



SICK's Smart Light Tower Sheds Light on Efficiencies

SICK has reimagined the industrial light stack as a versatile and customisable Smart Light Tower that can be easily set up with a wide range of parameters to communicate the real-time operational and maintenance status of machinery.

The SICK Smart Light Tower exploits the benefits of IO-Link so that both machine builders and end users can easily program real-time displays and audible signals to support wide-ranging operational, maintenance, and management goals. The SICK Smart Light Tower can be easily installed via a single cable and an IO-Link Master, and programmed through an intuitive graphical interface with a standard PC.

The SICK Smart Light Tower uses three operating modes: signal light, level meter, or animation to communicate the run status of machines and alert operating personnel to maintenance tasks or emergency conditions. It can be fitted to a wide variety of fixed machinery, as well as on mobile vehicles such as AGVs (automated guided vehicles) and AMRs (autonomous mobile robots), offering the benefit of long-distance visibility to enable a management overview of several machines over a production or logistics hall.

“Setting up a SICK Smart Light Tower is limited only by your imagination,” explains Charlie Walker, SICK's UK Product Specialist – Presence Detection. “Where traditional light towers are restricted by a modular assembly of different colours at set positions, the SICK Smart Light Tower has 20 sets of LEDs that can be programmed to display any of 21 colours, either illuminated continuously or flashing, strobing or pulsating at user-selectable frequencies.

“IO-Link connectivity offers the cost saving benefits of using unshielded cables and fewer input and output cards. The Smart Light Tower can be quickly integrated into the PLC program to display higher-level management and performance data. We have even demonstrated its ability to indicate a real-time calculation of overall equipment effectiveness (OEE).”

For example, when the SICK Smart Light Tower is used on a thermal printing machine on a packaging or labelling line, teamed with a SICK photoelectric sensor (e.g. DT35) to measure the levels of the unwinding core, it provides a timely guide for operators to know when the ribbon needs replacing.

The SLT can be programmed to alternate automatically between status alert and level mode, as required.

A SICK Smart Light Tower can be used with presence detection sensors, for example, to display the progress of totes on a conveyor, particularly at junctions where the conveyor may become blocked. Any jams can be quickly located and easily-understood status messages tell operators how to respond.

Built-in IO-link Connectivity

With built-in IO-Link connectivity, the SICK Smart Light Tower can be configured to indicate real-time data from sensors and other devices and visualise changing levels such as fill, temperature, pressure, speed, item counts or cycle times. An optional Smart Light Buzzer can be programmed to support visual signals with audible alarms and melodies.

High-brightness LEDs, positioned around the full 360° circumference of the tower, ensure the light signals can be seen from long distances. Up to five vertical segments can be configured for more straightforward status indication applications.

When the optional SICK Smart Light Buzzer module is added to the top of the tower, for which no tools are necessary, users can choose from a broad range of effects to convey a wide variety of information in volumes up to 88dB. A choice of eight tone patterns ensures audibility in busy environments where one person is tending multiple machines or processes.

Intuitive Programming

As an IO-Link device, installation and connection of the Smart Light Tower are both very easy, and device replacement is straightforward. The Smart Light Tower is mounted in a through-hole using a moulded M30 male thread or on a pole via an integral ½-inch NPT female thread. The electrical connection is made with an industry-standard M12 A-coded connector.

SICK's designers have ensured the Smart Light Tower will achieve a long, maintenance-free operating life. For example, LEDs never need to be changed unlike incandescent bulbs, the tough polycarbonate housing shrugs off minor knocks, the operating temperature range is from -25°C to +50°C, and the entire unit is sealed to IP65 to protect against the ingress of dust and moisture, even when the buzzer module is added.

For more information about the SICK Smart Light Tower, please contact Andrea Hornby on 01727 831121 or email andrea.hornby@sick.co.uk.

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