

## Claims

1. A dry powder inhaler adapted for detachably mounting a compliance monitor having a pressure sensor, the inhaler comprising:
  - 5       • a housing comprising first and second shell parts,
  - a mouthpiece which defines an inhalation passage,
  - an orifice in an external surface of the housing, and
  - a conduit from the orifice to the inhalation passage which is formed by a channel in the second shell part and a corresponding channel cover in the first shell part, for  
10       connecting the pressure sensor to the inhalation channel.
2. An inhaler according to claim 1 wherein the first and second shell parts are moulded plastic parts.
3. An inhaler according to claim 1 or claim 2, wherein the conduit has a cross-sectional area of less than 5 mm<sup>2</sup>, preferably less than 2 mm<sup>2</sup>, such as about 1 mm<sup>2</sup>.
- 15   4. An inhaler according to any of claims 1 to 3, wherein the channel has a ledge on each side.
5. An inhaler according to claim 4, wherein the channel cover is formed as a protrusion.
6. An inhaler according to claim 5 wherein the protrusion and ledges are welded together along their length but are not welded together at the external surface of the housing.
- 20   7. An inhaler according to claim 6 wherein the height of the protrusion is greater than the depth of the ledges and the width of the protrusion is less than the width of the channel and ledges.
8. An inhaler according to any of claims 1 to 7 wherein the orifice is formed at the join between the shell parts.

9. An inhaler according to any of claims 4 to 7, wherein the orifice is formed entirely within the second shell part.
10. An inhaler according to claim 9, wherein the channel has a step near the orifice so that its depth is increased.
- 5 11. An inhaler according to claim 10 wherein the channel has an end ledge adjacent to the orifice on the inside of the second shell part, wherein the end ledge connects the ledges on each side of the channel.
- 10 12. An inhaler according to any of claims 1 to 11 which comprises a compartment for a blister strip having a plurality of blisters which contain powdered medicament for inhalation, an indexing mechanism for moving the blister strip, a piercer which is mounted on the underside of the mouthpiece, and an actuator which drives the indexing mechanism to move one or more blisters into alignment with the piercer and which then moves the mouthpiece relative to the housing so that the piercer pierces the aligned blister(s), wherein
- 15     • the mouthpiece comprises a sleeve,
- the housing comprises a chimney which fits closely inside the sleeve,
- the conduit extends through the chimney so that, when the mouthpiece is in the piercing position, the conduit is in fluid communication with the inhalation passage.
- 20 13. An inhaler according to any of claims 1 to 12 which further comprises a compliance monitor having a pressure sensor, wherein, when the compliance monitor is mounted onto the inhaler, the pressure sensor is in fluid communication with the orifice.
14. An inhaler according to claim 13 wherein the inhaler the compliance monitor have one or more formations for detachably mounting the compliance monitor onto the inhaler.
- 25 15. An inhaler according to claim 13 or claim 14 wherein compliance monitor has a sealing member which surrounds the pressure sensor and forms a seal with the housing around the orifice when the compliance monitor is mounted onto the inhaler.