Claims

1. A sliding door (100) for use as an escape and rescue door, the sliding door (100) comprising:

a drive (104) adapted to move the sliding door between an open and a closed position; and

a door control device (102) configured to:

- actuate the drive,

- receive signals from (i) a sensor system (106) comprising a plurality of sensors arranged to detect operating conditions of the sliding door and, optionally, from (ii) a higher-order central station (146),

- actuate the drive (104) in performing a standard opening (120) of the sliding door (100) during a standard operation (112) when the sensor system (106) or the central station (146) signals at least one opening condition (122) as satisfied and the sensor system (106) furthermore signals an approach (116) to the sliding door (100),

- switch from the standard operation to an emergency operation (114) when the sensor system (106) or the central station (146) signals an emergency (144), and

- actuate the drive (104) in the emergency operation to perform an emergency opening (128) of the sliding door in the emergency operation (114) irrespective of whether the sensor system (106) or the central station (146) signals that the at least one opening condition (122) is satisfied, when at least one sensor of the sensor system (106) signals an approach (116) to an inner side (126) of the sliding door (100).

2. The sliding door (100) according to claim 1, wherein the door control device (102) is configured to switch to the emergency operation (114) when the sensor system (106) generate a signal indicative of flames and/or smoke (138) on an inner side (126) adjacent to the sliding door (100) as the emergency (144).

3. The sliding door (100) according to claim 2, wherein the door control device (102) is further configured to actuate the drive (104) to perform an emergency closing (150) when the sliding door (100) is open and the sensor system (106) generates (i) the signal indicative of flames and/or smoke (138) on the inner side (126) of the sliding door as well as (ii) a signal indicative of no approach (116) to the sliding door.

4. The sliding door (100) according to any one of the preceding claims, wherein the door control device (102) is further configured not to actuate the drive (104) to open the sliding door when the sensor system (106) generates (i) a signal indicative of smoke (138) on the inner side (126) of the sliding door and (ii) a signal exclusively by a proximity sensor (136) of the sensor system (106) indicating the approach.

5. The sliding door (100) according to any of the preceding claims, wherein the door control device (102) is further configured to actuate an operating element (124) of the sliding door (100) arranged on the inner side (126) of the sliding door during the emergency operation (114) and to then actuate the drive (104) when the operating element (124) generates a signal of being actuated.

6. The sliding door (100) according to claim 5, wherein the operating element (124) is arranged to be moved out of a plane of the sliding door (100) upon actuation.

7. The sliding door (100) according to any one of the preceding claims, wherein the door control device (102) configured to actuate the drive (104) to perform an emergency closing (150) of the sliding door after a predefined opening time following the emergency opening (128).

8. The sliding door (100) according to any one of the preceding claims, wherein the door control device (102) further configured to (i) to switch to the emergency operation (114) when an application of force on the inner side (126) of the sliding door (100) greater than a threshold value is signaled by the sensor system, and to (ii) actuate the drive (104) to perform the emergency opening (128) the sliding door in the emergency operation (114) when a renewed or prolonged application of force to the inner side (126) of the sliding door is signaled by the sensor system.

9. The sliding door (100) according to claim 8, wherein the door control device (102) is configured to switch to the emergency operation (114) and/or to actuate the drive (104) to perform the emergency opening (128) of the sliding door when the drive (104) signals the application of force.

10. The sliding door (100) according to any one of the preceding claims, wherein the door control device (102) is further configured to switch to the emergency operation (114) when the sensor system (106) generates a signal indicative of continuous loud screaming on the inner side (126) of the sliding door or when the sensor system (106) generates a signal indicative of a temperature on the inner side (126) of the inner door that is greater than a temperature threshold value.

11. The sliding door (100) according to any one of the preceding claims, wherein the door control device (102) is also configured to increase a sensitivity of the sensor system (106) from a standard sensitivity in the standard operation to an emergency sensitivity when switching to the emergency operation (114).

12. The sliding door (100) according to any one of the preceding claims, wherein the door control device (102) is configured to actuate the drive (104) to perform the emergency opening (128) of the sliding door in the emergency operation (114) when the higher-order central station (146) signals an emergency opening command.

13. The sliding door (100) according to any one of the preceding claims, wherein the sliding door (100) has a cooling device (152) for cooling components of the sliding door (100), and wherein the door control device (102) is also configured to activate the cooling device (152) in the emergency operation (114), when the sensor system (106) signals a temperature on the inner side (126) of the sliding door that is greater than a temperature threshold value, and/or wherein the sliding door (100) has a power supply (154) arranged to provide electrical power to components of the sliding door (100) after a power failure.

14. A method of operating a sliding door (100) as an escape and rescue door according to any of the claims 1 - 13, comprising the steps of:
- operating the sliding door during standard door operation (112) by actuation of the drive (104) in response to the signals from the sensor system (106) to perform standard opening (120) of the sliding door (100) when the sensor system (106) or the optional central station (146) signals at least one opening condition (122) as satisfied and the sensor system (106) signals an approach (116) to the sliding door (100); and

- switching from the standard operation to the emergency operation (114) when the sensor system (106) or the optional central station (146) signals an emergency (144), wherein the drive (104) is actuated to perform an emergency opening (128) of the sliding door in the emergency operation (114) irrespective of whether the sensor system (106) or the optional central station (146) signals the at least one opening condition (122) as satisfied, when at least one sensor of the sensor system (106) signals an approach (116) to the inner side (126) of the sliding door (100).

15. The method according to claim 14, further comprising increasing a sensitivity of the sensor system (106) from a standard sensitivity in the standard operation (112) to an emergency sensitivity when switching to the emergency operation (114).