

Product Guide



BASLER

Area Scan Cameras

Discover our broad product range of area scan cameras.

Ace Series



Especially small, low priced, high performance

Aviator Series



High performance, exceptional image quality, outstanding price/performance ratio

Beat Series



Brilliant CMOS Image Quality and Proven Design

Dart Series



Smallest Board Level Design, Highly Flexible, USB3 Vision Standard Compliant

Pilot Series



Excellent image quality, slim design, easily integrated

Pulse Series



A Compact and Low Weight Camera, with Elegant Design

Scout Series



50 models, proven worldwide, versatile

Line Scan Cameras

Find the right line scan camera for your application.

Racer Series



Exceptional performance - low space requirement

Runner Camera



Compact, cost effective, outstanding image quality

Sprint Series



Fast, faster, sprint

L300 Series



Excellent colors, compact housing, attractive price

3D TOF Cameras

Find out more about our 3D cameras.



Maximize the Performance of your System using the Third Dimension

Network Cameras

Discover our broad portfolio of network cameras.

L300 Series



MVT^{EC}

HALCON 13

- Matching, Measuring, 3D Vision, Morphology, Blob Analysis
- Calibration, OCR & OCV, Bar Code & Data Code Reading, and more
- Easy Programming in C, C++, and .NET languages like C# or VB.NET
- Integrated Development Environment HDevelop
- Support of Multi-Processor/- Core Computers, and GPU Acceleration
- Available for Windows, Linux, and OS X



MERLIC Version 3

With this release, we are addressing one of the market's strongest demands: Exploiting the power of deep learning in machine vision software.

- Enhanced OCR Based on Deep Learning Technology
- Improved Bar and Data Code Reading

- IMAGE-CENTERED USER INTERFACE WITHOUT PROGRAMMING
- MERLIC ENGINE
- INTEGRATED PLC COMMUNICATION
- MERLIC DESIGNER
- MULTIPLE FRONTENDS
- EASYTOUCH
- MULTIPLE LANGUAGES
- CUSTOM TOOLS



GigE color



- Resolution: VGA to 10 MP
- Frame rate: Up to 120 fps
- Dim.: 29 x 29 x 57 and 29 x 44 x 57 mm
- GigE interface with PoE
- Optional external auto iris control
- Wide range of color CMOS and CCD sensors
- Free software for camera control
- Free barcode SDK for Windows 7/8/10

Industrial Cameras USB 3.0 color



- Resolution: VGA to 10 MP
- Frame rate: Up to 120 fps
- Dim.: 29 x 29 x 43 and 36 x 36 x 25 mm
- Wide range of color CMOS and CCD sensors
- Free software for camera control
- Free barcode SDK for Windows 7/8/10

USB 3.0 color autofocus camera



- 2/3 inch CMOS sensor
- 7,728 x 5,368 (41.5 MP), up to 110 fps
- Rolling shutter
- Manufactured by The Imaging Source
- Windows software included

GigE Zoom Camera



- Resolution: VGA to 5 MP
- Frame rate: Up to 36 fps
- Dim.: Starting at 50 x 50 x 103 mm
- GigE interface with PoE
- Integrated motorized zoom, focus and iris
- Monochrome CMOS and CCD sensors
- Free software for camera control
- Free barcode SDK for Windows 7/8/10

Microscope Cameras USB 3.0 color



- Resolution: VGA to 13 MP
- Frame rate: Up to 30 fps
- Ocular- and C-mount
- Captures full image circle
- Sony Exmor CMOS color sensor
- Free software for on-screen measurement (IC Measure)
- Free software for camera control

SONY

Sony XC-E Series Monochrome CCD Cameras



- UV, Visible, and NIR models
- Compact and Lightweight
- High S/N Ratio: 60dB

The XC-E Series are economical, monochrome cameras that incorporate the latest 1/3" and 1/2" format Interline (IT) CCD sensors. Their standard analog format makes them easy to integrate for display directly on a video monitor or imaging via a computer using a capture board. The XC-E Series are standard models for visible range, while the XC-EI Series and XC-EU series cover the near-infrared and near-ultraviolet ranges respectively. A 12-pin Hirose connector carries both the signal out and power in. Individual cameras are sold without power supply. Recommended power supplies include power and 4 BNC outputs.

WAT-221S2 Color Camera - Low-Light-1/2" **Watec**



- Multi functions
- CCD Sensor 1/2" - CS mount
- Simultaneous output of composite video & Y/C signals
- Low-Light Camera (until 0.0004lx)
- OSD, with remote control
- AE mode: Auto or Manual
- (3DNR) Noise reduction
- WDR: ON/OFF
- Motion detection: (ON/OFF)
- Back light compensation: ON/OFF
- Defog ON/OFF
- Digital Zoom: x2-256
- Until 4 Privacy masks
- Mirror image
- Iris Auto / DC

WAT-902B Compact and Lightweight - 1/2"



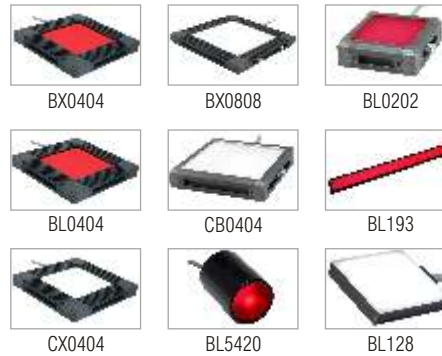
Watec's 902B high sensitivity camera with a RCA video out and auto iris connection.

- High sensitivity
- Shutter speed control
- Electronic iris
- Flickerless mode
- Back light compensation
- AGC
- Gamma correction

Ring Lights - Dark Field



Back Lighting



Diffuselites



RICOH

imagine. change.



VGA / 2 MP / 5 MP / 9 MP / 12 MP High Performance Machine Vision Lenses

2 Mega-Pixel Lens (Manual Iris Lens, compatible with 2 mega-pixel cameras)

- 2 mega-pixel type lenses for a wide range of applications
- Select the optimum lens for your focal length and format size requirements

VGA Lens (Manual Iris Lens)

- An extensive line of general-use lenses boasting high-performance lens technology
- Featuring vibration-control measures, these lenses are a superior choice for installation in machine vision systems.

Line-Scan Lens

Even, high definition optical characteristics across the entire image (including the periphery) With a design optimized for FA close-up shooting, this lens is suitable for sensors up to 45 mm

2/3" 5 Megapixel Series

High-resolution design, providing support for up to 5 megapixel camera resolution.



HF16SA-1



HF25SA-1

2/3" 1.5 Megapixel Series

Design achieving the high-resolution, supporting up to 1.5 megapixel cameras.



HF12.5HA-1B



HF9HA-1B



HF50SA-1



HF75SA-1



HF35HA-1B



HF25HA-1B

2/3" 1.5 Megapixel Series



HF75HA-1B

Fish Eye Lens



FE185C046HA-1

2/3" 5 Megapixel Series



HF12XA-5M



HF16XA-5M



HF25XA-5M



HF35XA-5M



**ZEISS Lenses for
Automated Imaging**



- Gain valid results and completely new insights.
- ZEISS lenses for technical applications are key components in complex production processes (Machine Vision) as well as in optical metrology, medical applications, traffic enforcement, quality assurance, sports and many other applications.
- Here they prove their outstanding image performance and reliability.



OPTO ENGINEERING
THE TELECENTRIC COMPANY

TC series

Bi telecentric lenses for matrix detectors up to 2 β



- High telecentricity for thick object imaging.
- Nearly zero distortion for accurate measurements.
- Excellent resolution for high resolution cameras.
- Simple and robust design for industrial environments.
- Easy filter insertion.
- Detailed test report with measured optical parameters.

PC series

Pericentric lenses for 360° top and lateral view with just one camera



- **Just one camera** - No need for multiple cameras placed around and over the object.
- **Fast image analysis** - No image matching software is needed as the picture is not segmented.
- **Single point of view** - No perspective effects typical of multi-image systems.
- **Smooth on-line integration** - Inspected parts pass unobstructed in the free space below the lens.

computer

5 Megapixel Varifocal Lenses



A3Z2812CS
MPWIR



AG3Z2812FCS
MPWIR



AG3Z2812KCS
MWPIR

SWIR Lens



**Board and
Fisheye Lenses**



E1222KRY E5228KRW

**Specialty Lenses
and Cameras**



T2625CS-P CBM-SA3160

5 Megapixel Monofocal Lenses



M0824-
MPW2



M0918FIC-
MP



M1224-
MPW2



M1616FIC-
MP



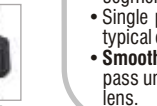
M2514FIC-
MP



M3518FIC-
MPIR



M5020FIC-
MPIR



MG0918FC-
MP



High-Speed Recording Cameras & Systems

CoaXPress



- High-Speed CMOS Cameras
- Extremely Fast and Flexible

MotionBLITZ® CVR



High-Speed Recording Systems for flexible use.

MotionBLITZ® LTR2p



High-Speed long time recording up to 16 hours at VGA resolution

eosens TS3



Handheld high-speed recording camera for high-speed recording of up to 13 seconds

MotionBLITZ® Cube



Compact high-speed recording camera for high-speed recording of up to 13 seconds

MotionBLITZ® Director2 Kit



Low cost high-speed recording system.

MICROSCAN

Microscan helps manufacturers drive down cost, automate critical manufacturing processes, and increase yields through data acquisition and control solutions. Product technology ranges from basic barcode reading through complex machine vision.

MicroHAWK Barcode Readers



- 3 models: ID-20, ID-30 & ID-40
- New! UHD lens with auto focus reads smallest possible codes
- Read any code on any surface
- Highly customizable hardware options
- World's smallest industrial barcode readers
- World's first web-based barcode reader - WebLink

MicroHAWK Smart Cameras



- Fully Integrated
- Extremely powerful
- Compact and lightweight
- MV-20: OEM Smart Camera
- MV-30: Miniature Serial/USB Smart Camera
- MV-40: Industrial Ethernet Smart Camera

MEGA SPEED®

Manufacturer And Designer Of High Speed Cameras.

MS60K-AB High Speed Cameras



- Mega Speed MS60K-AB has a re-moveable SATA SSD for secure data protection. Auto boot & re-arm Features ensure the camera recovers from any power failure and will always be ready to record.
- Programmable start times or pre-post trigger modes ensure no critical events are missed.

HHC X4 PRO High Speed Cameras



- The HHC X4 PRO is a mid level, portable high speed camera.
- The HHC X4 PRO has a 640 x 480 touch screen interface and records 600 fps 1280 x 1020.
- Re-Moveable SSD for data security.
- Tough High Impact, light weight Industrial grade ABS body it.

code® Advanced Barcode Readers

Code Reader™ 1000

Code Reader™ 1400



IR Cameras excellent for solar panel inspection fruit & cereal grading & sorting, waste sorting & security applications

Shortwave Infrared (SWIR) Cameras

If you need imaging in the SWIR range, Xenics offers a variety of shortwave infrared cameras based on in-house developed InGaAs arrays. The detectors offer economically viable and compact cameras that cover the VisNIR/ shortwave infrared (SWIR) spectral range up to 1.7 μm without necessarily the need for cooling.



- Cougar-640: LN2 cooled high resolution SWIR camera



- Cheetah-640CL: World's fastest SWIR camera



- Lynx-CL & Lynx-GigE: High-speed uncooled SWIR line-scan camera



- XeVa-1.7-640: High resolution and cooled SWIR camera for excellent image quality

Long Wave Infrared Cameras

The perfect solution for thermal imaging



- Gobi-640-CL: Smallest thermal CameraLink camera
- Gobi-640 GigE: Smallest thermal GigE vision camera



- Onca-LWIR-QWIP-384: thermal infrared camera for long range imaging
- Onca-(V)LWIR-MCT-384: Thermal infrared camera with extra spectral response filters

OEM Embedded Vision Systems

Long Wave Infrared Cameras



The VC Smart Cameras are based on the Zynq™ Dual Core ARM CortexTM-A9 with 2 x 866 MHz and integrated FPGA from Xilinx®.

As with all VC Smart Cameras, these processors provide the necessary computing capacity to achieve VC standards: Extreme high-speed in realtime.

DSP Laser Triangulation

With the intelligent VC nano 3D cameras.



The VC nano 3D integrates laser and intelligent camera so that the 3D values can be calculated immediately.

Also suitable for 2D inspection tasks, the VC nano 3D combines two completely different testing procedures with only one cost-efficient system.

Compatible with **MVT^{ec} HALCON**

iAi® Industrial Grade Area Scan Cameras

GO Series

GO-5000-GIGE / GO-500C-USB
GO-5101-PMCL / PGE / USB
GO-2400-PGE / PMCL / USB



Small industrial cameras at a great price/ performance point.

Megapixel cameras with small dimensions, high frame rates and cutting edge-sensor technology

Spark Series

SP-5000-USB / SP-5000-USB



The ultimate in megapixels-per-second performance.

Advanced area scan cameras delivering high resolution, high frame rates, and high image quality.

Fusion Series - AD-080-GC

Multi-spectral Imaging (2-CCD)



Innovative solutions for multi-spectral imaging.

Dual-sensor area scan cameras with unique capabilities for specialized imaging applications.

Seekth thermal

Compact

Available for iPhone® & Android™



Reveal

Rugged, reliable, and easy-to-use



CompactPRO

Available for iPhone® & Android™



RevealPRO

Rugged, reliable, and easy-to-use





Optics
Assemblies



Laser Diode
Systems



Defense
Optics



Imaging Filters

u·TRON

Mega Pixel Low Distortion CCTV Lens

Design for low distortion and mega pixel



- High resolution, suitable for mega pixel camera
- Design for machine vision application, excellent performance at short WD, less than 500mm
- Reduce color aberration, compared with conventional CCTV lens
- TV distortion less than 0.1% (except for f4mm)

Over 4 Mega Pixel CCTV Lens for 1"

Large aperture, suitable for ITS



- Compatible with large format sensor
- Suitable for 4 mega – 12 megapixel camera
- Stable performance at different working distance, from macro to infinity by floating design
- Excellent brightness, suitable for both machine vision and high-end surveillance

Vivid Engineering

CLR-101C Camera Link Repeater



- Doubles max distance between camera and frame grabber
- Combine with shorter (i.e. 5m) cables to provide separation while ensuring data integrity in high-performance applications

- High-speed 85 MHz interface chipset, works with any base camera
- Several repeaters may be cascaded for greater distances
- Flow-through connector placement



Camera Link Cables



Gigabit Ethernet
Cables



Analog Cables



Firewire Cables



Internal Camera Link
Cables



BIT MAXX



M12 Industrial
Cables



Power Supplies



CoaXpress Cables



Right Angle USB
Cables



HSLink Cables



Specialty Cables &
Products

