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(2) Date: **May 20, 2022****ABSTRACT**

A proximity sensor with integrated control features includes a sensing circuit that detects a target feature in proximity thereto and generates a sensor signal responsive to detection of the target feature, an interface circuit that receives inputs from an external device and conditions the inputs to provide digital logic outputs, output electronics that selectively provide actuation signals for driving a load operatively connected to the proximity sensor, and a microcontroller unit in communication with the sensing circuit, the interface circuit, and the output electronics. The microcontroller unit receives sensor signals and digital logic outputs from the sensing circuit and the interface circuit, samples the sensor signals and digital logic outputs, and selectively provides activation signals to the output electronics based on the state of the digital logic outputs and/or the sensor signals, wherein the activation signals cause the output electronics to output the actuation signals to drive the load.

Related U.S. Application Data

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