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(54) **PRINTABLE ELECTRICAL COMPONENT COMPRISING A PLASTIC SUBSTRATE**

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(57) **ABSTRACT**

The invention relates to a medical device comprising a printable electrical component (**1**), the printable electrical component (**1**) comprising a plastic substrate (L**1**) wherein at least electrical component (E) is applied to the plastic substrate, wherein the electrical component (E) comprises a dried conductive ink, wherein the plastic substrate is selected from the group comprising polycarbonate, cycloolefin copolymers, polymethylacrylate, polypropylene and wherein the dried conductive ink comprise silver and/or gold, wherein the electrical component (E) comprises feather-like and/or meander-like and/or spiral-shaped sections, whereby the medical device further comprises a fluid line, wherein the printable electrical component is located on the outside of the fluid line. The invention also relates to a medical device comprising a printable electrical component (**1**) the printable electrical component (**1**) comprising a plastic substrate (L**1**), wherein at least one electrical component (E) is applied to the plastic substrate, wherein the electrical component (E) comprises a dried conductive ink, wherein the plastic substrate is selected from a group comprising polycarbonate, cycloolefin copolymers, polymethyl-methacrylate, polypropylene and wherein the dried, conductive ink comprises silver and/or gold, wherein the electrical component (E) comprises at least one conductor section or at least two electrodes, characterized in that the electrical component (E) is part of an expansion sensor and/or a pressure sensor and/or a thermal flow sensor.