Claims

1. A medical system comprising:
   i) a housing;
   ii) a preassembled functional module received in the housing, the preassembled functional module comprising
      a. an analyte sensor for detecting at least one analyte in a body fluid of a user;
      b. an electronics unit electrically connected to the analyte sensor; and
      c. an insertion component for inserting the analyte sensor into a body tissue of the user; and
   iii) at least one removable protective cap connected to the housing, covering the preassembled functional module,

   wherein the preassembled functional module further comprises at least one sterility cap, which at least partially surrounds the insertion component, wherein the at least one sterility cap is at least partially surrounded by the protective cap, wherein the sterility cap comprises at least one sterility testing access, the sterility testing access comprising at least one of a septum and a multiple-step sealing.

2. The medical system according to claim 1, wherein the multiple-step sealing comprises a plurality of circumferential sealing elements having differing equivalent diameters, the circumferential sealing elements being disposed within an interior space of the sterility cap.

3. The medical system according to any one of claims 1 or 2, wherein the sterility cap comprises a tubular sidewall surrounding a sterility testing access opening, wherein the sterility testing access opening is closed by at least one of the septum and a removable stopper.

4. The medical system according to any one of claims 1-3, wherein the sterility cap is accessible from an outer side of the medical system, wherein an access to the sterility cap is sealed by a removable seal.

5. The medical system according to any one of claims 1-4, wherein the sterility cap is engaged with the removable protective cap, such that, when the protective cap is removed from the housing, the sterility cap is removed from the preassembled functional module.

6. The medical system according to any one of claims 1-5, wherein the sterility cap has at least one side in common with the protective cap.

7. The medical system according to any one of claims 1-6, wherein the preassembled functional module further comprises at least one base plate, wherein the sterility cap is connected to the base plate.

8. The medical system according to any one of claims 1-7, wherein the preassembled functional module further comprises at least one cover element, wherein the cover element covers the electronics unit and at least part of the analyte sensor.

9. The medical system according to any one of claims 1-8, wherein the sterility cap provides a sealed interior space, wherein the analyte sensor and the insertion component at least partially are located within the sealed interior space.

10. The medical system according to any one of claims 1-9, wherein the medical system further comprises at least one driving actuator for driving the insertion component into the body tissue of the user.

11. The medical system according to any one of claims 1-10, wherein the preassembled functional module further comprises at least one electrical energy storage device.

12. A method of sterility testing of a medical system, the medical system comprising a preassembled functional module, the preassembled functional module comprising an analyte sensor for detecting at least one analyte in a body fluid of a user, and an electronics unit electrically connected to the analyte sensor and an insertion component for inserting the analyte sensor into a body tissue of the user, wherein the preassembled functional module further comprises at least one sterility cap at least partially surrounding the insertion component and optionally at least a part of the analyte sensor, wherein the method comprises:

A) inserting a rinsing liquid into an interior space of the sterility cap; and

B) microbial testing of the rinsing liquid.

13. The method according to claim 12, wherein the sterility cap has at least one sterility testing access, wherein step A) comprises attaching at least one fluidic adapter to the sterility testing access, wherein the sterility testing access comprises at least one mul-

tiple-step sealing, wherein step A) comprises removing at least one stopper from the sterility testing access, the stopper being in contact with a first-step sealing of the multiple-step sealing, step A) further comprising attaching the fluidic adapter to the sterility testing access, wherein the fluidic adapter is in contact with a second-step sealing of the multiple-step sealing, wherein the first-step sealing has a larger equivalent diameter than the second-step sealing.

14. A method of providing the medical system according to any one of claims 1-11, the method comprising:
    I. assembling a part of the preassembled functional module, the part of the preassembled functional module comprising the analyte sensor and the insertion component as well as the sterility cap at least partially surrounding the insertion component;
    II. sterilizing the part of the preassembled functional module;
    III. assembling the preassembled functional module, the assembling comprising electrically connecting the electronics unit to the analyte sensor; and
    IV. assembling the medical system, the assembling comprising receiving the preassembled functional module in the housing and connecting the removable protective cap to the housing.

15. The method according to claim 14, the method further comprising:
    V. storing the medical system.

16. The method according to any one of claims 14-15, the method further comprising:
    VI. sterility testing of the medical system by using the method of sterility testing of a medical system according to any one of claims 12-13.