

**DOOR TECHNOLOGY** 



Precision and security – Mechanical and electronic locking systems





## Mechanical and electronic locking systems

Universal and variable





### **Cutting-edge locking systems**

#### The BKS brand

Security has a name, or to be more accurate, it is a brand. BKS GmbH is a member of the Gretsch-Unitas Group. More than a century of experience in manufacturing high-quality locking systems. Ever since the round cylinder was developed in 1938, BKS GmbH has been and remains today one of the leading companies in the field of locking technology and security.

#### Opening and closing

Locking systems from BKS offer individual and tailor-made solutions and are manufactured in accordance with the highest quality standards. By choosing a BKS system, you opt for the most modern locking systems with the most diverse functions and features. You also open up flexible design options for subsequent upgrades.

#### A variety of solutions

Locking systems from BKS offer a variety of solutions for securing individual doors and planning modern master key systems. Convenience and security can be individually designed and economically implemented with the combination of mechanical and electronic locking systems.

#### **Perfect interaction**

Along with the outstanding quality of their mechanical, mechatronic and electronic cylinders, BKS offer a comprehensive range of services in the field of planning, administration and reordering of duplicate or replacement keys and cylinders.





#### **Electronic locking systems**

Refined electronic and mechanical security: the modern, flexible SE electronic locking system meets the highest security demands in sensitive areas such as managing directors' offices or research departments. The locking system sets new standards with its many innovative features, such as highly efficient energy management or simple software-based authorisation allocation. Thanks to the system's especially energy-efficient operation and the little installation effort it requires, you will be on secure ground in terms of costs as well.



#### Reversible key systems

Convenient security: With a reversible key system from BKS you can rely on innovative cylinder technology with built-in operating convenience. From registered key bittings with security card to patent-protected key profiles for master key systems. BKS reversible key systems let you solve almost every application requirement exactly. All systems are protected against bumping as a standard feature and are available with certified drilling/picking protection elements as an option.



#### **Conventional locking systems**

Conventional locking systems work with vertically arranged tumbler rows. Thanks to the large number of variations of indentation depths you can use conventional systems almost everywhere – also in complex master key systems. All locking cylinders offer a standard anti-bump feature and are available optionally as registered locking cylinders with security card.

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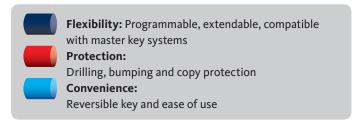
## **Performance ranking**

Mechanical and electronic locking systems



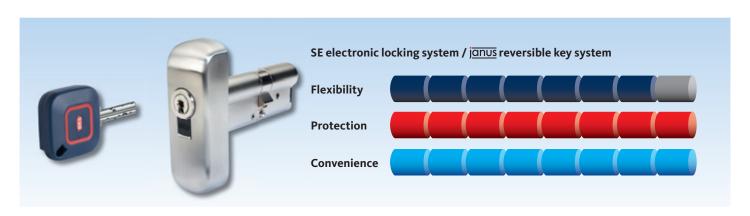
### The performance ranking

Mechanical and electronic locking systems are suitable for many applications. **Convenience, protection** and **flexibility** requirements are met differently, depending on the locking system. The performance ranking offers a quick overview and provides **better orientation** in the product offering.

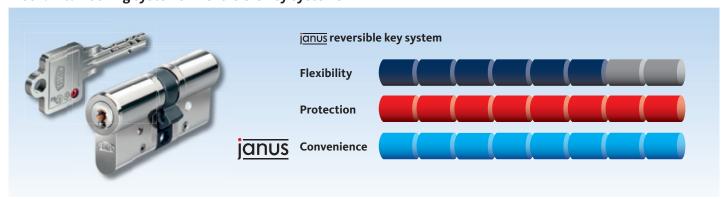


### **Electronic locking systems**



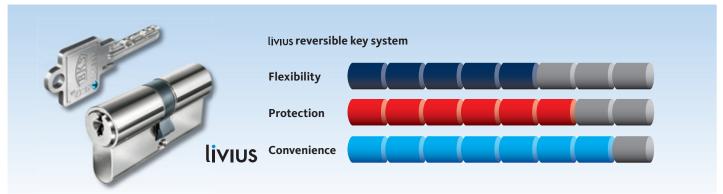


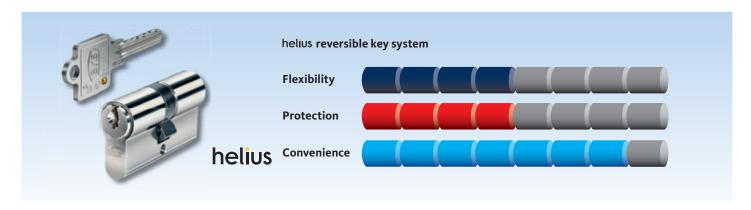
### Mechanical locking systems - reversible key systems



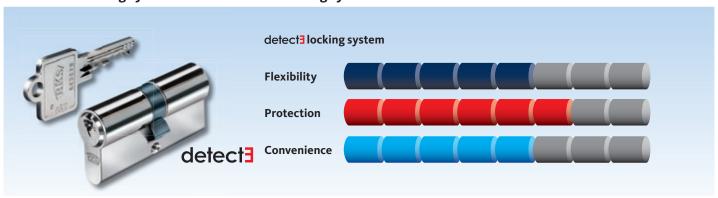


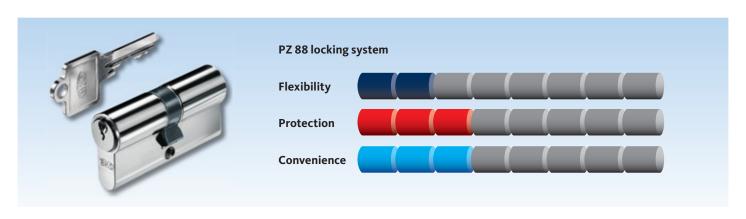
## Mechanical locking systems – reversible key systems





## Mechanical locking systems – conventional locking systems





## **Performance features**

## **Product qualities**



	Electronic locking syste	ems	Mechanical lock	king systems
			Reversible key s	systems
	SE double knob cylinder	<u>janus</u> SE cylinder	<u>janus</u>	livius
Locking variants				
Master key systems				
Keyed-alike cylinders				
Programmable				
Registered key bitting				
Functions				
Standard function				
Emergency function				
Freewheel function				
Short-term release				
Permanent release				
Daytime release				
Standard design				
Cylinder body, nickel-plated brass			•	•
Cylinder body, matt nickel-plated	•			
Anti-bump feature				
Modularly changeable				
Copy protection				
Optional features				
Saltwater-protected				
SL system				
Drilling protection				
Drill/picking protection				
SKG version				
VdS version				
Cylinder with spline shaft				
Performance features				
Patent protection				
Compatible with janus SE cylinders				
Can be ordered through MKS				
Key combinable with SE transponder	•	•		•
Event memory				
Administration via KeyManager				
Programming via KeyManager				
Online-enabled				
Number of locking cycles per standard battery	Up to 350,000	Up to 600,000		
Multi-level battery warning				



	Conventional locking systems	
helius	detect3	PZ 88
•		
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Certified in accordance with DIN EN 1303 – Building hardware – Locking cylinders for locks – Requirements and test methods



Certified in accordance with DIN 18252 – Profile cylinders for door locks – Terms, dimensions, requirements, marking



CE marking



Suitable for use in fire protection doors



Available in SKG version



Available in VdS version



Anti-bump feature



Patent protection



Suitable for use in master key systems



Modular cylinder design



Offline system variant



Online system variant



Data on Transponder system variant



Explosion-protected

## SE electronic locking system

You can save yourself the energy





#### SE knob cylinder

Combining the well-known mechanical qualities of a BKS system with high-performance electronics, the SE knob cylinder is suitable for many different applications within a project. Because SE knob cylinders are available in many different versions, you can implement a convenient and secure access solution for every application.

#### **Environmentally friendly energy consumption**

The highly energy-efficient systems allow for a very high number of locking cycles per standard battery used. This is a decisive criterion for battery-operated systems in the long run, since this keeps operating costs very low.

#### Flexible and perfectly combinable

Electronic SE knob cylinders can be combined with every mechanical master key system from BKS. This is why they are ideally suited for retrofitting.

#### SE double knob panic cylinder

Some panic locks place very high demands on a knob cylinder. The SE double knob panic cylinder is designed precisely for such cases.

#### SE half knob cylinder

With the SE half knob cylinder you can electronically secure key switches, escape door terminals or elevators for optimal access control. The knob is removable as an option for installation in different situations.









SE transponder SE wall reader j<u>anus</u> SE cylinder

Technical data	
Order length, outside	27, 31, 35 ascending in 5mm steps up to 80 mm
Order length, inside	31, 35 ascending in 5mm steps up to 80 mm
Power supply	1 x lithium battery 3V, type CR2
Battery life	SE double knob cylinder: up to 350,000 locking cycles or 10 years standby janus SE cylinder: up to 600,000 locking cycles or 10 years standby
Protection class	IP 54 outside, optionally IP 65 (SE double knob cylinder)
Radio control (optional)	Frequency: 868 MHz
Temperature range	-25 °C to +70 °C, relative humidity: up to 95%, non condensing
Transponder / programming interface	capacitive
Signalling	audible (cylinder) / visual (transponder)

### SE transponder

Regardless of whether you use mechanical, mechatronic or electronic locking cylinders – with an SE transponder from BKS you can lock every type of cylinder of any master key system. The clipon transponder is suitable for the keys of all current BKS master key systems. Furthermore, SE transponders feature a multi-function LED enabling you to conveniently verify the actual access authorisation on a cylinder or its battery status.

#### SE cylinders offer this standard:

- High energy-efficiency
- Large memory for event storage
- Multilevel low-battery alarm
- Freely adjustable coupling duration
- Contactless programming with programming device or via radio
- Upgradable firmware
- Electronics securely accommodated in the interior
- Backup module for external power supply available
- Compatible with mechanical master key systems ideal for upgrades
- Comfortable administration and programming via KeyManager software

#### **SE** access points

Besides the SE double knob cylinder, the electronic SE locking system includes other sensible and useful access points, such as the SE wall reader, the SE lock and the janus SE cylinder. In this way, the control of automated doors can be integrated without difficulty and areas threatened by vandalism can be secured. The SE transponder clip can be employed throughout the building due to its many options for use as a universal medium for access and control.

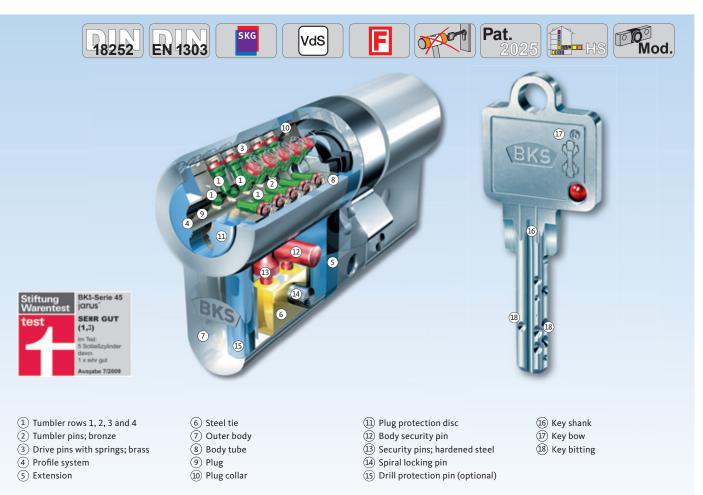
#### SE cylinders offer this optionally:

- Push-button on the interior knob for manual operation without transponder
- Special lengths > 80 mm /80 mm
- Panic version
- Online version with radio module
- VdS variant
- SKG variant
- Half cylinder, if desired with removable knob
- Weather-proof version IP 65
- Explosion protected version (janus SE cylinder)

## janus reversible key system

## High flexibility and future viability





### Reversible key system janus

This is how you meet demanding locking requirements: The janus reversible key system with four tumbler pin rows for the utmost security and unrivaled locking convenience. The modular design allows flexible adaptation of the cylinder length to the particular installation conditions.

#### BKS brand lock technology

The janus reversible key system meets the highest demands with regard to security, functionality and design. Its distinctive feature is the key bow with the red ball.

#### Well-planned fine mechanics

Four variably arranged tumbler rows protect the cylinder plug against tampering. The special key with drilling cavities provides for efficient mechanical copy protection. The modular cylinder design makes it possible to adapt the cylinder length to each particular installation situation. Through the use of functional pins, even complex hierarchies can be implemented in master key systems.

#### Mechatronic janus SE cylinder

Based on our test-winning mechanical cylinder, the janus SE cylinder combines the trusted features of a mechanical cylinder with the convenience of an electronic cylinder. The well-proven janus mechanics is electronically secured. Hardly distinguishable from a purely mechanical cylinder, the SE cylinder is suitable for use in areas where there is a risk of vandalism, for instance in schools. On the inside, the cylinder is protected by its robust rosette. Its remarkably energy-efficient functioning allows for very high cycle numbers per inserted standard battery – a decisive criterion where battery-operated systems are concerned.



## janus









Mechanical locking cylinder

Key with SE transponder clip

Mechatronic janus SE cylinder

Technical data	
Order length (BL)	27, 31, 35 ascending in 5mm steps up to 100 mm
Key bitting	Registered key bitting, master key system
Cylinder cam	Standard, special versions
Emergency function	On both sides from BL 31/31, on one side from BL 27/31
Freewheel function 'FZG'	Optional, from BL 31/31
Drill protection (optional for master key systems)	BZWA, BZWB
Drilling/picking protection (optional)	BZWC, BZWD
DIN 18252	Grade 80, optionally grade 82 (with BZWC)
VdS variant	yes
SKG variant	yes

### Features and benefits of the <u>janus</u> reversible key system:

- Tested according to EN 1303 and DIN 18252
- Bumping protection standard
- Profile cylinder with four tumbler pin rows
- "Sandwich design" for variable cylinder lengths
- Optionally with cylinder body cover made of chromium-nickel
- Keys: high-quality nickel silver
- Patent-protected key profiles only
- Faceplate fixing screw: M5 x 80 mm, nickel-plated steel (optionally brass)
- Suitable for complex master key systems in the industrial
- Suitable for registered key bittings with security card in the private sector

### Features and benefits of the mechatronic janus SE cylinder:

- Double security with mechanical and electronic security
- Battery life up to 600,000 locking cycles
- Combinable with existing janus master key systems (no key exchange required)
- Large memory for event storage
- Multi-level battery warning
- Freely adjustable coupling duration
- Contactless programming with programming device or via radio
- Firmware updates possible
- Electronics securely accommodated in the interior
- Ideally suited for areas threatened by vandalism
- Acoustic signalling

## livius reversible key system

## Modern technology





- ① Body
- 2 Plug
- (3) Tumbler pin; bronze
- 4 Drive pin; cylinder-shaped, brass
- 5 Drive pin; cylinder-shaped with offset, brass
- 6 Drive pin; hardened steel, mushroom-shaped
- (7) Drive pin; mushroom-shaped, brass
- 8 Drive springs
- 9 Coupling
- ① Cylinder cam
- ① Thread hole for fastening screw
- (12) Blocking pin
- 13 Locking bar
- (14) Slider

- 15 Key shank
- 16 Key bow
- (17) Key bitting
- 18 Hollow for blocking pin
- (19) Channel for slider

#### livius reversible key system

The livius reversible key system offers high-quality reversible key technology for registered key applications with security card in small and medium-sized master key systems in the private or industrial sector.

#### **Comfort and functionality**

The locking system has 6 separate pin tumblers standard. The cylinders are suitable for a wide range of applications and are available in a variety of different functions. The key bow with the blue ball gives the system an attractive design. For master key and registered key systems, only protected key profiles are used. For doors with a particularly high risk of burglary, the robust livius reversible key system can be upgraded with a certified drill and pick protection.

#### Rely on double security

The livius reversible key system optionally has a second, independently operating locking system. The locking cylinders thereby feature additional lateral locking elements. The related query mechanisms provide exceptionally high mechanical key duplication protection. By combining cylinders with and without locking bar in master key systems, it is possible to implement different security levels according to requirements. The livius reversible key system comprises all cylinder types that are relevant for use in master key systems and registered key applications with security card.



## livius







Cam cylinder for cupboards and flaps



Padlock for gates and containers

Technical data		
Order length (BL)	31, 35, 40 ascending in 5mm steps up to 95 mm	
Key bitting	Registered key bitting, master key system	
Cylinder cam	Standard, special versions	
Emergency function	On both sides from BL 31/31	
Freewheel function 'FZG'	Optional, from BL 35/35	
Drilling protection (optional)	BSKA, BSKB	
Drilling/picking protection (optional)	BZKB	
DIN 18252	Grade 80, optionally grade 82 (with BZKB)	
VdS variant	no	
SKG variant	yes	

### Standard features of the livius reversible key system:

- Tested according to EN 1303 and DIN 18252
- With bumping protection standard
- 6-pin profile cylinder
- Patented profile series with hidden wavy cutouts
- Cylinder body: nickel-plated brass, matt, polished or bronzed
- Keys: high-quality nickel silver
- Faceplate screw: M5 x 80 mm, nickel-plated steel (optionally brass)
- Key combinable with SE transponder

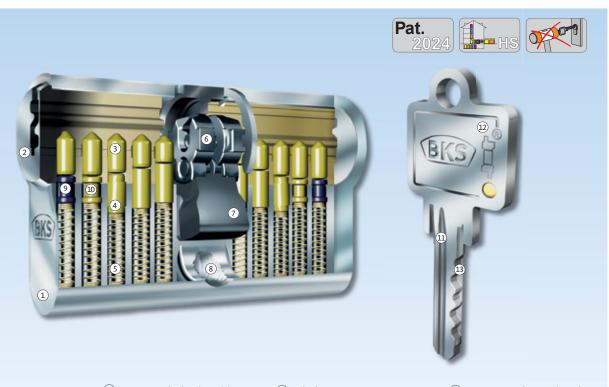
#### Optional features of the livius reversible key system:

- With additional spring-loaded slider, locking pin, and locking bar in the cylinder plug (system SL)
- Cylinder with and without slide lock (system SL) can be combined in master key systems
- The innovative channel for slider in the key ensures exceptionally secure copy protection
- Multiple key bittings through combinations of the locking elements
- Abrasion-resistant plugs
- Cylinders with protection against sea water

## helius reversible key system

## Convenient, inexpensive, secure





- ① Body
- 2 Plug
- 3 Tumbler pin; bronze
- 4 Drive pin; cylinder-shaped, brass
- 5 Drive springs
- 6 Coupling

- 7 Cylinder cam
- 8 Thread hole for fastening screw
- 9 Drive pin, hardened steel, mushroom-shaped
- ① Drive pin, mushroom-shaped, brass
- $\underbrace{\text{11}}_{\text{Key shank}} \text{Key shank}$
- (12) Key bow
- (13) Key bitting

#### helius reversible key system

helius locking cylinders are based on the tried-and-tested single-row pin arrangement and thanks to the reversible key mechanism easy to handle. Additionally the key convinces through an elegant appearance thanks to wavy cutouts and yellow ball. Equipped with emergency function, the cylinder is lockable at any time, even if the key is inserted inside. The cylinder system consists of double cylinders, half cylinders and cylinders with thumbturn in the BKS normal profile.

### Modern technology for your home

helius is the appropriate reversible key system when you want to equip your apartment or private home with a convenient, keyedalike locking, mechanical master key system. You can lock the house entrance door, secondary entrance doors and the garage door using one key only. You have the possibility to set up a small master key system for a multi-occupancy dwelling in which the different keys are allocated to the individual apartments. Irrespective of which variant the consumer selects, the helius system always offers the opportunity for subsequent extensions.



# helius







Double cylinder Half cylinder Cylinder with thumbturn

Technical data	
Order length (BL)	27, 31, 40 ascending in 5mm steps up to 95 mm
Key bitting	Standard key, registered key, master key system*
Cylinder cam	Standard
Emergency function	On both sides from BL 31/31, on one side from BL 27/31
* Central cylinder systems and master key systems	

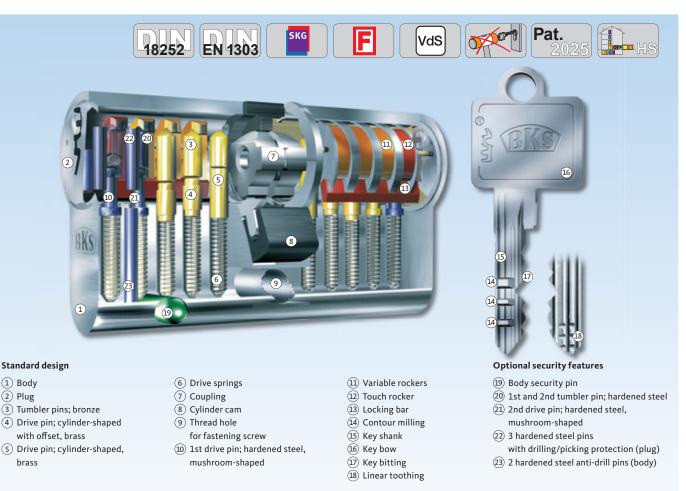
## Features and benefits of the helius reversible key system:

- Bumping protection standard
- All cylinders with anti-drill plate
- 5-pin profile cylinder with reversible key mechanism
- Keys with patent protection
- Cylinder body: nickel-plated brass
- Keys: high-quality nickel silver
- Faceplate screw: M5 x 80 mm, nickel-plated steel
- Key combinable with SE transponder

## detect3 locking system

## **Proven capability**





#### detect3 locking system

1 Body

2 Plug

Regardless of whether in the private or industrial sector - with the conventional detect3 locking system as standard system you are always on the safe side. With reliable and versatile-use locking cylinders for the entire range of applications.

#### Comprehensive cylinder programme

The conventional locking system detect3 is the flexible solution if you want to implement registered key bittings and master key systems with high security requirements. Besides double cylinders and half cylinders, the comprehensive cylinder range comprises many additional cylinder types for use in master key systems. For example, cam cylinders with different rotational travels, switching cylinders, padlocks, rim cylinders for rim locks. The protected profile series ensures a high duplication security for cylinders in master key systems and registered key bittings. Keys and cylinders with additional mechanical duplication protection are available as an option.

#### Safety requirements answered twice

The optional version of detect3 locking cylinders in the SL system offers the highest unlocking security. This is ensured through additional lateral locking elements in the cylinder. At the same time, the query mechanism offers high mechanical key duplication protection for the related key. Depending on requirements, 5- or 6-pin versions are available. Cylinders with and without locking bar can be combined, which enables you to set up different security levels within one installation. All cylinders feature lock bumping protection standard and can be fitted with certified drilling/ picking protection elements as an option.



## detect3



Mechanical locking cylinder



Rim cylinder for face-fixed additional locking devices



Double cylinder with disengageable thumbturn (ideal for classroom doors)

Taskedeel dear	
Technical data	
Order length (BL) / 5 pins	27, 31, 35 ascending in 5mm steps up to 95 mm
Order length (BL) / 6 pins	31, 35, 40 ascending in 5mm steps up to 95 mm
Key bitting	Registered key bitting, master key system
Cylinder cam	Standard, special versions
Emergency function	On both sides from BL 31/31, on one side from BL 27/31
Freewheel function 'FZG'	Optional, from BL 31/31
Drilling protection (optional)	BSKA (only without locking bar), BSKB
Drilling/picking protection (optional)	BZKB
DIN 18252 / 5 pins	Grade 70, optionally grade 71 (with BZKB)
DIN 18252 / 6 pins	Grade 80, optionally grade 82 (with BZKB)
VdS variant	yes
SKG variant	yes

### Standard features of the detect∃ locking system:

- Tested according to EN 1303 and DIN 18252
- Bumping protection standard
- 5-pin profile cylinder
- Cylinder body: nickel-plated brass, matt, polished or bronzed
- Keys: high-quality nickel silver
- Faceplate screw: M5 x 80 mm, nickel-plated steel (optionally brass)
- Key combinable with SE transponder

### Optional features of the detect∃ locking system:

- Additional locking bar and four spring-loaded locking elements in the cylinder plug (system SL)
- Cylinders with and without locking bar (system SL) can be combined in master key systems
- Lateral indentation on the key for high copy protection
- 6-pin profile cylinders
- Abrasion-resistant plugs
- Cylinders with protection against sea water

## PZ 88 locking system

### The standard





① Drive pin; hardened steel,

mushroom-shaped

(13) Key bow

(14) Key bitting

PZ 88 locking system

3 Tumbler pins; bronze4 Drive pin; cylinder-shaped,

brass

The PZ 88 profile cylinder is our standard product within the mechanical cylinder range. The cylinder series offers the most common cylinder types for single-key or keyed-alike locking without security card.

#### The basis for cost-effective security

Apart from double cylinders, half cylinders and cylinders with thumbturn, the PZ 88 series comprises padlocks and rim locks in the BKS normal profile. Locking cylinders of this series are used for single-key or keyed-alike locking without security card. They come with optional emergency function on one or on both sides.

6 Drive springs

8 Cylinder cam

7 Coupling









PZ 88 profile cylinder

Double cylinder with turn

Profile half cylinder

Technical data	
Order length (BL)	27, 31, 35 ascending in 5mm steps up to 80 mm
Key bitting	Standard locking, keyed-alike locking
Cylinder cam	Standard
Emergency function (optional)	On both sides from BL 31/31, on one side from BL 27/31
Freewheel function 'FZG'	no
Drilling protection (optional)	BSKA
DIN 18252	Grade 70
VdS variant	no
SKG variant	yes

## Features and benefits of the PZ 88 locking system:

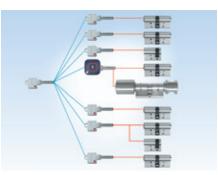
- Tested according to EN 1303 and DIN 18252
- With bumping protection standard
- 5-pin profile cylinder with paracentric key profile
- Cylinder body: nickel-plated brass or matt brass
- Key: nickel-plated steel
- Faceplate screw: M5 x 80 mm, nickel-plated steel
- Key coding for easy ordering of duplicate keys

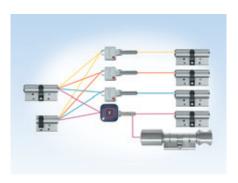
## Master key system software

Everything at a glance - managing and programming

## BKS









### **BKS KeyManager**

The demands on software solutions for management and programming of the locking cylinders and keys in master key systems have risen greatly with increased use of electronic locking systems as well as additional flexible access points, such as wall readers. The software does full justice to the trend of combining mechanical, mechatronic and electronic cylinders in one costeffective overall system: all cylinders, whether electronic or mechanical, can be managed with one software. If purely mechanical systems are managed at first, the KeyManager can be adapted optimally to the respective needs, thanks to graduated software packages. The options in the KeyManager for addition of electronic and mechatronic locking cylinders to the master key system can be expanded without difficulty at any time.

### Features and benefits of the BKS KeyManager:

- Comprehensive administration of mechanical, mechatronic and electronic cylinders and wall readers with one user interface
- Display and printing of mechanical and electronic access authorisations
- Easy programming through a locking scheme matrix
- Programming of the cylinders, from simple YES/NO programming to time-controlled authorisation or special functions
- Data transmission to the electronic cylinders, either offline by means of the programming device, data on transponder (virtual networking), or online via network and radio control
- Event query
- Networkable (client/server application)

## **Support and service**

Comprehensibly simple – plan and order





#### MKS MasterKeySystem

Online processing ensures error-free data transmission, reduced material planning expense, shortened procurement times and constant updating of the entire system, around the clock, 7 days a week. MKS is the internet-based planning and ordering platform for master key systems. A number of useful functionalities make it easier to work out the entire master key system and then ensure trouble-free processing of your order. Together with the mobile security card reader, MKS offers unique advantages in extending existing systems and reordering keys and cylinders.

## Features and benefits of MKS:

- Planning and ordering of master key systems with mechanical, mechatronic and electronic locking cylinders
- Extensions of existing systems
- Ordering of registered key bittings
- Reordering of keys and cylinders
- Key combination records for download
- Master key data system for use in the BKS KeyManager (version 3.0 and higher)
- Key identification
- Plausibility check

# Advanced ordering of additional cylinders and duplicate keys

The mobile security card reader is a full-featured replacement for the commonly used order slip imprinters and in addition offers decisive cost and time savings: It works faster, is mobile, works independently of the PC and also saves unnecessary costs. Security cards can be read directly on site or in the lock and security equipment store. The data records are stored in the device and can be used at a later time for reordering and extension of master key systems and registered key bittings through the MKS.

#### The mobile security card reader offers all this:

- Reading of security cards for master key systems and registered key bittings
- Storage of the read-in data records
- Transfer of the data records to the MKS
- Costs for order slip procurement eliminated
- Costs for mailing eliminated

## Notes







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