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Sensor Selection – Beer Taps and Kegs

**Temperature of beer dispensed sensor**

Micro PT-1000 Temperature Kit

<https://atlas-scientific.com/kits/mirco-pt-1000-temperature-kit/>

Price: $79.99 (2)

Temperature Range: -200C -> 200C

I chose this sensor because RTDs give the most accurate readings and the tip is made with platinum which is a high-grade material and will not leech into the beer. The sensor would be installed inside the tap and would give accurate readings of the temperature of the beer as it flowed over it. The sensor can also be fully submerged and installed at the bottom of the keg to compare the temperatures of the beer in the keg to the beer coming from the tap. Two sensors would need to be purchased.

**Volume of beer dispensed sensor**

PKW Magnetic-Inductive Flow Meter – Liters

SKU: E10104

<https://www.portlandkettleworks.com/product/pkw-magnetic-inductive-flow-meter-liters/#:~:text=Description,process%20control%2C%20repeatability%20and%20consistency>.

Price: $895.00

Measuring Range: 0.1 –> 120 LPM (Liters per Minute)

I chose this sensor because it can be installed directly into the line used to dispense the beer. The line leaving the keg can screw into one side of it, and the line going to the tap can screw into the other side of it: the liquid flows right through it. This is also convenient because if the location of the keg needs to be moved (i.e., the line needs to be shortened or lengthened), a new line can be replaced on the side attaching to the keg or the tap. This could cut down on cost moving forward as less line would need to be purchased.

**Volume of beer remaining sensor**

Nikeson Ultrasonic Level Sensor

<https://nikeson.com/en-us/products/ultrasonic-level-sensor>

Price: $367.00

Measuring Range: 0 -> 5 meters

I chose this sensor because it can be easily installed to the top of the keg, does not come in contact with the beer and also provides a temperature reading. This temperature can be compared to the one read by the sensor inside the keg and at the tap to help assess if a sensor may be off. The way it works is ultrasonic pulses are transmitted to the surface of the beer and reflected back to the transducer and the time it takes for the waves to return back to the transducer is used to calculate the distance. If you know how the height of the liquid when the keg is full, this can tell you how much is left by simple subtraction. This information is programmed into the device, you don’t have to do the calculation.