

AUTOMATIONDIRECT.com

BARCODE / RFID / VISION



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

Barcode/RFID/Vision

mBRV-1

Industrial Identification Systems at great prices!

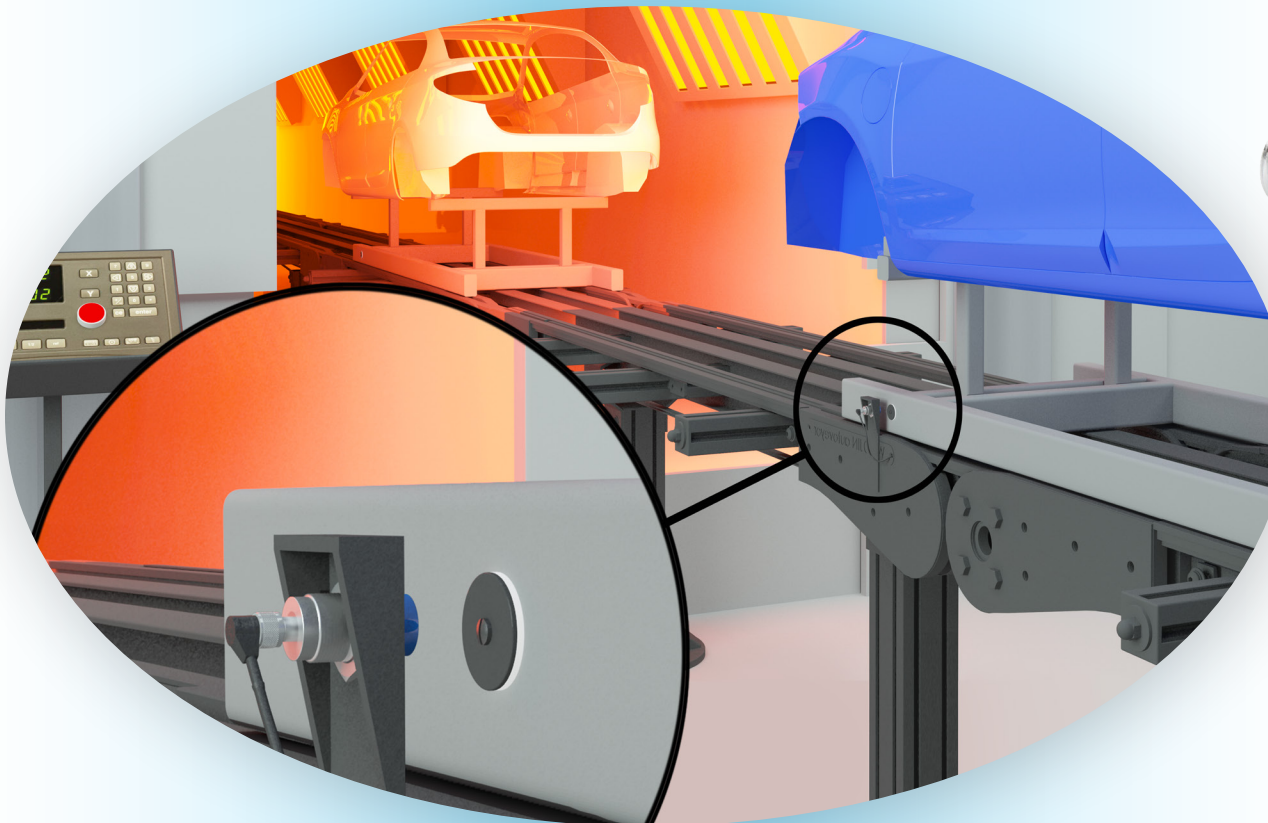
What are industrial Identification systems?

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.



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 identification products carry a 1-, 2-, 3-, or 5-year warranty. Contrinex RFID read/write units carry a lifetime warranty. If for any reason you are not satisfied with your purchase, we have a 45-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.



code

mBRV-2 Barcode/RFID/Vision

AUTOMATIONDIRECT.com

1-800-633-0405

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



DATALOGIC THE VISION IS YOURS **CONTRINEX**

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

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



Starting at
\$750.00
(CR2701-200-C298)



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.





Barcode Scanners

Datalogic PowerScan 960X Series Barcode Scanners

The Datalogic PowerScan 960X Series barcode scanners are a rugged industrial handheld scanner. These cordless barcode scanners are designed to withstand demanding environments and can capture low-density 1D and 2D codes within normal reading ranges.

- Ergonomic shape and well-balanced weight to reduce operator stress
- Very rugged design, tested to resist more than 50 drops at 8ft on concrete
- Omnidirectional reading on 1D, stacked and 2D codes, postal codes
- 1280 x 800 optical resolution
- Inductive, contactless charging technology
- Cordless communications options include 910MHz RF or Bluetooth® 5.0
- Communication options to cordless base include USB or RS-232
- Environmental ratings include IP65 and IP67; Cradle IP65



Complete PowerScan PM9600 system, including cordless 2D barcode scanner with 910MHz RF communications.



Complete PowerScan PBT9600 system, including cordless 2D barcode scanner with Bluetooth 5.0 communications.



Datalogic PowerScan 960X Accessories

An array of accessories is available for the PowerScan 960X scanners to complete your system or replace various items of an existing system.

- Replacement standalone barcode scanners in 910MHz RF or Bluetooth communications
- Replacement base stations in RF or Bluetooth communications
- Scanner vehicle mount
- Replacement batteries
- Base station power supplies
- Power supply power cords
- Serial and USB communications cables





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.

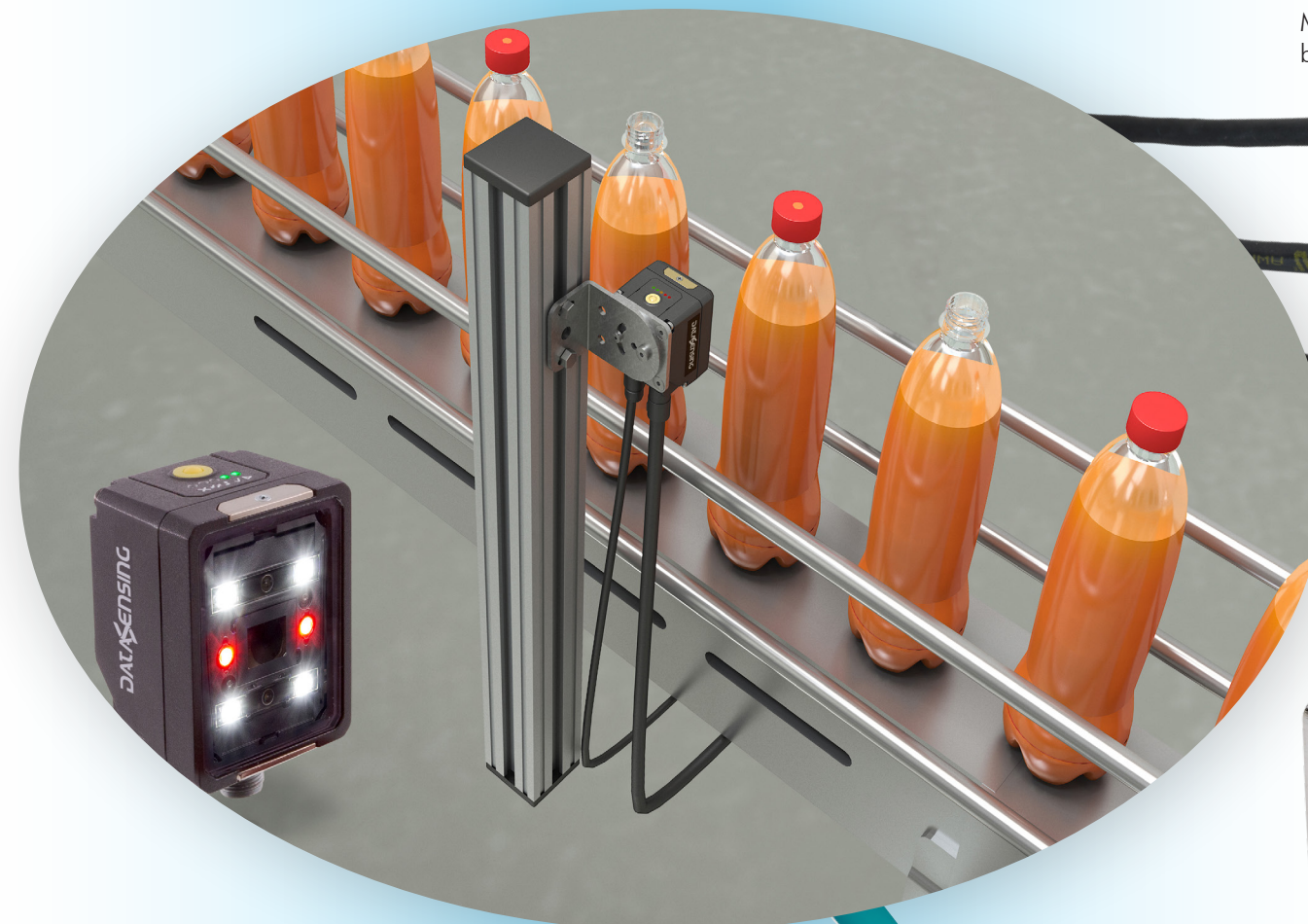
Vision Sensors

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



ifm Barcode scanners, 2D Cameras, and 3D Vision Sensors

ifm efector barcode scanners, 2D cameras, and 3D vision sensors provide premium industrial identification from a trusted brand name. All ifm efector devices are configurable with the free ifm Vision Assistant. Whatever your identification needs, ifm efector has you covered.

O2I Series Barcode Scanners

ifm machine-mountable barcode scanners are capable of reading many popular industrial 1D and 2D codes such as Code 128, Code 39, QR codes, and many more. They are an excellent choice for machine-mount, conveyor-mounted, or process equipment mounting applications.

- Quality improvement through accurate tracking
- Autofocus with alignment laser
- Four built-in lights (2 non-polarized and 2 polarized)
- Two configurable outputs
- Onboard logic engine
- IP65 environmental rating
- Local device backup and cloning
- Optical Character Recognition (OCR)
- EtherNet/IP and TCP/IP communications supported



Priced at
\$1,436.00
(O2I502)

O2D Series Cameras

ifm 2D cameras are simple-to-use self-contained vision systems that provide reliable image-based detection. These cameras are machine-mountable and perform many operations, such as contour detection or BLOB analysis. This family of vision sensors excels at solving many error-proofing and inspection applications for a fraction of the cost of other vision systems and sensors. They are suitable for many industrial, quality, and process applications.

- Autofocus
- Four built-in lights (2 non-polarized and 2 polarized)
- Up to five configurable outputs
- Local device backup and cloning
- Onboard logic engine
- IP65 environmental rating
- Anchor tracking
- Multiple-image analysis at various exposure rates
- Contour and BLOB detection
- 1.2MP imager resolution
- EtherNet/IP and TCP/IP communications supported



Priced at
\$1,436.00
(O2D502)

O3D Series Vision Sensors

ifm 3D vision sensors are advanced self-contained vision systems that use time of flight technology to measure over 23,000 points on an object within the sensor's field of view. They are machine-mountable and useful for volume and surface dimensioning in many industrial and process applications.

- Extremely robust against ambient light and color changes
- Digital switching between 32 recipes
- Three configurable outputs
- Internal infrared light source
- Onboard logic engine
- IP65 environmental rating
- EtherNet/IP and TCP/IP communications supported



Priced at
\$1,520.00
(O3D302)

ifm Scanner, Camera and Vision Sensor Accessories

Many accessories are available for ifm vision devices, including mounting brackets/rods and heatsinks.





Vision Lighting

Proper machine vision lighting is crucial for vision systems as it directly impacts the quality and reliability of images that the vision system captures. 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. Lighting fixtures are selected based on the application and could include backlighting, diffuse lighting, or dark field lighting. LEDs are available in many colors (including infrared), but the most popular color is white.

Not only will you save money with our vision lighting, but with proper lighting, you can guarantee:

- Accurate and clear images the first time for faster throughput
- Ability to detect subtle defects or anomalies in QA applications
- Improved contrast
- Reduced noise
- Optimized depth of field
- Consistent results

Bar Lights

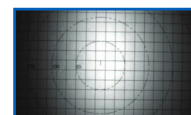
Bar lights consist of a linear package (bar) with a row of LEDs. Bar lights can be used for various types of lighting schemes such as bright field, dark field, and dome effects.

Wenglor OPT Series Bar Light

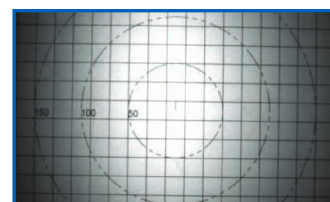
- Available in white and infrared models
- Available in lengths of 125mm, 250mm, 375mm, and 500mm
- Operate in continuous or strobe mode
- The angle of illumination is easily changed with the addition of snap-in angle changers for the following angles: transparent, narrow, medium, wide, line light
- Angle changers available with standard (unfiltered) or polarized filtered
- Bar clamps (sold separately) simplify installation



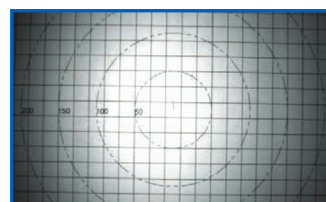
Starting at
\$381.00
(OPT2400)



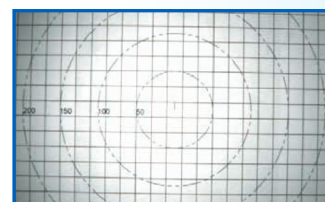
M-EBAR
without angle changer



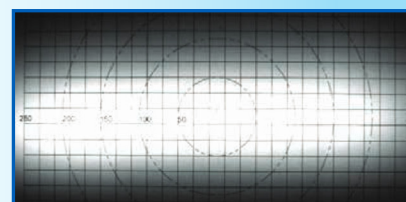
With Narrow
Angle Changer



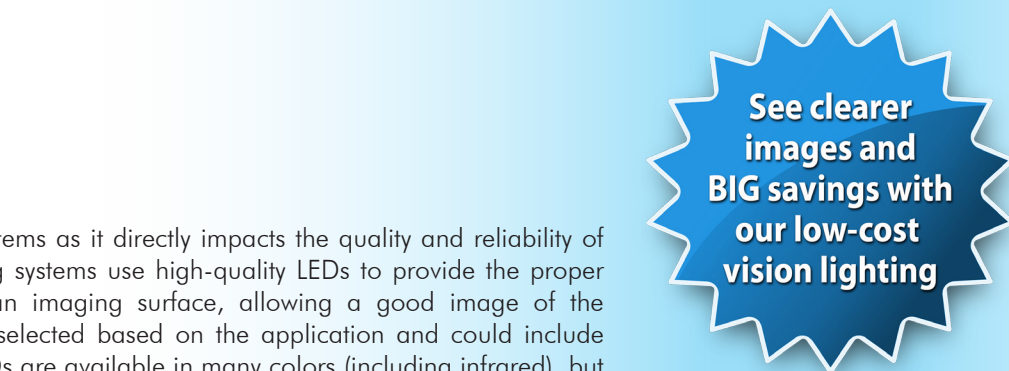
With Medium
Angle Changer



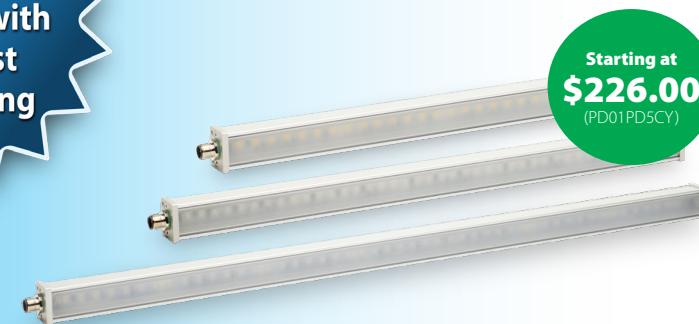
With Wide
Angle Changer



With Line Light
Angle Changer



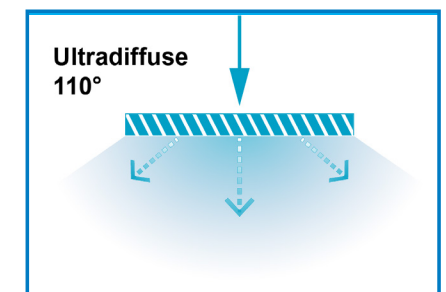
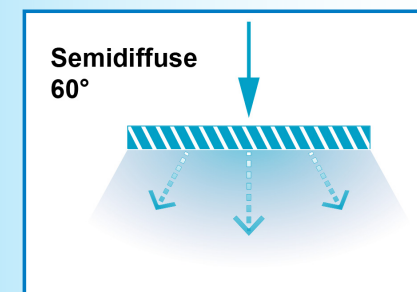
Machine Vision Lighting Made Simple



Starting at
\$226.00
(PD01PD5CY)

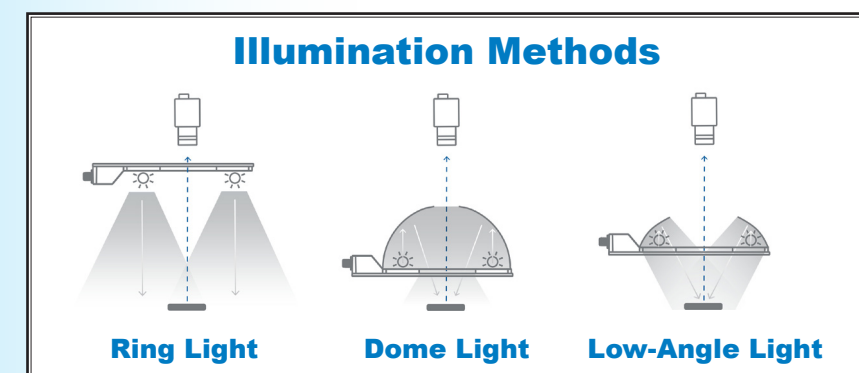
Lumher PD and FD Series Bar Lights

- Available in lengths of 90mm, 180mm, 360mm, 450mm, and 630mm
- Models with fixed angles of either 60° or 110° (±30° or ±55°)
- PD series includes models that are continuous only and models that can be operated in continuous mode or as a strobe
- FD series are high-power continuous mode only and emit twice the light output of the PD series
- White, red, and infrared light models
- Easy-to-install mounting brackets sold separately



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. Ring lights are preferred in areas with minimal space that require a compact lighting solution.



Wenglor OPT Series Ring Lights

- Models with selectable light emissions include red/cyan and white/infrared
- Sold in 80mm and 130mm diameters (approximate internal light diameter)
- Operate in continuous or strobe mode
- Accessories available to convert a ring light to a dome light or low-angle dome light quickly



Starting at
\$757.00
(OPT2424)

Machine Vision Lighting Continued

Ring Lights Continued



Starting at
\$615.00
(RD1PD5CY)

Lumher RD Series Ring Lights

- Available in a fixed 60° or 110° angle ($\pm 30^\circ$ or $\pm 55^\circ$)
- White light in either angle, or 30° angle in infrared
- Ruggedly constructed one-piece anodized aluminum frames in sizes of 135 x 135 x 25mm and 225 x 225 x 25mm
- Continuous and continuous/strobe models 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.

Wenglor OPT Series Flat Dome Lights

- White and infrared light models
- 200 x 200mm and 300 x 300mm sizes
- Operate in continuous or strobe mode
- Mounting brackets are available



Starting at
\$1,002.00
(OPT2435)

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.

Wenglor OPT Series Flat Lights

- White and infrared light models
- 200 x 200mm to 400 x 400mm sizes
- Operate in continuous or strobe mode
- Mounting brackets sold separately



Starting at
\$676.00
(OPT2418)



Spot Lights

Spot lights are used when a highly focused light source is needed. Spot illumination is excellent for creating contrast on specific features from varying distances.



Starting at
\$773.00
(BS1PD5QY)

Lumher BS Series Spot Lights

- White light emission
- 125 x 125 x 15 mm size
- 6° lighting angle ($\pm 3^\circ$)
- Continuous and continuous/strobe models available



Starting at
\$716.00
(BD1PD5CY)

Lumher BD Series Flat Lights

- Constructed to withstand harsh environments
- White light emission
- 125 x 125mm and 125 x 215mm sizes
- 60° light angle ($\pm 30^\circ$)
- Continuous and continuous/strobe models available

Machine Vision Lighting Accessories

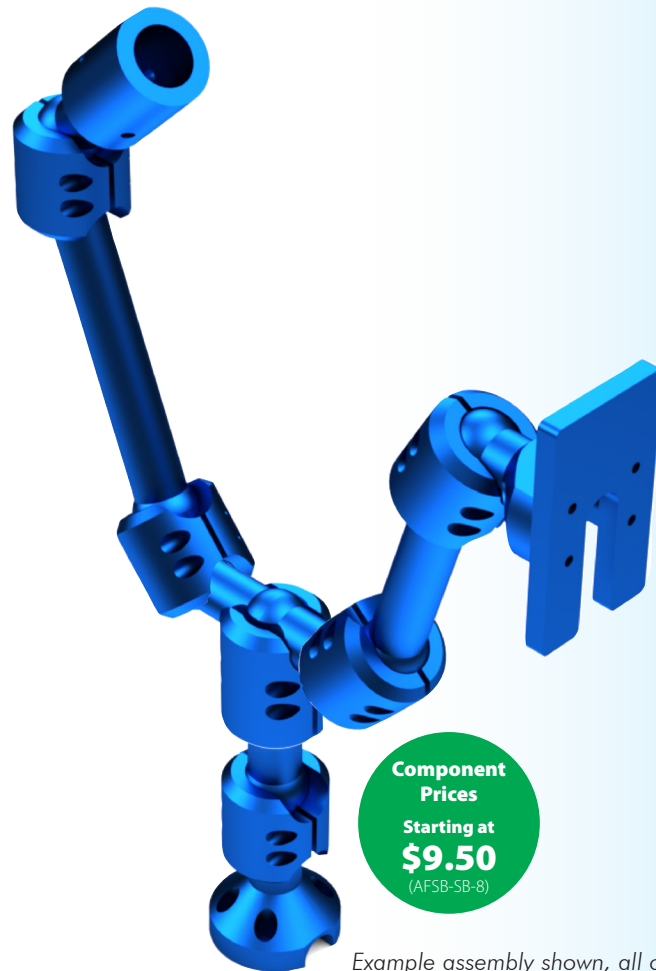
Numerous anchoring accessories are available for installation and customization of your machine vision project.

- Angle changers and bar clamps for Wenglor bar lights
- Mounting brackets for Wenglor backlights, dome lights, and ring lights
- Mounting brackets for Lumher lighting fixtures
- Dome light accessories for Wenglor ring lights





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

