

LED Sight Glass Lights Cut Costs in Hazardous Environments

In hazardous environments, the choice of illumination for a sight glass application can play a significant role in controlling costs. That's because maintenance is expensive in hazardous areas. Just to replace a bulb sometimes requires a permit to turn off the power to that circuit. A major pharmaceutical company has estimated that because the LEDs last longer than halogen bulbs, it will save \$5000 in maintenance costs over 5-1/2 years if it switches to LED sight glass lights. With these savings, the premium cost of the luminaire is recouped within 1-1/2 years (not including the energy cost savings). In addition, there will be fewer interruptions in process viewing that could adversely affect a high value product. What's more, LED lights help companies meet their "going green" objectives by lowering energy consumption.

After getting requests for an explosion-proof LED [sight glass light](#), also called a luminaire, L.J. Star worked with its engineers and suppliers to guide the design of a light that would fit customer needs. One of those needs was to avoid the heat transfer common with halogen bulbs, which add heat to the process through the glass. A major pharmaceutical company has a heat-sensitive process, and its adoption of this LED luminaire has alleviated concerns about the effect of heat transfer on its process fluids.

L.J. Stars LED Ex Luminaire, the Series 55-EX, is the first high-power LED sight glass light that can be used in hazardous areas, reducing maintenance costs and allowing companies to meet green initiatives.

Before this product was introduced, the only ex-rated LED sight glass lights available were very low power, providing little light for viewing. Now companies who want to reduce their carbon footprint can obtain a high power, Ex-rated LED sight glass light that gives operators a well-lit, glare-free view of processes.

Compared to traditional halogen sight glass lights, the new green-technology LED Lumiglas® luminaires from L.J. Star produce light without heat and have an exceptionally long life, making them ideal for heat-sensitive processes and use in applications where exceptional reliability and low maintenance are required.

These new sight glass lights have an operating life of approximately 50,000 hours... more than five and a half years of maintenance-free operation – 50 times that of a halogen bulb. Using high power LEDs, the new luminaire provides light comparable to a 30 Watt halogen bulb with only 9 Watts of energy consumption, and they produce light with no heat radiation from the lens. Moreover, because they lack fragile filaments, the luminaires are inherently impact and vibration resistant, so their use in unprotected and harsh duty applications is also possible.

Engineers who have installed the new sight glass lights have said that without the Ex rating in this style of LED luminaire they could not have achieved their goals under company green initiatives.