in that the metallic surfaces are characterized both by their degree of gloss and by their shade of color (CIE lab values).

Embodiments~~It is thus the aim~~ of the present invention seek to overcome or at least alleviate the problem described above.

T~~According to the invention, the aim is achieved in that t~~he decorative surface of a capacitive proximity sensor is coated with a thin semiconductor layer, the thickness of which is preferably between 10nm and 100nm. Silicon is particularly suited for this purpose. This coating can be applied by means of physical vapor deposition (PVD). Tightness, and thus preferred layers, can be achieved by means of a magnetron sputtering process.

According to a first aspect of the present invention, there is provided an electronic proximity sensor comprising: a decorative surface made of a synthetic material; a capacitive sensor element placed below the decorative surface disposed in such a manner that the sensor element can detect by means of capacitive evaluation whether a finger is moving closer to a sensor surface and thus whether switching functions must be executed; wherein the decorative surface is coated with a coating comprising at least one thin layer made of a semiconductor material which provides metallic gloss to the decorative surface and which allows transmission of electromagnetic rays, wherein the coating comprises a primer UV acryl lacquer layer provided as intermediate layer between the decorative surface and the at least one thin layer made of a semiconductor material in order to smooth any potential surface structure, wherein the at least one thin layer made of semiconductor material is a layer made of silicon or germanium or silicon and germanium.

According to a second aspect of the present invention, there is provided a method for producing an electronic proximity sensor, the method comprising the steps of: providing a decorative surface, the decorative surface comprising synthetic material; providing an electronic proximity sensor having a capacitive sensor element placed below the decorative surface, such that the sensor element can detect by means of capacitive evaluation whether a finger is moving closer to a sensor surface and thus whether switching functions must be executed; coating the decorative surface with a primer UV acryl lacquer layer, the primer UV acryl lacquer is configured to smooth any potential surface structure; coating the

decorative surface with a semiconductor layer, such that the semiconductor layer provides metallic gloss to the decorative surface and allows transmission of electromagnetic rays; wherein the semiconductor layer is a layer made of silicon or germanium or silicon and germanium.

Embodiments of t~~T~~he invention will now be described in more detail on the basis of examples.

According to a first embodiment of the present invention, a silicon layer with a thickness of 35nm (i.e. within the 10nm to 100nm thickness range) is deposited as semiconductor layer onto the surface of a capacitive proximity sensor. In order to smooth any potential surface structures, a primer (UV acryl lacquer) is first applied onto the surface. After applying the Si-layer by means of magnetron sputtering, a top layer (UV acryl lacquer) is applied in the present example for additional protection of the thin Si-layer. This results in a bluish to yellowish metallically shimmering surface. Thanks to the low electric conductivity of silicon, the sensor is not shielded electrically resp. capacitively.

According to a second embodiment of the present invention, the semiconductor layer is executed as a layer system. This can for example be structured as alternating layer system with a semiconductor, e.g. Si and a dielectric, e.g. SiO2. The total thickness of the Si-layers should in this case again be in the range between 10nm and 100nm. In order to achieve the desired transmission and reflection characteristic in the visible range of the spectrum of electromagnetic rays, performance-enhanced optimization programs for optical thin-films are nowadays available to the one skilled in the art. A more in-depth explanation in this respect is therefore eschewed in the present case.