Claims

1. An insertion device for inserting a medical device into a body tissue of a user, the insertion device comprising:
   i) the medical device;
   ii) an insertion component configured for inserting the medical device into the body tissue;
   iii) an insertion component retractor;
   iv) a cap;
   v) a guide sleeve comprising at least one ramp;
   vi) an insertion sleeve; and
   vii) an elastic member;
   wherein, for inserting the medical device, the cap, the insertion component retractor and the insertion sleeve are movable relative to the guide sleeve from a distal position to a proximal position, wherein the ramp of the guide sleeve is configured to twist the insertion component retractor relative to the guide sleeve and the insertion sleeve when the cap is moved from its distal position to its proximal position, wherein the cap is movable from its proximal position to its distal position, thereby the insertion component retractor is moved from its proximal position to its distal position.

2. The insertion device according to claim 1, wherein the movement of the cap together with the insertion component retractor and the insertion sleeve from its distal position to its proximal position is initiable by an action of the user.

3. The insertion device according to any one of claims 1 or 2, wherein the movement of the cap together with the insertion component retractor from its proximal position to its distal position is initiable by relieving the action of the user.

4. The insertion device according to any one of claims 1 to 3, wherein before reaching the proximal position of the insertion component retractor, the ramp of the guide sleeve is in contact with a latch of the insertion component retractor and the ramp is configured for twisting the latch thereby twisting the insertion component retractor.

5. The insertion device according to claim 4, wherein the insertion sleeve comprises at least one groove, wherein the groove is configured for guiding the latch of the insertion component retractor, wherein the groove comprises at least one edge.

6. The insertion device according to claim 5, wherein the ramp of the guide sleeve is configured for forcing the insertion component retractor to twist by guiding the at least one latch to move within the groove of the insertion sleeve.

7. The insertion device according to any one of claims 1 to 6, wherein the elastic member is configured for driving the insertion component retractor to move from its proximal position to its distal position, wherein the elastic member comprises at least one spring, wherein the spring is connected to the insertion component retractor, wherein the spring is pre-tensioned and is actuatable by releasing a force applied to the cap.

8. The insertion device according to claim 7, wherein the at least one spring is configured to drive the movement of the insertion component retractor from its proximal position to its distal position and thereby drive the movement of the cap from its proximal position to its distal position.

9. The insertion device according to any one of claims 1 to 8, wherein the cap when being in the proximal position aligns with a proximal end of the guide sleeve.

10. The insertion device according to any one of claims 1 to 9, wherein the insertion device further comprises at least one safety lock, wherein the safety lock is configured for preventing re-movement of the insertion component retractor after being moved to its distal position.

11. The insertion device according to any one of claims 1 to 10, wherein the medical device comprises at least one analyte sensor for detecting at least one analyte in a bodily fluid of a user.

12. The insertion device according to claim 11, wherein the at least one analyte sensor comprises at least one two-electrode sensor.

13. A method for inserting a medical device into a body tissue of a user by using at least one insertion device according to any one of claims 1 to 12, wherein the method comprises:

a) inserting the medical device into the body tissue of the user by applying a force on the cap of the insertion device thereby moving the insertion component, the

cap, the insertion component retractor and the insertion sleeve relative to the guide sleeve from a distal position to a proximal position, and twisting the insertion component retractor relative to the guide sleeve and the insertion sleeve; and

b) retracting the insertion component by relieving the force applied to the cap thereby moving the cap from its proximal position to its distal position, thereby moving the insertion component retractor from its proximal position to its distal position.

14. The method according to claim 13, wherein the method comprises the following further steps:

a1) bringing the insertion device, in particular the proximal end of the guide sleeve in contact with a skin site of a user,

b1) applying pressure to the skin site of the user with the sensor patch.

15. The method according to claim 13 or 14, wherein the movement of the cap together with the insertion component retractor and the insertion sleeve from its distal position to its proximal position is initiated by action of the user.

16. The method according to any one of claims 13 to 15, wherein the movement of the cap together with the insertion component retractor from its proximal position to its distal position is initiated by relieving action of the user.