New Thermocouple Technology Reduces Drift by Over 80%!

Although thermocouples have been used for temperature measurement since the nineteenth century, using them to measure high temperatures accurately over extended periods has long been a challenge due to drift and instability problems.

A new technology developed by Cambridge University and licensed to TE Wire & Cable, a Marmon Group/Berkshire Hathaway Company supports higher accuracy, longer life and improved drift characteristics:

- Features low-drift, mineral insulated (MI) thermocouple cable design
- Provides higher accuracy temperature measurement, longer life and reduced drift for base metal thermocouples
- Addresses limitations common to the use of type K and type N thermocouples, which are intended for high temperature applications of extended duration

Learn More About this Breakthrough Technology:

- Call us at 888-4TE-WIRE
- International: 201-845-9400
- Email us at sales@tewire.com
- Get a free copy of our new Low Drift Thermocouple Cable Application Brief: http://Info.tewire.com/low-drift-cable-brief
- Download our product brief by scanning the QR Code below:

TOP: This chart shows the total calibration shifts of 2 standard 3.0mm Single Wall Type K thermocouple cable samples between the first and ninety-first cycles.

BOTTOM: Total calibration shifts of the new dual wall low-drift cable design between the first and ninety-first cycles.
TE Wire Signs Licensing Agreement with Cambridge Enterprise for Low-Drift Mineral Insulated Thermocouple Cable Technology

SADDLE BROOK, NJ, October 4, 2016 — TE Wire & Cable LLC, a leading thermocouple and specialty wire and cable manufacturer, today announced the completion of a licensing agreement with Cambridge Enterprise for a ground-breaking thermocouple cable technology developed by researchers in the Department of Materials Science and Metallurgy at the University of Cambridge. This dual wall, low-drift type K and type N mineral insulated (MI) thermocouple cable design was developed to improve temperature measurement accuracy, extend thermocouple life and significantly enhance drift characteristics.

The new cable design was developed for high temperature thermocouple applications and thermocouple installations that require longer use at higher temperatures. The technology will be of particular interest to those involved in aerospace/aircraft manufacturing for measuring jet engine temperatures and for processing applications like heat treatment.

Robert Canny, President of TE Wire & Cable, notes, “Even though this is a completely new technology for us, TE Wire is well positioned to promote it to our customers and corresponding applications. Our depth of application knowledge and industry ties in heat treatment and the aerospace world will allow us to refine this technology in cooperation with forward-thinking customers.”

The processes underlying this new technology are outlined in a paper titled “Development of a Low Drift Type K Thermocouple Cable for Aerospace Applications.” The paper is co-authored by Dr. Michele Scervini, a research scientist at The University of Cambridge in the Department of Materials Science and Metallurgy, and Trevor D. Ford, chief metrologist and technical director at CCPI Europe Limited, the company that performed independent testing in its calibration laboratory on the new low-drift mineral insulated thermocouple.

Trevor Ford held an introductory product webinar on the new dual wall low-drift mineral insulated thermocouple cable on Wednesday, July 11, 2018 at TE Wire & Cable. To watch the recorded presentation on line, please go to https://tewire.com/new-low-drift-webinar/

To request copies of the application note and white paper, complete a simple request form at http://Info.tewire.com/low-drift-cable-brief or call TE Wire at 1-888-4TE-WIRE. For international: 201-845-9400. Interested participants may also request to qualify for free samples and to participate in a special beta test program.

About TE Wire & Cable LLC – TE Wire & Cable LLC, a Marmon Wire & Cable/Berkshire Hathaway Company, is a premier thermocouple and specialty wire and cable manufacturer that was formed from the Wire and Cable Division of the Thermo Electric Corporation. Since 1941, the company has been manufacturing high-quality wire and cable solutions for the thermo-sensing and temperature measurement markets. TE Wire & Cable LLC manufactures a full line of thermocouple wire and cable—from iron and nickel-based alloys to copper instrument and control cable. The company maintains an in-house laboratory directly certified by the National Institute of Standards and Technology (NIST), allowing it to calibrate its own wire. This results in a higher quality product at a lower cost and with improved efficiency. TE Wire & Cable is highly regarded as the industry leader and has maintained a reputation for providing high-quality temperature measurement wire and cable products with short lead times and competitive prices. For more information, visit the TE Wire website at www.TEWire.com

About Cambridge Enterprise – A wholly owned subsidiary of the University of Cambridge, Cambridge Enterprise Limited is responsible for the commercialization of University intellectual property. It provides access to early stage capital through the Cambridge Enterprise Seed Funds, University of Cambridge Enterprise Funds and Cambridge Enterprise Venture Partners, and offers business planning, mentoring and related programs. Activities include management and licensing of intellectual property and patents, proof of concept funding and support for University staff and research groups wishing to provide expert advice or facilities to public and private sector organizations. For more information, please visit www.enterprise.cam.ac.uk