Level crossing technology.
Safe. Reliable. Capable.

SPK 6-6 and SPK 10-10
barrier drives
Applications

The Type SPK 6-6 and SPK 10-10 (PINTSCH-type barrier drive with ball-spindle motor) all non-hydraulic electromechanical barrier drives have been developed for prevention of road-side access to the tracks to withstand the most adverse ambient conditions.

Great importance was attached as early as the design stage to achieving an exceptionally robust, low-maintenance structure, in order to assure longest possible operational life. We have, as a result, commissioned no less than around 10,000 such drives for our customers since 1990. All our barrier drives are nowadays supplied zinc-plated as standard.

These barrier drives are also suitable for other barrier-actuation applications, such as factory entrances, for example.

Barrier opening/closing times are typically 6 sec. (SPK 6-6) and 10 sec. (SPK 10-10). Visual appearance of barrier operation can be harmonised when both models are used. In such a case, the open/close time of the SPK 10-10 can be reduced to 6 sec. A suspended barrier fence with articulated support post can be fitted to Type SPK 10-10 barriers if needed (e.g. in case of heavy pedestrian traffic, prolonged barrier-closed times, full barriers).

Features:
- No hydraulics
- Extremely robust and durable design
- Extremely quiet, jerk-free operation
- Flexible use to permit various barrier lengths and barrier sections
- Simple electrical interface
- Low starting and operating currents
- Only minimal maintenance needs
SPK 6-6 and SPK 10-10 barrier drives

Barrier-drive structure

Our barrier drives are based on a low-maintenance ball-spindle drive system consisting of a DC shunt motor, a ball spindle with an actuating rod and a retaining magnet.

Low power take-ups at start-up and during operation ensure that equipment-house batteries are not overburdened. The barrier boom can be of rectangular section (up to 5 m boom length) or round section (up to 10 m boom length). The use of triangular aluminium sections is also possible. Various types of (flashing) warning lights can be fitted as options to the boom.

Our Type SPK 6-6 and SPK 10-10 barrier drives can be manufactured and supplied to function on the closed-circuit principle (fail-safe close function in case of power-supply failure) and on the open-circuit principle (no fail-safe close function).

Operation

The barrier boom’s rest position is in the 85° open position (exception: on-call barriers). The level-crossing control system unit activates the spindle motor and moves the boom to the upper or lower limit position. The barrier drive is held in position by the retaining magnet when the boom has reached one of its two limit positions. The retaining magnet also ensures that the boom cannot be moved out of its respective limit position by motorists or pedestrians.

Fail-safe closure function

The spindle drive and thus the barrier boom is held in its upper limit position by the retaining magnet. Fail-safe closure is tripped if the power supply circuit of the closed-circuit principle retaining magnet is broken. The boom is then moved out of its upper limit position using the energy stored in an energy-storage spring and then closes automatically, assisted by its own deadweight.

Manual operation

The barrier can also be opened/closed manually if necessary. In this case, the supply lines to the motor and retaining magnet are interrupted by means of a locking switch. The boom can then be moved manually.