

Bsg. antr. 9 Point Machine with Internal Locking

Throwing points reliably

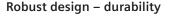
SIEMENS

efficient rail solutions

Bsg. antr. 9 Point Machine

The solution for efficient railway operations

Point machines are an important factor in the safety of rail services. They need to operate with precision, be reliable and withstand high loads. It is precisely these properties which are featured by the Bsg. antr. 9 point machine with internal locking. The state-of-the-art and tried-and-tested solution from Siemens Transportation Systems for points of all models and gauges can be used for all types of interlockings.



The Bsg. antr. 9 point machine is a product which guarantees you a high level of operating reliability on account of its robust and compact design. This robust point machine has proved itself by its durability in a wide range of different applications and climatic conditions. It can thus be used in short- and long-distance traffic by all rail operators worldwide.

Another benefit is its short maintenance periods resulting from its robust design.

High level of availability – triedand-tested operational reliability

Heavy-duty, reliable points are a decisive factor for optimal line utilisation. Particularly in view of the increasing requirements facing modern railways – for example in long-distance traffic where very high speeds on turnouts are no longer a rare phenomenon. Even in short-distance and freight traffic, extremely high loads are generated and impact the points.

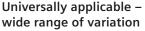
Benefits at a glance

- Environmentally friendly since no hydraulic oil is required
- Compatible with all known controls and power supplies
- Easy-to-install
- Reliable
- Maintenance-friendly
- Short maintenance periods, hence only brief interruptions in operations
- Durable

The Bsg. antr. 9 point machine efficiently and reliably performs the following functions:

- operation of points
- retention of point blades in their end positions
- fail-safe locking of points
- electrical indication of throwing operations and point blade end positions to the interlocking
- opening of the trailing clutch when points are trailed and transmission of a points trailed indication to the detection facility

The high-quality components used by Siemens enable a high level of availability to be attained and hence increase the efficiency of rail services. The mean time between failures (MTBF) of the point machine is around 220,000 hours.

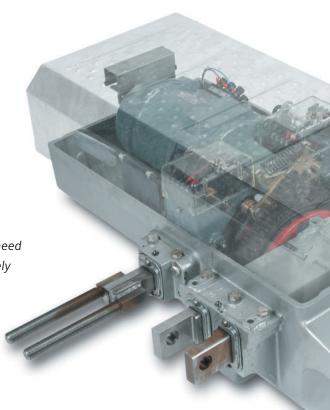


The Bsg. antr. 9 point machine with internal locking is versatile and flexible in its usage:

- for points of all types and gauges
- with moveable frogs
- for short- and long-distance traffic
- for centralised or decentralised control
- temperature range of -40 °C to +70 °C

The Bsg. antr. 9 point machine opens up a whole series of additional applications and possibilities. Besides flexibility, operational reliability and a high level of availability, the Bsg. antr. 9 point machine also offers customer-specific advantages of interest to demanding rail operators. Why not benefit from these advantages:

- variable use through configurations tailored to requirements
- low level of power consumption
- vandal-proof construction with robust cover
- throwable during power failure (crank handle)
- direction of movement reversible during throwing operations





Individual and flexible

The design of the Bsg. antr. 9 point machine permits its use in geographical-circuitry, electronic and electromechanical interlockings.

Various versions are available depending on the customer's requirements:

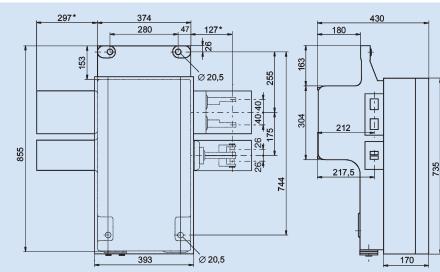
- trailable or non-trailable
- for right-hand or left-hand mounting
- with or without point detectors
- various types of motor
- variable throwing stroke
- variable throwing force
- variable throwing time

Reliable mode of operation

Robust mechanics and a low level of susceptibility to faults combined with a long service life and short maintenance periods speak for themselves.

All components are accommodated in a cast-iron housing with a keylocked, hot-galvanised sheet-steel cover. Parts which need to be checked during interlocking inspections and maintenance work are easily accessible.

The point machine housing conforms to degree of protection IP43. The cover has a built-in lock.



*) Dimensions are only applicable for Bsg. antr. 9, type-A3. All dimensions are stated in mm.

The rotary movement of the motor is converted into the straight movement of the gear racks via transmission gearing. The operating rods are driven by the gear racks. They transmit the movement of the gear racks to the point blades.

Detector slides monitor the end positions of the point blades. The detector slides are linked to the detector rods which are in turn connected to the point blades. Only when the point blade end positions have been reached, locking of the points has been proved and the positions coincide, do the detector slides permit an end position indication via the switching assembly.

References

Denmark, Egypt, Finland, Greece, India, Indonesia, Netherlands, Norway, Pakistan, South Africa, Sweden, Turkey



Technical data

Motor

400 V AC, 3-phase*

Throwing force

3,500 N ± 500 N, 5,500 N ± 500 N

Retention force

 \geq 4,500 N, \geq 7,000 N

Trailing resistance

7,000 N ± 1,000 N, 10,000 N ± 1,000 N

Throwing stroke for trailable version

94 mm, 122.5 mm, 132 mm, 163 mm

Throwing stroke for non-trailable version

62 – 94 mm, 94 – 143 mm

Throwing time for 143 mm throwing stroke

< 6 s (depending on customer's requirements)

Rated current

 \leq 2.5 A*

Starting current

≤ 10 A

Weight

approx. 180 kg

Degree of protection

IP43

Temperature range

 -40° C to $+70^{\circ}$ C

^{*}Further standard types available on request





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The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases.

The required features should therefore be specified in each individual case at the time of closing the contract.