### **Locking systems – our speciality**

Core element of our product range are locking systems. Generally speaking, a locking system comprises a number of different cylinders that can be operated by one or several higher-order keys or a system including central cylinders (e.g. entrance doors of buildings) that can be operated by a number of different keys (e.g. the keys to the individual apartment doors).

Four aspects must be considered when designing a locking system:

#### Security

Absolute key control: key blanks are not available in the trade. Additional keys can only be ordered upon presentation of the security card. This prevents any unauthorized duplication of keys. The clear allocation of individual keys to defined persons significantly enhances the security.

#### Convenience

Instead of many keys, only one key is needed for all doors that a given person is permitted to open.

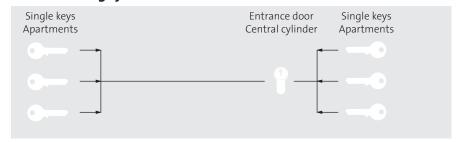
#### **Organization**

A locking system can also be used to design processes within an organization. The corporate hierarchy can thus be translated into access authorizations.

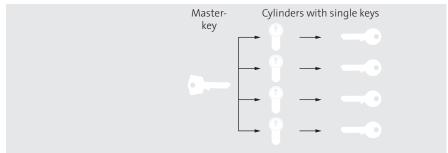
#### **Electronics**

Particularly sensitive areas call for electronic security solutions. The electronic components supplied by CES can be integrated in the mechanical locking systems.

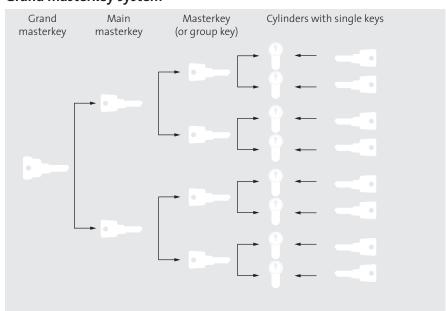
#### Central locking system



#### Masterkey system



#### **Grand masterkey system**



## Locking systems – our speciality

The following table shows how to order the requested cylinders.

# 3





### For example\* **Key section series**

SP	5-pin cylinder
KM	5-pin cylinder
WZ	5-pin cylinder
WM	5-pin cylinder

810 SP5 810 KM5 810 WZ5 810 WM5

851 1/2 SP5 851 1/2 KM5 851 1/2 WZ5 851 1/2 WM5

815 SP5 815 KM5 815 WZ5 815 WM5

**Order Specifications** 

double cylinder
art. no. 810
length inside
length outside
finish

number of keys option antidrilling/antipulling protection half cylinder art. no. 851 1/2 ... length

finish

number of keys option antidrilling/antipulling protection knob cylinder art. no. 815 ... length knobside length keyside cylinder finish knob shape/finish number of keys option antidrilling/antipulling protection

The following table shows how to order the requested cylinders.







For example\*

#### **Key section series**

SP	5-pin cylinder
KM	5-pin cylinder
WZ	5-pin cylinder
WM	5-pin cylinder

215N SP5	
215N KM5	
215N WZ5	
215N WM5	

5558/30 SP5
5558/30 KM5
5558/30 WZ5
5558/30 WM5

30	SP5
30	KM5
30	WZ5
30	WM5

**Order Specifications** 

pad lock art. no. 215N ... shackle height number of keys cam cylinder art. no. 5558/30 ... closing direction number of keys

rim cylinder art. no. 30 ... finish number of keys

<sup>\* 6-</sup> and 7-pin cylinders accordingly, further cylinder types available, see pages 24-29

### **CES profile cylinders**

### Special equipment

#### **Cylinder finishes**

#### Solid brass -

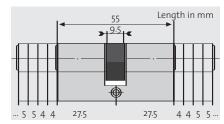
- satin nickel plated
- brass polished
- polished chrome plated
- satin chromium plated
- bronzed
- polished gold plated
- PVD coated
- stainless steel finish

Additional finishes on demand.

### Special equipment for cylinders

- Janitor function for double cylinders (810/59):
   Higher-order key operates bolt and latch.
   Single key operates the latch only.
- Sliding clutch for knob cylinder (815/60): Cylinder can even be locked with a key from the outside when the knob is blocked.
- Wear resistant cylinders.

#### **Cylinder lengths**



A/mm	B/mm	Total length
27.5	27.5	55
27.5	31.5	59
27.5	35.5	63
31.5	31.5	63
31.5	35.5	67
35.5	35.5	71
35.5	40.5	76
31.5	45.5	77
35.5	45.5	81
40.5	40.5	81
40.5	45.5	86
45.5	45.5	91
	•••	•••

Further lengths are possible. Maximum total length: 151 mm.

#### **Choice of knob shapes**

#### **CES knob H**

- aluminium anodized, different colours available
- stainless steel
- solid brass, polished
- solid brass, polished chrome plated
- solid brass, satin chrome plated
- solid brass, dark bronzed
- solid brass, polished gold plated
- solid brass, PVD coated

#### **CES knob S**

aluminium anodized, different colours available









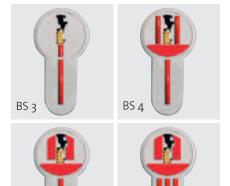
#### **CES knob E**

aluminium anodized, different colours available

### Antidrilling and antipulling protection

To prevent forcible opening of doors in high-risk areas, several highly effective anti-drilling (BS<sub>3</sub>, BS<sub>4</sub>) protection and antidrilling/antipulling (BZ<sub>1</sub>, BZ<sub>2</sub>) protection are available.

CES also offers effective solutions to foil picking attempts, including picking by the socalled percussion method.



BZ 1

#### CES knob CR

- solid brass, polished
- solid brass, satin nickel plated
- solid brass, polished chrome plated
- solid brass, satin chrome plated
- solid brass, bronzed
- solid brass, polished gold plated
- solid brass, PVD coated

CES offers for various demands different key section series. Conventional systems and systems with reversible key. Patent protected key section series and key section series with unlimited protection of trademark.

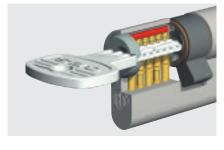
#### General design

- basic lengths
   5-pin cylinder 27.5 mm/27.5 mm
   6-pin cylinder 31.5 mm/31.5 mm
   7-pin cylinder 35.5 mm/35.5 mm
   extension in 4/5 mm increments
- different finishes available, see page 17
- different knobs with different materials and finishes available, see page 17
- for quality reasons within key systems we generally deliver keys of nickel silver
- anti-drilling/anti-pulling protection available, see page 17



### SP

conventional patent protected wide range of variations 5-, 6- or 7-pin key system



#### WZ

reversible key up to 19 locking elements patent protected wide range of variations 5-pin key system



KM

conventional, **trademark protected** wide range of variations 5-, 6- or 7-pin key system



#### WM

reversible key **trademark protected**up to 25 locking elements
wide range of variations
5-, 6- or 7-pin key system





### **CES** high security

### profile cylinders



CES high security profile cylinders were specially designed for access to private housing, shops and small-size offices. Most important criteria were security and locking convenience.

#### Security

Special hard metal inserts in the housing and the core of the cylinder provide a reliable protection against drilling and pulling. Special anti-picking devices prevent from illegal opening.

High security cylinders are delivered generally in a special key section. As no keyblanks of these are existing on the market, duplicate or spare keys can only be obtained from authorized dealers against presentation of the security card.

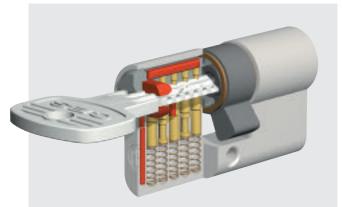
The double cylinders are equipped generally with emergency function (although if a key is inserted from the inside, the cylinder can be operated from the outside).

#### Locking convenience - one key for all

With CES security cylinders you can equip an entire house so that virtually all doors can be opened with the same key. Therefore CES offers the security cylinders also in keyed alike versions and different types of cylinders such as double-, half-, knob- and cam cylinder as well as padlock and rim lock with outside cylinder.

#### **Changeable key locking (optional)**

The scope of supply for this optional version includes a second key set and an additional security card. In case of a key loss the key locking can be changed easily by using the second key set. After one turn with the key of the second key set the key locking will be changed and the original keys will not operate any more.



### Reversible profile cylinder 910 WR VdS certified cylinder

High-end product in terms of security and comfort.

As many as 17 locking elements prevent any unauthorized operation. Perfectly placed hard metal inserts make a forcible opening of the cylinder virtually impossible.

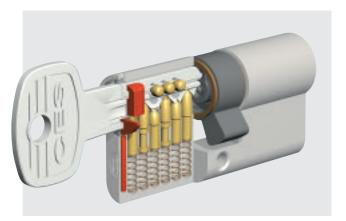
Complete with effective antipicking protection.



- basic length 55 mm, extension in 4/5 mm increments
- up to 17 locking elements
- special key section, emergency function
- antidrilling and antipulling protection
- satin nickel plated finish (glass bead blast)
- 5 nickel silver keys including purse key
- security card and maintenance/installation instructions
- delivered in a sealed plastic box





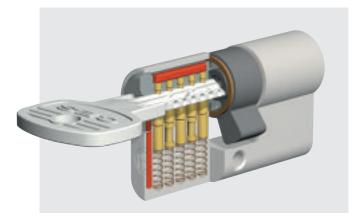


# Conventional profile cylinder 810 RE 5/6

5- or 6-pin tumblers respectively, and 3 lateral control pins ensure highest locking accuracy. With its high-quality antidrilling and antipulling protection (with VdS approval), this is a first class security cylinder. This was also confirmed by the German testing foundation Stiftung Warentest, which in August 2003 awarded the 810 RE 5 cylinder a "SEHR GUT" (Excellent) rating.

- basic length 55 mm, extension in 4/5 mm increments
- up to 9 locking elements
- special key section, emergency function
- antidrilling and antipulling protection with VdS approval
- satin nickel plated finish (glass bead blast)
- 5 nickel silver keys including purse key
- security card and maintenance/installation instructions
- delivered in a sealed plastic box





#### Reversible profile cylinder 810 WP

Total security can be affordable, as our entry-level product in the top security class demonstrates. With up to 11 locking elements and an effective antidrilling protection, it meets all requirements of a security cylinder.



- up to 11 locking elements
- emergency function
- antidrilling protection
- satin nickel plated finish (glass bead blast)
- 3 nickel silver keys, security card
- delivered in a sturdy package







