WHAT IS CLAIMED IS:

1. A switch device for a hazardous location, the switch device comprising:

an ignition protected housing;

a line-side terminal and a load-side terminal coupled to the housing;

a bus structure in the housing and including at least one solid state switching element operable in an arc-free manner to connect the load-side terminal to the line-side terminal and disconnect the load-side terminal from the line-side terminal;

an on/off input selector to change a state of the at least one solid state switching element;

a lockout input selector;

a controller monitoring a state of the on/off input selector, and responsive to a change in state of the lockout input selector, the controller is configured to activate a safety lockout condition disabling the on/off input selector and preventing a change in state of the on/off input selector;

whereby the switch device is configured for use in an explosive environment without requiring a separately provided explosion-proof enclosure.

2. The switch device of claim 1, wherein the controller is further configured to confirm a change of state of the at least one solid state switching element, and provide user confirmation of the changed state.

3. The switch device of claim 1, wherein the on/off input selector is a mechanical input selector.

4. The switch device of claim 3, wherein the on/off input selector is a mechanical toggle switch.

5. The switch device of claim 3, wherein the mechanical toggle switch is securable in the off position via a mechanical lock element.

6. The switch device of claim 5, wherein the mechanical lock element is a padlock.

7. The switch device of claim 1, wherein the on/off input selector is incorporated in an electronic display.

8. The switch device of claim 1, wherein the controller is configured to deactivate the safety lockout condition when a predetermined passcode is provided by a user.

9. The switch device of claim 1, further comprising a detector that senses a presence or absence of a mechanical lock element for the safety lockout.

10. The switch device of claim 9, wherein detector is configured to sense a padlock shank.

11. The switch device of claim 1, wherein multiple and different types of safety lockout components are provided.

12. The switch device of claim 11, wherein the multiple and different types of safety lockout components are operable in combination to effect a multi-step lockout procedure.

13. The switch device of claim 11, wherein the multiple and different types of safety lockout components include a mechanical toggle switch and a lock opening, a padlock and detector sensing a presence of the padlock, and a multifunctional display.

14. The switch device of claim 1, further comprising at least one mechanical switch contact in the bus structure, and the housing including a sealed internal enclosure containing the at least one mechanical switch contact, thereby precluding the switch contact from being an ignition source in the explosive environment.

15. The switch device of claim 1, wherein the at least one at least one solid state switching element is encapsulated.

16. The switch device of claim 1, wherein the device is configured as a solid state overcurrent protection device.

17. The switch device of claim 1, wherein the device is configured as a hybrid overcurrent protection device.

18. The switch device of claim 1, wherein the housing is electrically grounded.

19. The switch device of claim 1, wherein the housing exhibits anti-static properties.

20. The switch device of claim 1, wherein the housing is chemically resistant in the hazardous location.