CLAIMS

1. A door system (1) for one or a plurality of doors,
wherein the door system (1) comprises a plurality of door components (4, 5, 6, 7, 8, 9, 10, 12, 13),
wherein one of the door components (4, 5, 6, 7, 8, 9, 10, 12, 13) is designed as a control unit (13), and
wherein the control unit ~~(13) and at least one~~ is connected to a plurality of further door ~~component (4, 5, 6, 7, 8, 9, 10, 12)~~components, wherein the further door components are connected to ~~one another~~ the control unit via a plurality of first communication ~~bus (14).~~buses.

2. The door system (1) according to claim 1, **~~characterized in~~** ~~that~~ wherein the control unit ~~(13)~~ can be connected to a second, in particular IP-enabled, communication bus ~~(15),~~, wherein the control unit ~~(13)~~ is designed to communicate with a computing unit in a cloud via the second communication bus ~~(15),~~, wherein the control unit ~~(13)~~ receives an electronic configuration of the door system ~~(1)~~ via the second communication bus ~~(15), wherein the electronic configuration is an initial configuration for commissioning the door system (1) or an update of the initial configuration, wherein the electronic configuration is at least one, preferably a plurality of, particularly preferably all, of the following electronic data:~~.

3. The door system according to claim 2, characterized in that during commissioning on site a bus address of the door components has been linked to a function of the respective door component in the door system, and in that the control unit has knowledge of which bus address is linked to which function, processes are carried out via the first communication buses, wherein it is sufficient that the functions of the door components are stored in a functional process in the configuration.

4. The door system (1) according to claim 2 or 3, **characterized in** that the electronic configuration comprises the following electronic data:

- door component types of the door system (1~~,~~).
- ~~transmitters and/or receivers of messages in the door system (1) via the first~~

~~communication bus (14),~~

- ~~parameters for operating the door system (1),~~
- ~~a test process for the door system (1), in which at least one function or a functional process of the~~

5. The door system (1) according to claim 3 and 4, wherein the door system is designed such that during commissioning on site, if a door component type is only present once in the door system, the door component reports its door component type to the control unit, wherein the control unit links the door component type and thus the function to the bus address of the door component.

6. The door system (1) ~~is tested for commissioning,~~

- ~~at least one access attribute, based on which the control unit (13) makes an access decision.~~

~~3. The door system (1)~~ according to ~~claim 1 or 2~~one of the preceding claims, **characterized in** that

the control unit (13) comprises a transmission unit (19), in particular a transmitting and/or receiving unit for wireless near-field communication, in particular Bluetooth Low Energy, wherein the transmission unit (19) is used to communicate with a terminal, in particular a mobile terminal, for commissioning, for configuring and/or for access authorization communication.

~~4~~7. The door system (1) according to one of the preceding claims, characterized in that

the control unit ~~(13)~~ is designed to make an access decision.

8. The door system (1) according to claim 7, wherein the door system ~~(1)~~ comprises at least one ~~electrical locking device (8, 10),~~reading unit, wherein the ~~unlocking time, in which~~ control unit is designed to evaluate a credential received from the ~~locking device (8, 10) is to unlock in the event of a positive~~ reading unit by a received access ~~decision, is~~code being compared with an access code stored in the control unit ~~(13)~~ and/or ~~can be received by~~a time window of the credential being compared with the ~~control unit (13).~~current time.

~~5~~9. The door system ~~(1)~~according to claim 8, wherein the reading unit or

reading units and the control unit are connected to an RS 485 bus.

10. The door system according to one of the preceding claims, ~~**characterized in** that~~
~~the unlocking time and/or a monitoring time before the door system (1) outputs an alarm when the door is open, is stored in the control unit (13)~~ wherein the first communication buses are a CAN bus and~~/~~ an RS485 or ~~can be received by~~an RS-232 bus.

11. The door system according to one of the preceding claims, **characterized in** that the ~~control unit (13) individually for different authorized users or for different authorized user groups or for different access attributes/or access attribute groups.~~

~~6. The door system according to one of the preceding claims, **characterized in** that~~
~~the~~ door system (1) comprises ~~at least one, preferably a plurality of, particularly preferably all, of~~ the following ~~further~~ door ~~components~~component (4, 5, 6, 7, 8, 9, 10, 12~~),~~) which ~~are~~is connected to the first communication bus (14):

- ~~an escape route controller (9), in particular an escape route security system (3),~~
- ~~a door lock (10), in particular an escape route security system (3),~~
- ~~an authentication device, in particular a key switch, in particular an escape route security system (3),~~
- ~~a motor lock (8), in particular a panic motor lock,~~
- ~~a hazard sensor, in particular a smoke detector (11),~~
- ~~a hazard detector control center (12) to which hazard sensors, in particular smoke detectors (11), are connected in a wireless or wired manner,~~
- a drive controller (4~~), in particular~~) of a door drive (2~~),~~).
- ~~a program switch (7), in particular a door drive (2), and~~
- ~~at least one sensor (6), in particular a safety sensor and/or a movement sensor, in particular of the door drive (2).~~

~~7. The door system (1) according to one of the preceding claims, **characterized in** that~~

~~the communication within the first communication bus (14) and/or the second communication bus (15) is encrypted, wherein in particular a plurality of door components (4, 5, 6, 7, 8, 9, 10, 12, 13) of the door system (1) communicate with one another in encrypted form.~~

~~8. The door system (1) according to one of the preceding claims, **characterized in** that~~
~~the door system (1), in particular the control unit (13), has knowledge of door components (4, 5, 6, 7, 8, 9, 10, 12, 13) installed in the door system (1) and/or a function of the door components (4, 5, 6, 7, 8, 9, 10, 12, 13) and is designed to determine changes of the installed door components (4, 5, 6, 7, 8, 9, 10, 12, 13) and/or the function of the door components (4, 5, 6, 7, 8, 9, 10, 12, 13), wherein the door system (1) changes to a defined state, in particular generates an alarm, if a change is determined.~~

~~9~~

12. The door system (1) according to one of the preceding claims, **characterized in** that the door system (1) comprises a plurality of door components (17) with detection units for receiving an access attribute and a plurality of locking devices (8, 10), wherein an assignment of the door components (17) with the detection units to the locking devices (8, 10) is stored electronically in the ~~door system (1), in particular in~~ control unit (13), wherein the control unit (13~~), wherein in particular the door system (1), in particular the control unit (13),~~) is designed to receive bus addresses of the door components (17) with the detection units linked to a function of the door components (17) in the door system (1) during commissioning on site, wherein the link can be received by the mobile terminal.

~~10~~13. The door system (1) according to one of the preceding claims, **characterized in** that
~~the door system (1) comprises an escape route security system (3), wherein the escape route security system (3) comprises an escape route controller (9), a trigger element, in particular an emergency button, and a door lock (10), wherein the escape route controller (9) actuates the door lock (10) after the trigger element has been actuated in order to unlock the door lock (10), wherein the~~

~~control unit (13) is not involved in the actuation of the door lock (10) after the trigger element has been actuated.~~

~~11. The door system (1) according to the preceding claim 10,~~ **~~characterized in~~** ~~that~~

the door system (1) is designed to receive a change of the configuration or an update of the configuration of the door system (1), wherein a configuration of ~~the escape route security system (9), in particular an assignment of a door lock (10) to a trigger element, the approval of a time delay until unlocking after the trigger element has been actuated, the length of the time delay, approval of a deactivation of the trigger element,~~an escape route security system (9) is only permitted on site, in particular takes place via wireless near-field communication with the mobile terminal.

~~12. The door system (1) according to one of the preceding claims,~~ **~~characterized in~~** ~~that~~

~~the door system (1) comprises an escape route security system (3), wherein the escape route security system (3) comprises an escape route controller (9), a trigger element, in particular an emergency button, and a plurality of door locks (10), wherein the escape route controller (9) actuates a plurality of door locks (10), which are assigned a plurality of doors, for unlocking, based on the actuation of a trigger element, wherein in particular each of the plurality of doors is assigned a trigger element and wherein in order to re-lock a door, an action must be performed on the trigger element assigned to the door to be locked.~~

~~13. The door system (1) according to one of the preceding claims,~~ **~~characterized in~~** ~~that~~

~~the door system (1) comprises at least one first and one second door lock (10), wherein the first door lock (10) is provided to be arranged on a first door and the second door lock (10) is provided to be arranged on a second door,~~

~~wherein a condition is stored in the door system (1) which determines the timed process of the unlocking of the second door lock (10) after unlocking the first door lock (10),~~

~~wherein the door system (1) is designed to override the condition after a trigger element has been actuated or after authentication, in particular depending on an~~

~~access attribute.~~

14. An access system (20) with a door system (1) according to one of claims 1 to ~~14~~13 and with a computing unit (16), wherein an image of the door system (1) is stored in the computing unit (16),
wherein past and current operating states of the door system (1) are stored in the computing unit (16).

15. The access system (20) according to claim 14, wherein the door components (4, 5, 6, 7, 8, 9, 10, 12, 13) connected to ~~the~~a first communication bus (14) each comprise an identifier, wherein the identifiers of the door components (4, 5, 6, 7, 8, 9, 10, 12, 13) are stored as part of the image of the door system (1) in the computing unit (16) ~~and/or past and current operating states of the door system (1) are stored in the computing unit (16).~~in the cloud.

16. The access system (20) according to claim 14 or 15, wherein the access system is designed such that the image of the door system 1 is filled with data of the installed door components 4, 5, 6, 7, 8, 9, 10, 12, 13 during or after the installation of the door system 1.

17. The access system (20) according to one of claims 14 to 16, wherein the access system comprises a mobile terminal, wherein the mobile terminal is designed to have knowledge of an identifier of a door component during commissioning on site, and is designed to display possible positions, possible door component types and/or possible required door components on the terminal, wherein the correct position, the correct door component type and/or the correct required door component can be selected on the mobile terminal by the installer and the position and/or the door component type and/or the required door component can be assigned to the identifier, wherein the mobile terminal is designed to send the successful assignment to the control unit.

18. The access system (20) with one or a plurality of door systems (1) according to one of claims ~~1~~14 to ~~14, wherein at least one door system (1) comprises an authentication device~~17, wherein the ~~authentication device~~control unit is designed to receive an access attribute for authentication, wherein the door

system (1) is designed, based on the access attribute or the type of use ~~of~~ the access attribute,

- ~~to automatically lock a door (10) and/or lock a motor lock (8) in one or a plurality of door systems (1),~~
- ~~to automatically unlock a door lock (10) and/or a motor lock (8) in one or a plurality of door systems (1),~~
- to decide whether a locking element (8, 10) is actuated for opening a door leaf or locking elements (8, 10) are actuated for opening a plurality of door leaves~~, or~~.
- ~~a timed process for unlocking a locking element (8, 10) of a second door drive after the actuation of a motor of a first door drive (2) is carried out according to a condition stored in the door system (1) or is overridden.~~