

## AN119– Using the Optional Analog Input on K33 Sensors

The K33-ELG and K33-BLG come with an optional analog input for use with analog sensors in data collection scenarios. This input is useful for connection to additional transducers and enabled a wide variety of usages. Some possible applications:

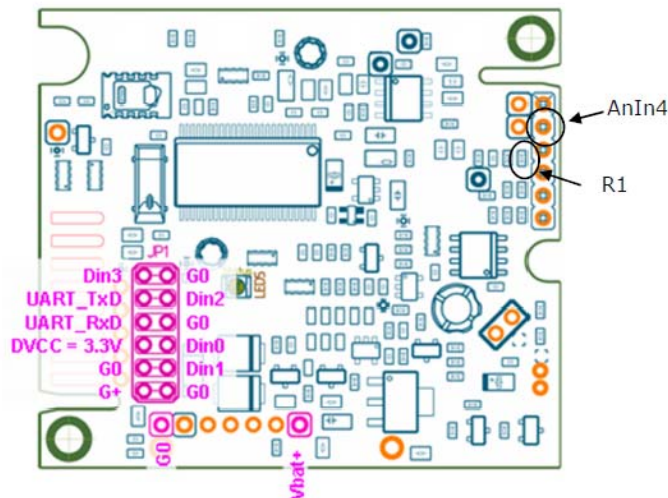
- Soil moisture measurement
- Pressure measurement
- Additional temperature probes
- Environmental parameter measurement

This input's range is 0-2.6V, referenced to sensor ground, and reads in an high impedance configuration. The measured value is stored with three decimal places of precision. To enable usage of this input, both a hardware modification and a software setting must be changed.

### Hardware Modification

A single resistor must be removed from the board to enable this input. The purpose of this resistor is to minimize power consumption when the sensor is in a stand-by state. Without this resistor the sensor will consume slightly high power while in sleep mode. The diagram below shows the location of the resistor that must be removed, as long as the location for the analog input.

**R1 below must be removed.**



### Software Configuration

In terms of software configuration, a single setting must be changed in the DAS software. To change this setting the unit must be in the data logging off configuration. Enabling the analog input will clear all existing logs on the sensor and reset the data logging engine. The setting is located in the configure your sensor screen, in the logging tab. Check the Log AN4 box and click Set.

