fer preferably is achieved via a wire connection between the display module and the medical device. It is, however, also possible that data are exchanged in a wireless mode, e. g. via infrared or radio frequency transmission. Examples of suitable display interfaces according to the present inventions are: Serial Peripheral Interface Bus (SPI bus), Universal Serial Bus (USB), Inter-Integrated Circuit (I^2C), Enhanced Graphics Adapter (EGA), Video Graphics Array (VGA), Digital Visual Interface (DVI), Unified Display Interface (UDI). Other suitable interfaces are well known to those skilled in the art and are principally also suited for the purposes of the present invention.

[0028] In a preferred embodiment, the object of the present invention is thus achieved by means of Braille or Braille-like module preferably made with organic field-effect transistors and plastic actuators pluggable into said display interface of the medical device, wherein the medical device is the same developed for users not visually impaired comprising a visual display. In other words, the present invention discloses a medical device, which is preferably developed for both visually impaired and for not visually impaired users. Indeed, the medical device comprises preferably an analytical test section or a drug administration section or both; a visual display for users not visually impaired displaying data generated by the medical device and/or giving instructions for operating the medical device; and a display interface into which a tactile display module for visually impaired users transmitting data generated by the medical device and/or giving instructions for operating the medical device can be plugged.

[0029] When the user needing the medical device is visually impaired the tactile display module for visually impaired users is plugged into the medical device so that both visually impaired users and users not visually impaired can read the data generated or receive instructions given by the medical device, and/or control the medical device.

[0030] The tactile display module is preferably so manufactured that the thin sheet display is comprised in a sort of solid frame or body and assumes at least partly a rigid shape.

[0031] Upon plugging, the tactile display module can be disposed in different ways relative to the medical device. For example use of a relatively long and flexible cable could be made and the module may lay at one side of the medical device. Preferably, however, for size optimization reasons, the body of the tactile display module is firmly fixed, at least at one point, to the medical device and preferably can be disposed over the visual display. Particularly, the module can be made to rotate along an axis or slide along guide lines in order to expose the visual display whenever desired. Firm fixing to the medical device could be accomplished at the display interface itself if the module body is suitably designed, e.g. equipped with a rigid plug, which is continuous part of the rigid body, while for example being still capable of rotating at this point. Otherwise, the module could be plugged via a relatively short and flexible wiring and firm fixing of the module body to the medical device occurs at a different point.

BRIEF DESCRIPTION OF THE DRAWINGS

[0032] More in detail, the present invention can be best understood when read in conjunction with the following drawings, representing favorite embodiments, in which:

[0033] FIG. **1** represents schematically a medical device in use by a person not visually impaired.

[0034] FIG. **2** represents schematically a system comprising the same medical device as in FIG. **1** and a plugged in tactile display module in use by a person visually impaired.

DESCRIPTION OF SELECTED EMBODIMENTS

[0035] In FIG. **1** a medical device **100** in use by a person not visually impaired is shown. According to one embodiment the medical device **100** comprises preferably an analytical test section **110**. According to another embodiment the medical device **100** comprises preferably a drug administration section **111**. According to another embodiment the medical device **100** comprises both an analytical test section **110** and a drug administration section **111**.

[0036] The medical device **100** comprises preferably also functional buttons **120** to control the operation of the medical device **100**. These buttons **120** might comprise visual signs or written text such as "on/off" and preferably also signs **121**, by which the same function is interpretable by tact, e.g. Braille characters.

[0037] The medical device **100** comprises preferably a standard visual display **130**, e.g. an LCD or an e-paper display, to display operational instructions during use and/or data generated or memorized by the medical device **100**.

[0038] According to the present invention the medical device **100** comprises also a display interface **140**, into which a module **160** for visually impaired users can be plugged, wherein the display interface **140** is preferably any of the following: a Serial Peripheral Interface Bus (SPI bus), a Universal Serial Bus (USB), an Inter-Integrated Circuit (I^2C), an Enhanced Graphics Adapter (EGA), a Video Graphics Array (VGA), a Digital Visual Interface (DVI), a Unified Display Interface (UDI).

[0039] In FIG. **2** a system is shown comprising the same medical device **100** of FIG. **1** and a tactile display module **160** for visually impaired users plugged into the display interface **140** of the medical device **100** by means of wiring **150**. Wiring **150** apart from allowing data transfer between the medical device **100** and the tactile display module **160** preferably provides also power to the tactile display module **160**.

[0040] The tactile display module **160** is preferably a Braille module comprising Braille cells **161**, each cell comprising six dot positions **162**, which can be raised or remain flat depending on the character to display. To each cell **161** corresponds thus a character or symbol to be interpreted by tact, e.g. by sliding a fingertip, by a visually impaired user.

[0041] Alternatively, the tactile display module **160** is a Braille-like module comprising Braille-like cells **161**, each cell comprising an array of dot positions **162**, which can be raised or remain flat depending on the conventional language sign to display. In this case, to each cell **161** corresponds thus a conventional character, e.g. letter, number or symbol to be interpreted by tact, e.g. by sliding a fingertip, by a visually impaired user.

[0042] The tactile display module **160** is preferably disposed, for size optimization reasons, over the standard visual display **130**. From here said module **160** can either rotate or slide back and forth in order to expose the visual display. Of course another way would be that to plug the module **160** in and off every time this is desired. In FIG. **2** the tactile display module **160** is schematically represented with a cut corner in order to show the presence of the visual display **130** underneath.

[0043] When the user is not visually impaired, just the medical device **100** is preferably used. When the user is