Claims

1. Safety system (1) for an elevator (2), containing at least one control unit, which is operable in two different operating modes, normal and maintenance, wherein the safety system (1) has at least one electronic lock (7), which is connected with the control unit and is connectable, or connected with, at least one electronic key (8), wherein the control unit is programmed, or programmable, in such manner that in the case of an existent connection between the electronic key (7) and the electronic lock (8), it is only operable in normal operating mode, and in the case of an absent connection between the electronic key (7) and the electronic lock (8), it is only operable in maintenance mode, and wherein a maintenance mode.

2. Safety system (1) according to Claim 1, characterized in that the control unit contains at least one safety control unit (3), which is operable in the two different operating modes, at least one elevator control unit (4) for the purpose of controlling the elevator (2).

3. Safety system (1) according to one of the foregoing claims, characterized in that it contains at least one data bus (5) with a plurality of bus nodes (6), wherein, through the data bus (5), the control unit, in particular the safety control unit (3), can receive data from the bus nodes (6), and the electronic lock (7) is connected with one of the bus nodes (6).

4. Safety system (1) according to one of the foregoing claims, characterized in that the electronic lock (7) is arranged in, on, or under an elevator car, in or on a wall or a headroom of an elevator hoistway, or in a machine room, particularly outside an elevator car.

5. Safety system (1) according to one of the previous claims, characterized in that the control unit, in particular the safety control unit (3), is programmed, or programmable, in such manner that, only after establishment of the connection between the electronic key (7) and the electronic lock (8), and time-coordinated execution of at least one further predefined action, is it operable in normal operating mode.

6. Safety system (1) according to one of the previous claims, characterized in that the control unit, in particular the safety control unit (3), is programmed, or programmable,

in such manner that, only after interruption of the connection between the electronic key (7) and the electronic lock (8), and time-coordinated execution of at least one further predefined action, is it operable in maintenance operating mode.

7. Safety system (1) according to claim 5 or claim 6, characterized in that the further predefined action is the actuation of a reset button or the touching of a touch-sensitive screen.

8. Safety system (1) according to one of the previous claims, characterized in that the control unit, in particular the safety control unit (3), is programmed, or programmable, in such manner that, only after establishment of the connection between the electronic key (7) and the electronic lock (8), and with time-coordinated presence of a predefined action, is it operable in normal operating mode.

9. Safety system (1) according to one of the previous claims, characterized in that the control unit, in particular the safety control unit (3), is programmed, or programmable, in such manner that, only after interruption of the connection between the electronic key (7) and the electronic lock (8), and with time-coordinated execution of a predefined action, is it operable in maintenance operating mode.

10. Safety system (1) according to claim 1, characterized in that, connected with the control unit is a sensor (11), which can transmit to the control unit, in particular to the safety control unit (3), sensor data, which characterize a state of the elevator (2), wherein the sensor (11) is, in particular, selected from the group that consists of position sensors, velocity sensors, final-limit switches for the detection of the highest and lowest permitted positions of the elevator car, sensors for a balustrade which is temporarily installed during a maintenance service, and sensors for bolts for the purpose of restricting the movement of the elevator car which are temporarily installed during a maintenance service.

11. Elevator system containing at least one elevator (2) and at least one safety system (1) according to one of the foregoing claims.

12. Method for operating a safety system (1) according to one of the foregoing claims, containing a first step, in which a connection between the electronic key (7) and the electronic lock (8) is at least partly established or interrupted.

13. Method according to Claim 12, characterized in that in a second step, the connection between the electronic key (7) and the electronic lock (8) is established again or interrupted again.

14. Method according to Claim 13, characterized in that, time-coordinated with the first or second step, at least one further predefined action is executed, in particular a reset button (11) is actuated or a touch-sensitive screen is touched.