

Connections

To see, or not to see; That is the question.

A photon walks into a fancy hotel. The bell-hop asks if he can help the photon with its bags. The photon replies, "There's no need. I have no bags. I'm travelling light!" 😊

"You are the instrument of your own illumination."

- Vivian Gornick

As New England Drives & Controls constantly strives to become a better asset to our customers, our whitepaper series will feature new technologies or helpful insights that may be pertinent to the reader. It is our sincere hope that this information will be beneficial in both relating, and applying content to your industrial needs.

We hope you find this whitepaper series an enjoyable and informative read.

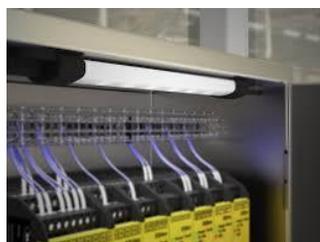
We always welcome your questions and comments.



How many ways are we dependent on light? -Yet it is so easy for us to take it for granted. Everything we see depends on it. We use it for communication, either through a fiber or through the air. With it we see more than we could without it. This is even true of light which we cannot see directly with our eyes. Using tools, we can truly illuminate the darkness. Even when the darkness is simply the void in a closet. Why then is it so easy to take light for granted?

The first light bulbs invented and used for much of the century gave off more heat than light. This inefficiency was simply an accepted fact. At best we could use the heat for something. Remember the EZ Bake oven toy? It made small cake discs using that heat! Wow technology! 😊 We got better with the advent of fluorescent and gaseous tubes and bulbs, but until the use of LED for illumination, light was always "warm." It took a lot of research and work, but we are finally there. Light for your T.V., smartphone, even your room is now attainable through the use of LED light.

New LED lights can produce very white light, as well as the colors of the rainbow. They are now very durable and ready for industrial use. They are being used to replace traditional incandescent and fluorescent lights in offices and the factory floor. They are easy to install, intrinsically safe, have a small footprint, and impervious to damage from the dangers that typical bulbs can face. Being shatterproof makes them much safer!



Adding these lights is not always obvious. Light can help an operator see better, using different colors can help find defects. Green light will make certain imperfections obvious that standard light might not make visible. The same light illuminating a machine for an operator can be used to indicate an error state by turning red. If the machine needs more supplies loaded it can illuminate yellow, indicating that need. Blue can call for assistance. You get the idea.

There are also E-Stop buttons whose base can be illuminated. Their color can also change depending on how what information is to be conveyed. Yellow indicates tripped, Red indicates a fault. Green means it is ok. In a system with many E-stops this can make getting back on-line a simple task. This same system can be used on standard push buttons as well as capacitive sensing ones. Use your imagination.



Tower and Dome lights are also available and can handle color “animations.” Blinking is easy but imaging a spinning light to indicate a particular process is going taking place. This is akin to the hourglass or spinning wheel we see on our computer screens. Yup, that can be

easily done. Let us know how we can help bring your ideas to light. (pun intended) If you can imagine it, we can help you achieve it. We are always here to help you.

-Peter Lavoie (Engineering Manager)



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