

tive, it is contemplated that connection elements 30 and 66 can each define sensor elements that interact with one another when bG meter 20 is positioned in internal receptacle 64. In this embodiment, the interaction between connection elements 30 and 66 can activate an alternative communication interface between bG meter 20 and docking device 50. For example, bG meter 20 and docking device 50 can each include wireless transceivers that are activated upon interaction of the sensors. The wireless transceivers interact with each other to define the communication interface between bG meter 20 and docking device 50. In one form, the sensors are defined by external contacts that engage with each other when bG meter 20 is positioned in internal receptacle 64.

[0079] Referring generally to FIGS. 5 and 6, system 10 is illustrated with bG meter 20 positioned in internal receptacle 64 of docking device 50. In the illustrated embodiment, housing 22 of bG meter 20 is substantially surrounded by housing 51. In another non-illustrated embodiment, housing 22 of bG meter 20 is completely surrounded by housing 51. Additionally, docking device 50 substantially retains its external profile and size when bG meter 20 is positioned in internal receptacle 64. More particularly, bG meter 20 is positioned substantially within the external profile of docking device 50. To that end, the external profile, size and shape of docking device 50 are generally not affected by the positioning of bG meter 20 in internal receptacle 64. As further illustrated in FIG. 6, surface 56 of docking device 50 includes an opening 57 extending therethrough into communication with internal receptacle 64 adjacent to receiving portion 62. Opening 57 exposes a portion of bG meter 20 to assist a user in its positioning into and removal from internal receptacle 64. In the illustrated embodiment, meter housing 22 includes a plurality of ridges 46 positioned along a surface of housing 22 that faces opening 57 adjacent to test element port 28. Ridges 46 are generally structured to enhance a user's grip on bG meter 20 when it is being positioned relative to docking device 50. When bG meter 20 is positioned in internal receptacle 64 the ridges 46 are generally positioned adjacent to and accessible through opening 57. In other non-illustrated embodiments, it is contemplated that ridges 46 can be replaced by one or more other grip enhancing features, including for example, knurling, teeth, indentations, serrations or handles, just to name a few possibilities.

[0080] Still, in other embodiments it is contemplated that ridges 46 are absent from housing 22 of bG meter 20. In these embodiments, a user can grip housing 22 adjacent to test element port 28 when positioning bG meter 20 in internal receptacle 64. Docking device 50 may include another arrangement for facilitating removal of bG meter 20 from internal receptacle 64. In one non-illustrated example, docking device 50 includes an ejection mechanism engageable with bG meter 20 to facilitate its removal from internal receptacle 64. For example, the ejection mechanism can include a lever arm linked to a depressible ejection button positioned on housing 51 of docking device 50. In this arrangement, depression of the ejection button by a user actuates the lever arm which in turns applies a removal force on bG meter 20. In other non-illustrated embodiments, it is contemplated that docking device 50 includes one or more elements for securing bG meter 20 in internal receptacle 64. Examples of elements for securing bG meter 20 in internal receptacle 64 include latches, straps, clasps and clamps, each of which can be positioned on housing 51 adjacent to receiving portion 62. As

a further example, a ball-detent mechanism can be utilized for securing bG meter 20 in internal receptacle 64.

[0081] FIG. 7 provides one embodiment of a schematic of docking device 50. Docking device 50 includes a controller 74, memory 76 associated with controller 74, a programmable processor 78 associated with controller 74 and connected with memory 76, and a real-time clock 80 associated with controller 74 and connected with processor 78. Display 70 is connected with processor 78 with, for example, a display driver, and operable to provide a user readable display of output from processor 78. User entry means 68 is connected with processor 78 and accessible by the user to provide input to processor 78. Processor 78 is further programmable to receive input commands from user entry means 68 and provide an output that responds to the input commands.

[0082] Processor 78 is connected with connection element 66 and operable to process and record data in memory 76 relating to information stored on memory 40 of bG meter 20. Processor 78 is also operable to produce a representation of the information stored in memory 40 of bG meter 20 on display 70. In an exemplary form, the information stored in memory 40 of bG meter 20 is bG measurement data, although other types of information are contemplated. In one embodiment, one or both of processor 78 of docking device 50 and processor 42 of bG meter 20 is operable to permit an exchange of information between docking device 50 and bG meter 20 in response to bG meter 20 being positioned in internal receptacle 64. In alternative embodiments, the information exchange is generally seamless; that is, it occurs generally automatically without user interaction with entry means 68 or after a single user interaction with entry means 68. It should be appreciated that processor 42 of bG meter 20 is operable to process and record data in memory 40 relating to information which is provided from docking device 50. In one exemplary form, the information provided from docking device 50 is related to the calendar stored in memory 40 of bG meter 20, although other types of information are contemplated. Processor 78 is also operable to interface with one or more of controller 38 and processor 42 of bG meter 20 to facilitate use of bG meter 20 when it is positioned in internal receptacle 64. For example, input commands can be entered with user entry means 68 and passed to processor 42 of bG meter 20. Processor 78 is also operable to produce representations on display 70 of docking device 50 that correspond to representations that are produced on display 24 of bG meter 20. In this regard, bG meter 20 remains fully functional when it is positioned in internal receptacle 64. Accordingly, bG meter 20 can be used to measure bG levels either alone or in combination with docking device 50.

[0083] While not previously discussed, docking device 50 may also include a connection element 72 which, in one embodiment, is positioned on end 60 of housing 51 opposite of receiving portion 62. Connection element 72 may be, for example, a mini-USB port or plug, although other variations in the form of connection element 72 are contemplated. Processor 78 is also connected with connection element 72 and operable to control the transfer of information to and from docking device 50 via connection element 72. In one form, connection element 72 may be engaged with a corresponding connection element on a secondary device, such as a PC, to facilitate communication between the secondary device and docking device 50. In this arrangement, it is contemplated that the secondary device could also communicate with bG meter 20 when it is positioned in internal receptacle 64.