IR CO2 sensor for HVAC applications touts high sensitivity

Cal Sensors launched its IRCO2 infrared CO_2 sensor for HVAC applications. Designed to meet the accuracy and reliability requirements of Demand Controlled Ventilation systems (DCVs), the sensor combines desirable sensitivity and reliability with low power consumption. The $IRCO_2$ sensor applies the latest in non-dispersive infrared (NDIR) technologies. The optical path consists of an emitter and detector that optimize the signal to noise performance while minimizing costs, according to the company. NDIR sensors generate a signal passively, by measuring the absorption of infrared light through the gas. Consequently, the infrared system is positioned as eliminating degradation concerns, reduces maintenance and provides accurate measurements more reliably. $IRCO_2$ uses a two channel detector, which helps optimize measurement consistency and reliability, while minimizing manufacturing and maintenance costs. The sensor delivers its' highest sensitivity in the 4.26 micron wavelength region, where CO_2 gas is absorbed. The detector material offers a very fast response with high signal to noise performance. Combined with an emitter that has an almost instantaneous "on" state and a peak optical output near the CO_2 absorption band, the IRCO2 sensor offers low power consumption with an accuracy of 25 parts per million (ppm).

Cal Sensors, www.calsensors.com [1]

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