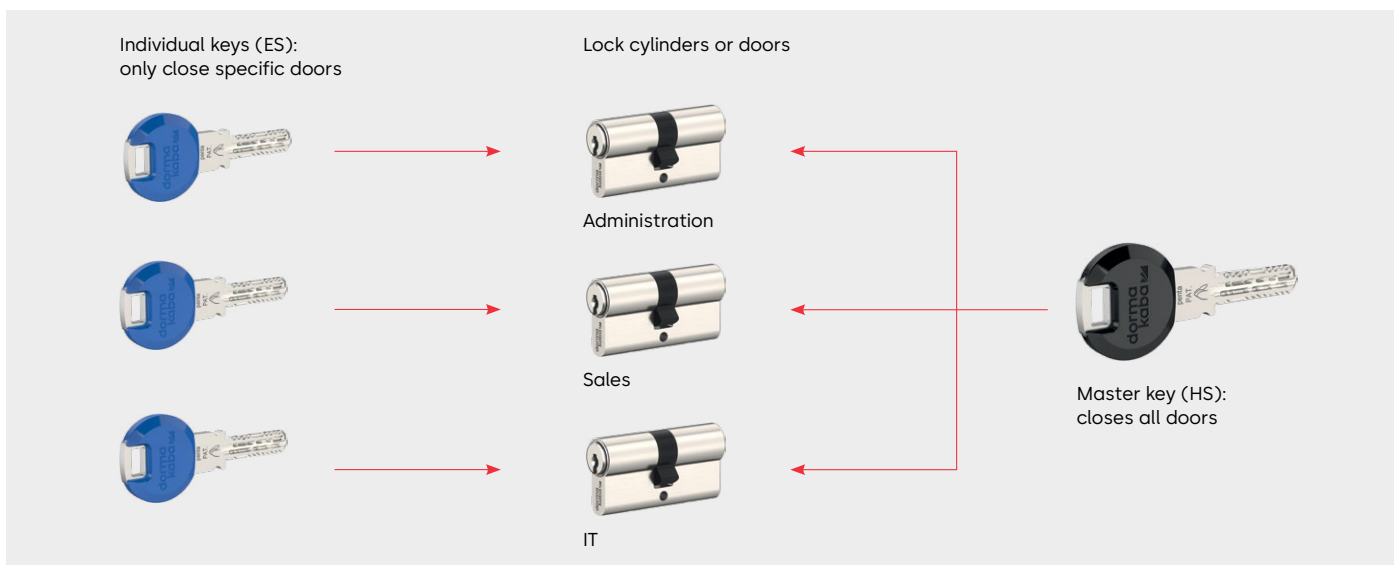
Large and complex facilities or public facilities, e.g. universities or schools

Types of master key systems

Applications and principles

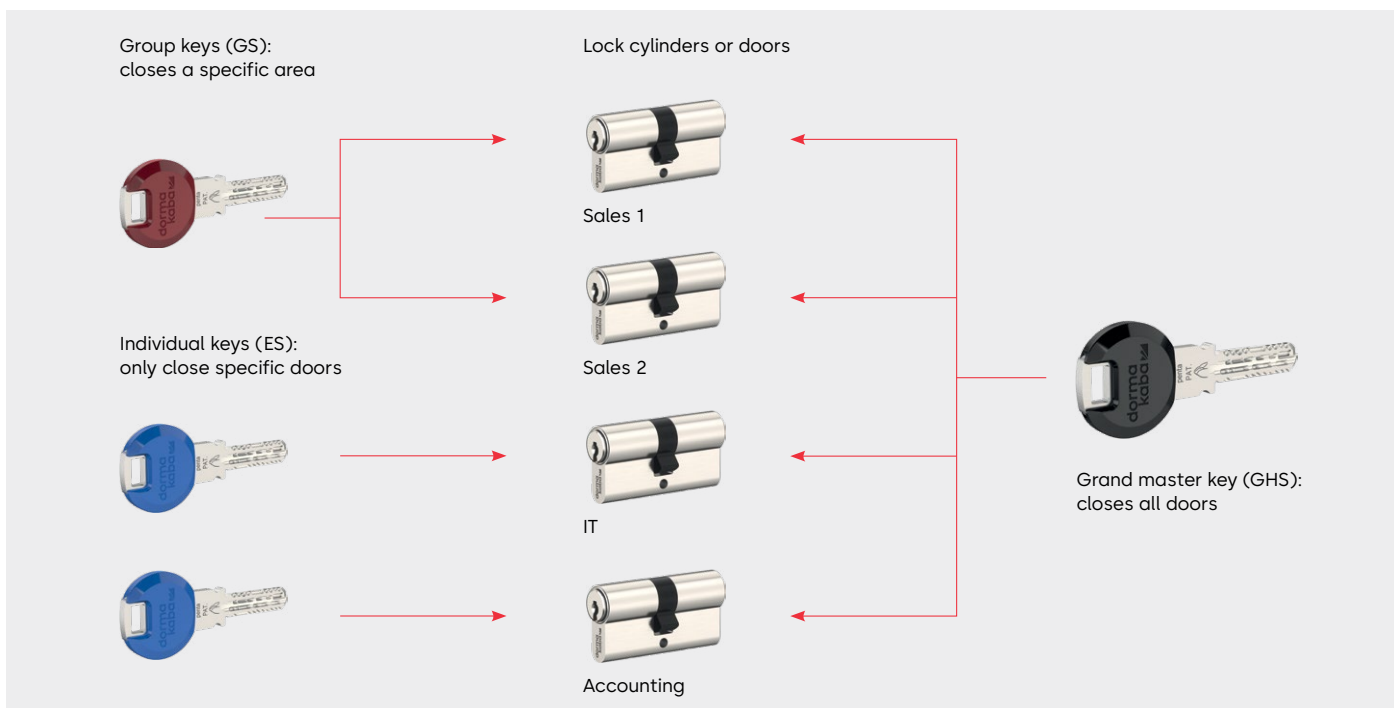
Master key systems

Application: e.g. in office buildings or schools. There are individual closings, but also one or more parent keys (master keys) which lock all cylinders within the system.



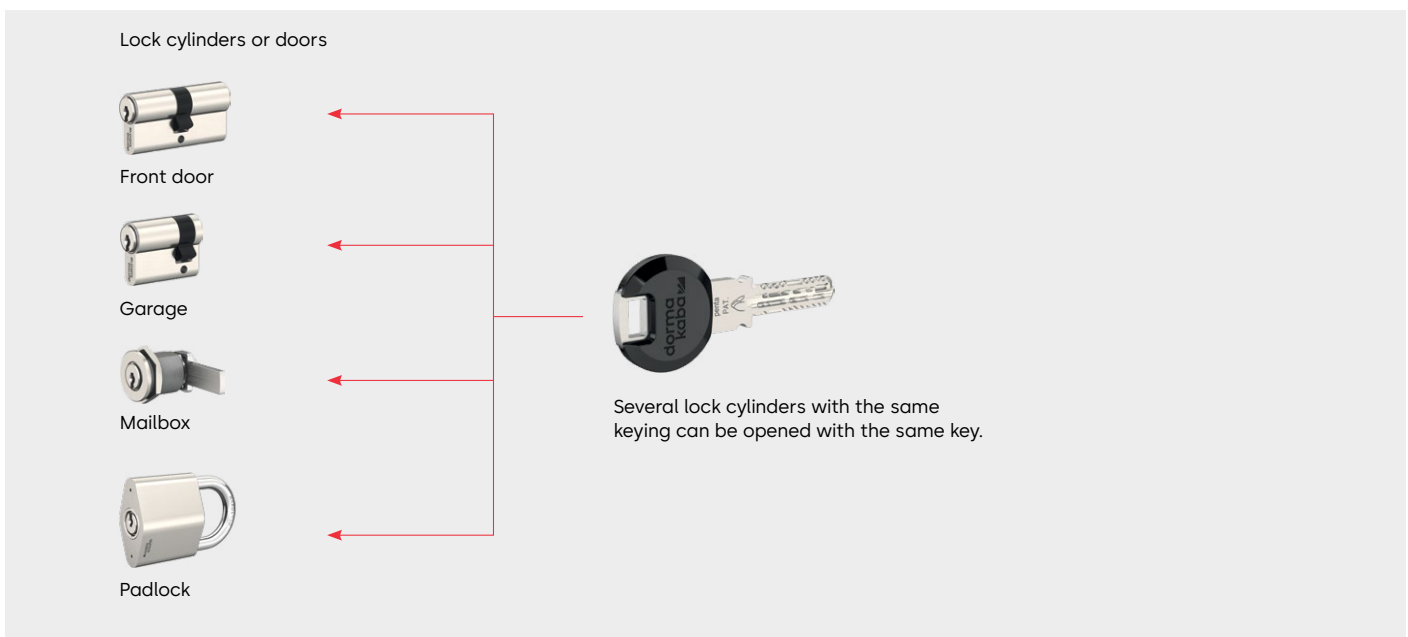
Grand master key systems

Application: e.g. in large office buildings or universities. Here, the functions of a master key system are expanded by the grand master key, additional main group keys and group keys.



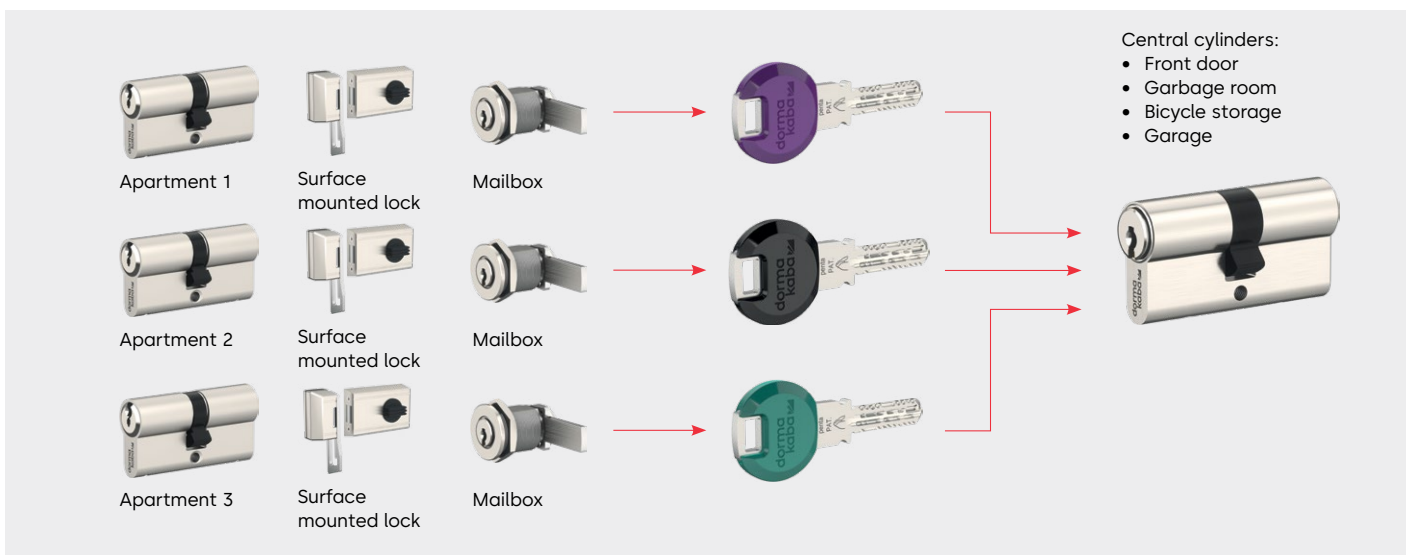
Keyed-alike lock cylinders

Application: e.g. for family homes. All or selected lock cylinders can be locked with the same key. This simplifies handling and reduces the size of the key ring.



Central master key systems

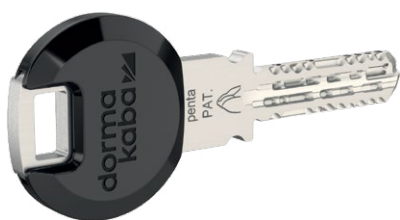
Application: e.g. in residential complexes. Several different individual keys can close central lock cylinders. In addition, there are individual closings, which can each only be closed by one key.



With the special **administrator master key system**, the main areas of several properties (i.e. several locking systems) in different locations can be closed with only one key (administrator key).

Key variety clarity through colour

Select the shape and function of the key



Default key with black clip



Key with Largekey clip



Key with nickel silver long key bow



Key with RFID transponder clip for integration into electronic access control systems

Colours as a visual aid



For the **default key**, there are SmartKey clips in 12 colours.



The **key with a Largekey clip** is available in 12 colours.

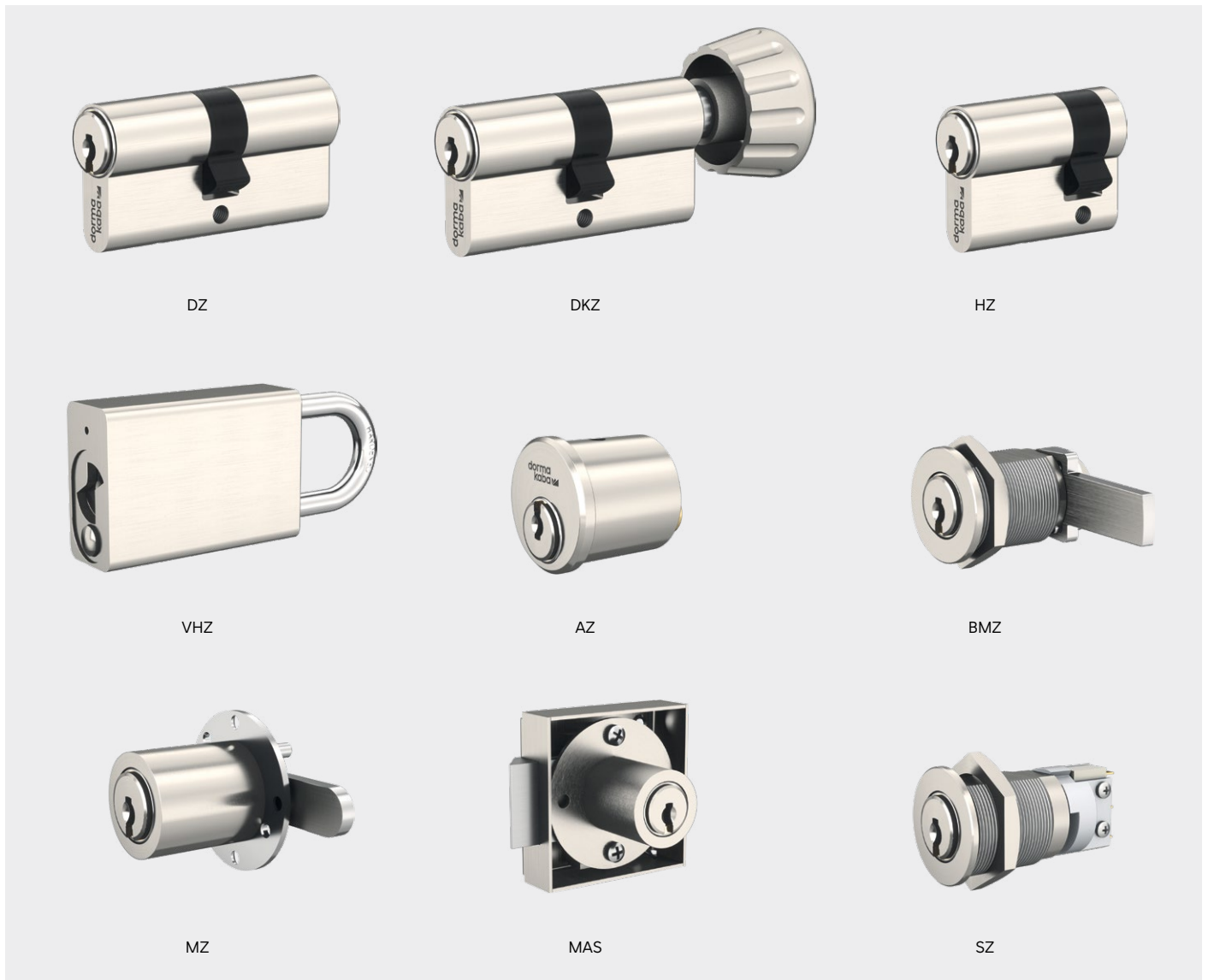


The **RFID transponder clips** have 6 coloured ring elements for easier identification.

Free choice of lock cylinders

The cylinder programme features a wide variety of types to choose from. You can also integrate cylinder for cabinet locks, key-operated switches or lift controls into the system.

Extract Cylinder Lock Types



DZ
Double cylinder

DKZ
Thumbturn cylinder

HZ
Single cylinder

VHZ
Padlocks

AZ
Rim cylinder

BMZ
Camlock

MZ
Cylinder cabinet locks

MAS
Furniture dead lock

SZ
Key Switch cylinder

Lock cylinder finishes

Design and mechanics combined

Since colours and finishes are an important design aspect, our mechanical lock cylinders come in a wide variety of finishes, with nickel-plated and natural brass as standard. The black lock cylinder is included in our range as BKM – black matt and is

based on RAL colour 9005. Depending on your requirements and preferences, different finishes can be combined in one locking system.



- | | | |
|--|---|--------------------------------|
| 01
NI Natural nickel* | 04
NIC Chemically nickel-plated | 07
BM Medium brown |
| 02
MS Natural brass* | 05
CRP Polished chrome | 08
BD Dark brown |
| 03
CR Chrome-plated standard | 06
MP Polished brass | 09
BKM Black matt |

Modular construction

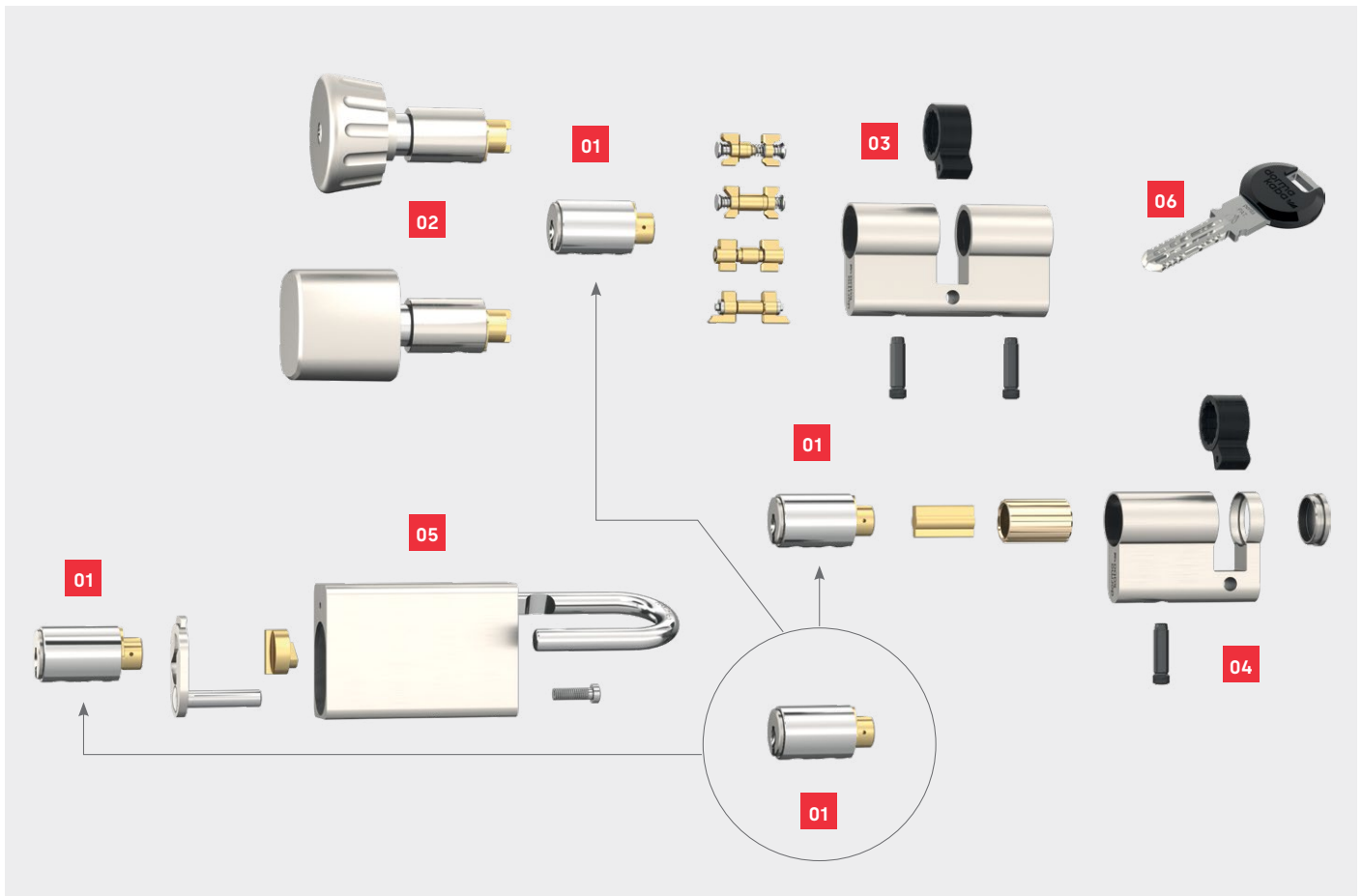
Maximum flexibility

Quick and inexpensive to adapt

penta and penta cross reversible key systems offer high levels of investment protection, even when requirements change over the years. A modular, upward-compatible system structure allows for quick and easy conversion of the lock cylinders to other lengths and types. The existing lock cylinder can be adapted to a new length with little effort, for example for a new entrance door, or can be fitted with an elegant thumbturn knob.

Economically sustainable

The core of the system are modular, interchangeable inserts, which can be used without any problems in all cylinder lock types, for example single cylinders, thumbturn cylinders, rim cylinders, cylinders for cabinet locks, padlocks and camlocks. The combination of different lengths of cylinder housings (complete housings), couplings and cam hubs opens up almost unlimited possibilities for the conversion of a provided access solution.



01

The modular insert contains the locking authorization for the keys and can be integrated into all reversible key cylinder types.

02

A thumbturn knob can be retrofitted very easily.

03

Different lengths of the double cylinder housing enable easy length conversion.

04

Single cylinder with an insert.

05

Padlock with an insert.

06

Key with locking authorization according to the key plan.

Added value for your master key system

Useful special functions

Depending on your requirements, you can supplement your individual solution with one of our numerous special functions. These offer added value in terms of functionality and benefits.

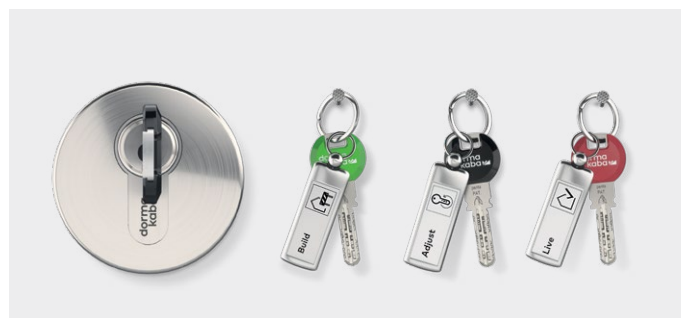
For details, please refer to the **Special functions for reversible key systems** brochure.

Dust and insect protection (SIS)



Dust or insects? Can't get through. The key way is closed by two shims and opened by inserting the key. This provides effective protection against the infiltration of pollution and insects. The SIS unit can be easily retrofitted. All you need to do is replace the cylinder insert.

Construction phase function (BAZ)



Modify access authorisation in a flash? Possible with the 3-in-1 lock cylinder. Using the BAZ cylinder, you can withdraw the access authorization of different keys or key groups simply by means of a conversion key. So, whether you want to withdraw access rights for a particular person or have lost a key, there is no need to change the lock cylinder.

Thermally insulated lock cylinder (TIC)



Cold and damp outside? Everything dry inside. The separation of the outside and inside with plastic components ensures thermal insulation. Condensation cannot form on the inside of the door, even when it is extremely cold. A foam rubber seal on the outside of the lock cylinder protects against drafts and driving rain.

Lock cylinder with key override on both sides (BSZ)



Key left in the lock? Not a problem! The double cylinder makes it possible to unlock the door from the opposite side with an authorised key when a key is inserted on one side and rotated in any direction. The inserted key turns with it. This function is guaranteed to work on both sides of the double cylinder.

Secure and convenient access

penta and penta cross in use



Open for the future at the Universitätsklinikum St. Pölten

For over 50 years, a dormakaba master key system has provided security at the hospital. As part of modernisation works, it was replaced by 9,300 penta lock cylinders. Sliding doors also ensure convenience and barrier-free accessibility. The modular expandability and upward compatibility ensure the system is open to the requirements of tomorrow.



Security on a grand scale for Schwabinger Tor in Munich

High levels of security for the tenants and maximum versatility for the building owner – these were the requirements for the master key system of the urban quarter in Munich-Schwabing. The solution: a penta master key system with a total of around 3,000 mechanical lock cylinders, supplemented with approx. 120 digital cylinders.



Efficient all-round security at the St. Pölten residential complex

680 penta lock cylinders provide security for the users of 185 rented and owner-occupied apartments. For greater energy efficiency, all entrance doors to the apartments are equipped with a thermally insulated lock cylinder (TIC). An administrator locking system offers greater convenience for the property management company, which has access to the general areas in all residential buildings with only one key.

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www.dormakaba.com/sustainability



Our offering

Access Automation Solutions

Entrance Automation
Entrance Security



Access Control Solutions

Electronic Access & Data
Escape and Rescue Systems
Lodging Systems



Access Hardware Solutions

Door Closers
Architectural Hardware
Mechanical Key Systems



Services

Technical Support
Installation and commissioning
Maintenance and Repair



WN 05530151532, 07/2023
Subject to technical modifications.



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