CES System WD

Locking system with technical duplication protection for industrial buildings

Vertical reversible key system
System description

The new CES system WD is a patented, vertical reversible key system with high locking precision. The system is designed to allow mapping and meeting the functional requirements of large and complex master key and grand master key locking systems.

Especially designed for upscale industrial buildings, this system satisfies the complex requirements of a building on organization, convenience, economic efficiency and of course security.

The WD system not only includes technical features which offer protection against unauthorized key duplication, manipulation and attacks but also legal security as the key geometry enjoys patent protection. The combination of legal and technical protection against illegal duplication ensures the long-term protection of the operator’s investment.

An effective technical duplication protection against unauthorized key copying is provided by the actively scanned double undercut in the key section. Due to this undercut, the key cannot be copied with traditional key copying machines because these only operate in two dimensions. A spring-loaded, lateral scanning pin performs a security scan to verify that the key section has the profile rib with the undercut. The standard version already has impact protection.

The reversible key system has a multi-paracentric profile and offers effective protection against picking tools. Different profile variants allow an effective separation of functional sections. Unauthorized keys cannot be inserted into the locking cylinder in the first place.

1. Active locking bar with enlarged effective locking area
2. Active locking elements on the second level
3. Multi-paracentric key section as protection against picking
4. Anti-drilling and anti-pulling protection in plug and case (optional)
5. Pin tumblers (spring-loaded)
6. Optimized key tip for precise and comfortable guiding of the key
7. Technical duplication protection by actively scanned double undercut
8. Actively scanned lateral encoding
9. Handy key with a good feel
10. High-quality look
The WD system pursuant to DIN 18252/EN 1303

Optimum locking security
The WD locking system has 5 or 6 pin tumblers on each cylinder side and a second level offset by 90° comprising 6 active locking elements. Up to 4 horizontally-guided scanning pins in the cylinder plug scan the dimples of the lateral encoding in the key section. Via a 90° deflection of the direction of movement, spring-loaded actuating elements are vertically aligned and, if an authorized key is used, provide space for the movement of the locking bar.

Integrated basic protection against drilling
All cylinders of the WD system have integrated basic protection against drilling already in the standard version. Drilling is impeded due to the use of different materials, such as hardened steel for key and driver pins. At least one driver pin and all key pins are made of hardened steel. Stepped locking pins which tilt in the event of a drilling attempt prevent the opening of the cylinder.

Locking bar technology
The locking area is multiplied by the locking bar used in this system.

Strong nickel-silver key
The key developed by a product designer appeals through its well-balanced styling and by the convenience of its use. The shaping of the key tip and the cut geometry ensure easy insertion of the key. The vertical key guidance is in line with the usual locking behaviour. Thanks to the large key head, higher torques can be transferred. Hence, this locking system is especially suitable for installation in modern doors with high thermal insulation or for use by people with limited hand mobility. The key shank is at least 14 mm long and perfectly suited for commercial handle sets with cylinder covering.

Security card
Replacement orders and extensions are only possible from CES if the security card supplied with the locking system is presented.
Accessories and special equipment

- **Modular system possible**  
  Profile cylinders belonging to the WD system are also available in modular design. This means that – if necessary – the length of the cylinders can be adapted to the thickness of the door on site, saving both time and money.

- **Additional anti-drilling and anti-pulling protection**  
  For applications in particularly security-relevant areas, the cylinders can be equipped with additional pins and plates in the case and on the cylinder plug face made of hardened steel.

- **Double, half and knob cylinders (nos. 910, 9710, 951 ½, 915)**  
  are also available as VdS certified cylinders of the BZ class.

- **Registered individual locking function (RW profile)**  
  Locking cylinders with individual locking function pursuant to VdS 2156-1, with BZ+ classification, suitable for use for switchgear of burglary alarm systems.

- **Seawater resistant**

- **Wear-resistant version**

- **Colours**  
  Cylinders are available in a wide range of colours. Upon request, cylinder halves in modular design can also be supplied in different colours.

- **Furniture and special cylinders**  
  The WS locking system is also suitable for furniture and special cylinders from the CES range.

- **Electronic access solutions**  
  WD cylinders are compatible with all electronic locking systems available from CES.

- **Accessories**  
  Locking system management software portier®vision
Selection of DIN 18252/EN 1303 compliant designs

Profile double cylinder no. 810 WD
Brass, satin nickel-plated

Profile double cylinder no. 8710 WD
With emergency and danger function
Brass, satin nickel-plated
Locking on both sides

Free-running profile double cylinder No. 8710F WD
for multipoint locks with panic function
Brass, satin nickel-plated

Key section half cylinder no. 851 ½ WD
Brass, satin nickel-plated
Cam adjustable in 12 positions

Profile knob cylinder no. 815 WD
Brass, satin nickel-plated
Locking function on one side, aluminum knob on the other side, F1, various knob shapes available (figure shows shape H)

Cam cylinder no. 5558/30 WD
Brass, polished nickel-plated
Locking movement 90°
Locking direction as desired
Fitting dimension 25 mm

Padlock no. 215 N/58 WD
Stainless steel shackle
Case width 58 mm, height 50 mm
Key removable without locking
Shackle clearance 35 mm (standard)

Double cylinder, Swiss profile no. 610 WD
Brass, satin nickel-plated
5 pins: 31.5 mm/31.5 mm
6 pins: 35.5 mm/35.5 mm

Profile insert no. 802/5 WD
Brass, satin nickel-plated
Locking function on one side, dummy cylinder on the other side

Basic lengths for profile cylinders:

<table>
<thead>
<tr>
<th></th>
<th>5 pins</th>
<th>6 pins</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 pins</td>
<td>27.5/27.5 mm</td>
<td>31.5/31.5 mm</td>
</tr>
</tbody>
</table>

Further variants are available. Also available in British and Scandinavian profile.