CLAIMS

What is claimed is:

1. An industrial control device comprising:

a display;

a body including a capacitive slider sensor, a first input graphic, and a window, the first input graphic overlapping the capacitive slider sensor, the window being transparent and aligned with the display to permit the display to be viewed through the window; and

a controller coupled to an output of the capacitive slider sensor to receive signals from the capacitive slider sensor, the controller being coupled to the display and configured to control the display.

2. The industrial control device according to Claim 1, wherein the body is a molded body, the capacitive slider sensor is an in-molded capacitive slider sensor, and the first input graphic is an in-molded graphic.

3. The industrial control device according to Claim 2, wherein the molded body is a transparent polymer that is injection molded around an applique.

4. The industrial control device according to Claim 2, wherein the output of the capacitive slider sensor includes a plurality of in-molded electrical traces and the industrial control device further includes a plurality of connector pins directly connected to the plurality of in-molded electrical traces, the connector pins coupling the in-molded electrical traces to the controller for electrical communication therebetween.

5. The industrial control device according to Claim 2 further comprising a carrier including a carrier plate and a plurality of board supports extending from a back side of the carrier plate, wherein the display is coupled to a front side of the carrier plate, wherein the controller includes a first circuit board and a plurality of second circuit boards, the first circuit board is coupled to the back side of the carrier plate and each second circuit board is received in a slot defined by a corresponding pair of board supports of the plurality of board supports.

6. The industrial control device according to Claim 5, wherein one of the body and the carrier plate includes a plurality of locating ridges and the other of the body and the carrier plate defines a plurality of alignment grooves, each locating ridge being received in a corresponding alignment groove.

7. The industrial control device according to Claim 1, wherein the capacitive slider sensor is a projective capacitive slider sensor.

8. The industrial control device according to Claim 7, wherein the body further includes a plurality of second input graphics and a plurality of capacitive input sensors, each of the second input graphics overlapping a corresponding one of the capacitive input sensors.

9. The industrial device according to Claim 8, wherein a front surface of the body is a rigid material, the capacitive slider sensor being configured to be activated by contact with the front surface at an area overlapping the first input graphic and each second capacitive input sensor being configured to be activated by contact with the front surface at an area overlapping the corresponding second input graphic.

10. The industrial control device according to Claim 1, wherein the controller is configured to adjust a set point value based on input from the capacitive slider sensor, wherein the controller is configured to change the set point value an amount proportional to a speed of a user activating the capacitive slider sensor.

11. The industrial control device according to Claim 1 further comprising a housing coupled to the body, wherein the controller is disposed within the housing, wherein the housing includes a plurality of retaining clips and the body defines a plurality of retention apertures, each retaining clip resiliently snapping into a corresponding one of the retention apertures to couple the housing to the body.

12. The industrial control device according to Claim 1, wherein the body includes an inner shroud and an outer shroud, the inner shroud being disposed about the display and the outer shroud being disposed about the inner shroud and spaced

~~apart therefrom to define a cavity, wherein the industrial control device further comprises a seal member disposed in the cavity and configured to form a seal with a facia plate disposed about the inner shroud.~~

~~13. The industrial control device according to Claim 12 further comprising the facia plate, wherein the facia plate defines an aperture through which the inner shroud extends, the outer shroud being disposed about the aperture.~~

~~14. The industrial control device according to Claim 12 further comprising a housing, a front collar, a rear collar, a pair of screws, and a pair of retaining clips, wherein the housing is coupled to the body and the controller is disposed within the housing, wherein the inner shroud defines a pair of retention apertures, the front collar being disposed about the inner shroud between the inner apertures and the facia plate and defining a pair of abutment surfaces, the rear collar being disposed about the housing, each retaining clip extending from the rear collar in a direction toward the front collar and being received in a corresponding one of the retention apertures, and each screw being threadably engaged to the rear collar and abutting a corresponding one of the abutment surfaces.~~

~~15. The industrial control device according to Claim 1, wherein the controller is configured to control the display to visually output a numeric value of a current process, the controller being configured to adjust a font size of the numeric value based on an amount of digits of the numeric value.~~

1. An industrial control device comprising:

a display;

a unitary body including a facia wall, an inner shroud, and an outer shroud, the facia wall including a window, wherein the window is a transparent material and aligned with the display to permit the display to be viewed through the window, wherein the inner shroud extends in a rearward direction from a rear side of the facia wall, wherein the outer shroud is disposed about the inner shroud and extends in the

rearward direction from the rear side of the facia wall and is spaced apart from the inner shroud to define a cavity;

a seal member disposed in the cavity and configured to form a seal with a facia plate disposed about the inner shroud;

a first sensor configured to detect contact with a front surface of the facia wall; and

a controller coupled to an output of the first sensor for electrical communication therewith, the controller being coupled to the display and configured to control the display.

2. The industrial control device according to Claim 1, wherein the first sensor is a capacitive slider sensor.

3. The industrial control device according to Claim 1, wherein the facia wall includes an input graphic overlapping the first sensor.

4. The industrial control device according to Claim 1, wherein the unitary body is a molded body and the first sensor is in-molded in the facia wall.

5. The industrial control device according to Claim 4, wherein the unitary body includes a first input graphic that is in-molded in the facia wall and overlaps the first sensor.

6. The industrial control device according to Claim 5, wherein the unitary body further includes a second input graphic and a second sensor, wherein the second

sensor is discrete from the first sensor and the second input graphic is in-molded in the facia wall and overlaps the second sensor.

7. The industrial control device according to Claim 4, wherein the output of the first sensor includes a plurality of electrical traces in-molded in the facia wall and the industrial control device further includes a plurality of connector pins directly connected to the plurality of electrical traces, the connector pins coupling the electrical traces to the controller for electrical communication therewith.

8. The industrial control device according to Claim 1 further comprising a carrier including a carrier plate and a plurality of board supports extending from a back side of the carrier plate, wherein the display is coupled to a front side of the carrier plate, wherein the controller includes a first circuit board and a plurality of second circuit boards, the first circuit board is coupled to the back side of the carrier plate and each second circuit board is received in a slot defined by a corresponding pair of board supports of the plurality of board supports.

9. The industrial control device according to Claim 8, wherein one of the unitary body and the carrier plate includes a plurality of locating ridges and the other of the unitary body and the carrier plate defines a plurality of alignment grooves, each locating ridge being received in a corresponding alignment groove.

10. The industrial control device according to Claim 1, wherein the controller is configured to adjust a set point value based on input from the first sensor.

11. The industrial control device according to Claim 10, wherein the controller is configured to change the set point value an amount proportional to a speed of a user activating the first sensor via a sliding contact along the front surface of the facia wall.

12. The industrial control device according to Claim 1 further comprising a housing coupled to the unitary body, wherein the controller is disposed within the housing, wherein the housing includes a plurality of retaining clips and the unitary body defines a plurality of retention apertures, each retaining clip resiliently snapping into a corresponding one of the retention apertures to couple the housing to the unitary body.

13. The industrial control device according to Claim 1, wherein the inner shroud is disposed about the display.

14. The industrial control device according to Claim 1 further comprising the facia plate, wherein the facia plate defines an aperture through which the inner shroud extends, the outer shroud and the seal being disposed about the aperture.

15. The industrial control device according to Claim 1 further comprising a housing, a front collar, a rear collar, a plurality of tightening members, and a pair of retaining clips, wherein the housing is coupled to the unitary body and the controller is disposed within the housing, wherein the inner shroud defines a pair of retention apertures, the front collar being disposed about the inner shroud between the rear collar and the facia plate, the rear collar being disposed about the housing, each retaining clip extending from the rear collar in a direction toward the facia plate and

being received in a corresponding one of the retention apertures, and each tightening member being configured to engage the rear collar and the front collar such that actuation of the tightening members translates the front collar toward the facia plate.

16. The industrial control device according to Claim 15, wherein each tightening member is a screw, wherein the front collar defines a plurality of abutment surfaces and each screw is threadably engaged to the rear collar and abutts a corresponding one of the abutment surfaces such that rotation of each screw in a predetermined rotational direction causes each screw to translate the front collar toward the facia plate.

17. The industrial control device according to Claim 1, wherein the controller is configured to control the display to visually output a numeric value of a current process, the controller being configured to adjust a font size of the numeric value based on an amount of digits of the numeric value.

18. An industrial control device comprising:

a display;

a body including a molded rigid material, a discrete projective capacitive slider sensor, a plurality of electrically conductive traces, a first input graphic, and a background graphic, wherein the discrete projective capacitive slider sensor, the plurality of electrically conductive traces, the first input graphic, and the background graphic are in-molded in the rigid material, the background graphic defining a window, the first input graphic overlapping the discrete projective capacitive slider sensor, the window being a transparent region of the molded rigid material and aligned with the

display to permit the display to be viewed through the window, wherein the plurality of electrically conductive traces are coupled to the discrete projective capacitive slider sensor for electrical communication therewith;

a housing coupled to the body; and

a controller disposed within the housing and coupled to the plurality of electrically conductive traces to receive signals from the discrete projective capacitive slider sensor, the controller being coupled to the display and configured to control the display.

19. The industrial control device according to Claim 18, wherein the body includes an inner shroud and an outer shroud, the inner shroud being disposed about the display and the outer shroud being disposed about the inner shroud and spaced apart therefrom to define a cavity, wherein the industrial control device further comprises a seal member disposed in the cavity and configured to form a seal with a facia plate disposed about the inner shroud.

20. The industrial control device according to Claim 19, further comprising a front collar, a rear collar, a pair of screws, and a pair of retaining clips, wherein the inner shroud defines a pair of retention apertures, the front collar being disposed about the inner shroud between the retention apertures and the facia plate and defining a pair of abutment surfaces, the rear collar being disposed about the housing, each retaining clip extending from the rear collar in a direction toward the front collar and being received in a corresponding one of the retention apertures, and each screw being threadably engaged to the rear collar and abutting a corresponding one of the abutment surfaces.