



# CAMERAS FOR RETAIL SOLUTIONS

Automated Retail Systems  
Recognition & Counting

- Basler cameras – the power of sight for the Retail market
- 3-year warranty, long-term availability
- Easy integration into existing systems
- Highest stability and flexibility thanks to Machine Vision standards
- Worldwide service and support

# WHY BASLER CAMERAS?



## MOST PRISTINE AND COLORFUL PICTURES

### Outstanding image quality

- True colors, clear contrasts, high resolution, fast live images
- Detailed pictures for accurate recognition
- Outstanding performance stability due to high quality standards



## CARE-FREE CAMERA LIFE CYCLE

### Comprehensive support and services

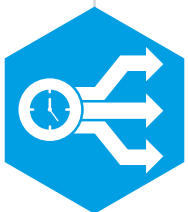
- 3-year warranty on entire camera portfolio
- Ad-hoc service by Basler's technical support
- Point of contact at your site via Basler's worldwide network of offices



## PURCHASE DECISION WITH MINIMUM RISK

### Secure future investment

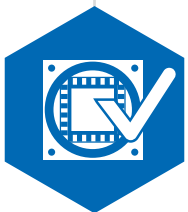
- Long-lasting camera life and reliability
- Long-term product availability
- Long-term support for operating systems



## YOUR PARTNER FOR OPTIMUM DESIGN-IN PHASE

### Easy system integration

- Individual consulting and customized products
- Easy hardware & software integration (SDK)
- Wide range of compatible accessories for your Basler camera



## SELECTING YOUR PERFECT CAMERA

### High quality at low cost

- Real-time video and Full HD resolution for monitoring, recognition, and counting
- Compact housings or board level variants for easy design-in
- Different interfaces for various requirements



## DEFINING YOUR SYSTEM REQUIREMENTS

### Supported by experts

- Technology leadership with 25 years of vision experience
- Key driver of technology trends and vision standards
- Basler's position as most trusted brand in industrial digital cameras



# TYPICAL APPLICATIONS

## ATM/VTM

Easy-to-integrate compact Basler cameras support

- monitoring of the user,
- monitoring of money withdrawal,
- monitoring of the PIN entry, and
- communication with the user for support purposes

to prevent fraud (skimming) at automated teller machines (ATM) and assist the customer via video teller machines (VTM). Their small form factor, outstanding image quality, and excellent price/performance ratio makes Basler cameras the ideal fit for ATM surveillance and customer advice via video call.



## CHECK-OUT SYSTEMS

Basler's compact area scan and line scan cameras are ideally suitable for

- recording and detection of barcodes on products (2D barcode scanners),
- recognition of product features of the goods on the conveyor belt,
- recognition of product features (e.g. color, type), for price determination according to weight (scaling), and
- bottom-of-basket inspection

and ensure precise identification of product features and barcodes.



## REVERSE VENDING MACHINES

Basler cameras provide outstanding image quality and high resolution for

- recognition of the bottle form and
- recognition of labels on products to be returned

and ensure smooth recognition and handling of empty bottles and other products. Easy camera integration through various interfaces (e.g. USB 3.0 and LVDS), long-term availability, and worldwide customer support facilitate retrofits of existing machines and installation of new systems.



## VENDING MACHINES AND KIOSK SYSTEMS

Basler cameras in vending and ticket machines and in kiosk systems

- monitor the user,
- monitor the issuing of goods, and
- support the communication with the user.

Their small housing makes Basler cameras the perfect fit for vending and ticket machines, digital signage systems, and video kiosks. In addition, Basler cameras are a secure investment: they are available in the same simple and easy-to-integrate form factor and design, for a long time to come.





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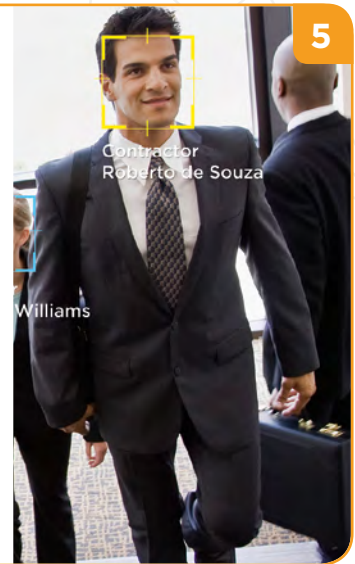
We are using cameras for access control based on face recognition. Thanks to their brilliant image quality and easy integration we found that Basler cameras are an ideal fit for recognition applications.

## RECOGNITION

High-resolution Basler cameras support identification based on biometric face points for

- customer recognition and assignment/profiling,
- border control,
- security applications, and
- access control (e.g. in gaming halls).

With their brilliant image quality, Basler cameras ensure precise identification and smooth control processes. Thanks to their compact housings, they are unobtrusive when used as stand-alone units, and easy to integrate into complete systems. In contrast to consumer webcams, Basler cameras use sophisticated sensors with global shutter technology. A standard GigE interface supports transmission of RAW image data over long distances for distributed systems.

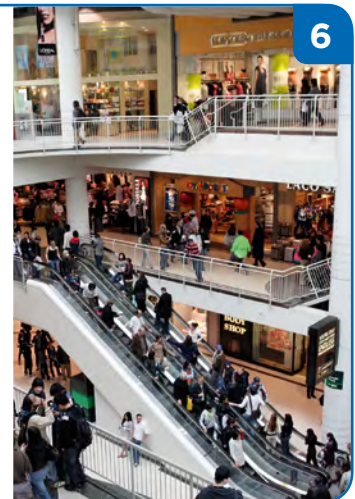


## PEOPLE COUNTING, TRACKING & PROFILING

In people counting, tracking and profiling applications, small-sized Basler cameras are especially suitable as

- cameras in audience measurement solutions,
- integrated cameras for digital signage and vending machines,
- cameras in shelves or store windows, and
- monitoring cameras in stores.

By gathering and delivering reliable data on customer behavior and preferences, Basler cameras help optimize the display of goods and thus convert window shoppers into buyers. Both Basler cameras and accessories are available from one source, which facilitates installation of profiling systems in retail stores.



## SHELF INSPECTION

Reliable Basler camera technology supports

- monitoring of the shelf fill level in supermarkets and
- inventory checks.

Flexible Basler cameras can be used as static devices to monitor shelves from a fixed location, or they can be integrated into autonomous movable systems. Thus, they ensure that customers always find full shelves in their local store and they prevent revenue loss through unused sales areas. Increased sales plus Basler's competitive pricing ensure rapid payoff of investment.



# MATCHING CAMERAS

## Which Basler Camera Is Suitable for My Application?

Selected camera series		area scan				line scan
		ace	dart	network	pulse	racer
Features	Speed up to	750 fps	60 fps	95 fps	60 fps	80 kHz
	Resolution up to	14 MP	5 MP	5 MP	5 MP	12k px
	Global Shutter	✓	✓	✓	✓	✓
	Rolling Shutter	✓	✓	✓	✓	
	USB 3.0	✓	✓*		✓*	
	GigE	✓				✓
	Ethernet			✓		
	LVDS	available soon				
	Windows Support	✓	✓	✓	✓	✓
	Linux Support	✓	✓	✓	✓	✓
	Minimum Housing Size in mm (L×W×H or Ø×L)	29.3×29×29	7.2×27×27	109.7×44×29	38.8×28.2	34×56×62
	Bareboard Version		✓			
Applications	ATM/VTM		✓	✓		
	Check-Out Systems	✓	✓			✓
	Reverse Vending Machines		✓			
	Vending Machines/Kiosk Systems		✓		✓	
	Recognition	✓	✓	✓	✓	
	People Counting, Tracking & Profiling	✓	✓	✓	✓	
	Shelf Inspection	✓	✓			✓

Specifications are subject to change without prior notice. Latest specifications can be found on our website. Please visit [www.baslerweb.com/manuals](http://www.baslerweb.com/manuals) for detailed camera User's Manuals.

\*USB 2.0 backwards compatible

## Camera Highlights



### Basler ace

Ultra-flexible with broad sensor range and multiple interface variants. Over 100 models available.



### Basler dart

Small board level camera for flexible system integration. Low price.



### Basler pulse

Standard USB 3.0 technology for one-cable solutions. Low power consumption.



## OTHER INFORMATION

### About Basler

Founded in 1988, Basler is a leading global manufacturer of high quality digital cameras and lenses for factory automation, medical and life sciences, retail and traffic applications. The company employs 500 people at its headquarters in Ahrensburg, Germany and subsidiaries in the United States and Asia.

Basler's portfolio of products offers customers the vision industry's widest selection of industrial and network cameras as well as lenses. We're committed to developing technology that drives business results for our customers: cameras and lenses that are easy to use, easy to integrate, and deliver an exceptional price/performance ratio.

### How Does Basler Ensure Superior Quality and Reliable High Performance?

Our approach to quality assurance is rigorous: we continually audit all facets of our business to ensure powerful performance, increase efficiency and reduce costs for our customers. We are compliant with all major quality standards including ISO 9001, CE, RoHS, and more.

To ensure consistently high product quality, we employ several quality inspection procedures during manufacturing. Every Basler camera is subjected to exhaustive optical and mechanical tests before leaving the factory. Regardless of what technology or camera model you choose, you can be assured of consistent performance.

### 3-Year Warranty

Basler offers a 3-year warranty for their cameras and Basler Lenses. We continually reinvest in research, development and superior manufacturing capabilities so that our customers can fully rely on the products we manufacture.

### How Does Basler Measure and Define Image Quality?



Basler is leading the effort to standardize image quality and sensitivity measurement for cameras and sensors. Our cameras are characterized and measured in 100% compliance with the EMVA 1288 standard. Measurement reports can be downloaded from our website.

” Retail applications affect all of us in so many different aspects of everyday life and cameras are an increasingly important component in this field.

Vision technology will facilitate and even revolutionize our daily lives. We care deeply about giving retail technology the power of sight.

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the power of sight