European Sensor Systems S.A. Launches ESS113 -
An ultra low power Capacitive Sensor Signal
Conditioning IC

Athens, Greece, – December 2nd, 2013, European Sensors Systems S.A. (ESS) announces the launch of ESS113, an ultra low power, full custom mixed-signal capacitive sensor signal conditioning IC. The main target of the product is to be capable to interface all kinds of capacitive sensors, enabling ultra low power operation with average current consumption down to 5uA. The ESS113 is the ideal solution for any application where low power operation in combination with high resolution is necessary. ESS113 features:

- Fully differential architecture requiring 4 capacitances
- Capacitance range: Up to 100pF base, +/-5.6pF full-scale
- SPI and Two-Wire serial interfaces for configuration programming and data reading
- 32-bit Calibrated and temperature compensated/non-calibrated/temperature digital outputs
- Programmable Output Data Rate from less than 0.02Hz to 195Hz
- On chip temperature sensor
- Digital calibration and temperature compensation logic
- OTP Memory for configuration storage
- Internal oscillator and power-on reset circuit
- Average Current Consumption from 350uA down to 5uA depending on operating mode
- Sleep Mode Current 0.6uA
- 3.3V to 3.6V Power supply
- Die Size: 1.56mm × 1.6mm × 0.3mm

The ESS113, which is designed in a standard CMOS technology, enables ultra low power operation while providing a high-resolution output, fully calibrated and temperature compensated based on the internal temperature sensor. The calibration coefficients are stored to the on chip memory, while the internal oscillator and regulator eliminates the need for any external components.

“We are offering a complete capacitive readout solution with ultra low power operation, ready to be installed to any system without the need for any additional components” said ESS General Director, Emmanuel Zervakis. “We design and continuously enhance our readout electronics based on the customer needs. Not only we can offer high performance in combination with added key-features, but also we can offer minimal time to market at the lowest cost, supported by ESS business model on quality testing and optimization of its supply chain.

ESS invites customers to visit the company’s booth (Hall 12, Stand 260) at Sensor & Test 2014 in Nurnberg, GERMANY to see the product’s live demonstration and discuss the signal conditioning IC roadmap with the company’s representatives.

Notes
2. European Sensor System S.A. will be exhibiting at the Sensor & Test 2014 exhibition, Hall 12, Stand 260.
3. To arrange an interview with representatives of ESS before or during the show, please contact Emmanuil Zervakis, General Director of ESS, on zervakis@esenssys.com or +30 6932 509 846
4. For further information on European Sensor Systems, please visit www.esenssys.com

About European Sensor Systems S.A.

European Sensors Systems S.A. specialize in the development of silicon based modules utilizing micro-electronic technologies. Their prime scope of work is to design, develop and produce flexible and customer specific MEMS modules via standard industrial processes, employed for sophisticated control applications used in the Aerospace, Industrial, Medical and other Consumer Goods markets.