W.H. Cooke Times

Vol. 9, No.1 Winter 2022 Free

Hanover, PA

Manufacturer of thermocouples, RTD's, and thermistors and distributor of instrumentation and controls for temperature, pressure, level, flow, pH, RH, flame and gas detection and heaters for almost any application. We also carry chart recorders and chart paper and pens as well as paperless recorders, data loggers, pumps, valves, and motors, and industrial oils, solvents, lubricants and PPE. Here is a link to our website www.whcooke.com

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3 ply Masks & KN95 Masks In Stock!









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One Week or Less to ship Thermocouples & RTD's

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Snow Funnies

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PPE Sale

PPE Sale on 3 ply masks, KN95 masks, hand sanitizer, and face shields

Call for Bulk Pricing



Level 1 3 ply Masks \$15/50



KN95 masks \$1/ea 5 pc minimum

*UPS Shipping charges will apply



16 oz Hand Sanitizer \$1/ea No Minimum

*UPS Shipping charges will apply



Adult Face Shield \$1/ea No Minimum

*UPS Shipping charges will apply



Kids Face Shield \$1/ea No Minimum

*UPS Shipping charges will apply



PPE Products



Gown (SMS) \$7/ea 3 case min 80 gowns per case of same size (can mix & match if we have stock) Currently have: 10 Medium in stock/\$50 11 Large in stock /\$50 *after current stock is gone 3 case min will apply



\$15/10 pc



(For Gallon Only) **\$1/ea**

W.H. Cooke & Co., Inc. 6868 York Rd, Hanover, PA 17331 717-630-2222

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Quarter in Review

Happy New Year! Hope everyone is staying healthy and warm. The big news of course was the acquisition of Instruments and Thermal Products effective 12/1/21. The transition has been very smooth and has blessed us with the opportunity to work with new customers and vendors. Lead times are cause for concern for many and as you will see in this newsletter, we are here to help cross you into suitable replacements for the parts that you are trying to procure. We have stock of PPE and can help with masks, gloves, sanitizer, gowns and more. Please let us know how we can help with your Controls, Sensors, Heaters, PPE, and industrial parts needs.

Best Regards,

Wayne H. Cooke

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Product Lines



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Boiler & HVAC Parts



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Tech Tips Ohms Law and how it can help you

Ohms law is named for a German physicist Georg Ohm, and it states that the voltage across a resistor is directly proportional to the current flowing

through the resistance. A simple formula, Ohm's law, is used to show the relationship of current, voltage, and resistance. V=IR

- V = Voltage in volts
- I = Current in amps
- R= Resistance in Ohms



This can also be expressed as R=V/I, and I=V/R. To find the Voltage, (V) [V = I x R] V (volts) = I

(amps) x R (Ω)

To find the Current, (I) [I = V \div R] I (amps) = V (volts) \div R (Ω)

To find the Resistance, (R) [R = V \div I] R (Ω) = V (volts) \div I (amps)

To find the Power (P) [$P = V \times I$] P (watts) = V (volts) x I (amps)

The continuous movement of electric charge through the conductors of a circuit is called a current and it is often referred to in terms of "flow," just like the flow of a liquid through a pipe. The force motivating charge carriers to "flow" in a circuit is called voltage. Current tends to move through the conductors with some degree of friction, or opposition to motion. This opposition to motion is called resistance. Sometimes these relationships are shown as this nifty cartoon.



The relationship of voltage, current, and resistance is used to define nearly every circuit that is made, whether something as simple as the light you turned on when you got up this morning, the switch on your coffee maker, or the computer that you reading this on now.

I understand you probably do not design coffee makers, computers, or even light bulbs, but knowing this can help. Since you only need to know two of the three components of Ohms law to figure out the third, lets give you a practical use. Maybe you are setting up a heater on a line and want to know if the relay from the controller that is rated 5 amps can turn on the heater or if you need a larger external relay to switch the load. The heater you have is 1500 Watts and your supply power is 240V. Divide the power, 1500W, by the voltage, 240 = 6.25 amps. 6.25 amps exceeds the 5 amp rating of your controller relay, so now you know you need a larger, external relay or SCR to turn on the heater.

Another common example would be you have a heater in a piece of equipment that has been running for years, and you want to be sure you have a spare heater. The problem is when you pull the heater out of service to inspect it, there are no markings as to what it is or who made it. Or maybe there were, but they are all burnt over and unreadable, what are you going to do? Well, of course you can use Ohms law.

What do you know about the heater... maybe you have it hooked up to 240V single phase supply voltage. If you measure the amperage draw of the heater, you now have I or the current draw of the heater. Lets say you measured 8.33 amps. Using ohms law you can now calculate the wattage of the heater since you know the supply voltage (V) and current draw (I) of the heater: P=V*I240V X 8.33A=2000W, so now you know you need a 2000 watt heater at 240V as a replacement. I should mention the above calculation only works with single phase power. If you are using 3 phase power, this is a whole different calculation and is not covered here.

There are tons of ways you can use Ohms law. I will not bore you with any further examples here, but I will share a tip. Remembering all the various combinations of V=IR, or R = V/I can be tough. I mostly use an

online calculator to do the math for me. One can be found here. All you need is 2 or more of the variables.

http://www.ohmslawcalculator.com/ohms-law-calculator

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Long Lead Times with Temperature Controls? We Can Help!



The worldwide board component shortage is affecting everyone and while we may not be able to cross over every controller to another brand in stock or with a shorter lead time, there are many that we can.

Please let us know your specifications including size, inputs and outputs and any other features that you require and we will work with you to find a suitable replacement.

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Heating Season



Heaters are another product that has been impacted by

component shortages but for the most part we are not seeing issues with cartridge heaters and band heaters. Some silicone rubber heaters and over the side heaters have been affected so if you are having issues with delivery, please reach out to see if we can help.

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One week or less to ship Thermocouples & RTD's



W. H. Cooke & Co. has been manufacturing thermocouples and RTD's for over 50 years. Our standard lead time to ship most thermocouples and RTD's is 1 week. We can even make and ship a temperature sensor same day for an expedite fee. If you have a sensor that you would like us to quote please 717-630-2222 or email team@whcooke.com with a picture and specs. We also stock spools of wire as well as components such as plugs, heads, compression fittings, and more.

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Funnies





SORRY, SON ... THERE'S NO APP FOR THAT

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