smart vision lights™

BTM-1000
Bluetooth Module
SMARTVISIONLINK™

PRODUCT DATA SHEET

5-pin M12 Connector
(Male)

LED Indicators

5-pin M12 Connector
(Female)

Cable Length: ~150 mm (6")

Warranty	Range	Compliant	Rated	Connectors
3 YEAR	**20** METERS	**FCC** IC, CE	**IP 65**	**5-PIN M12**

PRODUCT HIGHLIGHTS

✓ Simple to connect to any SmartVisionLink™ enabled light up to 20 meters away

✓ SmartVisionLink™ app works on both Apple and Android devices (available free in the app store)

✓ Adjust intensity of light or individual zones within a light (not all SmartVisionLink™ enabled lights have individual zones)

✓ Locate and adjust the intensity of a single light within a string of lights

PRODUCT DESCRIPTION

When connected to a Smart Vision Lights™ light that is SmartVisionLink™ enabled, the BTM-1000 allows for communication with that light over Bluetooth via an app on either an Apple or Android device. When a connection is made between a BTM-1000 and a light with SmartVisionLink™ enabled, the user is able to manage the intensity for each light or each zone in a multi-zone light using the app's built-in intensity controller. This allows lights to be calibrated with others, making a homogeneous surface light pattern. The BTM-1000 has the ability to communicate with a light or series of lights up to 20 meters away, reducing the need for downtime of a production line. The BTM-1000 also improves workplace safety because workers do not need to be elevated to make adjustments.

PRODUCT SPECIFICATIONS

PER CHANNEL	Standard
Electrical Input	24VDC +/- 5%
Connectors	One 5-pin M12 – Male (Input) One 5-pin M12 – Female (Output)
Lights Supported	Six lights within a single string
Indicator Lights	Green = Power on Red = Data Transmission Out (Light to App) Blue = Data Transmission In (App to Light)
IP Rating	IP65
Ambient Temperature	0ºC–40ºC (32ºF–104ºF)
Weight	~40 g
Communication	BLE 4.2
Radio Range	20 meters
Operational Current (no load)	15 mA
FCC Compliance	FCC ID X8WBT832
IC ID	451I-2564N
Compliance	IC, CE

CONNECTING A BTM-1000

The BTM-1000 can be connected directly to a light or attached to a jumper cable that is connected to a light. Once the light's intensities is set to desired level, the BTM-1000 can be removed from the light or cable.

The pigtail end of the BTM-1000 is connected directly to the light or to the cable attached to the light.

Warning:
Removing the BTM-1000 without disconnecting on the SmartVisionLink™ app may result in the app continuing to look for the paired BTM-1000. When this occurs, the app cannot communiate with the BTM-1000. To solve this issue, close the app and reopening it.

BTM-1000

RESOURCE CORNER

Additional resources, including CAD files, videos, and application examples, are available on our website.
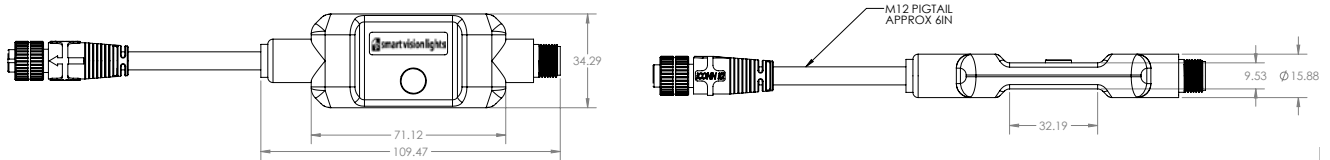
PART NUMBER

BTM–1000

Part Number Example:
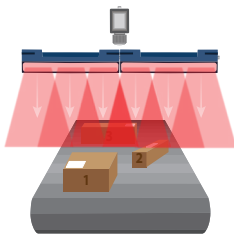BTM-1000 (Bluetooth Adapter)

PRODUCT DRAWING
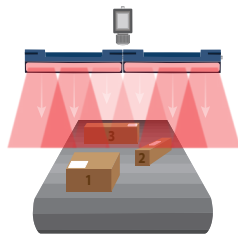
Dimensions are in mm.

UNDERSTANDING ZONES

A light that is SmartVisionLink™-enabled is designed so intensity can be adjusted using the SmartVisionLink™ app. For example, the LZE300 has 3 built-in zones, allowing for each zone intensity to be set independent of the other zones. Individual zones can also be turned off. Being able to adjust zones within a single light can help reduce hot spots and ensure even uniformity across a string of lights.

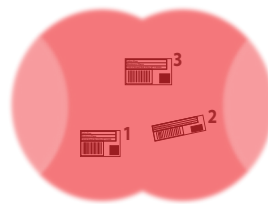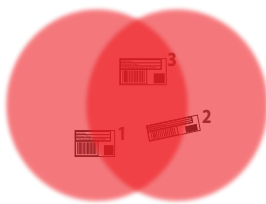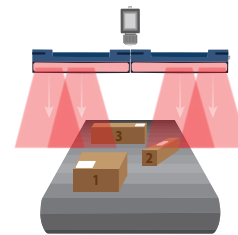**Lights Without Zones** **Lights With Middle Zones Adjusted** **Lights With End Zones Turned Off** **Lights With Middle Zones Turned Off**
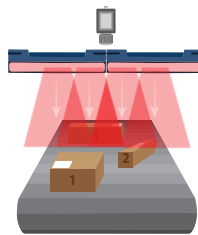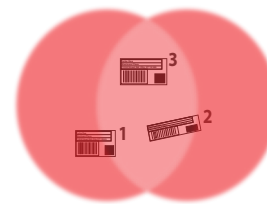
MANAGING MULTIPLE LIGHTS

Using the SmartVisionLinks™ app, a user is able to adjust intensity levels for a string of up to 6 lights. Each light or each zone in a multi-zone light are able to have its intensity adjusted independently of the other lights and zones. For example, when direct connecting six LZE300 the user is able to manage 18 individual zone intensities.

PAIRING TO A PHONE / TABLET

To pair the BTM-1000 with a phone or tablet, first download the SmartVisionLights™ app. Open the app and press the connect button. The app will search for any BTM-1000's in the area. A list of available BTM-1000 with their unique ID numbers will be displayed. Select the BTM-1000 you want to pair too. A list of lights connected to that BTM-100 will be displayed.

When a BTM-1000 is paired, the blue and red communication LEDs will flash.

LED Color	Indicator
Green	Power On
Red	Data Transmission Out (Light to App)
Blue	Data Transmission In (App to Light)
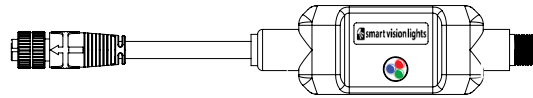
USING SMARTVISIONLINK™

SmartVisionLink™ is free to download in the Apple App Store and Google Play Store.

Adjusting Intensity
Select the serial number of the light you want to adjust. The light will flash to identify itself. On the light manager screen, there is an option to flash the light to identify it.

You have the option to adjust the intensity levels for both continuous operation and OverDrive™ strobe mode. These are independent of each other and both settings can be saved.

Adjusting a Single Zone
Slide the scroll bar up or down to adjust the intensity. Intensity can be set between a range of 10%–100%. If you wish to turn off a zone, uncheck that zone. Unchecking a zone will set that zone to inactive (greyed out).

Adjusting All Zones
To adjust all zones, check the "Link Zones" checkbox. Once checked you will have the ability to adjust all zones together. Simply slide any active zone scroll bar up or down to adjust all active zones intensities. If a zone is inactive (unchecked), that zone will not adjust.

Flash
Flash will toggle the light on/off when Continuous is selected. The light will flash if in OverDrive™. This is useful when identifying a light.

Link Zones
Allows for linking of zone intensity, so all zone intensities can be adjusted at one time. When linked and the zone with the highest intensity level reaches 100%, remain zones' intensity levels cannot be adjusted any higher. The same is true for the lowest intensity level, when it reaches 10%, the other intensity levels cannot be adjusted any lower.

Save
When you have the intensity level for each zone of the light set, press the save button. This will save all settings for that individual light.

Back
When you have everything saved, press the back button to go back to the list of connected lights.

Disconnect
When all lights are set to desired intensity levels, disconnect from the BTM-1000 by pressing Disconnect.

GET IT ON
Google Play

Get it on
iTunes Store
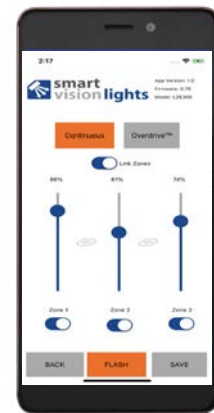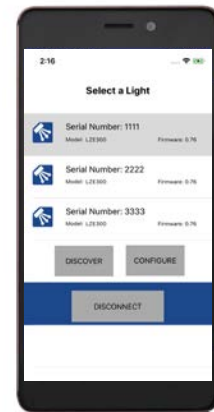
ACCESSORIES

Power Cables	
Lengths	Part Number
5 m	5PM12-5
10 m	5PM12-10
15 m	5PM12-15

Jumper Cables (Daisy Chain)	
Lengths	Part Number
300 mm	5PM12-J300
1000 mm	5PM12-J1000
2000 mm	5PM12-J2000

GLOSSARY

This glossary covers all Smart Vision Lights™ product families; some content in this section may not apply to this specific product.

TERMINOLOGY

OverDrive™ Lights include an integrated high-pulse driver for complete LED light control.

Continuous Operation Light stays on continuously.

Multi-Drive™ Combines continuous operation and OverDrive™ strobe (high-pulse operation) mode into one easy-to-use light.

Built-In Driver The built-in driver allows full function without the need of an external controller.

Camera to Light Connecting the light directly to the camera, without the need for additional controllers or equipment.
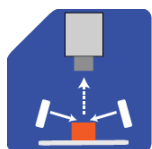
Polarizers Filters that reduce reflections on specular surfaces.

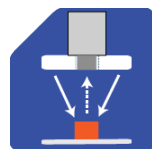**Diffuser** Used to widen the angle of light emission, reduce reflections, and increase uniformity.
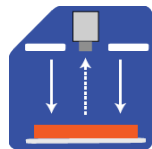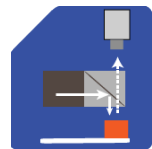
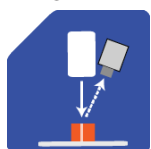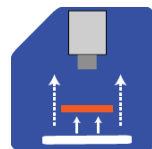## TYPES OF ILLUMINATION
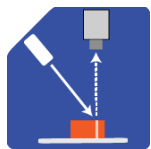
Projector
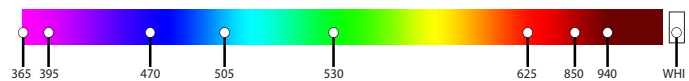
Dark Field

Radial

Bright Field

Direct

Axial

Line

Diffuse Panel

Backlight

COMMON COLOR/WAVELENGTHS LEGEND

Wavelengths options range from 365 nm to 1550 nm.
Additional wavelengths available for many light families.

365 395 470 505 530 625 850 940 WHI

SWIR SHORT WAVE **INFRARED**

Shortwave infrared LEDs are available in 1050 nm, 1200 nm, 1300 nm, 1450 nm, and 1550 nm.