

CTL50

Continuous Tower Light

Standardize. Visualize. Adapt.

- Standardize on one configurable tower light platform
- Visualize machine status, levels, timers, counters, and process data
- Adapt indication schemes without changing hardware



One Platform For Every Application



Communicate more status than a traditional tower light with **8-, 12-, and 20-cell models**

Individually **controllable cells**

Meet the visibility requirements of the environment with **diffuse models for a clean, blended appearance and clear beacon-style models for higher visibility**



Create clear, application-specific indication patterns with **14 pre-configured colors, custom colors, 17 animations, and adjustable brightness**



Install directly in washdown environments with an IP66- and IP69-rated design that needs no additional protective enclosure



Draw operator attention to status changes with **audible models** that add sound to visual indication for alarms, warnings, and process changes

Simplify deployment with **built-in modes** that convert machine and sensor inputs directly into visual indication

Use **traditional segments, manual segment lengths, and AutoSpan** which automatically scales active segments to utilize the entire light for improved visibility



Retrofit existing machines and standardize across control architectures with **discrete, IO-Link®, and Modbus® models** sharing an integral M12 quick-disconnect connector

 Discrete

 IO-Link

 Modbus

Standardizing Indication in Automotive Assembly



Challenge

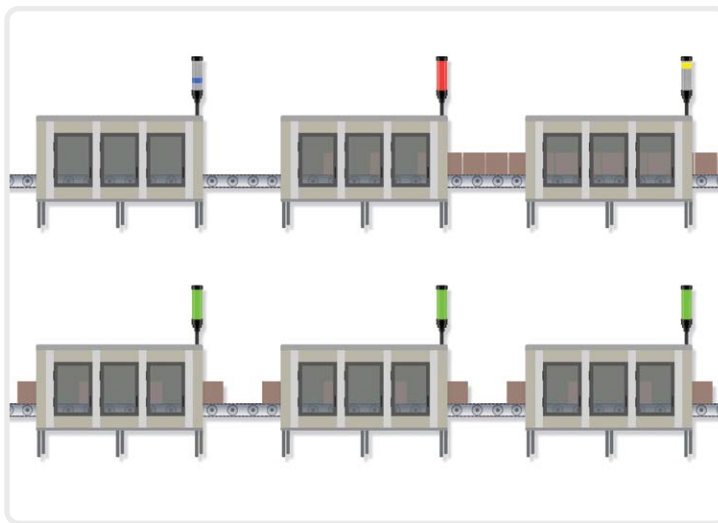
An automotive manufacturer uses IO-Link to control traditional segmented tower lights that communicate machine status throughout an assembly line. Across robotic cells, welding stations, conveyors, and inspection stations, a mix of two- to five-segment configurations is used to communicate machine conditions through different combinations of colored segments being steadily ON, OFF, or flashing. Because segment count and color needs vary across the machines, the manufacturer has to stock spares for every configuration on the line.

Solution

A 20-cell CTL50 Continuous Tower Light with IO-Link provides configurable indication throughout the line. In Segment Mode, parameter data from an IO-Link master groups the cells to match each machine's segment count and defines the color and flashing behavior assigned to each machine condition. During operation, process data selects the corresponding indication, allowing the CTL50 to look and operate like a conventional segmented tower light. The ability to reproduce all of the different tower-light configurations used across the line allowed the manufacturer to standardize on the CTL50, reducing spare-parts inventory and procurement complexity.



Dynamic Indication for Packaging-Line Flow



Challenge

On a high-speed packaging line, conventional three- to five-segment tower lights alert operators to disruptions but provide little help locating the source. Basic Run, Warning, or Fault states do not show whether material is failing to arrive from upstream, accumulating locally, or blocked by a downstream jam. The time spent locating the source can turn small disruptions into line stoppages.

Solution

Configured in Run Mode, 20-cell CTL50 Continuous Tower Lights positioned along the line use their full displays to show a distinct color and animation for each flow condition. Steady green indicates normal flow, a downward blue animation indicates upstream starvation, an upward yellow animation indicates local accumulation, and flashing red indicates a downstream jam. Modbus states from the PLC select the appropriate indication. Operators can immediately see whether to investigate upstream, locally, or downstream, shortening the time needed to locate the source and helping prevent small disruptions from becoming line stoppages.

Continuous Tank Level Indication



Challenge

In a process that uses multiple tanks, fill level is available only by checking tanks individually or accessing an HMI, so operators cannot quickly see which tanks are nearing empty and need a refill or which require a transfer.

Solution

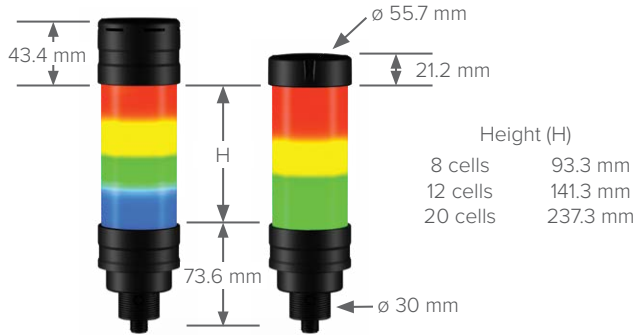
A 20-cell diffuse CTL50 Continuous Tower Light mounted atop each tank makes tank level immediately readable across the installation. At each tank, a splitter routes the Pulse Pro/PFM output from a Banner T30R Radar Sensor to the CTL50, providing the level input without additional control logic. Configured in Level Mode, the CTL50 fills from bottom to top as tank level rises, with green, yellow, and magenta indicating the low, middle, and high ranges so operators can quickly see which tanks are closest to requiring attention. Using Pro Editor software, fill animation, color, and thresholds are configured once, saved, and applied to each CTL50, streamlining installation and keeping indication consistent.



CTL50 Continuous Tower Lights

Series	Window	Number of Cells	Audible	Control	Connection
CTL50	D	20	A	K	Q
	D = Diffuse BL = Beacon light	8 = 8 Cells 12 = 12 Cells 20 = 20 Cells	Blank = No audible A = Audible	Blank = Discrete K = IO-Link S = Modbus	Q = 4-pin M12 integral QD (IO-Link, Modbus) or 8-pin M12 integral QD (Discrete) QD models require mating cordset

Specifications



Supply Voltage

Discrete, Modbus: 12 to 30 V DC
IO-Link: 18 to 30 V DC

Max Audible

99dB

Construction

Polycarbonate

Operating Conditions

Standard: -40 to +50 °C
Audible: -20 to +50 °C

Environmental Rating

IP66, IP69

Certifications



Accessories



SMB30MM
Right angle curved
mounting slot bracket



SMB30A
Right angle bracket



SMBAMS30P
Flat curved mounting
slot bracket



SMB30RAVK
V-clamp bracket



SA-FFB12 (black)
Flush foldable bracket for use
with elevated mount systems

4-Pin M12 Single-Ended

Straight connector models listed; for right-angle models, add **A** to the end of **M12F4** (example, BC-M12F4A-22-2)



BC-M12F4-22-2

2 m (6.5 ft)

BC-M12F4-22-5

5 m (16.4 ft)

BC-M12F4-22-10

10 m (32.8 ft)

4-Pin M12 Double-Ended

Straight connector models



BC-M12F4-M12M4-22-2

2 m (6.5 ft)

BC-M12F4-M12M4-22-5

5 m (16.4 ft)

BC-M12F4-M12M4-22-10

10 m (32.8 ft)

8-Pin M12 Single-Ended

Straight connector models listed; for right-angle models, add **A** to the end of **M12F8** (example, BC-M12F8A-22-2)



BC-M12F8-24-2

2 m (6.5 ft)

BC-M12F8-24-5

5 m (16.4 ft)

BC-M12F8-24-10

10 m (32.8 ft)

8-Pin M12 Double-Ended

Straight connector models



BC-M12F8-M12M8-24-2

2 m (6.5 ft)

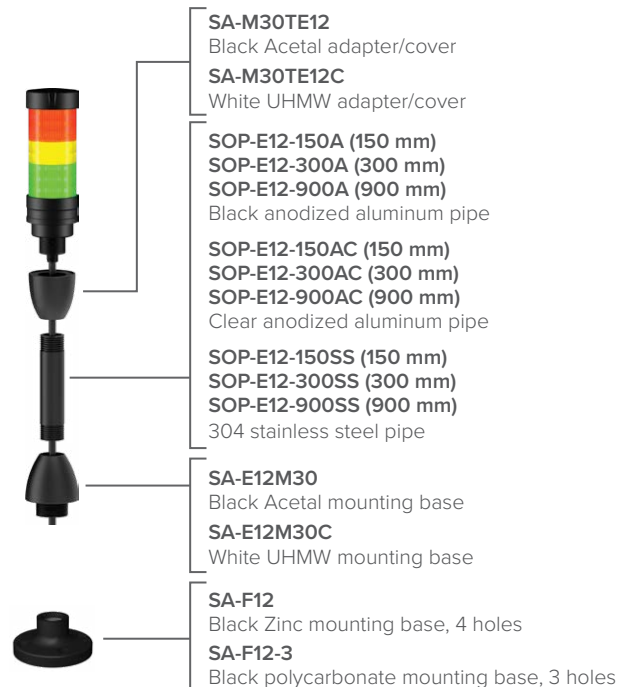
BC-M12F8-M12M8-24-5

5 m (16.4 ft)

BC-M12F8-M12M8-24-10

10 m (32.8 ft)

Elevated Mount System



Banner Engineering Corp.

1-888-373-6767 • www.bannerengineering.com

© 2026 Banner Engineering Corp. Minneapolis, MN USA

PN_B_51982731