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Ingenuity for life



Switchguard[®] CKA

Switch to the future

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The low-maintenance Siemens pawl point lock



Lock latches after manufacturing in our Swiss plant.

The Switchguard CKA pawl point lock combines advanced technology with well-established functionality and ensures economical operation. The pawl point lock has been approved in various countries for many years and has a proven track record of installations: so far, roughly 80,000 of these locks have been installed, supporting speeds of up to 300 km/h.

The lock operates the switch blades during the throwing process, ensuring that they are firmly fixed in their end positions. It maintains full closure of the switch blade so that a wheel flange cannot enter between the stock rail and an insufficiently closed switch blade. The open switch blade is also held in position, thus ensuring that the gap between the stock rail and the open switch blade permits unimpeded travel of the wheel flange.



The pawl point lock is used successfully in high-speed switches.

Switchguard CKA pawl lock

The Switchguard CKA pawl lock is an external locking and ensures a force-locking and formlocking connection between the point blade and the stock rail.

Benefits in installation

The pre-assembled component parts are installed on site without any adjustment work. No bores are required in the stock rails. The switch blades are usually already provided with bores by the switch supplier.

Significantly reduced maintenance

Thanks to the use of aluminium bronze alloy, the pawl point lock requires only minimal maintenance and stands out with favorable life-cycle costs.



Pawl point lock installed in switch.

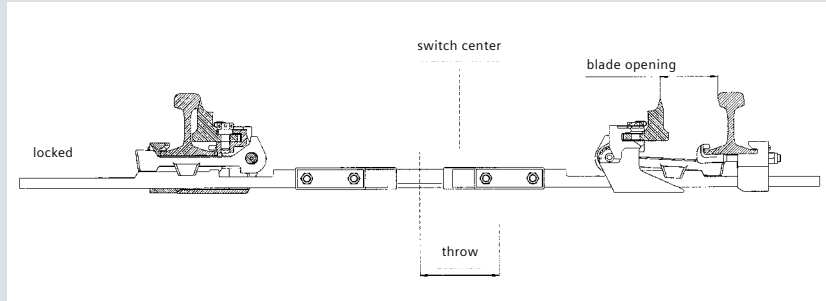
Features

| | |
|-----------------------------------|---|
| Wide range of applications | <ul style="list-style-type: none"> • Single switches • Single and double slip switches • Movable frogs • Facing-point locks and auxiliary locks • It can be installed in hollow ties or between ties |
| Switch machine types | Compatible with electric or hydraulic switch machines, as well as with manually operated and trailable one-way switches |
| Rail profiles | Suitable for all stock rail and switch blade profiles, including vertical and inclined rail profiles (UIC profiles and high blades) |
| Trailability | Up to 40 km/h |
| Fine adjustment | Switch blade clearance adjustable within 8 mm by means of eccentric bolt |
| Twist protection | Prevents excessive gap tolerance even in case of gauge widening |
| Switch blade creep | Up to ± 25 mm, without disrupting locking function |
| Visible profile | No parts stand out above tie surface at track center |
| Ambient conditions | Full functionality in snow and ice |

Wherever safety tolerates no compromise

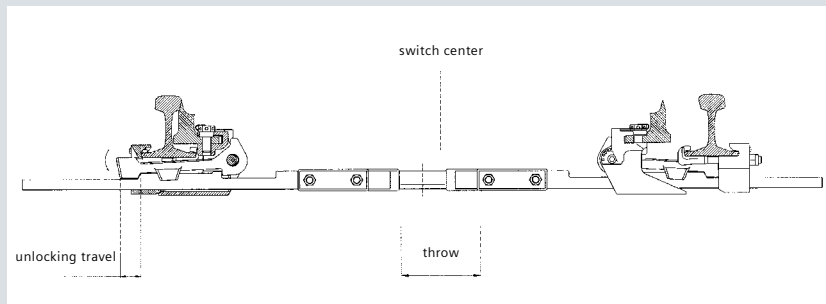
Lock operation, phase 1

The lock latch, connected to the switch blade by the blade attachment, extends under the rail base to make a positive-action mechanical connection. The lock latch engages directly with the lock support and is secured in its position by the locking rod.



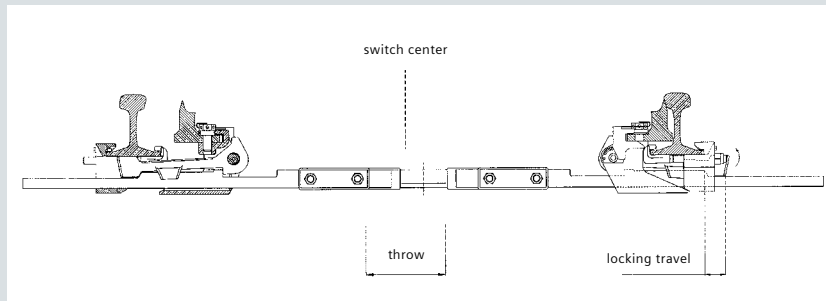
Lock operation, phase 2

The blades are switched by the motion of the locking rod, which first acts on the open switch blade. After completion of the unlocking travel, the lock latch is retracted downward and thus initiates the unlocking process of the closed switch blade.



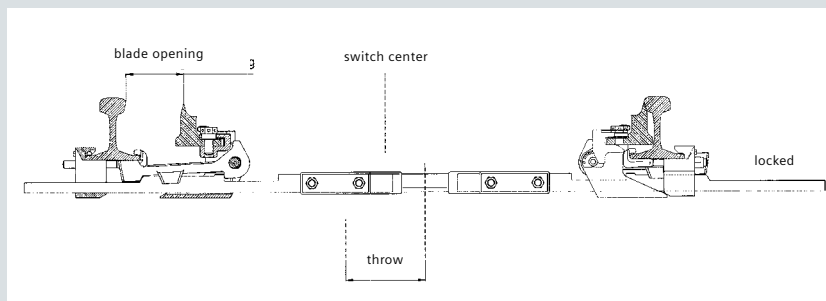
Lock operation, phase 3

After the unlocking process has been completed, both switch blades move together with the locking rod until the previously open switch blade is completely closed. As the locking rod continues to move, the lock latch is lifted into the locking position.

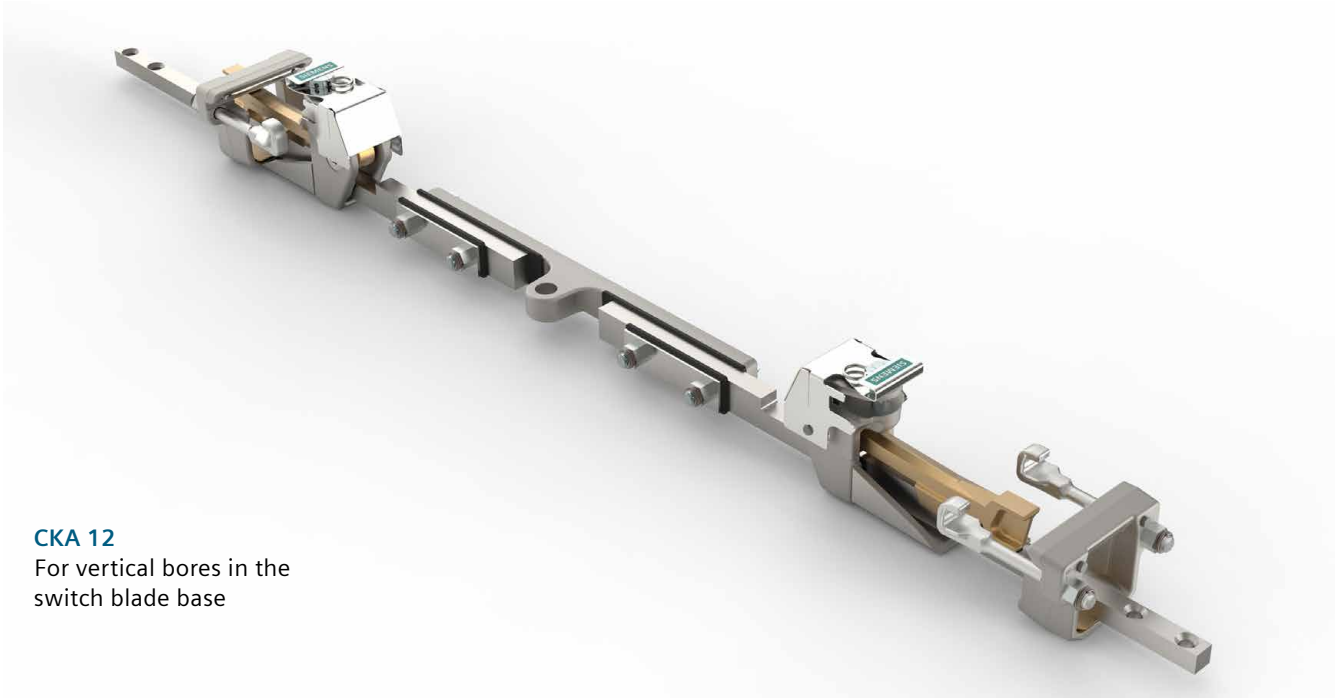


Lock operation, phase 4

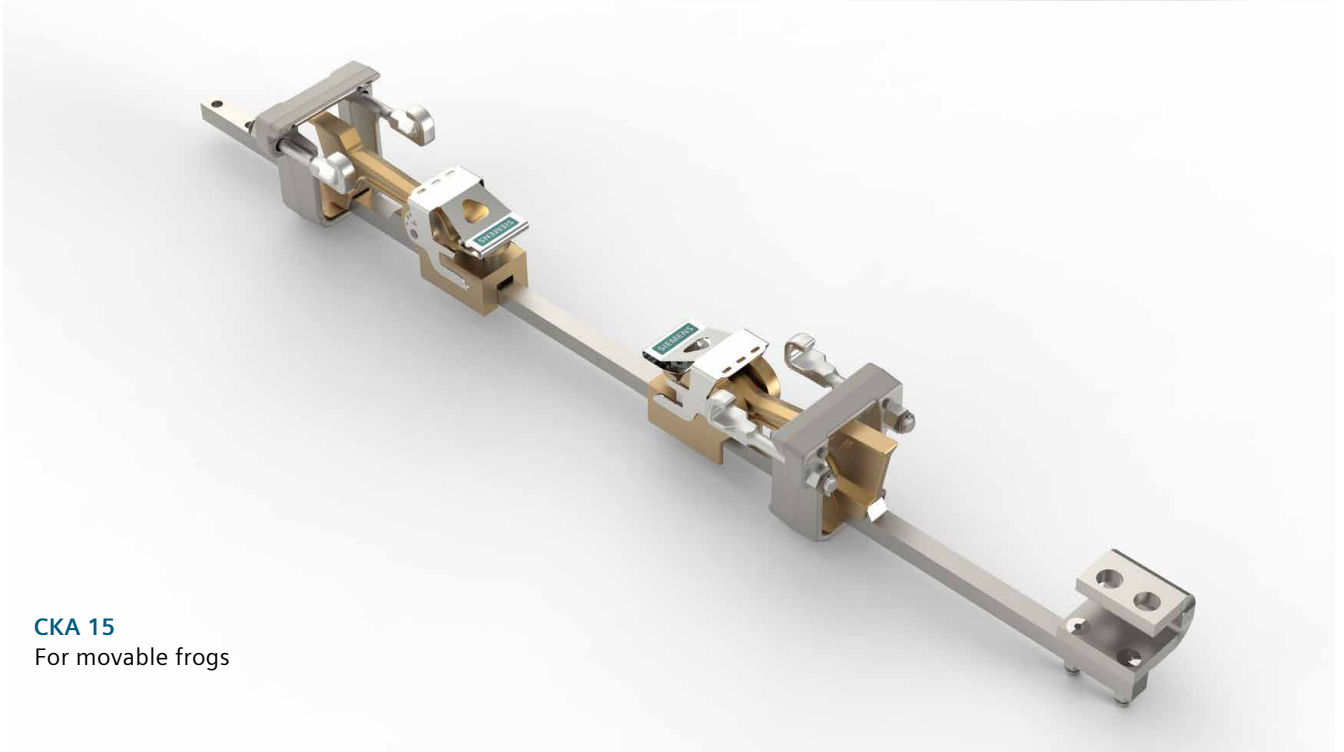
The now open switch blade continues to move until the throw is completed and is then friction-locked in the final open position.



For every switch the perfect pawl point lock



CKA 12
For vertical bores in the
switch blade base



CKA 15
For movable frogs

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