

Roche Diabetes Care GmbH
F. Hoffmann-La Roche AG

P35858

Claims

1. A medical system (144) comprising:
 - 5 i) a housing (146);
 - ii) a preassembled functional module (110) received in the housing (146), the pre-assembled functional module (110) comprising
 - a. an analyte sensor (112) for detecting at least one analyte in a body fluid of a user;
 - 10 b. an electronics unit (120) electrically connected to the analyte sensor (112); and
 - c. an insertion component (114) for inserting the analyte sensor (112) into a body tissue of the user; and
 - 15 iii) at least one removable protective cap (148) connected to the housing (146), covering the preassembled functional module (110),
wherein the preassembled functional module (110) further comprises at least one sterility cap (116), which at least partially surrounds the insertion component (114), wherein the at least one sterility cap (116) is at least partially surrounded by the protective cap (148), wherein the sterility cap (116) comprises at least one sterility testing access (140), the sterility testing access (140) comprising at least one of a septum (142) and a multiple-step sealing (162).
2. The medical system (144) according to claim 1, wherein the multiple-step sealing (162) comprises a plurality of circumferential sealing elements (164) having different equivalent diameters, the circumferential sealing elements (164) being disposed within an interior space (118) of the sterility cap (116).
- 25 3. The medical system (144) according to any one of claims 1 or 2, wherein the sterility cap (116) comprises a tubular sidewall (166) surrounding a sterility testing access opening (168), wherein the sterility testing access opening (168) is closed by at least one of the septum (142) and a removable stopper (170).
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4. The medical system (144) according to any one of claims 1-3, wherein the sterility cap (116) is accessible from an outer side (152) of the medical system (144), wherein an access to the sterility cap (116) is sealed by a removable seal (152).
5. The medical system (144) according to any one of claims 1-4, wherein the sterility cap (116) is engaged with the removable protective cap (148), such that, when the protective cap (148) is removed from the housing (146), the sterility cap (116) is removed from the preassembled functional module (110).
6. The medical system (144) according to any one of claims 1-5, wherein the sterility cap (116) has at least one side in common with the protective cap (148).
7. The medical system (144) according to any one of claims 1-6, wherein the preassembled functional module (110) further comprises at least one base plate (122), wherein the sterility cap (116) is connected to the base plate (122).
8. The medical system (144) according to any one of claims 1-7, wherein the preassembled functional module (110) further comprises at least one cover element (134), wherein the cover element (134) covers the electronics unit (120) and at least part of the analyte sensor (112).
9. The medical system (144) according to any one of claims 1-8, wherein the sterility cap (116) provides a sealed interior space (118), wherein the analyte sensor (112) and the insertion component (114) at least partially are located within the sealed interior space (118).
10. The medical system (144) according to any one of claims 1-9, wherein the medical system (144) further comprises at least one driving actuator (160) for driving the insertion component (114) into the body tissue of the user.
11. The medical system (144) according to any one of claims 1-10, wherein the preassembled functional module (110) further comprises at least one electrical energy storage device.
12. A method of sterility testing of a medical system (144), the medical system (144) comprising a preassembled functional module (110), the preassembled functional

- module (110) comprising an analyte sensor (112) for detecting at least one analyte in a body fluid of a user, and an electronics unit (120) electrically connected to the analyte sensor (112) and an insertion component (114) for inserting the analyte sensor (112) into a body tissue of the user, wherein the preassembled functional module (110) further comprises at least one sterility cap (116) at least partially surrounding the insertion component (114) and optionally at least a part of the analyte sensor (112), wherein the method comprises:
- A) inserting a rinsing liquid into an interior space (118) of the sterility cap (116); and
 - B) microbial testing of the rinsing liquid.
13. The method according to claim 12, wherein the sterility cap (116) has at least one sterility testing access (140), wherein step A) comprises attaching at least one fluidic adapter (172) to the sterility testing access (140), wherein the sterility testing access (140) comprises at least one multiple-step sealing (162), wherein step A) comprises removing at least one stopper from the sterility testing access (140), the stopper being in contact with a first-step sealing (176) of the multiple-step sealing (162), step A) further comprising attaching the fluidic adapter (172) to the sterility testing access (140), wherein the fluidic adapter (172) is in contact with a second-step sealing (178) of the multiple-step sealing (162), wherein the first-step sealing (176) has a larger equivalent diameter than the second-step sealing (178).
14. A method of providing the medical system (144) according to any one of claims 1-11, the method comprising:
- I. assembling a part (195) of the preassembled functional module (110), the part (195) of the preassembled functional module (110) comprising the analyte sensor (112) and the insertion component (114) as well as the sterility cap (116) at least partially surrounding the insertion component (114);
 - II. sterilizing the part (195) of the preassembled functional module (110);
 - III. assembling the preassembled functional module (110), the assembling comprising electrically connecting the electronics unit (120) to the analyte sensor (112); and
 - IV. assembling the medical system (144), the assembling comprising receiving the preassembled functional module (110) in the housing (146) and connecting the removable protective cap (148) to the housing (146).

15. The method according to claim 14, the method further comprising:
 - V. storing the medical system (144).
16. The method according to any one of claims 14-15, the method further comprising:
 - 5 VI. sterility testing of the medical system (144) by using the method of sterility testing of a medical system (144) according to any one of claims 12-13.