

Barrier

PINTSCH BAMAG SPK 6-6 / SPK 10-10

Barrier operating mechanism with circulating ball screw

Type SPK 6-6: Up to 6m long – operating time up/down: 6s +/- 1s

Type SPK 10-10: Up to 10m long – operating time up/down: 10s +/- 1s

Use

Barriers type SPK 6-6 and SPK 10-10 are designed for physically and visually closing off of a level crossing. The hydraulic free system is based on a mechanism with a circulating ball screw. Since 1990 it has been produced and installed by PINTSCH BAMAG for more than 4,500 times.

Operation

The barrier is normally open (home position with an angle of 85° or 90°) and closes whenever a rail vehicle approaches the level crossing. The closing command has to be forwarded to the barrier operating mechanism by a control unit so that the level crossing is sealed off. The operating mechanism must be deactivated after 40 seconds if the barrier movement is blocked in any way (overload protection).

The opening command has to be forwarded via the same control unit as soon as the level crossing has been cleared. The barrier arm is held in its upper respectively lower limit position by a holding solenoid (closed-circuit current). The activated holding solenoid ensures that the barrier arm cannot be moved out of its limit position by road users.

Automatic substitute closing

The barrier operating mechanism includes a substitute closing capability for safety reasons. Substitute closing is performed by interrupting the closed-circuit current of the holding solenoid. The barrier arm then closes under the force of gravity and a stored-energy spring unit.

Manual operation

Substitute closing can be performed manually if necessary. The drive motor and holding solenoid are deactivated when a latch contact is unlocked by the key, thus allowing the barrier arm to be moved by hand.

Speed control

A speed control mechanism ensures that the moving components move smoothly, thus generally extending the service life of the barrier.



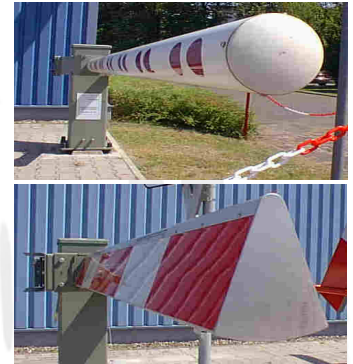
SPK 6-6



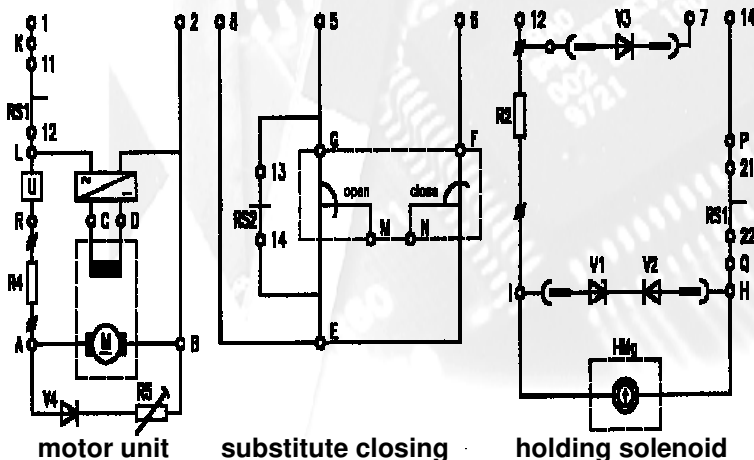
SPK 10-10

Barrier – PINTSCH BAMAG SPK 6-6 / SPK 10-10
Mechanical design

The barrier operating mechanism is housed in a robust casing of sheet steel designed for rough everyday conditions. Mechanical components are encapsulated and mostly have permanent lubrication, thus reducing the maintenance required for this electromechanical drive unit and making it environmental-friendly. It is also designed for energy-saving operation with a current consumption in operation of not more than 6-9.5 A. The barrier is available with rectangular barrier arms of up to 5m in length and with round barrier arms up to 10m in length. Moreover the barrier arm is available with a triangular aluminium profile. Optionally, individual types of boom lights can be added to the arm. Depending on the customer requirements, arms with weak links can be mounted. A supply voltage of between 24 and 42V is required.


Specification

Weights	: SPK 6-6: 170kg - SPK 10-10: 210kg (excluding boom and counterweights)
	: Foundation SPK 6-6: 630kg – Foundation SPK 10-10: 1,005kg
Closing / Opening time	: SPK 6-6: 6s +/-1s - SPK 10-10: 10s +/-1s
Operating temperature	: -20°C to +55°C
Supply voltage	: 36V DC -12V/+6V
Current consumption (24V)	: SPK 6-6: up 5A / down 8A / initial 16A
	: SPK 10-10: up 7A / down 9.5A / initial 16A
Quiescent state current	: 420mA

Interface

Dimensions SPK 6-6 (SPK 10-10)
