

ABSTRACT

RANGE SENSOR SUITABLE FOR A SANITARY DEVICE

The signal circuit of the range sensor is provided with an operational amplifier for converting the current output from one of both end terminals of a position sensitive photodetector (PSD) into a voltage, and an operational amplifier for converting the current output from a common terminal into a voltage. The ratio of the voltages corresponding to the total current values and the current value output from the one end terminal is calculated so as to measure the distance between the object and the range sensor. The range sensor is applied to a urinal flushing device, a toilet stool flushing device, a washing device for a washstand, a hot-water jetting toilet stool, a toilet cover opening mechanism, etc., so as to automatically start or stop the flushing operation, the washing operation, the opening operation, etc. by automatically detecting that a user approaches or leaves a predetermined range.

Figure 1a