



**Electro Optical Components, Inc.**

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## **FLUO-SENS Product Features**

### **Miniaturized Optics**

The core technology is a miniaturized, confocal optical beam that has been developed using state of the art simulation tools. The separation of excitation and emission is performed via a complex system of optical filters. Top of the line injection molding guarantees replicable high volume production resulting in an outstanding price/performance ratio.

### **Closed Loop Controlled Excitation**

The newest LED technology replaces the traditional lasers and lamps used in lab-based fluorescence excitation and this is possible due to the enormous light power offered by today's LEDs. While LED-power is temperature dependent, this is compensated for by that use of an additional detector that regulates the power to an adjustable value. As a result, the detector provides a stable and long-term measurement signal.

### **Premium Technology Sensitivity and Low Noise**

The photodiode and a low noise analog lamp are integrated within the detector. This enables short signal paths and protection from electromagnetic compatibility (EMC) problems. The detector delivers a low noise (0-2.5V) output. The encapsulated module is quite simple to handle and can easily be integrated into OEM-systems just by plugging it into a printed circuit board (PCB).

### **Intelligent Processor Controlled Electronics**

Along with the basic measurement electronics, the detector also consists of a temperature sensor and a memory chip. This chip stores specific sensor data such as calibration values, serial number, scaling etc. Data communication is conducted via serial interface (RS232 or RS485). A superordinate system is able to read out data and can also be used for data processing. The detectors are therefore interchangeable.