Sensors Power Consumption

Technical Note

SENSOR POWER CONSUMPTION

The table below summarizes the power consumption of the WatchGas sensors that use relatively high power, i.e., typically Catalytic and PID sensors. Most NDIR sensors use considerably less power and are therefore considered as a low-power alternative. Most electrochemical sensors use low power of a few mW (plus a few more mW for smart sensors with attached circuit boards). The values listed below are upper limits, and some sensors of a given type may use 10-20% lower power. The main power draws on WatchGas handheld monitors are thus the pump, PID, NDIR, and pellistor sensors, whichever are applicable.

Sensor Description	Power
CO_2 Carbon Dioxide (NDIR 50-50,000 ppm CO_2)	24 mW
CO_2 Carbon Dioxide (NDIR 50-15,000 ppm CO_2 mW) (low power)	5 mW
Vol Methane (NDIR 1-100% Vol CH_4)	24 mW
LEL/VOL Dual-Range Methane (NDIR, 1-100% LEL, 1-100% Vol CH_4)	24 mW
LEL Methane (NDIR 1-100% LEL CH_4)	24 mW
LEL Methane (NDIR 1-100% LEL CH_4) mW (low power)	5 mW
LEL Combustibles (Pellistor, 1-100% LEL)	300 mW
LEL Combustible (Pellistor 0.1-100% LEL) High Resolution	300 mW
EL Combustibles (Pellistor, 1-100% LEL (Micro-beads (low power)	150 mW
LEL/CO2 Dual-Gas (NDIR 1-100% LEL CH_4 / 50-50,000 ppm CO_2)	24 mW
N_2O Nitrous Oxide (NDIR 20-1000 ppm)	240 mW
PID Sensors	240-300 mW

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