

PRM-010

FOR IMMEDIATE RELEASE

Editorial Contacts:

Michelle Stevens
Senior Marketing and Communications Manager
801-208-4112
Michelle.stevens@merit.com

Mr. Roger Grace
President
Roger Grace Associates
109 Greenfield Court
Naples, FL 34110
Tel: 239-596-8738
Fax: 239-596-2688
Email: rgrace@rgrace.com

MERIT SENSOR SYSTEMS, INC. INTRODUCES TR SERIES PRESSURE SENSOR PRODUCT LINE

Proprietary "Back-Side Entry" Packaging Provides Performance Over Temperature in Harsh Media Environments at Competitive Price

Napa, California, November 7, 2013 — Merit Sensor Systems, Inc., a leading designer, developer and manufacturer of pressure sensing solutions, announced here today at the MEMS Industry Group (MIG) Annual Executive Congress, its TR Series temperature-compensated pressure sensor product line. The TR Series packaged pressure sensor features Merit Sensor's "back-side entry" approach, where the sensing media cannot come in contact with the active, top side of the pressure sensing die. With this approach, the media remains isolated from the electronic circuitry of the Silicon pressure sensing element. This technology gives customers a robust and reliable solution while minimizing the greater size and costs associated with more expensive packaging approaches.

The TR Series features an extended temperature range of -40 to +150 degrees C, making it ideal for applications in the industrial and automotive sectors. The product also offers design flexibility for applications in the medical and aerospace markets. The fully temperature-compensated TR Series provides users with the ability to measure absolute or gage pressure up to 300 psi with a total error band (combined linearity, hysteresis and repeatability) of +/- 2.5 % Full Scale Output (FSO) over an extended temperature range of -40 to +150 degrees C. It operates from a single supply voltage of 4.5 to 5.5 VDC and a supply current of 10 mA and requires no external components for proper operation. Merit Sensor offers three standard packaging options: a) standard face seal; b) standard with gel-filled polycarbonate pressure port; and c) standard with ferrule and pins; as well as the ability to customize a packaging solution based on customers' preferences.

The building block of the TR Series packaged pressure sensor is Merit Sensor's HM Series MEMS sensing element (bare die), built using the company's proprietary Sentium® process. The TR Series is

specifically designed on ceramic to take full advantage of the wide temperature range capabilities provided by the Sentium process. Specifically, the TR Series utilizes a unique and proprietary packaging strategy to eutectically solder the internally manufactured Silicon HM Series sensing element. The TR Series also includes a signal conditioning ASIC in a 0.5 x 0.4 x 0.17 inch miniaturized sensing package (for standard part. Standard option with gel-filled pressure port dimensions – 0.50 x 0.40 x 0.31. Standard option with ferrule and pins dimensions – 0.94 x 0.40 x 0.175) This packaging approach provides extreme robustness in harsh media environments and increases the burst pressure to three- times the maximum rated pressure range up to 150 C degrees, which significantly extends its operability and reliability.

Mr. Rick Russell, President of Merit Sensor, stated: “The introduction of our TR Series provides users with a high performance, robust and cost effective solution to harsh environment applications. We believe that the TR’s unique eutectic bonding and miniaturized packaging can go head-to-head with competitive parts that require larger and more costly packaging to sustain continuous usage in tough applications. TR’s sensing technology has earned its stripes in several harsh media applications, including automotive transmission oil pressure...and we are all familiar with the rigorous lifetime specs of 120,000 miles and 10 years imposed on these automotive parts.” He continued, “Merit Sensor has the unique ability to design and manufacture its own Silicon pressure sensor die. This ability combined with our ability to integrate a signal conditioning ASIC as well as our proprietary packaging approach, has resulted in a solution that provides a cost-competitive approach for a broad range of applications.” Mr. Russell concluded, “Unlike many other pressure sensor suppliers, Merit prides itself on its ability to aggressively pursue custom design opportunities for customers with smaller and/or limited production runs. Our team of experienced and application-savvy engineers works closely with our customers to design the best possible solutions for their application...and without any compromises since we are in total control of the design and manufacture of both the Silicon pressure die and the package...the two most important parts of the solution.”

APPLICATIONS

Industrial

- HVAC
- Industrial Automation
- Refrigeration

Automotive

- Transmission Pressure
- Oil Pressure
- Fuel rail
- EGR/Exhaust

Medical

PRICE AND DELIVERY

The Merit Sensor TR Series is priced at \$11.75 each in 10,000 unit quantities. Standard device options are available from stock.

FOR MORE INFORMATION

Michelle Stevens, Senior Marketing and Communications Manager, 801-208-4112.

Michelle.stevens@merit.com

ABOUT MERIT SENSOR SYSTEMS, INC.

Merit Sensor Systems, Inc. (www.meritsensor.com) was founded in 1991 and is engaged in the design, fabrication, assembling and packaging of customized piezoresistive pressure sensor solutions for automotive, medical, industrial, aviation, defense and consumer applications. Merit Sensor Systems is located in Salt Lake City, Utah and is a subsidiary of Merit Medical Systems, Inc. (NASDAQ: MMSI) (www.merit.com)

EDITOR'S NOTE

A detailed data sheet on the TR Series compensated pressure sensor is available at:

<http://www.meritsensor.com/products/TR-Series/overview>

High resolution jpg images are available on a press page within the Merit Sensor website at:

<http://www.meritsensor.com/documents/pressimages/>