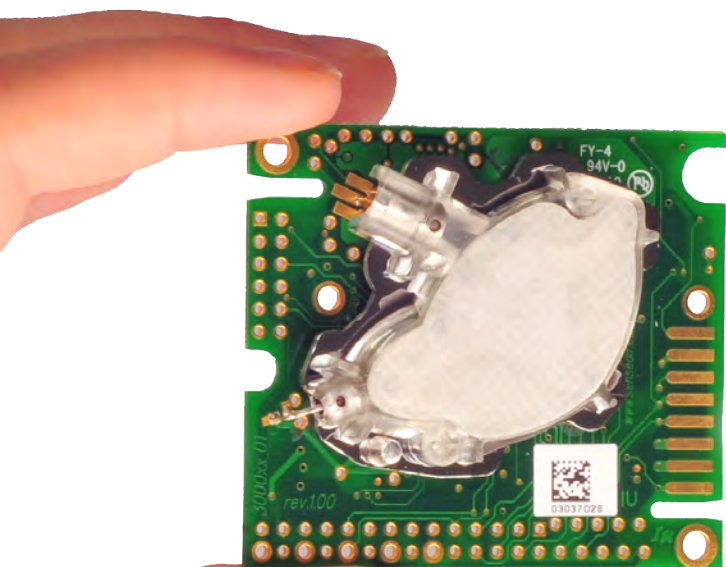


CO₂ Engine® K30 FR

Fast Response CO₂ Sensor Module



CO₂ Engine® K30 FR is a high performance CO₂ sensor module optimized for fast response time. The sample cell is well protected by a particle filter and is designed for fast diffusion without any need for external pump. In addition, there is a tube inlet to be able to feed on-line test gas through the sensor. The module is designed for high volume production with full traceability by sensor serial number on all manufacturing processes and key components. Every sensor is individually calibrated and is provided with UART digital interface.

STANDARD SPECIFICATION ART.NO. 030-8-0010

Operating Principle	Non-dispersive infrared (NDIR)
Measured gas	Carbon dioxide (CO ₂)
Measurement range CO ₂	0 to 5000 ppm
Accuracy	±30 ppm ±3% of reading
Dimensions	57 mm x 51 mm x 14 mm
Maintenance	No maintenance required
Life Expectancy	> 3 years
Operation temperature range	0 to 50 °C
Operation humidity range	0 to 95% RH (non-condensing)
Power supply	4.5 to 14.0 V DC
Current consumption	70 mA (average)
Response time _{T90}	2 seconds @ 0,5 l/min tube gas flow
Warm-up time	1 min
OUT 1 linear output	0 to 10 V DC = 0 to 5000 ppm
OUT 2 linear output	0 to 5 V DC = 0 to 5000 ppm
OUT 3 digital output	700/800 ppm
OUT 4 digital output	900/1000 ppm
Communication	Uart (Modbus)

APPLICATIONS

CO₂ Engine® K30 FR is designed for simple integration into products that require a fast update rate of CO₂ measurements. The sensor can be used in a wide range of applications where fast changes need to be detected, such as gas leakage in food and pharmaceuticals packaging industry. Other uses are human occupancy detection and leakage detection in industry environments.

KEY BENEFITS

- Fast response time
- Individually calibrated
- Maintenance-free
- High quality
- Long term stability

