

```
}

/*!
 * @brief This API is used to get the profile duration of the sensor.
 */
void bme680_get_profile_dur(uint16_t *duration, const struct bme680_dev *dev)
{
    uint32_t tph_dur; /* Calculate in us */
    uint32_t meas_cycles;
    uint8_t os_to_meas_cycles[6] = {0, 1, 2, 4, 8, 16};

    meas_cycles = os_to_meas_cycles[dev->tph_sett.os_temp];
    meas_cycles += os_to_meas_cycles[dev->tph_sett.os_pres];
    meas_cycles += os_to_meas_cycles[dev->tph_sett.os_hum];

    /* TPH measurement duration */
    tph_dur = meas_cycles * UINT32_C(1963);
    tph_dur += UINT32_C(477 * 4); /* TPH switching duration */
    tph_dur += UINT32_C(477 * 5); /* Gas measurement duration */
    tph_dur += UINT32_C(500); /* Get it to the closest whole number.*/
    tph_dur /= UINT32_C(1000); /* Convert to ms */

    tph_dur += UINT32_C(1); /* Wake up duration of 1ms */

    *duration = (uint16_t) tph_dur;

    /* Get the gas duration only when the run gas is enabled */
    if (dev->gas_sett.run_gas) {
        /* The remaining time should be used for heating */
        *duration += dev->gas_sett.heatr_dur;
    }
}

/*!
 * @brief This API reads the pressure, temperature and humidity and gas data
 * from the sensor, compensates the data and store it in the bme680_data
 * structure instance passed by the user.
```