

AUTOMATIONDIRECT.com

# BARCODE / RFID / VISION



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**Swivellink**  
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**code**  
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# Industrial Identification Systems at great prices!

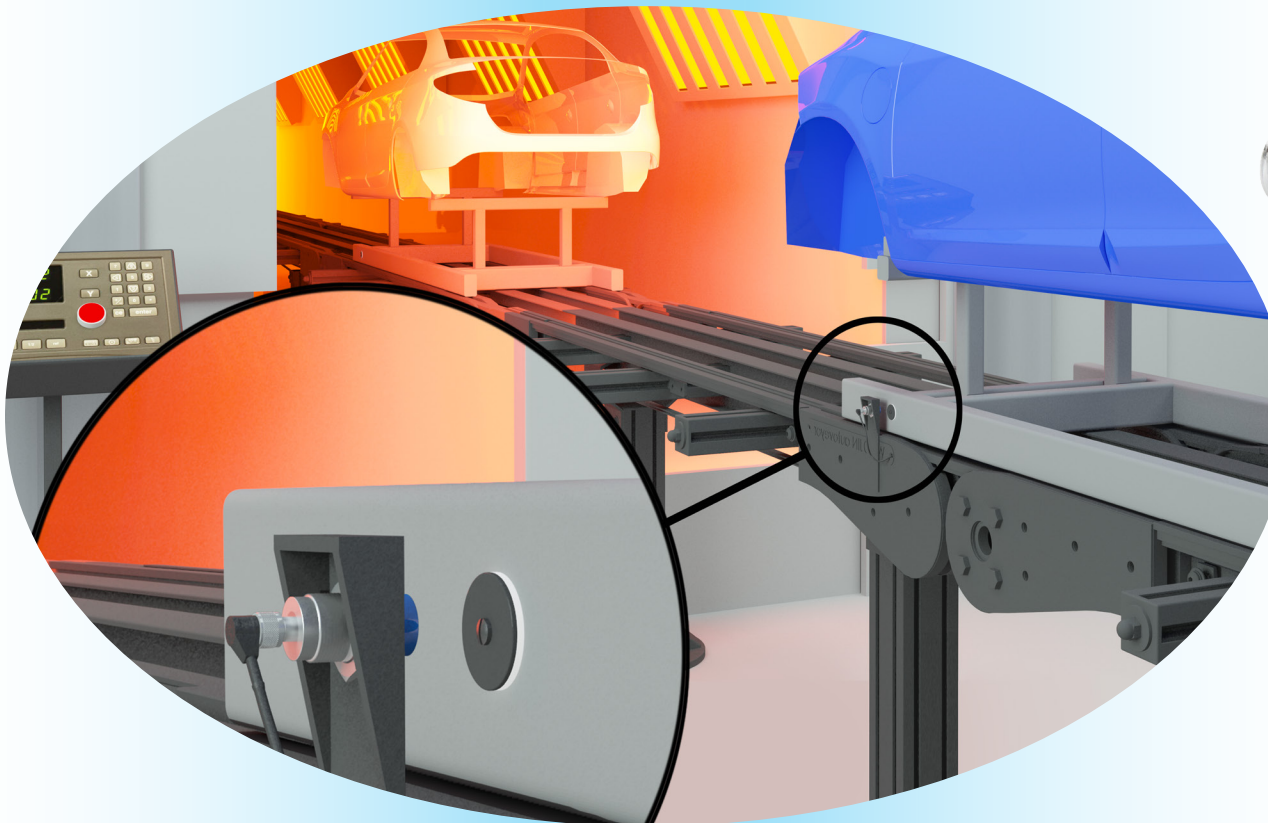
## What are industrial Identification systems?

Identification systems are used in industrial automation to identify a product, part, symbol, mark or perform a quality check. The three main types of technology used in industrial identification are RFID, vision systems and optical identification, which include barcode scanners.

RFID read/write units use radio frequency identification technology to identify a product or part that has an RFID tag attached to it as it passes near the RFID scanner. They also have the ability to write data to RFID tags so the communication between the unit and product is essentially 2-way. RFID read/write units don't need to have an uninterrupted line of sight to the tag it is transmitting data to/from and marks or dirt on the tag have no effect on performance.

Barcode scanners are the most common type of industrial identification system and the equipment that we normally think of when we want to identify a product. They use a combination of lasers and optical componentry to read a barcode on a label, embedded or etched onto a product. Barcode scanners come in many form factors and styles, from a fixed mount unit on a machine which can be a simple single-sided read to a very complex multi-head system used in a state-of-the-art warehouse. Hand-held units are also available that are simple to set up and use.

Industrial vision systems can mean many different types of products. Sometimes these are used in place of barcode scanners where the accuracy of reading labels of potentially poor quality is favored over speed. Sometimes these products can be used in quality control applications as well. Like barcode scanners, these systems can range from simple to very complex.



**code**

mBRV-2 Barcode/RFID/Vision

AUTOMATIONDIRECT.com

1-800-633-0405

<https://www.automationdirect.com/barcode-rfid-vision>

## Why buy identification system products from us?

There are several distinct advantages to purchasing RFID components or barcode scanners from AutomationDirect:

### Price

As with all of our product lines, our prices are often well below the list prices of traditional automation suppliers. Our direct business model allows us to operate more efficiently than other suppliers and pass the savings on to you.

### Quality

All of our Code barcode scanners carry a 2-, 3- or 5-year warranty. Contrinex RFID read/write units carry a lifetime warranty. Datalogic vision sensors and accessories carry a 3-year warranty. If for any reason you are not satisfied with your purchase, we have a 30-day money back guarantee.

### Service

We give you options for self-service but at the same time, we are there when you need us. You can place your order online or call our customer service folks. Have a technical question about one of our products or need help gathering up a bill of materials for one of your projects? You can call our free technical support.



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Barcode/RFID/Vision

mBRV-3



# code Barcode Scanners Provide a Practical Identification Solution

Barcode scanners allow a code, such as a 1-dimensional barcode, 2-dimensional QR code or other non-human-readable code to be read, decoded and converted to a usable format. This code is then sent to an intelligent device such as a PLC or PC over a network such as RS232 or USB. Several models are available to read the barcodes required for your application.

## CR950 Series Hand-Held Barcode Scanners

This easy-to-use, durable barcode reader outperforms single-line laser scanners and linear imagers with full omnidirectional barcode reading. Combined with its programming versatility, the CR950 quickly and reliably transmits barcoded data into any enterprise solution.

- High-speed, omnidirectional reading of 1D and 2D barcode symbologies
- Manual or automatic triggering. Stand (sold separately) is required for automatic triggering
- User feedback with LED and audible tone
- All-inclusive kits include reader and cable
- Reads barcodes on backlit screens such as mobile devices
- Optional stand (sold separately)



## CR1100 Series Hand-Held or Presentation Mode Barcode Scanners

The lightweight Code Reader™ 1100 (CR1100) is a compact barcode reader that takes up limited workspace without compromising barcode reading performance. The patented dual-field optical platform of the CR1100 allows users to quickly scan both wide 1D and small 2D barcodes.

- High-speed, omnidirectional reading of 1D and 2D barcode symbologies
- Manual or automatic triggering
- Pre-threaded screw holes to allow for mounting
- User feedback with LED and audible tone
- Reads barcodes on mobile device screens
- Efficient power consumption (lowest in its class)
- Optional stand (sold separately)



## CR1500 Series Hand-Held Barcode Scanners

The Code Reader™ 1500 (CR1500) is a compact, rugged, tethered barcode reader that features a high-performance scan engine, dual-field optical platform, and intuitive targeting that makes reading 1D, 2D, and postal barcodes extremely fast and reliable.



- Serial interface available for easy Programmable Logic Controller connectivity
- Optimized to read high-density codes
- Efficient power consumption
- Compatible with Code's rapid disconnect USB and RS232 Affinity® cables
- Reads barcodes on mobile device screens
- Manual or automatic triggering

## CR5000 Series Table-Top Presentation Mode Barcode Scanners

The CR5000 Series is designed for fast-paced environments and handles data from 1D, 2D, and postal barcodes with speed and accuracy. Advanced data formatting provides dependable data integration into any platform, system, or solution — including iOS applications.



- Extended read ranges
- Enhanced barcode recognition and detection for codes in motion
- Improved code reading on mobile device screens
- Reads color and low-contrast barcodes
- Hands-free operation or optional trigger reading large, heavy, bulk items
- Efficient power consumption
- Compatible with Code's rapid disconnect USB and RS232 Affinity® cables

# code Barcode Scanners

## CR6022 Series Hand-Held Barcode Scanners

The CR6022 is an industrial grade direct part mark (DPM) imager designed to scan barcodes of every sort. The CR6022 effortlessly reads laser-etched, embossed, dot peen, low-contrast, and low-contrast barcodes. It easily decodes dense and extremely small barcodes.

- Reads laser-etched and dot peen markings
- Reads color and low-contrast barcodes
- IP54 housing protects against dust and debris
- Small form factor for operator comfort
- Integrated metal hook holder for ease of placement and retrieval
- User feedback with programmable LED, audible tone and vibrating good read indicators
- Operates hands-free or handheld
- Optional stand (sold separately)



## CR2700 Series Hand-Held Barcode Scanners

The CR2700 series introduces Bluetooth® 5, increasing the security level on data transmission. By implementing a Bluetooth Low Energy radio, Code has extended the battery life on the CR2700 to further minimize downtime during shifts. A built-in gauge tells users when it is time to change the battery.

- Reads barcodes on mobile device screens
- Patented glare reduction technology for reading barcodes on shiny surfaces
- Multiple programmable buttons for customized workflow processes
- Batch Mode to scan, store, then offload data via the connected base station
- Inductive charging stations
- The reader can connect to any Windows computer that has Bluetooth Low Energy 5 without using a base or dongle
- High-speed, omnidirectional reading of all 1D, 2D, Postal barcodes
- IP65 rating seals out dust and moisture
- Durable, quick-release rechargeable battery cartridges
- Bluetooth 5 for enhanced data security
- Patented dual-field optics, with both high density and wide field in the same unit



## Code Barcode Scanner Accessories

AutomationDirect offers a full line of accessories for the Code Reader™ line of barcode scanners. Both USB and RS232 communications cables are available as well as a power supply and flexible and rigid stands.







# RFID Devices are a Rugged Identification Solution Even in Dirty Environments

RFID devices use radio frequencies to read and transmit data. RFID read/write modules exchange data with RFID tags which store data in local memory. They may also communicate with an intelligent device, such as a PLC or computer, over a network such as IO-Link.

## RFID Read/Write Devices

RFID read/write modules are transceivers that can read and write data to/from RFID tags (transponders) using high-frequency RFID technology. Contrinex RFID read/write modules offer fast data transfer times and communicate to higher-level devices such as a PLC over a communications network. These RFID Read/Write units use the IO-Link protocol.

- M18, 18mm diameter size can read up to 34mm away, IP67 environmental rating
- M30, 30mm diameter size can read up to 50mm away, IP67 environmental rating
- 44mm x 44mm cube style can read up to 78mm away, IP68/IP69k environmental rating
- HF RFID technology operates on 13.56 MHz and complies with ISO/IEC 15693
- Line of sight not required to read tags
- Dirt or other markings on tags do not affect the readability of data
- IO-Link V1.1 compatible



## AutomationDirect Standalone RFID Read/Write Unit

The AutomationDirect standalone RFID read/write unit is designed for easy integration into an existing EtherNet/IP network. It is optimized for high speeds and large data transfer.

### Features:

- Complete unit with RFID R/W device with built-in antenna
- Easy integration
- Built-in interface for EtherNet/IP
- Maximum read/write distance of 220mm\*
- Adjustable range/transmitting power
- RFID HF 13.56 MHz per ISO 15693
- IP67 protection rating

\* R/W distance is dependent on the type of tag/transponder, applications and environment

## RFID Tags

RFID Tags (also known as transponders) are electronic devices that store data. The tag has fixed memory which stores a unique preset number (i.e. an identifier) as well as user memory which can be written to for storing application data. Writable data may include, for example, the object's history or the parameters of operations to which it will be subjected. EEPROM and FRAM memory type tags are available.

- Sizes available include 9mm, 16mm, 20mm, 30mm, and 50mm
- Memory sizes from 256 to 2048 bytes
- High-temperature model made from PPS (polyphenylene sulfide)
- Protections ratings of IP67, IP68, and IP69k
- EEPROM tag features
  - Unlimited read cycles
  - 100,000 write cycles
  - 4 bytes per block
- FRAM tag features
  - Unlimited read cycles
  - $10^{12}$  write cycles
  - Up to 2,000 bytes of user memory per device
  - 8 bytes per block







# Smart Industrial Vision Products at a Great Price

Vision systems process information from a captured image. Actions taken can range from a simple pass/fail, good/not good output to making complex decisions based on an image. Applications include quality assurance inspection for processing, bottling lines, food and beverage, and packaging machinery, as well as assembly.

## Vision Sensors

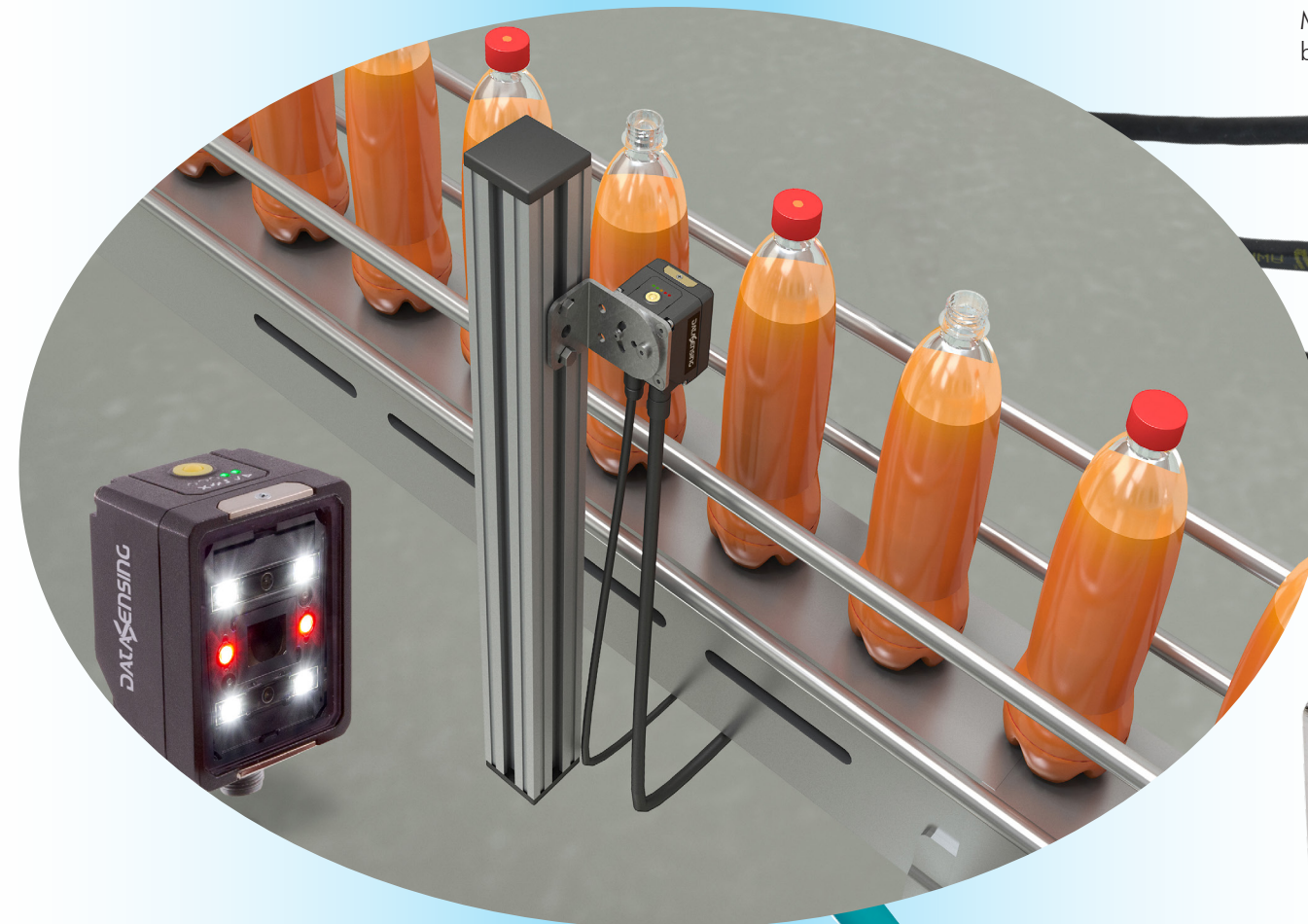
Vision sensors are intelligent self-contained systems that can capture an image of an object as it passes by and are capable of making a decision based on the captured image. Some examples of the types of decisions they make might be a pass/fail based on a label orientation, the fill level of a beverage bottle, or even complex decisions that involve the color of a product to determine proper quality assurance. The Smart-VS sensor features embedded artificial intelligence technology but is simple to configure.

- Machine learning assisted setting with fast and easy set-up with web-based GUI
- No vision tools or programming experience required
- 50-150 mm operating distance
- Bright and highly visible red LED pointer
- Powerful white polarized light illuminator
- Easy photosensor-style output interface
- Cable exit connections can be rotated to accommodate a variety of installation configurations



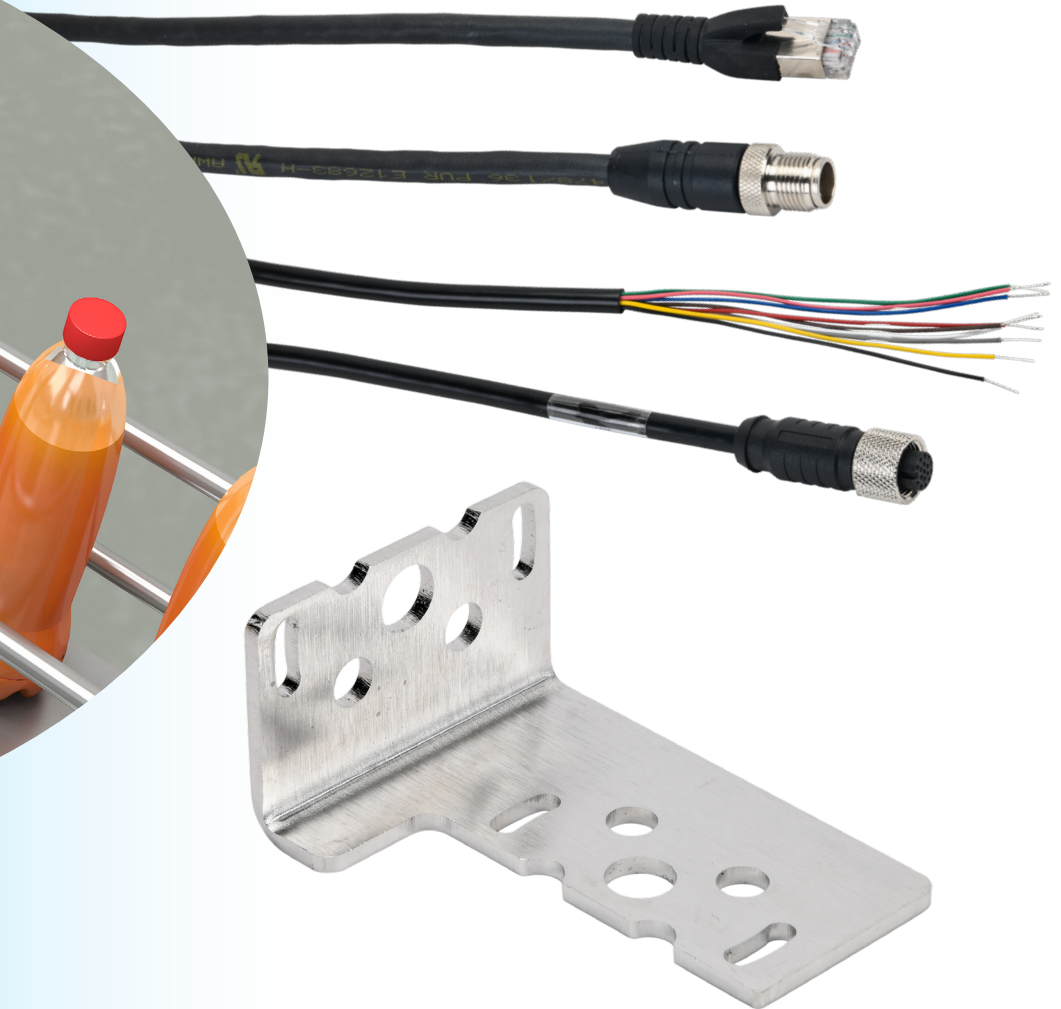
Starting at  
**\$879.00**

(959971320)



## Vision Device Accessories

Many accessories are available for vision devices, including mounting brackets and control and communications cables.



## Also Available

M12 X-coded Cat6a high flex shielded industrial Ethernet cables support high-performance vision applications.

- Available in up to 5m / 16.4ft lengths
- Up to 10Gbps full duplex communication
- TPE (thermoplastic elastomer) jacket
- Flame retardant, chemical resistant
- M12 X-code to RJ45 connection





**wenglor**  
the innovative family

# Machine Vision Lighting Made Simple

## Vision Lighting

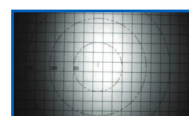
Vision lighting systems use high-quality LEDs to provide the proper amount of contrast, brightness, and uniformity to an imaging surface, allowing a good image of the

code or object to be captured. LEDs are available in many colors but the most popular color is white.

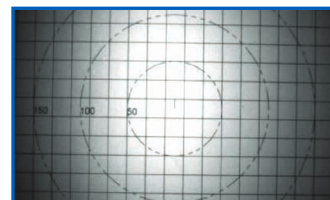
## Bar Lights

Bar lights consist of a linear package (bar) with a row of LEDs. Bar lights can be used for various types of lighting schemes such as bright field, dark field, and dome effects. Available in white or infrared and in lengths of 125mm, 250mm, 375mm, and 500mm. The angle of illumination is easily changed with the addition of snap-in angle changers.

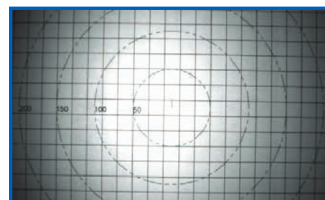
To add flexibility to bar lights, angle changers are available in narrow, medium, wide, line light, polarized narrow, polarized medium, polarized wide, polarized line light, polarized, and transparent to suit your application needs. Changing the angle of the light is simple and fast by just snapping on one of the modular angle changers. Bar clamps are also available to simplify installation.



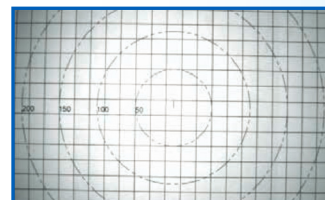
**M-EBAR**  
without angle changer



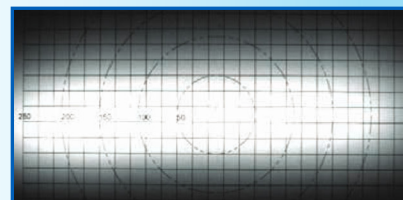
With Narrow Angle Changer



With Medium Angle Changer



With Wide Angle Changer

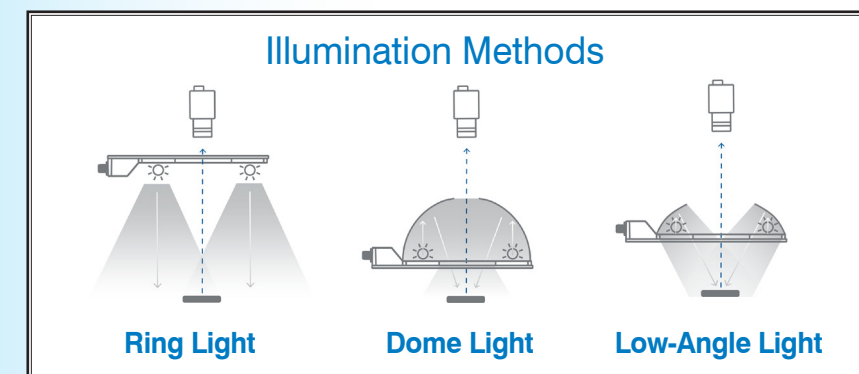


With Line Light Angle Changer



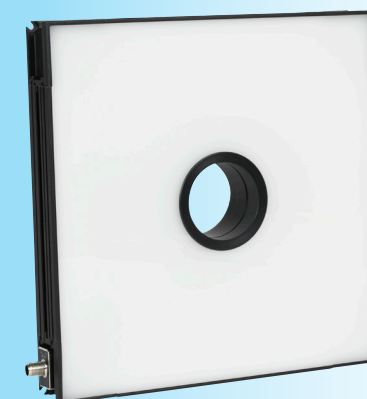
## Ring Lights

Ring lights are LEDs contained in a circular package. Ring lights can perform many functions such as a ring, dome light, and low-angle light. Models are available in two sets of colors including red/cyan or white/infrared. Ring lights are sold in 80mm and 130mm diameters (approximate internal light diameter). Ring lights are a versatile fixture as accessories are available to convert a ring light to a dome light or low-angle dome light quickly.



## Flat Lights

Flat lights provide a solution for backlighting. Backlighting is used for applications such as quality control to detect presence/absence, edge defects, fill level, and silhouetting. Available in white and infrared colors and sizes from 200 x 200mm to 400 x 400mm. Mounting brackets are also available.



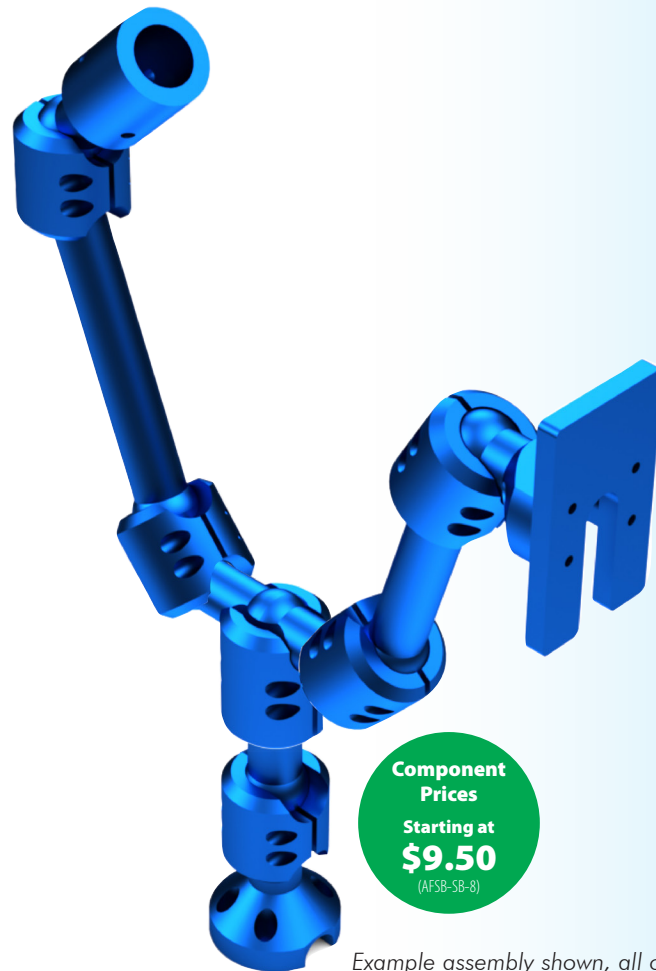
## Flat Dome Lights

Flat dome lights provide a great illumination solution for machine applications in pick and place or logistics scenarios. The fixture of a flat dome light consists of a flat light with a hole in the center for the camera to look through. Available in white or infrared colors and 200 x 200mm and 300 x 300mm sizes. Mounting brackets are also available.





# Easy Device Mounting with Precise Adjustment



**Component  
Prices  
Starting at  
\$9.50**  
(AFSB-SB-8)

*Example assembly shown, all components sold separately.*

Device mounting systems are components configured and assembled to mount vision cameras, lights, sensors, scanners, and other devices. They allow for precise adjustment and ease of equipment installation. These systems are modular and components are selected individually to suit the needs of the application. Swivellink mounts are a great way to mount identification equipment.

Swivellink systems start with a base, which is fastened to the mounting surface. Then a link or tee is connected. Links are connected using knuckles which provide full rotational adjustment. Mounting plates finish the mounting system which can be predrilled for specific manufacturer equipment or available as a blank and custom drilled. Components are available in metric or imperial units, and in standard and extra-small sizes. Sold as individual components or as kits that include everything you need for an assembly. Available components include:

## Bases



## Knuckles



## Links



## Tees



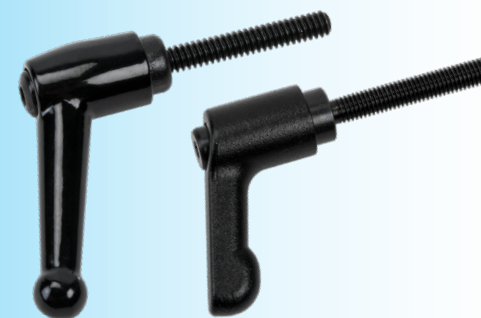
## Mounting Plates



## Sensor Mounts



## Clamp Handles tighten joints without the need for tools



## Mounting Kits include all components needed for the most popular assemblies

