CLAIMS

1. A biometric authentication device comprising:

a biometric authentication sensor configured to be brought into contact with any finger of a hand and acquire biometric authentication information from the finger;

a housing accommodating the biometric authentication sensor, including an opening exposing the biometric authentication sensor to a part of an outer surface, and configured to be held by the fingers of the hand, the housing having a cubic shape that can be fitted into a sphere having a diameter of 7 cm;

a battery provided in the housing; and

a power supply circuit configured to start supply of power from the battery by the biometric authentication sensor being pressed down in a state where the finger is in contact with the biometric authentication sensor;

wherein a groove is provided in the housing, the groove being provided in one surface of the four surfaces adjacent to a surface with the opening where the biometric authentication sensor is exposed.

2. The biometric authentication device according to claim 1, wherein

the power supply circuit includes a circuit part configured to connect the battery and the biometric authentication sensor, and a switch configured to open the circuit part and close the circuit part when operated, and

the biometric authentication device further comprises an operation mechanism configured to operate the switch by the biometric authentication sensor being pressed down in a state where the finger is in contact with the biometric authentication sensor.

3. The biometric authentication device according to claim 2, comprising:

an authentication processing part connected to the circuit part, and configured to authenticate the biometric authentication information based on information acquired by the biometric authentication sensor when the circuit part is closed; and

an authentication data holding part connected to the circuit part, and configured to store the biometric authentication information processed by the authentication processing part when the circuit part is closed.

4. The biometric authentication device according to claim 3, comprising:

a communication interface configured to communicate with an external terminal; and

an authentication data reporting part connected to the circuit part, and configured to transmit the biometric authentication information stored in the authentication data holding part to the terminal via the communication interface when the circuit part is closed.

5. The biometric authentication device according to any one of claims 2 to 4, wherein the operation mechanism holds the biometric authentication sensor to be movable between an initial position and a position at which the switch is operated, and biases the biometric authentication sensor toward the initial position.

6. The biometric authentication device according to claim 5, wherein the operation mechanism and the switch are of a momentary system.

7. The biometric authentication device according to claim 5, wherein the operation mechanism or the switch is of an alternate system.

8. The biometric authentication device according to any one of claims 1 to 7, wherein the biometric authentication sensor is a fingerprint sensor.