

W. H. Cooke Times

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HANOVER, PA

FREE

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Quarter in Review

As we move into Q2 and warmer weather, we don't have as many customers who are worried about pipes freezing outside, but temperature still needs to be measured and controlled and we can help with that. We receive calls every quarter for new and unusual applications and we are consistently able to help our customers find solutions to get the job done. Whether you need to take the internal temperature of a live mouse (we get this one a few times a year and I won't get in to the details but use your imagination) or if you simply need an RTD to thread into the thermowell of your mixing tank, or anything and everything in between, we can be of assistance. We enjoy being able to work with you to come up with unique or in some cases, simple solutions, to help you measure and control your temperature. After we have helped you to measure the temperature with one of our Made in USA (Hanover, PA to be exact) thermocouples, RTD's, or thermistors, we need to make sure you can control it. We have many options for temperature controls and limit switches, and also sell the relays, contactors, snubbers, enclosures, din rail parts, etc... The controller will then ultimately kick on/off a steam valve, heater, cooler, or some other device, and we can also supply you those items. In most cases, we can take care of your measurement and control applications from start to finish. The measurement and control doesn't end with temperature; we also handle level, flow, pressure, pH, RH, and more. Please call 717-630-2222 if you would like to discuss your application.



In our last newsletter you may recall that we were erecting a pole building to warehouse our motors and other parts that we are listing on EBay. I am pleased to report that the building is complete and we are in the process of moving inventory as we speak. We also purchased a forklift that will help in moving pallets to the building.



Other than that, it is business as usual and if there is anything we can do for you, don't hesitate to ask. Thanks for your continued support and we look forward to hearing from you.

Best regards,
Wayne Cooke Jr.



SIKA USA manufactures a variety of calibrators for temperature and pressure. For a more in depth look see this link <http://sika-usa.com/electronic-measuring-calibration-instruments/>

All of their Dry-Block Calibrators carry a 5 year warranty which exceeds the competition and the quality is excellent. If you would like help selecting a calibrator that will meet your needs, you can give us a call or have a look at this chart.

Temperature range	Function / Tolerance				Features			Block design (mm)					Model				
	U	DB	W	SU	Integrated measuring instrument	External interface	PC interface	Diameter	Depth	10	20	40		7 x 6.5	100	150	200
-10°C - 120°C	Micro barb	Dry block	Internal	Surface				✓	✓	✓	✓	✓	✓	✓	✓	✓	Dry Block TP 11 230
-10°C - 120°C								✓	✓	✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 230 S
-10°C - 120°C								✓	✓	✓	✓	✓	✓	✓	✓	✓	Dry block TP 37 230 E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 11 165 M
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 165
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 165 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 37 165 E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 30 165
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Micro barb TP M 165 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction micro barb TP M 165 S U
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction micro barb TP M 165 E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry Block TP 17 165
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 165 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction dry block TP 17 165 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry Block TP 37 165 E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction dry block TP 37 165 E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 11 165
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 10 200 C
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Micro barb TP M 200 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction micro barb TP M 200 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction micro barb TP M 200 S E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Micro barb TP M 200 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction micro barb TP M 200 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction micro barb TP M 200 S U
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction micro barb TP M 200 S E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 400
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 400 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction dry block TP 17 400 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction dry block TP 17 400 E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Multifunction dry block TP 17 400 S E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 600 M
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 600
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 17 600 S
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 30 600 E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 30 600
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 10 600 E
-10°C - 120°C										✓	✓	✓	✓	✓	✓	✓	Dry block TP 30 1500

Click on chart for larger version from Sika-USA.com

Tech Tips

How to check to see if a thermocouple is functional and if it is grounded or ungrounded

Part 1 of a 2 part series with Wayne Cooke Sr.

A. Check for continuity by using a multimeter set up to measure ohms. Connect the multimeter test leads to the 2 thermocouple leads (polarity doesn't matter for this test) and if the meter reads 0 or open circuit, then at least one of the thermocouple leads are broken. Could be at the tip and not visible to you or could be somewhere along the lead wire portion of the assembly.

If you do get a reading it should be several ohms (for a short assembly) to 20, 30, 50 ohms or more depending on the lead length. Ex: a 4 ft. length of 20 gauge type J (iron-constantan) lead wire = 1.396 ohms (.349 / ohm per combined ft. x 4)



For a quote on any Fluke products please give us a call or email sales@whcooke.com

B. To determine if a thermocouple is grounded or ungrounded, perform this check. Using the multimeter in the resistance measuring mode, connect one lead of the meter to one lead of the thermocouple and touch the other meter lead to the sheath of the thermocouple. The meter should read 0 or open if that lead (or side) of the thermocouple is ungrounded. Repeat test on other lead of thermocouple and observe reading. If open that lead is also isolated from the sheath and the sensor is ungrounded. Grounded thermocouples are more responsive to a change in temperature while ungrounded thermocouples are useful when there is electrical noise in the area of the thermocouple and that noise could be induced into the sensor.

Note: When checking an “ungrounded” thermocouple, it is possible to have some leakage to ground in a mineral insulated thermocouple. It is difficult to keep the magnesium oxide insulation in a mineral insulated thermocouples (MgOs) completely dry. Most of the time this is not a problem when it's connected to an instrument or PLC input module, even though you might see some resistance to ground in the megaohm or even kilohm range. When the thermocouple is heated in the process, it tends to drive the moisture out of the tube and create better isolation.

Stay tuned for part 2: Polarity checks

Flir C2



The Flir C2 pocket sized thermal imaging camera has been a hit with our customers since Flir introduced it in 2015.

It's an inexpensive (\$699.00) powerful tool for troubleshooting equipment in the plant including motors, circuit breaker panels, energy waste, leaks in walls and ceilings, plumbing clogs, HVAC issues – anywhere you are looking at objects up to 302° F.



Watch this 90 second video to learn more about this amazing tool.



Autrol Smart Transmitters



- ✓ *Characterized for Ambient Temperature Bias*
- ✓ *4-20 mA plus HART Protocol*
- ✓ *Works with all HART configuration Tools*
- ✓ *+/- .075% Reference Accuracy (Enhanced Accuracy Available)*

Standard:

- 316/316L Wetted Parts
- FM Explosion Proof
- NEMA 4x Epoxy Coated Aluminum Enclosure
- LCD Digital Display
- Fully Configurable w/ Simple, Complete user interface (no price adder)

Options and Accessories:

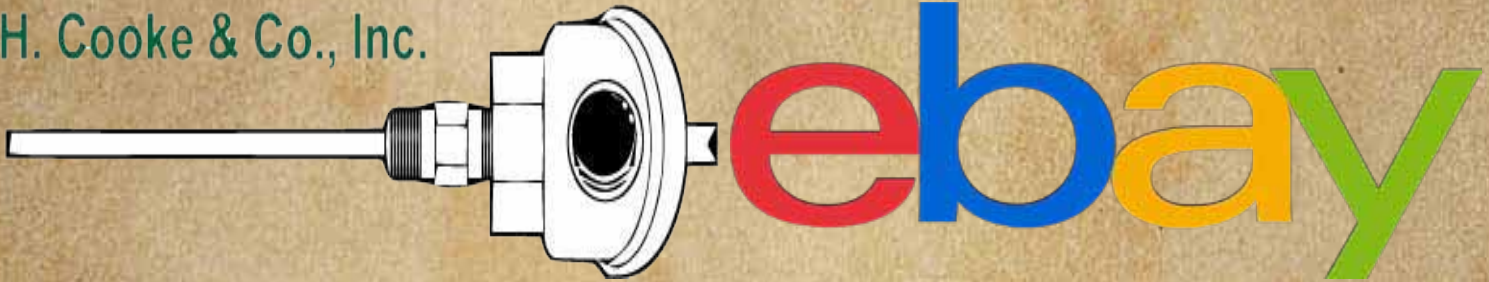
- Mounting Brackets
- Manifolds
- Custom Ranging, Configuring and Calibration
- Intrinsic Safety
- Diaphragm Seal Assemblies
- Stainless Steel Enclosure
- Lightning Protection

Autrol Corporation of America - Smart Transmitters are "Intelligent" microprocessor-based "smart" transmitters that features 2-wire loop powered 4 to 20mA analog current outputs & digital HART communication(s) for online pressure, differential pressure & temperature measurements in Water & Wastewater, Chemicals & Petrochemical, Oil & Gas, Pulp & Paper, Food & Beverage, Pharmaceutical, Energy & Power, Biofuels & Alternative Fuel processes.



Our eBay Store

W. H. Cooke & Co., Inc.



WH Cooke Co Industrial Parts is the name of our new Ebay store where you will find a variety of motors, Allen-Bradley PLC parts, as well as a slew of other parts for your industrial automation needs. You can view our inventory which we are adding to weekly at <http://stores.ebay.com/WH-Cooke-Co-Industrial-Parts>



Funnies



Rodney Dangerfield Quotes

I came from a real tough neighborhood.
I put my hand in some cement and felt
another hand.

I drink too much. The last time
I gave a urine sample it had an
olive in it.

I remember the time I was kidnapped and they
sent a piece of my finger to my father. He said
he wanted more proof.

When I was a kid my parents moved a lot,
but I always found them.

I haven't spoken to my wife in years.
I didn't want to interrupt her.

I told my dentist my teeth are going yellow.
He told me to wear a brown tie.

My wife and I were happy for
20 years. Then we met.

In the Community

Codorus State Park Eagle Plunge

W. H. Cooke & Co. was a proud sponsor of the 2016 Eagle Plunge at Codorus State Park.

For more information, please visit <http://friendsofcodorus.org>

And the newspaper article can be read at <http://www.eveningsun.com/story/news/2016/01/16/eagle-plunge-raises-money-codorus-state-park/78842082/>



W. H. Cooke & Co. is a proud sponsor of the 2016 Hanover YMCA “Kids Come First Campaign”



The campaign raises money for families that cannot afford the services and programs offered by our local YMCA locations. For more information see this link <http://www.hanoverymca.org/contribute/kids-come-first-annual-support/>

In the Community

Hanover, PA Bald Eagle Nest Cam

Our town is filled with nature and beauty and nowhere is that more evident than the Hanover, PA Eagle Cam which you can see here. <http://hdontap.com/index.php/video/stream/bald-eagle-live-cam>



People from all over the country and world have been tuning in to see the hatching of the eaglets. Unfortunately, on Wednesday, March 30th, we received news that the first eaglet did not survive. As David Hancock who has more than 50 years of experience as a biologist, teaching and lecturing about wildlife with a particular focus on bald eagles states, "This is what nature is about. It's about recycling energy, and it keeps recycling through the sustainable world." There is however 1 more egg in the nest so we are keeping our fingers crossed that it will hatch successfully!

You can read the full article here. <http://www.ydr.com/story/news/2016/03/31/eaglet-death-lesson-ecology/82474124/>

The Facebook group is here. <https://www.facebook.com/groups/414921745343756/?fref=nf>



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