Claims

1. Electrical plug-and-socket device (1) for use in hazardous areas, comprising:
   a plug part (2);
   a socket part (3) having
      at least one outer housing (4),
      an inner part (5) rotatable relative to the outer housing (4),
      a locking pin (6), having
         an adapter end (7), and
         an engagement end (8) opposite the adapter end (7),
      a switching pin (9) configured to switch a load (10) on or off when the locking pin (6) engages with the switching pin (9);
   wherein the locking pin (6)
      is longitudinally movably mounted in the inner part (5), and
      configured to engage, at the engagement end (8), with the switching pin (9) to switch the load (10) on or off.

2. The electrical plug-and-socket device (1) according to claim 1 further comprising the load (10) and a rear switch part (11), wherein
   the load (10) is arranged in a rear switch part (11), and
   the switching pin (9) projects from the rear switch part (11) toward the locking pin (6).

3. The electrical plug-and-socket device (1) according to claim 2 further comprising a cover (13), wherein,
   at its front end (12) facing the inner part (5), the rear switch part (11) is covered by the cover (13).

4. The electrical plug-and-socket device (1) according to claim 3, wherein
   the cover (13) comprises contact element openings (14) and a switching pin opening (15) formed in the cover (13).

5. The electrical plug-and-socket device (1) according to claim 4, wherein

the contact element openings (14) and the switching pin opening (15) are designed to be breakdown-safe when both contact elements (16) of the load (10) projecting form the load (10) and the switching pin (9) are inserted into the contact element openings (14) and the switching pin opening (15), respectively.

6. The electrical plug-and-socket device (1) according to claim 5, wherein

the contact elements (16) are electrically connected in the inner part (5) to female connectors (17) of the inner part (5) for plug contact pins of the plug part (2).

7. The electrical plug-and-socket device (1) according to one of claims 3 to 6, wherein

the cover (13) is designed to be screwed to the rear switch part (11), forming spark-breakdown-safe gaps (18).

8. The electrical plug-and-socket device (1) according to one of claims 3 to 7, wherein the socket part (3) further comprises a locking insert (19), wherein the locking insert (19)

is arranged between the inner part (5) and the cover (13), and

comprises

a rotation guide (20) for the inner part (5), and

a locking device (21) for the locking pin (6).

9. The electrical plug-and-socket device according to claim 8, wherein

the rotation guide (20) is designed at least as a guide wall (22)

projecting toward the inner part (5), and

configured to engage with guide grooves (23) and/or a guide recess (24) on the inner part (5).

10. The electrical plug-and-socket device according to claim 8, wherein the locking device (21) comprises a pin receptacle (25) with at least one locking recess (24), wherein the at least one locking recess (24)

is open toward the locking pin (6) when assembled, and

configured to engage with a locking projection (27), of the locking pin (6), projecting substantially radially from the locking pin (6), in a torque-proof manner when the locking pin (6) is axially moved toward the locking insert (19).

11. The electrical plug-and-socket device (1) according to one of the preceding claims, wherein

the locking pin (6) and the switching pin (9) are configured to axially movably engage with each other.

12. The electrical plug-and-socket device (1) according to one of the preceding claims, wherein, at its connecting end (29), the switching pin (9) comprises

one insertion slot (28), in which the engagement end (8) of the locking pin (6) axially movably engages, and,

in addition to the insertion slot (28), at least one slot opening (30), in which an insertion projection (31) on the engagement end (8) of the locking pin (6) axially movably engages.

13. The electrical plug-and-socket device (1) according to one of the preceding claims when dependent on claim 5, wherein

the load (10) further comprises an electrical connection (32) to plug contacts (33),

the contact elements (16) are connected via the electrical connection (32) to the plug contacts (33), and

the plug contacts (33) are designed to be inserted into plug contact openings (35) comprised at the rear end (34) in the rear switch part (11), forming a spark-breakdown-safe gap.

14. The electrical plug-and-socket device (10) according to claim 13, wherein

a spark-breakdown-safe gap is formed between the plug contact openings (35) and the inserted plug contacts (33).

15. The electrical plug-and-socket device (10) according to one of claims 1 to 10, wherein the plug part (2) comprises an adapter recess; and wherein the adapter recess is configured to:

receive the adapter end (7) if the plug part (2) and the socket part (3) match; and

press the adapter end (7) into the inner part (5) if the adapter recess in the plug part (5) does not match the adapter end (7).