

**FOR IMMEDIATE RELEASE, OP504
February 2010**

*For more information, contact:
Kat Patrick
NAC Product Manager
727-828-0187 ext. 246
1-866-651-2901 ext. 246
Kat.p@nacsemi.com*

Sensor adapts to changes in fluid type, outperforms more expensive ultrasonic sensors...

OPTEK'S AUTO CALIBRATION SENSOR MONITORS PRESENCE OF FLUID AND AIR IN MEDICAL TUBING

CARROLLTON, TX (February 2010) — Providing medical design engineers with a cost-effective alternative to ultrasonic sensors, TT electronics OPTEK Technology's OCB350 fluid sensor features automatic calibration circuitry and is available with multiple output states including "fluid present," "no fluid present," and "no tube present." The sensor is ideal for medical applications including monitoring fluid or air presence in tubing for infusion and transfusion pumps where fluids of different optical densities are used.

"The OCB350 Series sensors are designed to maintain the calibrated setting even if power is lost. Once calibrated, the setting will remain constant, allowing for faster start up," said Roland Chapa, vice president of optoelectronic integrated solutions for TT electronics OPTEK Technology. "The self-calibration feature allows the sensor to easily adapt to changes in fluid type, outperforming more expensive ultrasonic sensors."

Designers can initiate the calibration procedure at any time by grounding the J1-pin-4, which allows the device to be remotely calibrated and then mounted in the equipment. When the system calibrates the sensor, it raises the current through the LED from 0mA to 14mA, until the phototransistor reaches the preset point.

- more -

The OCB350 Series sensor consists of an infrared LED and phototransistor packaged in an opaque plastic housing that enhances ambient light rejection. The housing features an opening designed to accommodate clear tubing with outer diameters of 0.0625" (1.6mm), 0.125" (3.2mm) or 0.1875" (4.8mm). The presence of clear liquid causes the phototransistor to sink the maximum current, while the presence of dark liquid causes it to sink the minimum current. As bubbles pass through the tube, the signal will vary between the "liquid present" and "no liquid" states. If no tube is present, the phototransistor sinks current between the dark fluid and clear fluid states.

The infrared LED features a forward DC current of 50mA with a peak current of 1.0A. Reverse DC voltage is 2.0V and power dissipation is 100mW. The output phototransistor features a maximum collector-emitter voltage of 24V or 30V, with collector DC current of 50mA and power dissipation to 100mW. Operating temperature range is from -40°C to +85°C.

pieces. Lead time, if stock is not available, is from 6 to 8 weeks.

OPTEK is a leading manufacturing and solutions provider for sensing and illumination covering the infrared, visible and ultraviolet spectrum; with standard as well as application specific products for a variety of markets, including, but not limited to office machines, industrial equipment, encoders, automotive electronics, military and high-reliability applications, medical diagnostic equipment and solid-state lighting. Headquartered in Carrollton, TX, the company is ISO/TS16949:2002 and BS EN ISO 9001:2000 certified, as well as ITAR registered. OPTEK Technology has global sales offices located in the North America, Europe and Asia regions.

- more -

OPTEK'S AUTO CALIBRATION SENSOR MONITORS PRESENCE OF FLUID AND AIR, PG. 3

TT electronics plc is a global electronics company manufacturing a broad range of advanced electronic components, assemblies and sensor modules for the automotive, industrial, telecommunication, computer and aerospace markets.

