Product Update

BALLUFF
sensors worldwide

Smart Light via Distributed Modular I/O
Stack light & visualization functions with one configurable part number

Whether you are a machine builder interested in reducing the total cost of your machine or an end-user trying to keep your machine operational on a daily basis, the selection of control components can directly impact your success. This is even more true when it comes to the selection of status indicators in your process. It is also important for workers like operators, fork truck drivers, maintenance, and management to clearly and visually understand the status of their workstation, their next load, their next fix or understand the bottlenecks in the production. In these types of applications a stack light or HMI is typically integrated to communicate the status of the process. By using a software-configurable smart light to indicate machine status, you can simplify the visual indication with a single part number that costs less than most HMIs.

The Balluff smart light can be connected to virtually any industrial network via the open and universal standard, IO-Link. This device can be used with a variety of IP67 distributed modular I/O products offered from a variety of IO-Link vendors which eliminates the need to have a remote I/O box simply to control an indicator light. Balluff's smart light can function in any of three modes, can be configured on the fly, and is controlled using simple bitmaps for the outputs.

Stack Light Mode

- Program 1-5 positions of 20 rows of 360° LEDs
- Choose from 6 standard colors and one custom color
- Easily switch between solid, flashing, and blinking

Level Mode

- Tie a bar meter type scale to an analog value
- Program high level or low level indication
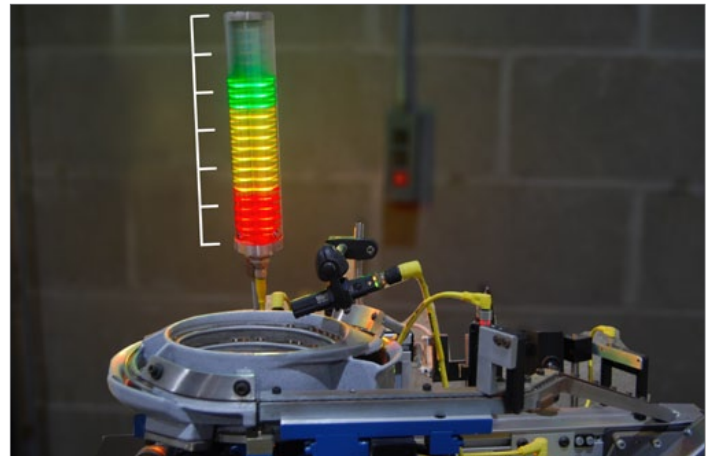- Freely configure the colors, zones, and levels

Run Mode

- Indicate running status with a simple scrolling light
- Signal a problem or action required
- Freely configure the color or the scrolling light, background, and speed

Stack Light Mode   Level Mode   Run Mode

Stack Light Process Indication

Stack lights in use today come in an overwhelming variety of options and configurations that can make keeping the right spare parts and light bulbs in the store room frustrating. This happens for end users because the equipment comes in with a variety of hardware or because the machine builders' customers specify all different brands and configurations. The smart light allows for one part number to cover all applications. Since this device uses an industry standard M12 connector and is IP54, it can be mounted right on the machine for simple and quick installation without the need for a remote I/O box or multiple terminations in the controller.

Level Visualization

Sometimes there is a need to communicate status beyond just on/off or the need to visualize a measurement or speed. These kinds of indications can be expensive, requiring an HMI for a simple meter, a digital bar meter, or a display with analog outputs. Other costly elements like an enclosure and remote I/O devices could also be needed. The smart light's level mode can be used for a variety of indications such as: machine speed, throughput, output quality, operator performance to quota, position of a part, feeder bowl level, hopper level, container level, tank level, output bin level, kanban systems, or pick-to-light.

Ordering code	Part number	Max number of zones	Dimensions	Description
BNI007F	BNI IOL-801-000-Z036	1-3 zones	213 x 60 mm	Smart Light, RGB LEDs, IP54 (IP67), M12 3-wire, M18 mounting thread
BNI0072	BNI IOL-802-000-Z036	1-5 zones	309 x 60 mm	Smart Light, RGB LEDs, IP54 (IP67), M12 3-wire, M18 mounting thread
BNI0085	BNI IOL-802-102-Z037	1-5 zones	330 x 60 mm	Smart Light, with Buzzer, All process data, M12, M18 mounting thread