

processing many parallel signals as one direction or position defining parameter. A user of the invention may calibrate and adapt embodiments of the invention to desired function/sensitivity, i.e. different pressures may have different functions for different users. The invention increases the reliability for input devices, e.g. a prior art joy stick with five pads does not work if one pad is "out of order" while the invention still works as desired if any pad is defective. The invention may be used together with known domes as these domes may be deformed somewhat differently such that more than one pad may be contacted fulfilling, to some extent, the demands of the invention, but a soft pressure actuator instead of a metal dome is preferred according to the invention.

[0092] The terminology used herein describes particular embodiments only and is not intended to be limiting of the invention. As used herein, the singular forms "a", "an" and "the" include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms "comprises" "comprising," "includes" and/or "including" when used herein, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof. Unless otherwise defined, all terms (including technical and scientific terms) used herein have the same meaning as commonly understood by one of ordinary skill in the art. It will be further understood that terms used herein should be interpreted as having a meaning consistent with their meaning in the context of this specification and the relevant art and will not be interpreted in an idealized or overly formal sense unless expressly so defined herein. The present invention has been described above with reference to specific embodiments but other embodiments than those described are possible within the scope of the invention. The above-described embodiments should be regarded as illustrative rather than restrictive, and it should be appreciated that variations may be made in those embodiments by persons skilled in the art without departing from the scope of the present invention as defined by the appended claims.

What is claimed is:

1. An input device comprising a switch device for mounting on a support structure of the input device and a soft conductive input actuator operatively connected to the switch device and adapted for mounting over the switch device, the switch device comprising at least one switch pad with a plurality of press detection switches, wherein the soft conductive input actuator is configured to make contact with at least one press detection switch of the plurality of press detection switches upon depression of the soft conductive input actuator against the switch pad such that a signal is output from the press detection switch.

2. The input device according to claim 1, wherein the switch pad comprises: a lower surface which is adapted to be attached to the support structure; and an upper surface; wherein the upper surface forms an actuator contacting surface for the plurality of press detection switches.

3. The input device according to claim 2, wherein at least one press detection switch of the plurality of press detection switches is contacted simultaneously upon depression of the soft conductive input actuator.

4. The input device according to claim 3, wherein the number of contacted press detection switches, upon depression of the soft conductive input actuator when in use, is indicative of the pressure against the soft conductive input actuator.

5. The input device according to claim 3, wherein the press detection switch, which is contacted upon depression of the soft conductive input actuator when in use, is indicative of where on the soft conductive input actuator the pressure is applied.

6. The input device according to claim 2, wherein the plurality of press detection switches is evenly distributed in a matrix pattern throughout the upper surface of the switch pad.

7. The input device according to claim 6, wherein the matrix pattern comprises at least one column with a plurality of press detection switches and/or at least one row with a plurality of press detection switches, wherein the column and the row of press detection switches comprises different number of press detection switches.

8. The input device according to claim 2, wherein the plurality of press detection switches is distributed in a circular pattern on the upper surface of the switch pad.

9. The input device according to claim 1, wherein the soft conductive input actuator is made of a deformable material.

10. The input device according to claim 9, wherein the deformable material is conductive.

11. The input device according to claim 10, wherein the soft conductive input actuator has a touch surface and a contact surface facing the switch pad, which contact surface is configured to come in contact with the switch pad when the touch surface of the actuator is pressed towards the switch pad such that a signal is output from the switch device.

12. The input device according to claim 11, wherein the contact surface has a varying shape.

13. The input device according to claim 12, wherein the contact surface has an even shape.

14. The input device according to claim 11, wherein the contact surface has a conical or frustoconical shape.

15. The input device according to claim 11, wherein the contact surface has a rounded shape.

16. The input device according to claim 11, wherein the contact surface is deformable.

17. The input device according to claim 10, wherein the soft conductive input actuator is a thin sheet.

18. The input device according to claim 10, wherein the soft conductive input actuator has an elongated shape.

19. The input device according to claim 10, wherein the soft conductive input actuator is hollow.

20. The input device according to claim 18, wherein the soft conductive input actuator has a substantially constant thickness.

21. A switch device for operating functions in an electronic device, comprising:

at least one switch pad mounted on a support structure, wherein the switch pad comprises a plurality of press detection switches, wherein each press detection switch of the plurality of press detection switches is configured to output a signal upon depression of the press detection switch.