# Inspect Buyer's Guide

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# How to improve your **prospects**

will be another year full of opportunities and risks. And yes, some things will go wrong again, while others practically fall into our laps. So do we have to rely on our fate when it comes to the future? A little, but for the rest, the inspect Buyer's Guide again provides many approaches to increase the chances of a successful year. First and foremost, of course, are the suppliers of components and solutions contained in the main section, who can provide the technical basis for your project. It is therefore

worth keeping this issue close at hand at all times. A quick glance inside will save you hours of internet research.



# >> A glance at the inspect Buyer's Guide saves hours of internet research.

In addition, the global market overview starting on page 8 also provides a lot of helpful information for optimizing your

strategy for the coming year. Last but not least, standards, an essential part not only of machine vision technology, are an area that should not be lost sight of. Why this is so and what specific opportunities can arise from it is described very vividly in the report starting on page 12. Another article provides details about the standardization work of the EMVA - this issue's cooperation partner. The article is about the EMVA1288: this will become an ISO standard.

It only remains for me to wish you a highly successful 2025 - no matter when you read these lines.

Best regards,

#### **David Löh**

Editor-in-chief of inspect

PS: If you have any questions, suggestions, praise or criticism, please write to me: dloeh@wiley.com

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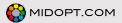
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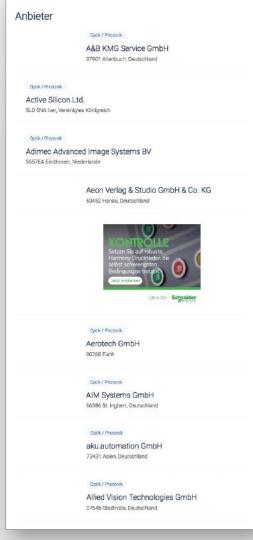




# Machine Vision and Optical Metrology in Europe

The inspect Buyer's Guide 2025

Throughout the year, we aim to provide you with information about new developments, technological trends, groundbreaking applications, new products, and leading companies. And, we are faced with the recurring challenge: What to select, what to highlight, what to point out. There is never enough room to cover it all. So once a year we seize the opportunity to present a comprehensive overview of the machine vision and optical metrology industries.





he inspect Buyer's Guide is published in its 17th year now, for the same period it also serves as the official Buyer's Guide of the EMVA, the European Machine Vision Association. The guide contains information about more than 500 companies from over 30 countries. It has a clear focus on companies doing business in Europe or exporting their goods to Europe. Naturally, this comprises companies and organizations from all over the world.

#### Online ...

The inspect Buyer's Guide is a true cross-media product. On the one hand, it is based on the printed annual publication, on the other hand on our portal www.wileyindustrynews. com/en. Here, under the Buyer's Guide tab, you will find all participating companies, including further information about the company. Wherever you are, you will find what you are looking for – either in the printed version or on our online portal. Aditionally, there you'll find all the news on machine vision and photonics that move the industry, as well as interesting technology reports and applications.

Companies wanting to provide more information and aiming at even better search results are listed with a company profile, including detailed company data and a listing of products offered, industries served and applications catered to.

The online Buyer's Guide is open for companies within the scope of the inspect all year round. In this way it is always up-to-date.

#### ... and Print

The availability of data online is a clear benefit when presented with clever search functions. However, sometimes you do not want to bother going online, or you don't want to search specifically but rather obtain a quick overview. In these instances a printed version has its unchallenged advantages. Not to mention the ease-of-use when taking notes right next to the provided data. Thus, once a year the printed edition of the inspect Buyer's Guide is provided to you. With this guide we aim to give you a full overview that is still easy to use, a complete set of information that is still not too subdivided into too many categories.

The inspect Buyer's Guide 2024 is divided into three main chapters: Topics, company profiles for the main global regions, and company listings for the main product categories. In an industry as innovative and dynamic as ours it will most likely never be possible to provide an overview that is final and complete, but we do our best to come as close as possible.

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In 2024, the machine vision industry faced regional and sector-specific challenges. The US saw flat production, while the EU and Japan declined. China and Korea grew steadily. Analysts predict 8 to 9 percent growth for 2025 and 2026, driven by a more friendly climate for investments. Companies like Basler and OPT Machine Vision struggled, but heavy-weights like Zebra Technologies and Cognex expect positive growth in 2024. What will 2025 bring, with Trump in his second term and a multipolarized world order?

fter a relatively stable 2023, revenues of stock-listed Machine Vision players took a nosedive in Q1 and especially Q2 of 2024. Fortunately, Q3 showed some recovery, and the overall revenue growth for 2024 is expected to be just under 2.0 percent. Considering a strong US dollar, analysts are optimistic, forecasting growth rates of around 8 to 9 percent for 2025 and 2026.

**Basler** took the hardest hit among publicly listed companies, with a year-over-year (YoY) decrease in its trailing twelve-month (TTM) revenue in USD of 28.1 percent in Q2. After weak Q3 TTM results in 2023, the revenue decline in Q3 2024 shrank to 16.8 percent. Their guidance for 2024 suggests a relatively soft landing at -5.9 percent, with a forecasted growth of 7.5 percent in 2025 and 13.4 percent in 2026. **TKH Group's** 2D and 3D vision segment saw a moderate YoY decline in Q3 but predicts a strong Q4.

Component manufacturer and system provider **OPT Machine Vision** also experienced a 27.8 percent drop in Q2, with Q3 ending slightly better. For the whole of 2024, the company indicates a trend of just -3.2 percent, being under pressure from government-funded machine vision players in China, like many others are.

**Stemmer Imaging**, focused on Europe, saw a dip in Q3 with a 25.0 percent decline in TTM revenue. Meanwhile, heavyweights **Zebra Technologies** and **Cognex**, expect revenue growth rates of +8.3 percent and +8.1 percent in 2024, respectively, compared to a weak 2023 for both.

**Teledyne's** largest segment is Digital Imaging. The group forecasts its TTM revenue to be flat by the end of Q4 compared to 2023, despite inorganic growth. In contrast, **Keyence** is expected to grow by 3.6 percent this year and almost 12 percent in 2025.

Companies focusing more on vision solutions rather than components, such as **Jenoptik** and **Antares Vision** had very positive YoY growth rates in the first nine months of 2024 of up to 12 percent (TTM, YoY). Their guidance for the whole year shows +5.8 percent and just 1.1 percent, though.

Reportedly, machine vision orders have already been picking up, especially from the semiconductor sector and non-cyclical industries, with a regional focus on Korea and North America.

# Automation Industry Widely Withstands Recession in Manufacturing

The trend of Industrial Production in the US is mostly flat over the latest available 12-month period from September 2023 to August 2024. During the same period, the EU and Japan reported some steep declines, while China and Korea were cruising above 4 percent for most of 2024.

If you follow Vision Market's social media profiles or are a member of our VisionCrunch community, you're already familiar with the economic indicators we use to monitor the manufacturing industry by country. If not, check out the text box for more information.

As a leading indicator, the Manufacturing PMI was also in recession territory, below 50 points, for the primary regions targeted

by automation and machine vision equipment. The sentiment among producers in the European Union has been lagging behind other regions for over two years, especially dragged down by a tough economic climate in Germany.

On the other hand, US manufacturers were optimistic through the first half of 2024, but the score dipped below the 50-line from July onwards. Even the growth-spoiled Chinese manufacturing industry did not contribute to better readings as it was lagging behind the government-set target of 5 percent annual increase. The Korean manufacturing sector, driven by its strengths in semiconductors, automotive, and defence, saw its sentiment drop in September as Chinese car manufacturers gained global market share.

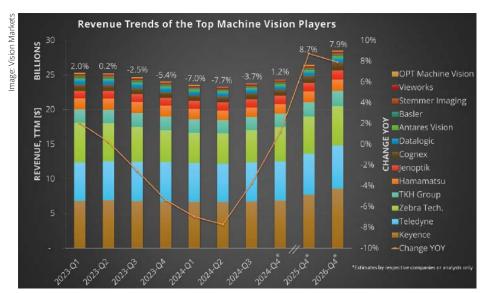
The TTM revenues of the 14 major manufacturing automation suppliers analyzed here aggregate to approximately 110 billion USD. The trend for 2024 is flat, showing much less volatility compared to the machine vision space. However, company performances vary significantly depending on geographic focus and industry exposure. Companies like B&Rowner ABB and Atlas Copco, which owns Isra Vision, Photon Focus, Quiss, and Vision Tools, see growth rates between 2.5 percent and 4 percent. Meanwhile, US and Japanese heavyweights Rockwell Automation and Omron anticipate declines between 10.8 percent and 8.0 percent.

#### **Economic Indicators**

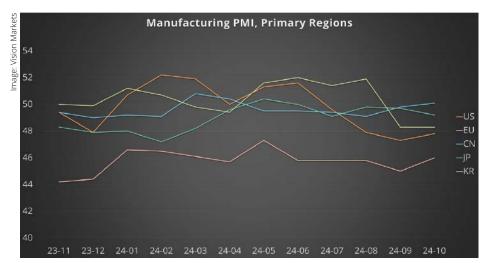
**Change of Manufacturing Output**: lagging indicator, in percent year-over-year (YoY) by country

Manufacturing PMI: leading indicator, sentiment index of purchasing managers in manufacturing (aka, M-PMI). An index value above 50 indicates a positive trend, while a value below 50 indicates a negative trend.

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Trailing 12-month revenues of publicly listed Machine Vision players based on reports and forecasts by the respective companies and stock market analysts.



Manufacturing PMI readings of primary target regions of Machine Vision suppliers for the last 24 months, November 2023 to October 2024

Looking ahead, analysts expect these players to recover with moderate growth rates between 5 percent and 7 percent, though regional and industry-specific performance differences will persist.

# How to Navigate Your Vision Business through 2025 and Beyond

Recession in many manufacturing industries, US trade tariffs and expected countermeasures, commoditization of standard components, sales and price pressure from Chinese players, ongoing military conflicts, continued market consolidation through corporate acquisitions – formerly growthspoiled Vision players have seen better market conditions.

Nonetheless, as elaborated above, there are still plenty of geographic regions and industry sectors with strong demand for Machine Vision components, integration services, and turnkey solutions.

Hence, our early preliminary forecast of the 2025 market value for Machine Vision Components concluded solid growth in the range of 5.0 percent to 7.5 percent. Our Machine Vision Market Report is built upon over 130 indicators, input from our network of 600 industry insiders, and findings plus ground truth information from our signature consulting services. It provides detailed analyses of the machine vision market size and its trends by product type, region, industry, and combinations of such.

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# Implications of Trump's Victory on the Machine Vision Industry

What exactly Trump will do during his second term is not yet clear. But some possible consequences for the (machine vision) industry can be deduced from his announcements, such as the import tariffs. This list explains a few of them. So, it can be expected to

- attract investments into building manufacturing capacity on US territory, especially for high-value goods, to avoid tariffs, creating business opportunities for the Machine Vision industry.
- release held-back investment activity due to the resolved uncertainty from the election.
- decelerate the cooling of US inflation, keeping interest rates attractively high for capital, hence strengthening the US Dollar valuation, which finally invokes a price disadvantage for US players and an advantage for European and Asian players in global markets.
- accelerate the ongoing relocation of production capacity out of China to India, SEA, and North America to avoid tariffs and corresponding disadvantages on the US market. Equipping these green-field factories boasts big opportunities for non-Chinese Machine Vision players and Chinese players who are not government-subsidized.
- weaken the direct market access of Chinese Machine Vision players in the US.
- amplify the adoption of ABC (All But China) policies of US importers, restricting the use of Chinese-owned components in acquired equipment.
- lead to intensified business and sales activities of Chinese players in their remaining addressable markets in Europe, the Middle East, SEA, and Latin America.
- force European countries to invest heavily in their own military strength, providing growth opportunities for Machine Vision in military equipment and its manufacturing.
- command the EU and especially the Euro-zone to reform its conditions as a business location, foster the European market, and unite its economic forces to ensure access to required commodities, raw materials, semiconductors, technologies, and low-cost energy, creating business perspectives for Machine Vision and all Automation providers.

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The EMVA 1288 Standard is moving towards becoming an ISO Standard. In October 2024, the ISO Technical Committee 42 accepted the proposal, and WG 28 was formed. Machine vision experts are invited to contribute.

ased on the positive and ongoing evolution towards more and more matured applications of vision technologies, in specific cameras and image sensors, the EMVA Board of Directors, representing the association's members, has decided to lift the EMVA 1288 Standard up to an international standardization level. Consequently in 2023 the EMVA proposed the EMVA 1288 Standard to become an ISO Standard. In October 2024 the item proposal got accepted by the ISO Technical Committee 42 'Photography' and the specific working group WG 28 has been founded and initiated its work. International experts are invited to bring in their expertise by joining the ISO-TC42-WG28.

# Standards are backbone of machine vision industry

"Establishing international standards has been and will be crucial for the successful application of vision technologies not only in the industrial world but increasingly also in logistics, traffic, medical and several other user segments", says EMVA General Manager Thomas Lübkemeier. Already in 2005, the first module of the EMVA 1288 Standard

was officially released by the members and contributors of the EMVA hosted working group. Meanwhile the 'Standard for Measurement and Presentation of Specifications for Machine Vision Sensors and Cameras' continuously has been further developed and the Release 4.1 is close to be finalized. "The EMVA 1288 Standard today is well accepted and especially camera producers worldwide apply the standard in their production lines and quality assurance departments", Lübkemeier confirms.

#### **Experts invited to contribute**

The ISO – International Organization for Standardization is a network of 172 national standards bodies. ISO members are the foremost standards organizations in their country and there is only one member per country. Each member represents ISO in its country and is entitled to nominate experts into the various ISO working groups.

Experts motivated to share their expertise to the ISO-24942 initiative may find more details on how to join at EMVA's website and of course via the official ISO channels.

european machine vision association

#### Association in detail

#### **EMVA**

Founded in 2003, the European Machine Vision Association (EMVA) is a non-forprofit and non-commercial association representing the Machine Vision industry in Europe that is open for all types of organizations having a stake in machine vision, computer vision, embedded vision or imaging technologies: manufacturers, system and machine builders, integrators, distributors, consultancies, research organizations and academia. The EMVA hosts four international vision standards, and all members – as the 100% owners of the association benefit from the dedicated networking, standardization, and cooperation activities of the EMVA.

#### CONTACTS

EMVA – European Machine Vision Association, Barcelona, Spain Email: info@emva.org www.emva.org

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Solutions and products for the industry need to be highly interoperable to provide maximum benefit to users. Achieving this goal is primarily possible through common standards and interfaces. These also facilitate smooth collaboration between different manufacturers, leading to a lively exchange of know-how and enriching the market. Moreover, unified standards offer an added level of flexibility as they counteract the dependency on proprietary solutions. These advantages are particularly important for machine vision applications, as many different components interact here. At the same time, the development of standards is complex and time-consuming.

eveloping common standards usually requires a lot of work from companies: They must assign experienced internal experts to relevant committees and engage in related communities and associations. This ties up valuable personnel resources and incurs high costs. Additionally, the coordination processes until the final adoption of new standards can extend over a very long period, consuming energy and resources. Companies therefore carefully consider whether to invest personnel, time, and monetary resources in the development of unified standards. Some manufacturers might focus more on developing their own proprietary solutions and products.

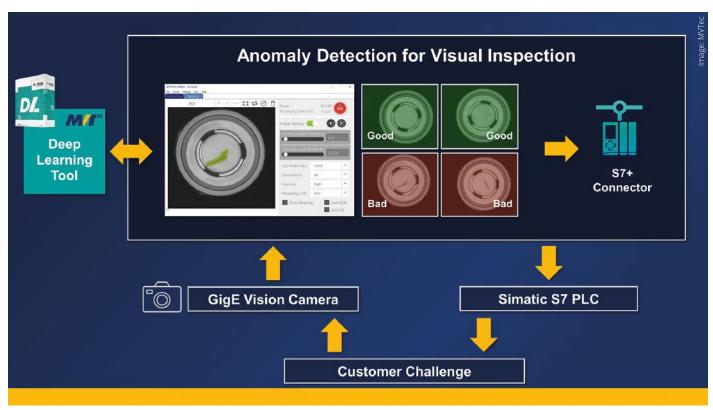
This strategy appears promising in the short term: Companies often aim to clearly distinguish themselves from the competition and position themselves in the market with a unique selling proposition. However, this approach should be handled with caution, as it leads to the development and establishment of isolated solutions. This brings disadvantages for all parties involved, ultimately affecting the users: While manufacturers may quickly have a functioning system, proprietary interfaces can limit users' freedom of choice in the long term, preventing the systems from succeeding in the market. This lacks future viability, and development costs may need to be written off. Moreover, such isolated solutions regularly contribute to the fragmentation of the market and industry.

# Cooperation instead of isolated solutions

Therefore, a strategy of cooperation focusing on the development of seamless interfaces and common standards is more beneficial for companies. Although such an open approach requires a certain level of commitment and is associated with effort, it offers numerous advantages: It paves the way for seamless interoperability between various systems and solutions. As these communicate in a standardized language, they can be flexibly interchanged as needed. This stimulates competition and ultimately leads to more mature, well-thought-out products. Users, in particular, benefit. They have more options to compare solutions and select the best offer in the market. This leads to more choice, flexibility, and cost transparency, and increases resilience, as dependency on individual suppliers and their availability is reduced.

Moreover, a high degree of standardization promotes cooperation between experts, allowing them to exchange their knowledge and experiences. This creates a "brain pool,"

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The "Anomaly Detection for Visual Inspection" app enables simple, deep learning-based surface inspection as part of the Siemens Industrial Edge platform.

serving as an important driver of technological progress. Not only established manufacturers benefit. Young companies can also use existing standards to develop seamlessly integrable solutions and bring them to market. Standards are not an obstacle for developing projects individually; rather, they offer a basis for innovations and product improvements, which help all the actors involved. For example, developers can rely on existing and proven interfaces instead of programming them from scratch, allowing innovative products to be brought to market more quickly and established there in the long term.

# Common standards for seamless machine vision processes

In industrial machine vision, standards and interfaces are increasingly used. The most important role is played by technical industrial standards, whose development and adoption are the responsibility of associations and companies. Important technical

industry standards in the machine vision environment include standards for image acquisition, such as GigE Vision. This ensures a seamless connection of devices like industrial cameras or sensors to network infrastructures through a Gigabit Ethernet interface.

The GenlCam (Generic Interface for Cameras) interface can also be used to integrate cameras seamlessly, decoupling the cameras' interfaces from specific application programming interfaces. MVTec, a provider of standard software for machine vision, has significantly contributed to the development of the GenlCam interface: The company has independently programmed the GenlCam GenTL Producer Framework and made it available for general use. In this context, the production-ready code is available free of charge to the entire GenlCam community and its customers.

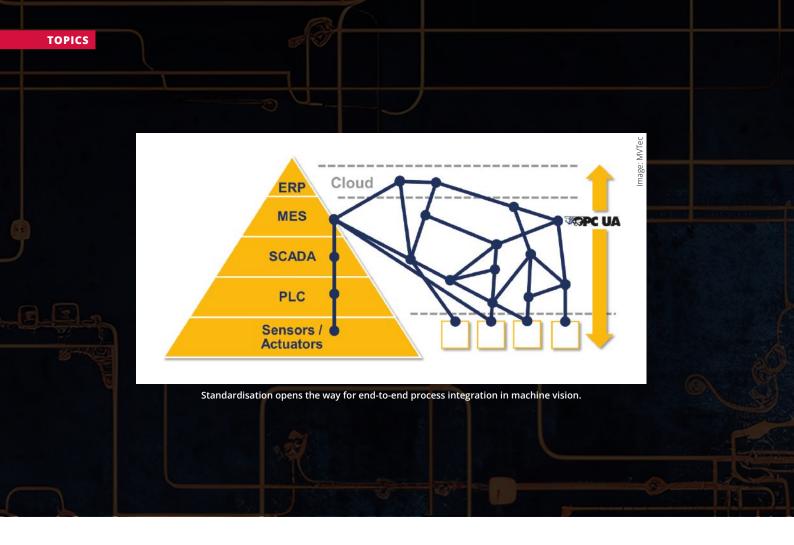
Moreover, in machine vision, standards for seamless process communication are of

central importance. OPC UA (Open Platform Communications Unified Architecture), for instance, ensures smooth data transfer between components from different providers. This paves the way for seamless compatibility with all conceivable platforms and operating systems. As a superordinate framework, OPC UA sets the standard for a common language through which various system worlds can exchange and communicate data. This makes it possible to integrate various applications for industrial automation seamlessly.

# Deep learning standards still lack market maturity

Technologies based on artificial intelligence (AI), particularly deep learning, which relies on artificial neural networks (Convolutional Neural Networks / CNN), are becoming increasingly important for the entire industrial environment and thus for machine vision. Common standards are being created for this purpose, though they are still in the early





stages of development. One of the first initiatives in this field is the Open Neural Network Exchange (ONNX), an open format for representing machine learning models, already supported by some frameworks. However, due to the multitude of frameworks, libraries, and methods in use, this standard is highly fragmented. Thus, it cannot yet fully cover productive operation in an industrial context.

How can companies actually benefit from the development of common standards and interfaces? This becomes particularly clear in light of the new challenges the industry faces: The economy is increasingly under pressure due to ongoing supply chain disruptions, heightened geopolitical risks, the decoupling of Chinese and American markets, and a rapidly accelerating shortage of skilled workers. This is also accompanied by continuous changes in customer expectations and requirements. To increase resilience against these factors, manufacturing companies must respond with a profound transformation of their processes.

# Standardization paves the way for seamless process integration

Customer requirements have changed significantly in recent years. Factors include increased awareness of climate change, geopolitical risks leading to adjustments in supply chains, and volatile energy prices. As a result, price sensitivity increases, transparency and sustainability become more important, and finally, both flexibility and usability increasingly gain

significance. The manufacturers' response to these challenges is adaptive manufacturing. Process integration plays a crucial role here. At this point, common standards and interfaces are particularly beneficial, as they significantly facilitate the integration of various components into an application. This also applies to machine vision. For it to fully leverage its advantages and pave the way for seamless factory automation, machine vision components must be easily integrated into industrial value-added processes and the corresponding technologies. It is essential that the various levels of industrial production, such as sensors, programmable logic controllers (PLCs), Scada systems, manufacturing execution systems (MES), and enterprise resource planning (ERP) solutions, communicate seamlessly and exchange data. Common norms and standards like OPC UA are indispensable for this.

An example of successful process integration in the industrial environment is the seamless integration of machine vision technologies from MVTec into Siemens' Industrial Edge Ecosystem. Following the principle of an app store, users can select the "apps" relevant to them within the Siemens platform and add them to their application. Industrial Edge provides a software infrastructure for central hardware management, scalable software rollout, and cloud connectivity. Through a standardized connectivity solution, centered around the Industrial Edge Databus (an MQTT broker), applications can be quickly and easily

deployed. MVTec Software offers the "Anomaly Detection for Visual Inspection" app. This allows customers to implement visual surface inspection and optical quality control within the Siemens Industrial Edge platform based on deep learning. This significantly reduces complexity and lowers barriers, enabling customers to integrate imaging solutions into their machines and production plants easily. In this context, the application also supports the use of cameras according to the GigE Vision standard within the Industrial Edge Ecosystem.

#### Conclusion

Common standards and interfaces, especially in the machine vision segment, are the key to unlocking seamless interoperability between various systems and technologies. This primarily benefits customers: They gain from applications that are easy to integrate and can utilize the best technologies available in the market to meet their specific needs. As a result, companies can optimize their processes, increase productivity, and save costs.

#### CONTACTS

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#### About autoVimation

autoVimation provides protective camera enclosures and a wide range of accessories that allow the use of vision systems in any environment. Thanks to the patented camera mounts, the enclosure works like a heatsink and cools the installed camera, so it can be used at higher temperatures.

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**Associations VDMA** 

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## **About Balluff**

Balluff is a leading provider of sensor, identification and image processing solutions for automation. The company, which has been family-run for over 100 years, offers a broad portfolio and guarantees fast availability and high service quality on site via a global network.



With Custom Design & Engineering (CDE), the sensor and automation specialist Balluff has been expanding its range of camera and sensor technology since 2023. CDE enables customer-specific adaptations and comprehensive project support in order to minimise development risks, reduce costs and accelerate market launch.

Balluff offers a wide range of machine vision products, including Smart Vision Sensors, Industrial cameras, 3D and Embedded Vision. One highlight is the new SWIR (Short-Wave Infrared) technology, which is integrated into the GigE and USB3 cameras for the first time. The SWIR camera opens up applications in the short-wave infrared range, especially in the semiconductor, packaging and food industries.



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Cameras, Interfaces/Cables/ Peripherals, Lighting equipment, Optics, R&D, Smart Cameras/Embedded Systems, Software, Vision Sensors

#### **Applications**

Character Recognition, Digitalization, Inspection Piece Parts, Inspection webbed Material, Material Testing, Metrology 2D, Part Identification, Robot Vision 2D, Robot Vision 3D, Symbol Recognition

#### Industries served

Automotive and Suppliers, Electronics/Semiconductors, Energy/Water/Solar Technology, Foodstuffs/ Beverages, Glass/Ceramics, Mechanical Engineering/Line Building, Medical Technology, Metal, Packaging, Paper/ Wood, Pharmaceuticals/ Cosmetics/Chemicals, Plastics, Precision Engineering/Optics/ Machine Vision, Traffic/ Logistics

#### **Regions served**

Africa, Asia, Australia, China, Central Europe, EMEA, Europe, Japan, Latin America, North America, national, ROW

# About Emergent Vision Technologies

Founded in 2007 in Vancouver, Canada, Emergent Vision Technologies (EVT) is a leading manufacturer of high-speed imaging cameras. We specialize in developing advanced GigE Vision cameras, offering 1GigE, 2.5GigE, 5GigE, 10GigE, 25GigE, and 100GigE interface support to meet diverse industrial and scientific imaging needs.

#### Mission

Our mission is to deliver cutting-edge imaging solutions that empower industries to achieve unparalleled performance and precision. We are committed to innovation, quality, and customer satisfaction, ensuring our products meet the evolving demands of the imaging market.



Emergent Vision Technologies (EVT)

2160-955 Seaborne Ave Port Coquitlam, BC V3B 0R9 Canada

sales@emergentvisiontec.com www.emergentvisiontec.com



Office and Global Presence

2160-955 Seaborne Ave, Port Coquitlam, BC V3B 0R9, Canada With headquarters in Port Coquitlam, British Columbia, Canada, EVT has a global network of partners and distributors, offering individual consulting and support for diverse applications.

Management

John llett, Founder, President & Chief Technology Officer

Foundation 2007

**Product Portfolio** 

Area-Scan Cameras, Line-Scan Cameras, Software Solutions, Turnkey Solutions

#### **Applications**

Our cameras are utilized across various industries, including: Industrial Automation, Sports Technology, Virtual Reality and 3D Mapping

## **About Opto**



Opto produces intelligent digital microscopes and vision sensors as imaging modules and job modules for medtech and industry applications in standard and custom versions.

We deliver AI ready images and specific DATA sets

to be implemented into biomed screening machines and industry 4.0 solutions.

Multi-fluorescence, flow cytometry, laserintegration and microfluidic lab on a chip imaging applications, for the integration into machines or POCT devices are our daily business.

Opto designs and produces standardized job modules with special software for dedicated applications. Plug and operate.

With over 40 years of experience in delivering specific opto-mechatronical solutions together with high end software features we are the perfect partner for integrators, product manufacturers and machine builders.



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#### Office(s)

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Opto GmbH (Asia) Pte Ltd Tel.: +65 96 69 83 13 sales@opto-asia.com

Management Markus Riedi, CEO

Foundation 1980

Staff 60+

#### **Products**

Imaging Modules, Digital Microscopes, Custom OEM Modules, Job Modules, Vision Sensors, Software

#### Applications

Flow Cytometry, Microfluidic, Cell Analysis, Inspection, Material Testing,

#### Industries served

Biotechnology, Automotive and Suppliers, Electronics/ Semiconductors, Mechanical Engineering, Medical Technology, Metal, Precision Engineering/Optics/Machine Vision, Molecular Biology, Pathology, Oncology, Bioscreening, Medtech, Machine Vision, Microscopy, Ophthalmology, IVF

#### Associations

AIA, EMVA, VDMA, Bayern Photonics, EPIC

#### Regions served

Asia, Australia, China, EMEA, Europe, Japan, Latin America, North America

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### **Corrosion Inspector**

The Corrosion Inspector by Schäfter+Kirchhoff automatically evaluates corrosion test panels and delivers a very high-contrast image with a resolution of 0.022 mm per pixel in only 1.2 sec (5s inclu-

ding all procedures). Implemented evaluation methods (acc. to international standards) are: Cross-cut classification, edge corrosion characteristic, filiform corrosion with counting/length measurement of threads, degree of delamination and corrosion, Blistering, Stone impact resistance.



The system was developed for rapid and objective corrosion evaluations with high sample throughput. The system supports color and monochrome grayscale images.

For further information please contact:



Schäfter+Kirchhoff GmbH Kieler Str. 212 22525 Hamburg Germany www.sukhamburg.com info@sukhamburg.de



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3D motion GmbH · Benno-Strauß-Straße 7a, 90763 Fürth, Germany Tel: +49 911 977 912 40, Fax: +49 911 977 912 41 contact@3dmotion.de, www.3dmotion.de

#### Solution Provider

3plusplus GmbH · Pfütschbergstr. 1, 98527 Suhl, Germany, Tel: +49 3681 452 99 0, info@3plusplus.com, www.3plusplus.com

#### Distributor, Machine Builder/OEM, Producer, Solution Provider

4H-Jena engineering GmbH · Muehlenstr. 126, 7745 Jena, Germany, Tel: +49 3641 288 70, oi@4h-jena.de, www.4h-jena.de

#### Producer, Solution Provider

ABW GmbH · Siemensstr. 3, 72636 Frickenhausen, Germany, Tel: +49 7022 949 292, info@abw-3d.de, www.abw-3d.de

#### Distributor

Acal BFi Germany GmbH · Oppelner Str. 5, 82194 Gröbenzell, Germany, Tel: +49 8142 652 00, info.de@bfioptilas.com, www.bfioptilas.com

#### Other

#### ACM Coatings GmbH

Rudelsburgpromenade 20c, 6628 Naumburg - Bad Kösen, Germany, Tel: +49 34463 621 340, alexander.telle@acm-coatings.de, www.acm-coatings.de

#### Distributor, Producer

ACS-Control-System GmbH · Lauterbachstr. 57, 84307 Eggenfelden, Germany, Tel: +49 8721 966 80, info@acs-controlsystem.de, www.acs-controlsystem.de

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Founded in 1983, Advantech is a leader in providing trusted, innovative products, services, and solutions. Advantech offers comprehensive system integration, hardware, software, customer-centric design services, embedded systems, automation products, and global logistics support. We cooperate closely with our partners to help provide complete solutions for a wide array of applications across a diverse range of industries. Our mission is to enable an intelligent planet with Automation and Embedded Computing products and solutions that empower the wdevelopment of smarter working and living.

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#### Producer, Solution Provider

Software: Image processing toolkit heurisko Quick heurisko-based custom image processing solution

Camera and image sensor testing according to EMVA 1288 and beyond:

Measuring services Customizable test equipment Consulting. Education: EMVA 1288 standard Computational imaging 3D image acquisition Technical optics for image processing

Aeon Verlag & Studio GmbH & Co. KG · Alter Rückinger Weg 31, 63452 Hanau, Germany, Tel: +49 6181 520 510, info@aeon.de, www.aeon.de

#### Producer

Aerotech GmbH · Gustav-Weißkopf-Str. 18, 90768 Fürth, Germany, Tel: + 49 911 967 9370, info@aerotech.de, de.aerotech.com

#### Distributor

AHF Analysentechnik AG · Kohlplattenweg 18, 72074 Tübingen, Germany, Tel: +49 7071 970 90 10, info@ahf.de, www.ahf.de

#### Research Facility

The AIT Austrian Institute of Technology, Austria's largest non-university research institute, is among the sEuropean research institutes a specialist in the key infrastructure issues of the future. In the field of high-performance image processing AIT has a recognized position on the international technological and scientific level. More than 100 experts conduct research in close collaboration with leading companies in industry and science.

#### **AIT Austrian Institute of Technology GmbH**

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#### Integrator

AIT Goehner GmbH · Wilhelmsplatz 11, 70182 Stuttgart, Germany, Tel: +49 711 238 530, info@ait.de, www.ait.de

#### Distributor

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#### Integrator

Aku.automation GmbH · Robert-Bosch-Str. 80, 73431 Aalen, Germany, Tel: +49 7361 890 880, info@aku.eu, www.aku.eu

#### Solution Provider

Alfavision GmbH & Co. KG · Freyunger Str. 4, 94116 Hutthurm, Germany, Tel: +49 8505 916 060, info@alfavision.de, www.alfavision.de

#### Producer

Alicona Imaging GmbH · Dr.-Auner-Str. 21a, 8074 Raaba/Graz, Austria, Tel: +43 316 403 010 700, info@alicona.com, www.alicona.com

#### Producer

For 25 years, Allied Vision Technologies has been helping people see the bigger picture. Allied Vision's camera portfolio is one of the largest in the market and offers a camera for nearly any application. If no standard product fits, the Allied Vision Modular Concept creates additional flexibility

providing hardware option combinations that are almost endless. Allied Vision cameras are easy to integrate into any machine vision system thanks to our Software Development Kit (SDK) that is compatible with all common operating systems, camera interfaces and image-processing libraries.

Allied Vision Technologies GmbH · Taschenweg 2a, 07646 Stadtroda, Germany, Tel: +49 36428 677 230, info@alliedvision.com, www.alliedvision.com

#### Distributor, Producer, Solution Provider

Allsens Messtechnik · Hamey 2, 4432 Dortmund, Germany, Tel: +49 231 177 406 11, support@allsens.de, www.allsens.de

#### Solution Provider

Alysium-Tech GmbH · Andernacher Str. 31b, 90411 Nuremberg, Germany Tel: +49 911 937 878 0. sales@alvsium.com, www.alvsium.com

#### Producer

Ametek GmbH · Rudolf-Diesel-Str. 16, 40670 Meerbusch, Germany, Tel: +49 2159 913 60, info@ametek.de, www.ametek.de

#### Producer

Ametek Germany GmbH, BU Zygo Rudolf-Diesel-Str. 16, 64331 Weiterstadt, Germany, Tel: +49 6150 543 7064, zygoinfo.de@ametek.com, www.zygo.de

#### Producer

AMS is a global leader in the design and manufacture of advanced sensor solutions which drive applications requiring small form factor, low power, highest sensitivity and multi-sensor integration. Products include sensor solutions, sensor ICs, interfaces and related SW for consumer, communications, industrial, medical, and automotive markets. With HQs in Austria, AMS employs

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#### Distributor

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#### Distributor, Producer, Solution Provider

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#### Consultant, Producer

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#### Manufacturer / Producer

AT – Automation Technology is one of the global leading technology companies in the field of special imaging sensor technology. For more than 20 years, we have been developing and producing intelligent infrared cameras, high-precision 3D sensors and

unique sensor solutions that are used in industrial process automation as well as in monitoring and inspection tasks worldwide. A dense network of international sales and service partners ensures individual consulting as well as perfect service and support.

AT - Automation Technology GmbH · Hermann-Bössow-Straße 6-8, 23843 Bad Oldesloe, Germany, Tel: +49 4531 88011, info@at-sensors.com, www.at-sensors.com

#### Producer

AutoVimation GmbH · Römerweg 1, 76287 Rheinstetten, Germany, Tel: +49 721 627 67 56, sales@autovimation.com, www.autovimation.com

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#### Producer

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#### Producer, Solution Provider

BAP Image Systems GmbH · Am Weichelsgarten 7, 91058 Erlangen, Germany, Tel: +49 9131 691 540, info@bapis.de, www.bapis.de

#### Producer

Basler AG is an international leader and experienced expert in computer vision. The company offers a broad coordinated portfolio of vision hardware and software. In addition, it enables customers to solve their vision application issues by developing customer-specific products or solutions. Founded in 1988, the Basler Group employs more around 1000 people at its headquarters in Ahrensburg, Germany, as well as other sales and development locations throughout Europe, Asia, and North America.

Basler AG · An der Strusbek 60-62, 22926 Ahrensburg, Germany, Tel: +49 4102 463 500, sales.europe@baslerweb.com, www.baslerweb.com

#### Producer

The Baumer Group is one of the worldwide leading manufacturers of sensors, encoders, measuring instruments and components for automated image-processing. With around 2,700 employees and 38 subsidiaries in 19 countries, the family-owned group of companies is always close to the customer. We

offer a unique range of products, from industrial cameras and vision sensors to image processing components, for many different applications across varied industries. The location in Germany accommodates R&D and production under one roof which ensures our high product quality standards.

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#### Producer, Solution Provider

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#### Integrator, Solution Provider

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#### Consultant, Distributor

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#### Producer

Carl Zeiss AG · Carl-Zeiss-Str. 22, 73446 Oberkochen, Germany, Tel: +49 7364 205 590, lenses4industry@zeiss.de, www.zeiss.com/lenses4industry

#### Producer

Carl Zeiss Automated Inspection was emerged from the HGV company founded in 1989, which was acquired in December 2012 by Carl Zeiss IMT. The 60 employees at Head-quarters in Öhringen (Germany) provide users with complete solutions for inline metrology and implement customized solutions for all leading Germany

man car manufacturers and also for line-builders and system integrators.

Carl Zeiss Automated Inspection not only offers 3D inline metrology, but also other innovative optical image processing systems for guaranteeing the quality of production processes.

#### **Carl Zeiss Automated Inspection GmbH**

Robert-Bosch-Str. 1/1, 74632 Neuenstein, Germany, Tel: +49 7941-9100-0, info.metrology.de@zeiss.com, www.zeiss.de/messtechnik

#### Solution Provider

HGV supplies scaleable turnkey machine vision solutions for all kinds of quality inspection: Flexible measurement systems (FMS) with robots, inline-measurement, process control, robot guiding, assembly control, part handling (pick & place), surface inspection, sorting & identification.

#### Carl Zeiss Industrielle Messtechnik GmbH

Carl-Zeiss-Straße 22, 73446 Oberkochen, Germany, Tel: +49 7364 206 336, info.metrology.de@zeiss.com, www.zeiss.de/metrology



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#### Producer

Carl Zeiss Optotechnik GmbH · Georg-Wiesböck-Ring 12, 83115 Neubeuern, Germany, Tel: +49 8035 870 40, optotechnik.metrology.de@zeiss.com, optotechnik.zeiss.com

#### Produce

We develop, produce and distribute gratings, modules, spectrometer systems and solutions of highest quality, superior optical performance, robust design and fast analysis. Zeiss products are tailored to your processes

and needs. In doing this we can continuously provide specific and innovative solutions for individual applications and create essential benefits in efficiency and process stability.w

Carl Zeiss Spectroscopy GmbH · Carl-Zeiss-Promenade 10, 07745 Jena, Germany Tel: +49 3641 642 838, info.spectroscopy@zeiss.com, www.zeiss.com/spectroscopy

#### Distributor, Producer

CBC (Europe) GmbH · Hansaallee 191, 40549 Düsseldorf, Germany, Tel: +49 211 530 670, info@cbc-europe.com, www.cbc-europe.com

#### Solution Provider

Ceres Vision GmbH · Kurt-Schumacher-Str. 1, 33615 Bielefeld, Germany, Tel: +49 521 923 69 30, info@ceresvision.de, www.ceresvision.de

#### Machine Builder/OEM, Producer, Solution Provider

Chromasens develops and produces both standardized machine vision components – as color line scan cameras, spectral cameras, 3D stereo cameras and line scan lights – and custom-specific image processing solutions. Chromasens employees have comprehensive expertise in

development, project management, application creation, system integration and professional services. The intensive cooperation with the customer in the form of comprehensive support throughout every project phase is a cornerstone of the company philosophy.

Chromasens GmbH · Max-Stromeyer-Str. 116, 78467 Konstanz, Germany, Tel: +49 7531 876 0, info@chromasens.de, www.chromasens.com

Producer

Cincoze Co., Ltd. · Unterhachinger Str. 75, 81737 München, Germany, Tel: +49 89 856 315 55, germany@cincoze.com, www.cincoze.com

Integrator

CLK · Mendelstr. 11, 48149 Münster, Germany, Tel: +49 251 980 20 87, cruse@clkgmbh.de, www.clkgmbh.de

#### Producer

Cognex Corporation designs, develops, manufactures, and markets machine vision sensors and systems. Cognex vision sensors are used in factories around the world to automate the manufacture of a wide range of items and to assure their quality. Cognex is the world's leader in the machine vision industry, having

shipped more than 450,000 machine vision systems, since the company's founding in 1981. In addition to its corporate headquarters in Natick, Massachusetts, Cognex also has regional offices and distributors located throughout North America, Japan, Europe, Asia, and Latin America.

Cognex Germany, Inc. · Emmy-Noether-Str. 11, 76131 Karlsruhe, Germany, Tel: +49 721 663 90, info@cognex.de, www.cognex.com

#### Producer

ColVisTec · Max-Planck-Str. 3, 12489 Berlin-Adlershof, Germany, Tel: +49 306 392 78 16, info@colvistec.de, www.colvistec.de

#### Machine Builder/OEM, Solution Provider

 $\begin{array}{l} \textbf{Comet Yxlon GmbH} \cdot \textbf{Essener Bogen 15, 22419 Hamburg, Tel: +49 40 527 29 0,} \\ \textbf{Fax: +49 40 527 29 170, yxlon@comet.tech, yxlon.comet.tech} \end{array}$ 

#### Distributor, Integrator, Producer, Solution Provider

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#### Machine Builder/OEM

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#### Distributor

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Creaform Deutschland GmbH · Meisenweg 37, 70771 Leinfelden-Echterdingen, Germany, Tel: +49 711 185 680 30, germany@creaform3d.com, www.creaform3d.com

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#### Producer, Solution Provider

There is a great need in the industry for solutions and products that enable people, machines, plants, logistics and products to communicate and cooperate with each other. This

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Cretec GmbH · Industriestraße 35, 63654 Büdingen, Germany, Tel: +49 6042 565 259 510, mail@cretec.gmbh, www.cretec.gmbh

#### Producer

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#### Integrator, Solution Provider

CTMV GmbH & Co. KG · Schwarzwaldstr. 7A, 75173 Pforzheim, Germany, Tel: +49 7231 566 177 200, info@ctmv.de, www.ctmv.de

#### Research Facility, Solution Provider

CTR - Carinthian Tech Research AG · Europastr. 4/1, 9524 Villach, Austria, Tel: +43 4242 563 00 0, info@ctr.at, www.ctr.at

#### Producer

**Datasensor GmbH** · Tegernseer Str. 75, 83624 Otterfing, Germany, Tel: +49 8024 902 77 0, info@datasensor.de, www.datasensor.com

#### Producer

Degotec GmbH · Laubwaldstr. 15, 78224 Singen, Germany, Tel: +49 7731 939 820 10, info@degotec.com, www.degotec.com

#### Integrator

de Man Industrie-Automation GmbH · Industriestr. 18, 33829 Borgholzhausen, Germany, Tel: +49 5425 949 70, info@deman.de, www.deman.de

#### Solution Provider

#### dhs Dietermann & Heuser Solution GmbH

Herborner Str. 50, 35753 Greifenstein-Beilstein, Germany, Tel: +49 2779 912 00, vertrieb@dhssolution.com, www.dhssolution.com

#### Consultant, Integrator, Machine Builder/OEM, Producer, Solution Provider, Other

Diaspective Vision GmbH · Strandstr. 15, 18233 Am Salzhaff, Pepelow, Germany, Tel: +49 38294 166 760, office@diaspective-vision.com, www.diaspective-vision.com

#### Producer

**Docter Optics GmbH** · Mittelweg 29, 7806 Neustadt an der Orla, Germany, Tel: +49 36481 27 0, info@docteroptics.com, www.docteroptics.com

#### Producer

Dotphoton is a Swiss technology company that delivers innovative image compression solutions for big image data. Dotphoton's unique set of algorithms and cutting-edge approach to camera calibration enables file size reduction by a factor of 5 to 8, preserving the raw quality of images. By combining the flexibility of lossy formats with the reliability and quality of lossless technologies, Dotphoton enables scalable data-centric Al and ML analysis

Dotphoton AG · Nordstrasse 3, 6300 Zug, Switzerland, Tel: +41 41 552 50 00, get@dotphoton.com, www.dotphoton.com

#### Machine Builder/OEM

#### Dr. Heinrich Schneider Messtechnik GmbH Rothlay Mühle, 55545 Bad Kreuznach, Germany,

Tel: +49 671 291 02, info@dr-schneider.de, www.dr-schneider.de

Dr.-Ing. Jänchen Business Development supports international technology companies to gain profitable growth by providing professional Business Development consulting and comprehensive services. Depending on customer needs and requirements, duration and extend of the engagement can vary ranging from a single, individual project, to integrated packages of interconnected projects up to a long term collaboration.

## **Dr.-Ing. Jänchen Business Development** Müggenkampstr. 5a, 20257 Hamburg, Germany,

Tel: +49 40 548 069 31, info@jaenchen-bd.com, www.jaenchen-bd.com

#### Machine Builder/OEM

#### Dr. Noll Optical Measurement GmbH

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#### Solution Provider

Dr. Schwab Inspection Technology GmbH · Industriestr. 9, 86551 Aichach, Germany, Tel: +49 8251 900 80, info@schwabinspection.com, www.schwabinspection.com

#### Solution Provider

**Dutch Vision Systems** · Am Lehmberg 2, 16928 Pritzwalk, Germany, Tel: +49 33986 614 0, info@dvs-vision.de, www.dvs-vision.de

#### Distributor

Duwe-3d AG · Peter-Dornier-Str. 9, 88131 Lindau (B), Germany, Tel: +49 8382 275 900, info@duwe-3d.de, www.duwe-3d.de

#### Distributor, Producer

Edmund Optics, leading supplier of optics, imaging, and photonics technology with manufacturing sites in the US, Asia and Europe as well as global sales offices, holds with a portfolio of more than 30.000 products the world's largest inventory of optical components for immediate delivery. Building up great competency in imaging and imaging components, EO provides complete imaging solutions with a large product line, technical expertise, manufacturing capabilities, extensive technical support, and assists customers in every way possible to maximize the performance of their imaging system.

Edmund Optics · Isaac-Fulda-Allee 5, 55124 Mainz, Germany, Tel: +49 6131 570 00, sales@edmundoptics.de, www.edmundoptics.de

#### Distributor, Producer

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#### Solution Provider

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ElektroPhysik Dr. Steingroever GmbH & Co. KG · Pasteurstr. 15, 50735 Köln. Germany, Tel: +49 221 752 040, info@elektrophysik.com, www.elektrophysik.com

#### Producer

Eltec Elektronik AG · Galileo-Galilei-Str. 11, 55129 Mainz, Germany, Tel: +49 6131 918 100, info@eltec.com, www.eltec.com

#### Distributor, Producer, Solution Provider

Eltrotec Sensor GmbH · Heinkelstr. 2, 73066 Uhlingen, Germany, Tel: +49 7161 988 723 00, info@eltrotec.com, www.eltrotec.com

#### Producer

Emergent Vision Technologies was founded in 2007 in Vancouver, Canada. It is the first provider of cameras based on the 10 Gigabit Ethernet (10GigE), 25 Gigabit Ethernet (25GigE), 50 Gigabit Ethernet (50GigE), and 100 Gigabit Ethernet (100GigE) interfaces. The team comes with a

vast experience in machine vision and high-speed imaging solutions from design to engineering, manufacturing, consulting, and technical support. The high-speed cameras are used in the areas of inspection and automation, sports technology, virtual reality, 3D mapping, traffic and more.

#### **Emergent Vision Technologies GmbH**

Roemmelesweg 26, 71394 Kernen im Remstal, Germany, Tel: +49 160 5775613, sales@emergentvisiontec.com, www.emergentvisiontec.com

#### Producer

Entner Electronics KG · Treietstr. 42, 6832 Sulz, Austria, Tel: +43 5522 757 17 0, info@entner-electronics.com, www.entner-electronics.com

#### Producer

Epson Deutschland GmbH · Otto-Hahn-Str. 4, 40670 Meerbusch, Germany, Tel: +49 2159 538 13 91, robot.infos@epson.de, www.epson.de/robots

#### Solution Provider

Erhardt+Leimer GmbH · P.O. Box 10 15 40, 86136 Augsburg, Germany, Tel: +49 821 243 50, info@erhardt-leimer.com, www.erhardt-leimer.com

#### Producer

Ernst & Engbring GmbH & Co. KG · Industriestr. 9, 45739 Oer-Erkenschwick, Germany, Tel: +49 2368 690 10, info@eue-kabel.de, www.eue-kabel.de

#### Distributor

Eureca Messtechnik GmbH · Eupener Str. 150, 50933 Köln, Germany, Tel: +49 221 430 823 90, info@eureca.de, www.eureca.de

eVision Systems GmbH · Jahnstr. 12, 85661 Forstinning, Germany, Tel: +49 8121 220 80, sales@aivion.de, www.aivion.de

#### Solution Provider

EVK, an expert company in industrial imaging, offers sensor-based solutions for sorting, monitoring and inspection to the industry, including fields of food processing, recycling, or mining.

EVKs core expertise is the classification and analysis of data using

hyperspectral and inductive imaging technologies. EVK integrates and combines sensor technologies and data analysis into application-specific solutions, providing valuable real-time data about the manufacturing process.

EVK DI Kerschhaggl GmbH · Josef Krainer Str. 35, 8074 Raaba, Austria, Tel: +43 316 461 66 40, office@evk.biz, www.evk.biz

#### Consultant, Producer, Other

Evotron GmbH & Co. KG · Pfuetschbergstr. 16, 98527 Suhl, Germany, Tel: +49 3681 452 99 50, info@evotron-gmbh.de, www.evotron-gmbh.de

#### Producer

EVT Eye Vision Technology GmbH · Gartenstraße 26, 76131 Karlsruhe, Germany, Tel: +49 721 626 905 82, sales@evt-web.com, www.evt-web.com

#### Manufacturer / Producer

Acquired by Excelitas Technologies in 2021, PCO represents a world renowned brand of high-performance scientific CMOS, sCMOS, CCD and high-speed cameras that complement Excelitas' expansive range of illumination, optical and sensor technologies and extend the bounds of our end-to-end photonic solutions capabilities.

Excelitas PCO GmbH (previously: PCO) · Donaupark 11, 93309 Kelheim, Germany, Tel: +49 9441 200 50, info@pco.de, www.pco.de

Extended3D GmbH · Trausnitzstr. 8, 81671 München, Germany, Tel: +49 89 215 501 60, info@extend3d.de, www.extend3d.de

#### Producer

Faro Europe GmbH & Co. KG · Lingwiesenstr. 11/2, 70825 Korntal-Münchingen, Germany, Tel: +49 7150 979 70, info@faroeurope.com, www.faro.com

Faseroptik Henning GmbH · Neumarkter Str. 29, 90584 Allersberg, Germany, Tel: +49 9176 58 0, kontakt@faseroptik-henning.de, www.faseroptik-henning.de

FiberVision GmbH · Jens-Otto-Krag-Str. 11, 52146 Würselen, Germany, Tel: +49 2405 454 80, info@fibervision.de, www.fibervision.de

#### Producer, Solution Provider

Fisba Optik AG · Rorschacherstr. 268, 9016 St. Gallen, Switzerland, Tel: +41 71 282 31 31, info@fisba.ch, www.fisba.com

#### Producer

Flir Systems is a world-leading maker of sensor systems that enhance perception and heighten awareness, helping to save lives, improve productivity, and protect the environment. Flir Systems is a global leader in the design and manufacture of high-performance digital cameras for industrial, medical, life science, traffic, biometric, geographic information systems (GIS), and people counting applications.

Flir Integrated Imaging Solutions GmbH Schwieberdinger Str. 60, 71636 Ludwigsburg, Germany, Tel: +49 7141 488 817 0, mv-eusales@flir.com, www.flir.com/mv

#### Producer

Flir Systems is the global leader in the Design, Manufacture and Marketing of Thermal Imaging Infrared Cameras. The company is a leading manufacturer of innovative imaging systems that include infrared cameras, aerial

broadcast cameras and machine vision systems. Our products play pivotal roles in a wide range of industrial, commercial and government activities in more than 60 countries.

Flir Systems GmbH · Berner Str. 81, 60437 Frankfurt am Main, Germany, Tel: +49 69 950 090 0, info@flir.de, www.flir.com

#### Distributor, Solution Provider

Since 1981 Framos is a leading technology provider in industrial, scientific and medical image processing. We enable manufacturers, system integrators and researchers to benefit from imaging technologies. Our team offers a fully comprehensive portfolio of imaging components, technical consulting and support. Thanks to many years of experience in the industry we offer engineering services for custom camera development as well as complete turn-key-solutions.

Framos GmbH · Mehlbeerenstr. 2, 82024 Taufkirchen, Germany, Tel: +49 89 710 66 70, info@framos.eu, www.framos.com

#### Research Facility

The Fraunhofer's Business Unit Vision pools the expertise of the Fraunhofer Institutes in the fields of machine vision, image processing, optical testing and measurement techniques.

The cooperation within this network enables the early detection of requirements of the market and allows the Fraunhofer Vision Institutes to tackle technological challenges.

Fraunhofer Business Unit Vision · Flugplatzstraße 75, 90768 Fürth, Germany, Tel: +49 911 58061-5800, vision@fraunhofer.de, www.vision.fraunhofer.de

#### Institute (Research Facility)

#### Fraunhofer EZRT - Entwicklungszentrum Röntgentechnik

Flugplatzstraße 75, 90768 Fürth, Germany, Tel: +49 911 58061-7500, info-ezrt@iis.fraunhofer.de, www.iis.fraunhofer.de/de/ff/zfp.html

#### Fraunhofer FHR - Institute for High Frequency Physics and Radar Techniques

Fraunhoferstraße 20, 53343 Wachtberg, Germany, Tel: +49 228 9435-0, info@fhr.fraunhofer.de, www.fhr.fraunhofer.de

#### Institute (Research Facility)

Fraunhofer HHI - Institute for Telecommunications, Heinrich Hertz Institute Einsteinufer 37, 10587 Berlin, Germany, Tel: +49 30 31002-0, info@hhi.fraunhofer.de, www.hhi.fraunhofer.de

#### Institute (Research Facility)

#### Fraunhofer IFF - Institute for Factory Operation and Automation

Sandtorstrasse 22, 39106 Magdeburg, Germany, Tel: +49 391 4090-0, ideen@iff.fraunhofer.de, www.iff.fraunhofer.de

#### Institute (Research Facility)

## Fraunhofer IIS - Institute for Integrated Circuits Am Wolfsmantel 33, 91058 Erlangen, Germany,

Tel: +49 9131 776-0, info@iis.fraunhofer.de, www.iis.fraunhofer.de

#### Research Facility

Fraunhofer IMS · Finkenstr. 61, 47057 Duisburg, Germany, Tel: +49 2033 783 0, info@ims.fraunhofer.de, www.ims.fraunhofer.de

#### Institute (Research Facility)

Fraunhofer IOF – Institute for Applied Optics and Precision Engineering Albert-Einstein-Str. 7, 07745 Jena, Germany, Tel: +49 3641 807-0,www.iof.fraunhofer.de

#### Institute (Research Facility)

Fraunhofer IOSB - Institute of Optronics, System Technologies and Image Exploitation · Fraunhoferstraße 1, 76131 Karlsruhe, Germany, Tel: +49 721 6091-0, info@iosb.fraunhofer.de, www.iosb.fraunhofer.de

#### Institute (Research Facility)

Fraunhofer IPA - Institute for Manufacturing Engineering and Automation Nobelstr. 12, 70569 Stuttgart, Germany, Tel: +49 711 970-1800, industrieanfragen@ipa.fraunhofer.de, www.ipa.fraunhofer.de

#### Institute (Research Facility)

Fraunhofer IPK - Institute for Production Systems and Design Technology Pascalstraße 8-9, 10587 Berlin, Germany, Tel: +49 30 39006-0, info@ipk.fraunhofer.de, www.ipk.fraunhofer.de

#### Research Facility

400 scientists and engineers provide top service in applied research in the fields of industrial manufacturing and automation, medical technology, and improved quality of life. With an annual budget of more than 40 million euros, we develop customer-specific innovative MEMS components and microelectronic parts on 200 mm & 300 mm wafers to complete whole systems.

#### Fraunhofer-Institut für Photonische Mikrosysteme IPMS

Maria-Reiche-Str.2, 01109 Dresden, Germany, Tel: +49 351 882 30, pr@ipms.fraunhofer.de, www.ipms.fraunhofer.de

#### Institute (Research Facility)

#### Fraunhofer ITWM - Institute for Industrial Mathematics

Fraunhofer-Platz 1, 67663 Kaiserslautern, Germany, Tel: +49 631 31600-0, info@itwm.fraunhofer.de, www.itwm.fraunhofer.de

#### Producer

#### FRT, Fries Research & Technology GmbH

Friedrich-Ebert-Str. 75, 51429 Bergisch Gladbach, Germany, Tel: +49 2204 243 0, info@frt-gmbh.com, www.frt-gmbh.com

#### Integrator, Solution Provider

Fuchs Engineering GmbH · Sindelfinger Str. 4/4, 72070 Tübingen, Germany, Tel: +49 7071 975 55 60, info@fuchs-engineering.de, www.fuchs-engineering.de

#### Producer

Tapping into optical technologies and precision processing and assembling technologies nurtured over many years, Fujifilm offers a wide variety of Fujinon lenses. The Fujinon brand is world-renowned for its innovative and reliable products in the field of broadcast & cine lenses, binoculars, CCTV lenses, machine vision applications as well as for special custom made optical products, for example those used in digital projectors, automobiles and in many other applications.

Fujifilm Optical Devices Europe GmbH · Fujistr. 1, 47533 Kleve, Germany, Tel: +49 2821 711 540 0, cctv\_eu@fujifilm.com, www.fujifilm.eu/fujinon

#### Solution Provider

Futec Europe SRL · Tecklenburger Str. 36, 49525 Lengerich, Germany, Tel: +49 5481 997 606, info@go-futec.de, www.futeceurope.com

#### Producer

**GE Sensing & Inspection Technologies GmbH - phoenix | x-ray**Niels Bohr Str. 7, 31515 Wunstorf, Germany,
Tel: +49 5031 172 0, phoenix-info@ge.com, www.gemeasurement.com/x-ray

#### Integrator, Solution Provider

#### **Gefasoft Automatisierung und Software GmbH**

Franz-Mayer-Str. 10, 93059 Regensburg, Germany, Tel: +49 941 788 30 0, info@gefasoft.com, www.gefasoft.com

#### Producer

Geomagic GmbH · Leibnizstr. 51, 70193 Stuttgart, Germany, Tel: +49 178 776 78 87, europe@geomagic.com, www.geomagic.com

#### Machine Builder/OEM

Goepel electronic GmbH · Göschwitzer Str. 58/60, 7745 Jena, Germany, Tel: +49 3641 689 60, sales@goepel.com, www.goepel.com

#### Producer

GOM mbH · Schmitzstr. 2, 38122 Braunschweig, Germany, Tel: +49 531 390 290, info@gom.com, www.gom.com

#### Integrator, Solution Provider

GPP Chemnitz mbH · Annaberger Str. 73-77, 9111 Chemnitz, Germany, Tel: +49 371 523 620, info@gppc.de, www.gppc.de

#### Producer

Grecon Greten GmbH & Co. KG · Hannoversche Str. 58, 31061 Alfeld, Germany, Tel: +49 5181 79 0, sales@grecon.de, www.grecon.de

#### Producer

#### Grenzebach Algoscan GmbH

Albanusstr. 1, 86663 Asbach-Bäumenheim/Hamlar, Germany, Tel: +49 89 748 55 80, welcome@algoscan.com, www.algoscan.com

#### Producer

GS Vitec GmbH Slomotec · Im Ziegelhaus 6-8, 63571 Gelnhausen, Germany Tel: +49 6051 601 26 90, contact@GSVitec.com, www.slomotec.de

#### Producer

#### **Hamamatsu Photonics Deutschland GmbH**

Arzbergerstr. 10, 82211 Herrsching, Germany, Tel: +49 8152 375 0, info@hamamatsu.de, www.hamamatsu.de

#### Producer

Hasotec GmbH · Burgwall 20, 18055 Rostock, Germany, Tel: +49 381 490 98 34, info@hasotec.com, www.hasotec.com

#### Research Facility

The strategic concept of the HCI is built on the fact that basic problems in image processing are largely application-independent. The approximately 80 scientists working in the HCI conduct basic research with the aim of providing cutting-edge solutions to basic image analysis problems for applications in industry and sciences. The HCI is part of the institutional strategy of the University of Heidelberg within the Excellence Initiative.

HCI at IWR Heidelberg University Berliner Str. 43, Mathematikon B, 69120 Heidelberg, Germany, hci@iwr.uni-heidelberg.de, hciweb.iwr.uni-heidelberg.de

#### Producer, Solution Provider

HD Vision Systems supports manufacturing companies in all questions of machine vision. With our unique light field based technology, we offer our customers a fast and easy access to automation: The light field allows to detect shiny surfaces or fiber composite materials - even under regular ambient light. The flexible system is able to handle projects with very small quantities and adapt them as required. Applications include 3D scanning, object detection, bin picking and quality inspection.

HD Vision Systems GmbH · Carl-Friedrich-Gauß-Ring 5, 69124 Heidelberg, Germany, Tel: +49 6221 672 19 00, info@hdvisionsystems.com, www.hdvisionsystems.com

#### Producer

Heliotis develops, manufactures, and distributes optical 3D measurement technology for industrial quality control. Their core competence is in the development of CMOS image sensors, FPGA-based cameras, and optical measurement technology. Thanks to sustainable investments in research

and development, the 3D sensors are among the most accurate and fastest non-contact sensors in the world. Leading manufacturers of semiconductors, consumer and automotive electronics as well as medical technology rely on the precision and reliability of their products.

Heliotis AG · Längenbold 5, 6037 Root, Switzerland, Tel: +41 41 455 67 00, web@heliotis.ch, www.heliotis.com

Helms Technologie GmbH · An der Strusbek 8a, 22926 Ahrensburg, Germany, Tel: +49 4102 222 50, info@helms-technologie.de, www.helms-technologie.de

#### Producer

Helmut Hund GmbH · Wilhelm-Will-Str. 7, 35580 Wetzlar, Germany, Tel: +49 6441 200 40, info@hund.de, www.hund.de

#### Producer, Research Facility

Hema Electronic GmbH · Roentgenstr. 31, 73431 Aalen, Germany, Tel: +49 7361 949 50, info@hema.de, www.hema.de

#### Machine Builder/OEM

Hexagon DEU01 GmbH · Biberweg 30c, 38114 Braunschweig, Germany, Tel: +49 531 580 00 58, info@hexagon.com, www.hexagonmi.com

#### Producer

Hitachi Kokusai Electric Europe GmbH · Siemensstr. 9, 63263 Neu-Isenburg, Germany, Tel: +49 6102 833 240, a.stueber@hitachi-keu.com, www.hitachi-keu.com

#### Research Facility

The department of optical technologies and machine vision (Optotechnik und Bildverarbeitung) is part of the faculty of mathematics and natural sciences at Darmstadt University of Applied Sciences (Hochschule Darmstadt). The joint experience of 12 professors from various fields of optics, laser technology, image processing and optical metrology provides the background for profound work on cutting-edge research projects and an outstanding commitment to a modern study program, integrating optical technologies and machine

Hochschule Darmstadt FB MN · Schöfferstr. 3, 64295 Darmstadt, Germany, Tel: +49 6151 16-7955, fbmn.h-da.de

#### Producer

Holoeye Photonics AG · Volmerstr. 1, 12489 Berlin-Adlershof, Germany, Tel::+49 30 403 693 80, contact@holoeye.com, www.holoeye.com

#### Producer

As a member of the HOYA Group, HOYA CORPORATION OPTICS SEC-TION carries the group's excellence in optical glass-making technology in its DNA. Our worldwide network of R&D, precision manufacturing and mass scale production enables us to offer End-to-End Solutions unmatched by our competitors. Within our Optics Division, we offer a variety of products such as optical glass material, pressed blanks, molded or polished lenses, optical filters as well as anodic bonding and NIR polarizer glass (CUPO).

#### HOYA CORPORATION OPTICS SECTION

Europe Branch Krefelder Straße 350, 41066 Mönchengladbach, Germany, Tel: +49 2161 698 3692, info@hoyaoptics.eu, www.hoyaoptics.eu

#### Integrator

I-mation GmbH · Neckartal 234, 78628 Rottweil, Germany, Tel: +49 741 942 286 00, info@i-mation.de, www.i-mation.de

#### Producer. Solution Provider

IB/E Optics Eckerl GmbH · Passauer Str. 13, 94116 Hutthurm, Germany, Tel: +49 8551 999 80 30, info@ibe-optics.com, www.ibe-optics.com

#### Integrator

Ibea GmbH · Kleine Bahnstr. 8, 22525 Hamburg, Germany, Tel: +49 40 689 88 70, info@ibea.de, www.ibea.de

#### Integrator, Solution Provider

ICW [industrie-elektronik] · Engelschalkstr. 32, 86316 Friedberg, Germany, Tel: +49 821 609 95 26, anfrage@icw-news.de, www.icw-news.de

#### Manufacturer / Producer

IDS stands for high-performance industrial cameras which open up new application areas for future-oriented image processing tasks. The portfolio includes digital industrial cameras with USB or GigE interface as well as 3D cameras. With the vision app-based, intelligent IDS NXT cam-

eras and robot vision solutions, IDS opens up new dimensions in image processing. The range of applications covers multiple non-industrial and industrial sectors in the field of equipment, plant and mechanical engineering

IDS Imaging Development Systems GmbH
Dimbacher Straße 10, 74182 Obersulm, Germany,
Tel: +49 7134 96196 0, info@ids-imaging.com, de.ids-imaging.com

#### Distributor, Integrator, Solution Provider

ID-Systems AG · Sägeweg 7, 2557 Studen, Switzerland, Tel: +41 32 374 71 11, info@idsystems.ch, idsystems.ch

#### Manufacturer / Producer

When it comes to pioneering automation and digitisation technology, the ifm group is the ideal partner. Since its foundation in 1969 ifm has developed, produced and sold sensors, controllers, software and systems for industrial automation worldwide.

As one of the pioneers of Industry 4.0, ifm develops and implements consistent solutions to digitise the entire value chain "from sensor to ERP". Today, the second-generation family-run ifm group has more than 7,300 employees.

ifm electronic gmbh · Friedrichstr.1, 45128 Essen, Germany, Tel: +40 800 16 16 16 4, info@ifm.com, www.ifm.com

#### Producer

Lumimax LED lights by iiM GmbH are especially designed and developed for use in industrial Machine Vision applications. The high-performance lighting products with integrated controller technology for continuous, switch or flashing operation guarantee the utmost functionality and enable the stable, extraneous light-independent illumination of your test objects

– even for extremely fast processes. Additional components such as mounting solutions for different cameras, diffusors, fresnel lenses and polarization filters are also available. The team of iiM AG has extensive experience in Machine Vision and can apply this knowledge excellently when designing and realising its prod-

ucts and when providing consulting.

IIM GmbH · Neuer Friedberg 5 · 98527 Suhl · Germany Tel: +49 3681 455 19 0 · info@iimag.de · www.lumimax.com

#### Producer

Imago Technologies GmbH · Strassheimer Str. 45, 61169 Friedberg, Germany, Tel: +49 6031 684 26 11, info.itf@imago-technologies.com, www.imago-technologies.com

Integrator

Imess GmbH · Stockumer Str. 28, 58453 Witten, Germany, Tel: +49 2302 968 880, info@imess.com, www.imess.com

#### Distributor, Producer, Solution Provider

IMM Photonics GmbH · Ohmstr. 4, 85716 Unterschleißheim, Germany, Tel: ++49 89 321 412 0, sales@imm-photonics.de, www.imm-photonics.de

#### Producer

Impuls Imaging GmbH · Schlingener Str. 4, 86842 Türkheim, Germany, Tel: +49 8245 774 96 00, info@impuls-imaging.com, www.impuls-imaging.com

#### Solution Provider

In-Situ GmbH · Mühlweg 2c, 82054 Sauerlach / München, Germany, Tel: +49 8104 909 600, vision@in-situ.de, www.in-situ.de

#### Producer

Infinity Photo-Optical GmbH · Hans-Böckler-Str. 10a, 37079 Göttingen, Germany, Tel: +49 551 499 570, info@infinity-de.com, www.infinity-de.com

#### Media

inspect · Boschstr. 12, 69469 Weinheim, Germany, Tel: +49 6201 606 0, industrynews@wiley.com, www.wileyindustrynews.com

#### Solution Provider

Intenta GmbH · Ahornstr. 55, 9112 Chemnitz, Germany, Tel: +49 371 24354 0, info@intenta.de, www.intenta.de/en

#### Integrator, Solution Provider

**loss GmbH** · Fritz-Reichle-Ring 18, 78315 Radolfzell, Germany, Tel: +49 7732 982 79 60, info@ioss.de, www.ioss.de

#### Producer

Ircam GmbH · Nürnberger Str. 71, 91052 Erlangen, Germany, Tel: +49 9131 970 09 80, info@ircam.de, www.ircam.de

#### Distributor, Producer, Solution Provider

IS - Imaging Solutions GmbH · Arbachtalstr. 6, 72800 Eningen, Germany, Tel: +49 7121 680 85 31, info@imaging-solutions.de, www.imaging-solutions.de

#### Solution Provider

The Isra group develops, produces and markets intelligent systems for industrial image processing using application-specific modular standard software solutions for surface inspection, robot guidance and quality control. Isra has focused on the

automotive, general industries and food & packaging markets and offers surface inspection solutions for the glass, display glass, solar industry, plastics, films, nonwovens, print, printed electronics, paper, specialty paper and metal markets.

Isra Vision AG · Industriestr. 14, 64297 Darmstadt, Germany, Tel: +49 6151 948 0, info@isravision.com, www.isravision.com

#### Integrator

Isys Vision GmbH & Co. KG · Gundelfinger Str. 2, 79108 Freiburg, Germany, Tel: +49 761 790 950, info@isys-vision.de, www.isys-vision.de

#### Research Facility

Interdisciplinary Center for Scientific Computing at Heidelberg University develops computational methods that enable trail-blazing applications. Their work transcends the boundaries of disciplines or faculties, and bridges scientific cultures from engineering to the humanities.

The IWR is organizing the Heidelberg Image Processing Forum: www. bv-forum.de since 1995. This forum became the leading continuous education event and contact forum between industry and research in Germany in the field of image processing.

#### **IWR Heidelberg University Mathematikon**

Berliner Straße 43, 69120 Heidelberg, Germany, wissrech@iwr.uni-heidelberg.de, typo.iwr.uni-heidelberg.de

#### Integrator

J-Vision GmbH · Marktplatz 3, 66687 Wadern, Germany, Tel: +49 6871 920 13 81, info@jj-vision.de, www.jj-vision.de

#### Producer

JAI is a global manufacturer of digital cameras for machine vision, traffic imaging, global security, medical imaging and scientific research. Besides a broad range of leading-edge 1-CMOS progressive area scan and line scan cameras, JAI is a leading provider of multi-imager cameras incorporating advanced prism-block technology,

including 3-CMOS RGB area scan cameras, 2-CMOS multi-spectral cameras plus a complete family of 3-CMOS/ 4-CMOS line scan cameras. JAI's product program includes cameras for visible, UV, NIR and SWIR imaging with GigE Vision, USB3 Vision, CoaXPress, Camera Link and SFP+ interfaces.

JAI – Germany · Industriering 7, 63868 Grosswallstadt, Germany Tel: +49 6022 261 500, camerasales.emea@jai.com, www.jai.com

#### Integrator, Machine Builder/OEM, Producer, Solution Provider

lenoptik Optical Systems GmbH · Goeschwitzer Str. 25, 7745 lena, Germany, Tel: +49 3641 653 083, digitalimaging.os@jenoptik.com, www.jenoptik.com/digitalimaging

#### Producer

Jenoptik Polymer Systems GmbH · Am Sandberg 2, 7819 Triptis, Germany, Tel: +49 36482 45 0, sales-oes.os@jenoptik.com, www.jenoptik.com/oes

Jos. Schneider Optische Werke GmbH is a worldwide recognised manufacturer of high-performance lenses and filters as well as optical and mechanical components for industrial applications. With excellent optical and mechanical properties, Schneider-Kreuznach products suit perfectly to industrial demands.

The standard product range includes: C-Mount lenses (Compact), Unifoc lenses (V-Mount, Macro), Lenses for large sensors, (Xenon-Emerald), Industrial filters (Band-, Long- and Shortpasses, Polarizers). Schneider-Kreuznach also provides customised solutions for OEM projects.

Jos. Schneider Optische Werke GmbH · Ringstr. 132, 55543 Bad Kreuznach, Germany, Tel: +49 671 601 0, industrie@schneiderkreuznach.com, www.schneiderkreuznach.com

Kamera Werk Dresden Optronics GmbH · Bismarckstr. 57, 1257 Dresden, Germany, Tel: +49 351 280 60, info@kwdo.de, www.kwdo.de

#### Producer, Solution Provider

Kappa has over 40 years of experience with application-specific cameras and vision systems in rugged and certifiable design. The focus is on cameras and vision systems for the business areas Defense, Aviation and Vision Solutions / Automotive. The company offers vision solutions for day and night operations, ensuring maximum performance of higher-level systems. The solutions are especially suitable for safety-critical applications. Kappa provides on-site consulting, dynamic project management, and a highly experienced development team.

Kappa optronics GmbH · Kleines Feld 6, 37130 Gleichen, Germany, Tel: +49 5508 974 0, info@kappa-optronic.com, www.kappa-optronics.com

#### Integrator, Solution Provider

Kdorf Automation · Industriering Ost 66, 47906 Kempen, Germany, Tel: +49 2152 894 80 33, kontakt@kdorf.de, www.kdorf.de

Keyence Deutschland GmbH · Siemensstr. 1, 63263 Neu-Isenburg, Germany, Tel: +49 6102 368 90, info@keyence.de, www.keyence.de

#### Producer

Klastech GmbH · Konrad-Adenauer-Allee 11, 44263 Dortmund, Germany, Tel: +49 231 477 306 48, info@klastech.com, www.klastech.com

#### Manufacturer / Producer

K | Lens GmbH · Am Römerkastell 4, 66121 Saarbrücken, Germany, Tel: +49 176 84 31 42 76, matthias.schmitz@k-lens.de, www.industrial.k-lens.de

Körber Pharma GmbH · Anckelmannsplatz 1, 20537 Hamburg, Germany, Tel: ++49 40 21107 05, info.ph@koerber.com, www.koerber-pharma.com

#### Producer

Kontron · Oskar-von-Miller-Str. 1, 85386 Eching, Germany. Tel: +49 8165 777 77, sales@kontron.com, www.kontron.com

#### Producer

Kowa Optimed is part of Kowa Company Limited, one of the largest privately owned companies in Japan. Founded in 1894, Kowa has grown into a multinational Japanese company actively engaged in various manufacturing and trading activities in the fields of optics, pharmaceutical, life science, textiles and various consumer products.

For the optical division, Kowa Optimed Deutschland GmbH serves the European market from Düsseldorf. A small, dedicated team of lens professionals provides sales and technical support for the European market.

Kowa Optimed Deutschland GmbH · Fichtenstr. 123, 40233 Düsseldorf, Germany, Tel: +49 211 542 18 40, info@kowaoptimed.com, www.kowa-lenses.com

#### Media

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LAP GmbH Laser Applikationen · Zeppelinstr. 23, 21337 Lüneburg, Germany, Tel: +49 4131 951 195, info@lap-laser.com, www.lap-laser.com

#### Distributor, Producer

Laser 2000 GmbH · Argelsrieder Feld 14, 82234 Wessling/Munich, Germany, Tel: +49 8153 405 0, info@laser2000.de, www.laser2000.de

#### Distributor. Producer

Laser Components GmbH · Werner-von-Siemens-Str. 15, 82140 Olching, Germany, Tel: +49 8142 286 40, info@lasercomponents.com, www. lasercomponents.com

#### Producer

LaserTechs e.K. · Muehlstr. 100, Industriepark, 63741 Aschaffenburg, Germany, Tel: +49 6021 369 71 70, vision@lasertechs.de, www.lasertechs.de

#### Producer

LayTec AG · Seesener Str. 10-13, 10709 Berlin, Germany, Tel: +49 30 398 008 00, info@laytec.de, www.laytec.de

#### Producer

Leica Geosystems AG Metrology Products
Moenchmattweg 5, 5035 Unterentfelden, Switzerland, Tel: +41 62 737 67 67, info.metrology@leica-geosystems.com, www.leica-geosystems.com/metrology

#### Producer

Leica Microsystems · Ernst-Leitz-Str. 17-37, 35578 Wetzlar, Germany, Tel: +49 6441 294 000, sales.germany@leica-microsystems.com, www.leica-microsystems.com

LEJ - Lighting & Electronics Jena · Stockholmer Str. 5, 7747 Jena, Germany, Tel: +49 3641 353 00, info@lej.de, www.lej.de

#### Producer

Lemo SA · 28 champs courbes, 1024 Ecublens, Switzerland, Tel: +41 21 695 16 00, info@lemo.com, www.lemo.com

#### Distributor, Producer

Lensation GmbH · Unterer Dammweg 12, 76149 Karlsruhe, Germany, Tel: +49 721 754 04 50, info@lensation.de, www.lensation.de

#### Producer

Leuze electronic · In der Braike 1, 73277 Owen/Teck, Germany, Tel: +49 7021 573 0, info@leuze.de, www.leuze.de

#### Producer

Lucid Vision Labs, Inc. designs and manufactures innovative machine vision cameras and components that utilize the latest technologies to deliver exceptional value to customers. The compact, high-performance GigE Vision cameras are suited for a wide range of industries and appli-

cations such as factory automation, medical, life sciences and logistics. The company innovates dynamically to create products that meet the demands of machine vision for Industry 4.0.

**Lucid Vision Labs GmbH** · Renntalstr. 14, 74360 llsfeld, Germany, Tel: +49 7062 976 76 12, sales.emea@thinklucid.com, thinklucid.com

Producer

M-u-t AG · Am Marienhof 2, 22880 Wedel, Germany, Tel: +49 4103 930 80, info@mut-group.com, www.mut-group.com

Solution Provider

Mabri.Vision GmbH · Dennewartstr. 25-27, 52068 Aachen, Germany, Tel: +49 2415 652 79 30, info@mabri.vision, www.mabri.vision

Distributor

MachineVision-Shop GmbH · Angermühlstr. 19, 82544 Egling, Germany, Tel: +49 8176 219 30 85, sales@mv-shop.com, www.mv-shop.com

Consultant, Integrator, Research Facility, Solution Provider

Math & Tech Engineering GmbH · Robert-Bosch-Str. 6/1, 72654 Neckartenzlingen, Germany, Tel: +49 7127 958 350, sales@mathtech.de, www.mathtech.eu

#### Distributor

MaxxVision's customers benefit from an outstanding variety of cameras, lenses and LED illumination from the world's leading manufacturers. Maxx-Vision is one of the major suppliers of machine vision components, offering an extensive choice of high perfor-

mance cameras equipped with CMOS / CCD sensors and high-end camera interfaces such as USB3 Vision, GigE Vision or CoaXPress. Our large lens portfolio offers various entocentric and telecentric lenses for the majority of sensor sizes and resolutions.

MaxxVision GmbH · Sigmaringer Str.121, 70567 Stuttgart, Germany, Tel: +49 711 997 99 63, info@maxxvision.com, www.maxxvision.com

Producer

MBJ Imaging GmbH · Jochim-Klindt-Straße 7, 2926 Ahrensburg, Germany, Tel: +49 4102 778 90 32, sales@mbj-imaging.com, www.mbj-imaging.com

#### Solution Provider

The startup Medabsy UG (Germany) provides an online platform for creating digital twins of machine vision systems, making it possible to solve image processing projects before having access to the required hardware. This involves inserting optical components (cameras, lighting, lenses etc.)

from a digital catalogue, as well as the 3D file of the object to be measured into the 3D-editor. The software then generates photorealistic images from the camera perspective, which can then be used for algorithmic image processing.

 $\begin{tabular}{l} \textbf{Medabsy UG} \cdot Speisemarkt 8, 84130 Dingolfing, Germany, Tel: +49 157 783 311 96, info@medabsy.com, medabsy.eu \\ \end{tabular}$ 

#### Distributor

More then 20 years of experience in complex optical, electrical, FPGA-as software-engineering and project

planning, administration and integration are ready to help you on your way up.

MEV Verwaltungs GmbH · Sudetenstraße 10, 86956 Schongau, Germany, Tel: +49 8861 200164, www.mevg.org

Distributor

MG Optical Solutions GmbH · Industriestr. 23, 86919 Utting/Ammersee, Germany, Tel: +49 8806 534 32 55, contact@mgopticalsolutions.com, www.mgopticalsolutions.com

Machine Builder/OEM, Producer

Micro-Epsilon Messtechnik GmbH & Co. KG · Königbacher Str. 15, 94496 Ortenburg, Germany, Tel: +49 8542 168 0, info@micro-epsilon.com, www.micro-epsilon.com Producer

Mikromak Service · Bernhard-Lichtenberg-Str. 10, 10407 Berlin, Germany, Tel: +49 30 420 224 02, info@mikromak.com, www.mikromak.com

#### Distributor, Producer

Mikrotron GmbH provides a full range of high-end imaging solutions for challenging applications in industry, engineering, science and sports. The company develops, produces, and markets digital high-speed cameras, image processing components, and high-speed recording systems for production, research and devel-

opment worldwide. Mikrotron's slow-motion recording enables customers to optimize manufacturing processes, improve product design, revolutionize quality management and analyze motion. The company is part of the Lakesight Technologies group.

Mikrotron GmbH · Landshuter Str. 20-22, 85716 Unterschleißheim, Germany, Tel: +49 89 726 342 00, info@mikrotron.de, www.mikrotron.de

#### Producer

Mitsubishi Electric Contact Image Sensors (CIS) provide an optimum solution for the design of compact, high-speed optical image readers. With a 20-year history in the development

and manufacturing of CIS, Mitsubishi Electric offers its long experience and self-developed, dedicated key components to meet all its customers' needs.

Mitsubishi Electric · Mitsubishi-Electric-Platz 1, 40882 Ratingen Germany, pr@meg.mee.com, emea.mitsubishielectric.com/fa

Producer

Mitutoyo Messgeräte GmbH · Borsigstr. 8-10, 41469 Neuss, Germany, Tel: +49 2137 102 0, info@mitutoyo.de, www.mitutoyo.de

Duadusan

Moeller-Wedel Optical GmbH · Rosengarten 10, 22880 Wedel, Germany, Tel: +49 4103 937 76 10, info@moeller-wedel-optical.com, www.moeller-wedel-optical.com

#### Consultant, Integrator, Machine Builder/OEM, Solution Provider

MT-Vision GmbH · Am Stadtholz 24 - 26, 33609 Bielefeld, Germany, Tel: +49 5219 629 63 42, info@mt-vision.de, www.mt-vision.de

#### Solution Provider

Murrelektronik is leading in development and manufacturing of automation solutions and technologies. More than 3,000 specialists in 50 countries work on innovations for network technologies, I/O systems, safety devices, high-performance power supplies as

well as efficient and economical system solutions for the integration of vision systems. Murrelektronik consistently focuses on the decentralization of components and enables users highly efficient signal and data management.

Murrelektronik GmbH · Falkenstraße 3, 71570 Oppenweiler, Germany, Tel: +49 7191 47-0, info@murrelektronik.de, www.murrelektronik.com

#### Producer

MVTec Software GmbH is a leading international manufacturer of software for machine vision used in all demanding areas of imaging like the semi-conductor industry, inspection, optical quality control, metrology, medicine, or surveillance. In par-

ticular, software by MVTec enables new automation solutions in settings of the Industrial Internet of Things. MVTec is the developer and vendor of the general purpose machine vision software products Halcon and Merlic.

MVTec Software GmbH · Arnulfstr. 205 , 80634 München, Germany, Tel: +49 89 457 69 50, info@mvtec.com, www.mvtec.com

#### Integrator, Producer, Solution Provider

NanoFocus AG · Max-Planck-Ring 48, 46049 Oberhausen, Germany, Tel: +49 208 620 000, info@nanofocus.de, www.nanofocus.com

Producer

National Instruments Germany GmbH · Ganghoferstr. 70 b, 80339 München, Germany, Tel: +49 89 741 31 30, info.germany@ni.com, www.ni.com/vision

#### Machine Builder/OEM, Solution Provider

Nela Brüder Neumeister GmbH · Gottlieb-Daimler-Str. 15, 77933 Lahr, Germany, Tel: +49 7821 580 80, dominik\_uhl@nela.de, www.nela.de

#### Solution Provider

Neogramm GmbH & Co. KG · Julius-Hatry-Str. 1, 68163 Mannheim, Germany, Tel: +49 621 150 20 50, info@neogramm.de, www.neogramm.de

#### Producer

Nerian Vision GmbH · Zettachring 2, 70567 Stuttgart, Germany, Tel: +49 711 219 594 14, info@nerian.com, nerian.com

#### Producer, Solution Provider

NeuroCheck GmbH · Neckarstr. 76/1, 71686 Remseck, Germany, Tel: +49 7146 895 60, sales@neurocheck.com, www.neurocheck.com

#### Machine Builder/OEM

#### Nikka Research Deutschland GmbH

Friedrich-List-Str. 20, 70771 Leinfelden-Echterdingen, Germany, Tel: +49 711 160 89 20, h-kounev@nikka-research.com, www.nikka-research.com

#### Producer

Nikon Metrology GmbH · Siemensstr. 24, 63755 Alzenau, Germany, Tel: +49 6023 917 330, sales\_germany@nikonmetrology.com, www.nikonmetrology.com

#### Distributor

With a broad spectrum, which includes all components necessary for image processing, the Notavis GmbH addresses customers with its own image processing department, like e.g. large engineering companies

(OEMs), the manufacturing industry (automotive and supplier industry, automation and system suppliers) and integrators. The portfolio includes industrial cameras, image processing software, IPC and other components.

Notavis GmbH · Ottostr. 2, 76275 Ettlingen, Germany, Tel: +49 151 296 095 28, thomas.schweitzer@notavis.com, www.notavis.com

#### Solution Provider

**OBE Ohnmacht & Baumgärtner GmbH & Co. KG** · Turnstr. 22, 75228 Ispringen, Germany, Tel: +49 7231 802 0, trevista@obe.de, www.trevista.net

#### Producer, Solution Provider

As Ocean Insight, we bring application-specific expertise, services, and solutions to define and solve important challenges across multiple industries and disciplines. We invite you to explore our integrated approach to customer need. We call it Applied Spectral Knowledge (ASK) - innovative spectroscopy hardware, software, and on-demand data delivery backed by deep category expertise. More simply, we're turning spectra into answers.

Ocean Insight a brand of Ocean Optics B.V. · Maybachstr. 11, 73760 Ostfildern, Germany, Tel: +49 711 341 69 60, info@oceaninsight.com, www.oceaninsight.com

#### Integrator

Octum GmbH · Renntalstr. 16, 74360 llsfeld, Germany, Tel: +49 7062 914 940, info@octum.de, www.octum.de

#### Producer

Olympus Europa SE & Co. KG · Wendenstr. 14-18, 20097 Hamburg, Germany, Tel: +49 40 237 730, microscopy@olympus-europa.com, www.microscopy.olympus. eu

#### Integrator

Omni Control Prüfsysteme GmbH · In der Spöck 10, 77656 Offenburg, Germany, Tel: +49 781 991 412, mail@omni-control.de, www.omni-control.de

#### Producer

Opsira GmbH · Leibnizstr. 20, 88250 Weingarten, Germany, Tel: +49 7515 618 90, info@opsira.de, www.opsira.de

#### Manufacturer / Producer

**OPT Machine Vision GmbH** · Hallesche Str. 2, 10963 Berlin, Germany, Tel: +49 71144708961, www.optmv.de

#### Solution Provider

Opto develops and manufactures customized, optoelectronic modules, optical components and systems for the industrial and biomedical markets. With its own facilities in Germany, France, the UK and Asia, Opto is a globally recognised solution provider, able to support

customers from around the globe. Through its deep application knowledge, Opto provides its clients with special optomechanical solutions that are reduced to the essentials of the application and perfectly cost optimised.

Opto GmbH · Lochhamer Schlag 14, 82166 Gräfelfing, Germany, Tel: +49 89 898 05 50, info@opto.de, www.opto.de

#### Producer

OptoPolymer · Königsteinstr. 12, 80807 München, Germany, Tel: +49 89 356 571 83, info@optopolymer.de, www.optopolymer.de

#### Machine Builder/OEM

OptoSurf GmbH · Nobelstr. 9-13, 76275 Ettlingen, Germany, Tel: +49 7243 766 013, info@optosurf.com, www.optosurf.com

#### Manufacturer/Producer

Optotune develops and manufactures industry shaping active optical components that allow customers around the globe to innovate. Founded in 2008, the company started out with its core technology of focus tunable lenses, which was

inspired by the working principle of the human eye. Laser speckle reducers, 2D mirrors, tunable prisms and beam shifters are further additions to the product lines.

Optotune Switzerland AG · Bernstrasse 388, 8953 Dietikon, Switzerland, Tel: +41 58 856 3000, sales@optotune.com, optotune.com

#### Producer

Optris GmbH · Ferdinand-Buisson-Str. 14, 13127 Berlin, Germany, Tel: +49 30 500 19 70, sales@optris.com, www.optris.com

#### Producer

Optronis develops, manufactures and distributes streak cameras and highspeed video cameras for scientific and industrial applications. Our highend cameras can be used to capture ultra-fast phenomena. Our primary goal: to provide our customers with innovative solutions for fast optical measurements.

Optronis GmbH · Ludwigstr. 2, 77694 Kehl, Germany, Tel: +49 7851 912 60, info@optronis.com, www.optronis.com

#### Producer

Osela Europe GmbH • Tradweg 11, 82395 Obersöchering, Germany, Tel: +49 8847 698 459, europe@osela.com, www.osela.com

#### Producer

Otto Vision Technology GmbH · Im Steinfeld 3, 7751 Jena, Germany, Tel: +49 3641 671 50, info@otto-jena.de, www.otto-jena.de

#### Producer, Solution Provider

Panasonic Electric Works Europe AG · Rudolf-Diesel-Ring 2, 83607 Holzkirchen, Germany, Tel: +49 8024 648 0, info.peweu@eu.panasonic.com, www.panasonic-electric-works.de

#### Producer

Panasonic System Communication Company Europe
Winsbergring 15, 22525 Hamburg, Germany, Tel: +49 40 854 928 35,
info.medicalvision@eu.panasonic.com, business.panasonic.co.uk/imv

#### Consultant, Integrator

Parkvi GmbH · Am Mittleren Moos 48, 86167 Augsburg, Germany, Tel: +49 821 650 729 33, info@parkvi.de, www.parkvi.de

#### Machine Builder/OEM

Paul Leibinger GmbH · Daimlerstr. 14, 78532 Tuttlingen, Germany, Tel: +49 7461 928 60, sales@leibinger-group.com, www.leibinger-group.com

#### Consultant, Solution Provider, Other

Perception Park GmbH · Wartingergasse 42, 8010 Graz, Austria, Tel: +43 316 931 269 100, info@perception-park.com, www.perception-park.com

#### Solution Provider

Pharmacontrol Electronic GmbH · Harzstr. 1, 64646 Heppenheim, Germany, Tel: +49 6252 673 60, mtpce.info@mt.com, www.mt.com/pce

#### Producer

Phenix Optics Co. Ltd. is a renowned professional optical manufacturer and service provider offering fully vertically integrated, 100 percent in-house manufacturing and processing. The range of services includes glass and metal processing, as well as the design and manufacture of

finished optical products. The company's products are used in a wide range of applications including VR/AR, home appliances, industrial ToF, automotive ADAS and LiDAR, infrared, Machine Vision, glass and metal components.

Phenix Optical Co., Ltd. · European Branch office, Erlanger Straße 9, 91083 Baiersdorf, Germany, Tel: +49 9133 47 33 880, ge@phenixoptics.com.cn, www.phenixoptics.com.cn/en

#### Integrator, Solution Provider

phil-vision GmbH is a specialist for machine and computer vision. Based on many years of experience the company develops clever, customised solutions for demanding machine vision applications for a wide variety of industries and tasks.

As manufacturer-independent system integrator phil-vision supports users comprehensively when knowhow or time is missing. Together they develop an idea, check the feasibility, estimate the cost, and support the solution design.

Phil-vision GmbH · Zeppelinstr. 5, 82178 Puchheim, Germany, Tel: +49 89 1250943 50, info@phil-vision.com, www.phil-vision.com

#### Producer

Photonfocus AG · Bahnhofplatz 10, 8853 Lachen, Switzerland, Tel: +41 55 451 00 00, sales@photonfocus.com, www.photonfocus.com

#### Producer, Solution Provider

Phytec Messtechnik GmbH · Robert-Koch-Str. 39, 55129 Mainz, Germany, Tel: +49 6131 922 10, info@phytec.de, www.phytec.de

#### Integrator, Solution Provider

Pi4\_robotics GmbH · Gustav-Meyer-Allee 25, 13355 Berlin, Germany, Tel: +49 30 700 969 40, sales@pi4.de, www.pi4.de

#### Producer

Piezosystem Jena GmbH · Stockholmer Str. 12, 7747 Jena, Germany, Tel: +49 3641 668 80, info@piezojena.com, www.piezosystem.com

#### Producer

**Planistar Lichttechnik GmbH** · Wiesenweg 4, 97267 Himmelstadt, Germany, Tel: +49 9364 806 00, info@planistar.de, www.planistar.de

#### Consultant, Distributor, Producer, Solution Provider

Plasmo Industrietechnik GmbH · Dresdner Str. 81-85, 1200 Vienna, Austria, Tel: +43 1 236 260 70, sales@plasmo.eu, www.plasmo.eu

#### Producer

POG Präzisionsoptik Gera · Gewerbepark Keplerstr. 35, 7549 Gera, Germany, Tel: +49 365 773 930, info@pog.eu, www.pog.eu

#### Distributor

Polytec GmbH · Polytec-Platz 1-7, 76337 Waldbronn, Germany Tel: +49 7243 604 18 00, info@polytec.de, www.polytec.com

#### Producer

Präzisions Glas & Optik GmbH · Im Langen Busch 14, 58640 Iserlohn, Germany, Tel: +49 2371 776 790, info@pgo-online.com, www.pgo-online.com

#### Producer. Solution Provider

Precitec is the specialist for laser material processing and optical measuring technology. What does this mean? The company is not just a system and component supplier, but also a professional partner for smooth processing. It will develop sound and well-defined solutions together with the customer that match their needs and objectives.

Precitec Vision GmbH & Co. KG · Rotfarb 4, 8413 Neftenbach, Switzerland, info@precitec.ch, www.precitec.ch

#### Integrator

PreML is a High-Tech Startup from the Black Forest and develops automatic visual quality inspection systems with artificial intelligence (AI). With a strong computer science background, the company has created a software environment from which it can quickly

design customized inspection solutions. The majority of the customers are in the construction industry but there are also customers from a wide range of industries. The company was established in 2020.

PreML GmbH · Breitmatten 36, 77933 Lahr, Germany, Tel: +49 (0) 7821 980 11 69, contact@preml.io, www.preml.io

#### Producer

Pro Design Electronic GmbH · Albert-Mayer-Str. 14-16, 83052 Bruckmühl, Germany, Tel: +49 171 303 47 52, frank.eckardt@prodesign-europe.com, www.prodesign-europe.com

#### Producer, Research Facility, Solution Provider

Profactor GmbH · Am Stadtgut A2, 4407 Steyr, Austria, Tel: +43 7252 885 0, maria.fuehrlinger@profactor.at, www.profactor.at

#### Producer, Solution Provider

ProxiVision GmbH · Stubenwald-Allee 16, 64625 Bensheim, Germany, Tel: +49 6251 170 30, info@proxivision.de, www.proxivision.de

#### Producer

**Pyramid Computer GmbH** · Bötzingerstr. 60, 79111 Freiburg, Germany, Tel: +49 761 451 47 92, sales@pyramid.de, www.pyramid.de

#### Producer

Qioptiq is part of Excelitas Technologies Corp., a global technology leader focused on delivering innovative, high-performance, market-driven photonic solutions to meet the lighting, detection and optical technology needs of global customers. From biomedical technology to research laboratory, safety and security, consumer products, sem-

iconductor, energy and environment, industrial sensing & imaging, defense and aerospace we are committed to enabling our customers' success in their end-markets. With approximately 6,500 employees in North America, Europe and Asia, Excelitas and Qioptiq serving customers across the world.

Qioptiq Photonics GmbH & Co. KG · Königsallee 23, 37081 Göttingen, Germany, Tel: +49 551 693 50, sales@qioptiq.de, www.qioptiq.de

#### Solution Provider

Quiss AG · Lilienthalstr. 5, 82178 Puchheim, Germany, Tel: +49 89 894 590, info@quiss.com, www.quiss.com

#### Distributor

Rauscher GmbH is a leading distributor for all imaging components, including software, area- and linescan cameras, frame grabbers, image-processing boards, smart cameras, embedded systems, optics, lighting and accessories. Rauscher GmbH combines distribution with high engineering competence. This enables all customers to efficiently develop and market their vision system.

Rauscher GmbH · Johann-G.-Gutenberg-Str. 20, 82140 Olching, Germany, Tel: +49 8142 448 410, info@rauscher.de, www.rauscher.de

#### Integrator, Machine Builder/OEM, Solution Provider

RBC Fördertechnik GmbH · Dieselstr. 5, 65520 Bad Camberg, Germany, Tel: +49 6434 207 910, info@rbc-robotics.de, www.rbc-robotics.de

#### Producer

Rheintacho Messtechnik GmbH · Waltershofener Str. 1, 79111 Freiburg Germany, Tel: +49 761 451 30, info@rheintacho.de, www.rheintacho.com

#### Producer

#### Ricoh International B.V. - German Branch

Oberrather Str. 6, 40472 Düsseldorf, Germany, Tel: +49 211 654 645 00, iosd@ricoh-europe.com, www.ricoh-iosd.eu

#### Producer

'Eyes and Brains for Your Robot': Roboception is a leading provider of intelligent robot vision platforms and systems. The Munich-based company enables robots to see and think, thus providing key elements for flexible automation solutions in Industry 4.0. With stereo sensors and software solutions based on applied AI, Roboception supports integrators and end users in creating innovative automation solutions for the future-oriented use of robots in production and logis-

Roboception GmbH · Kaflerstraße 2, 81241 Munich, Germany Tel: +49 89 8895 079 0, info@roboception.de, roboception.com

#### Integrator

Rohwedder AG · Kesselbachstr. 1, 88697 Bermatingen, Germany, Tel: +49 7544 502 100, michael.stoecker@rohwedder.com, www.rohwedder.com

#### Distributor

Rubroeder GmbH Factory Automation · Theodor-Neizert-Str. 1, 56170 Bendorf, Germany, Tel: +49 2622 943 730, info@rubroeder.de, www.rubroeder.de

#### Solution Provider

SAC Sirius Advanced Cybernetics GmbH An der RaumFabrik 33b, 76227 Karlsruhe, Germany, Tel: +49 721 605 430 00, info@sac-vision.de, www.sac-vision.de

#### Distributor

Schaefer Technologie GmbH · Robert-Bosch-Str 31, 63225 Langen, Germany, Tel: +49 6103 300 980, info@schaefer-tec.com, www.schaefer-tec.com

#### Producer

Schäfter + Kirchhoff GmbH · Kieler Str. 212, 22525 Hamburg, Germany, Tel: +49 40 853 99 70, info@sukhamburg.de, www.sukhamburg.de

#### Distributor, Integrator, Solution Provider

Schoenherr Elektronik GmbH · Tuchschererstr. 6, 9116 Chemnitz, Germany, Tel: +49 3726 790 50, info@schoenherr-elektronik.com, www.schoenherr-elektronik.com

Schölly Micro Optics GmbH · An der Amtmannsmühle 11, 35444 Biebertal, Germany, Tel: +49 6409 661 100, info@schoelly-microoptics.de, www.schoelly-microoptics.de

#### Producer

Schott AG Lighting and Imaging · Otto-Schott-Str. 2, 55127 Mainz, Germany, Tel: +49 6131 667,752, lightingimaging@schott.com, www.schott.com/lightingimaging

#### Producer

Seiwa Optical Europe GmbH · Werrastr, 6, 60486 Frankfurt/Main, Germany, Tel: +49 69 740 878 47, info@seiwaeurope.com, www.seiwaeurope.com

#### Producer

SensoPart Industriesensorik GmbH · Nägelseestr. 16, 79288 Gottenheim, Germany, Tel: +49 7665 947 690, info@sensopart.de, www.sensopart.de

#### Producer

Sensor to Image is the world leader in industrial camera interface IP supporting GigEVision, USB3-Vision and CoaXPress with more than 150 customers around the world. Sensor to Image is serving the technical committees of GigEVision & USB3 vision and GenlCam for more than 10 years, and coauthoring the Coax-Press standard for 5 years. Sensor to Image solutions minimize camera and embedded system development time while offering high performance in a small footprint.

Sensor to Image GmbH · Lechtorstr. 20, 86956 Schongau, Germany, Tel: +49 8861 236 90, sales.europe@euresys.com, www.euresys.com/en/About-us/About-Sensor-to-Image

#### Integrator, Solution Provider

senswork GmbH · Gewerbepark Lindach D 3, 84489 Burghausen, Germany, Tel: +49 8677 40 99 580, www.senswork.com

#### Integrator, Solution Provider

Seritec GmbH · Gottlieb-Keim-Str. 60, 95448 Bayreuth, Germany, Tel: +49 921 990 093 30, info@seritec.de, www.seritec.de

#### Machine Builder/OEM

Sglux GmbH · Richard-Willstätter-Str. 8, 12489 Berlin, Germany, Tel: +49 30 530 152 11, welcome@sglux.de, www.sglux.com

#### Producer

Shape Drive GmbH · Bindingstr. 11, 82131 Stockdorf, Germany Tel: +49 89 454 612 46, info@shape-drive.com, www.shape-drive.com

#### Producer

Sharp Microelectronics Europe · Sonninstr. 3, 20097 Hamburg, Germany, Tel: +49 40 237 60, info.sme@sharp.eu, www.sharpsme.com

#### Producer

Sick is one of the world leading suppliers of Industrial Sensors and Safety solutions. Sick provides industrial vision cameras for factory and logistics automation. The product line includes Vision Sensors, Smart

Cameras, Code readers, Accessories and Cameras for high speed 3D Machine Vision. Target customers are Machine Builders, System Integrators and End Users.

Sick AG · Erwin-Sick-Str. 1, 79183 Waldkirch, Germany, Tel: +49 7681 202 0, bildverarbeitung@sick.de, www.sick.com

#### Producer

#### Siemens AG Process Industries and Drives Gleiwitzer Str. 555, 90475 Nürnberg, Germany,

Tel: +49 911 895 0, simatic-ident.i-ia@siemens.com, www.siemens.de/ident

#### Solution Provider

Signum Computer GmbH · Lena-Christ-Str. 50, 82152 Planegg-Martinsried, Germany, Tel: +49 89 547 05 50, sales@signum-vision.de, www.signum-vision.de

#### Producer

Sill Optics GmbH & Co. KG · Johann-Höllfritsch-Str. 13, 90530 Wendelstein, Germany, Tel: +49 9129 902 30, info@silloptics.de, www.silloptics.de

#### Solution Provider

Simon IBV GmbH · Bayreuther Str. 5b, 95494 Gesees, Germany, Tel: +49 9201 917 420, info@simon-ibv.de, www.simavis.de

#### Producer. Solution Provider

Smartray GmbH · BGM-Finsterwalder-Ring 12, 82515 Wolfratshausen, Germany, Tel: +49 8171 968 34 00, info@smartray.de, www.smartray.de

#### Integrator, Solution Provider

SmartSurv Vision Systems GmbH · Malmsheimer Str. 7, 71063 Sindelfingen, Germany, Tel: +49 7031 304 18 00, info@smartsurv.de, www.smartsurv.de

#### Distributor. Producer

Stemmer Imaging is Europe's largest machine vision technology provider for science and industry. The perfect combination of innovative products, intelligent consulting and extensive service helps our customers solve

their imaging projects with speed and ease. Our experienced specialists are available to you in 19 European countries ensuring easy contact and optimum local consultancy service.

Stemmer Imaging · Gutenbergstr. 9-13, 82178 Puchheim, Germany, Tel: +49 89 809 020, info@stemmer-imaging.de, www.stemmer-imaging.com

#### Machine Builder/OEM

#### Stiefelmayer-Reicherter GmbH & Co. KG

Boschstr. 10, 73734 Esslingen, Germany,

Tel: +49 711 490 469 00, reicherter@stiefelmayer.de, www.stiefelmayer.de

#### Integrator

Stöhrmann Systemtechnik · Im Erlenwäldele 21, 77955 Ettenheim, Germany, Tel: +49 7822 895 203, info@stoehrmann.de, www.stoehrmann.de

#### Producer

Stratec Control Systems · Ankerstr. 73, 75203 Königsbach-Stein, Germany, Tel: +49 7232 400 60, info@bbull.com, www.bbull.com

#### Consultant

#### Strategema | Frank Olschewski Consulting

Ernst-Ludwig-Str. 58, 64625 Bensheim, Germany, Tel: +49 6251 869 78 44, info@stra-te-gema.com, www.stra-te-gema.com

#### Association

Since 2006, Strategische Partnerschaft Sensorik has bundled the existing sensor technology expertise on behalf of the Free State of Bavaria in order to sustainably strengthen the innovative power and future viability of companies and institutions. As a regional network for the industry, we provide operational and strategic support. Our network is made up of over 80 highly innovative companies and institutions. Experts from science, research and development complement this high-tech expertise.

Strategische Partnerschaft Sensorik e.V./Cluster Sensorik Franz-Mayer-Str. 1, 93053 Regensburg, Germany, Tel: +49 941 630 916 13, info@sensorik-bayern.de, www.sensorik-bayern.de

#### Producer

Streppel Glasfaser-Optik oHG · Döllersweg 3, 42929 Wermelskirchen, Germany, Tel: +49 2196 947 060, info@streppel.de, www.streppel.de

#### Producer

#### STZ Qualitaetssicherung & Bildverarbeitung

Werner-von-Siemens-Str. 12, 98693 Ilmenau, Germany, Tel: +49 3677 208 066, stz@stz-ilmenau.de, www.stz-ilmenau.de

#### Producer

SVS-Vistek GmbH – a member of the TKH Group – is an innovative manufacturer of high-quality cameras for industrial image processing for more than 30 years. We are known for state-of-the-art, high-resolution cameras that push the boundaries of what is possible in machine

vision. Our range of products include standard cameras as well as custom designed or modified cameras. We are committed to the highest image quality and use the latest interfaces in our cameras. We offer unique know how and experience in the field of machine vision.

SVS-Vistek GmbH · Ferdinand-Porsche-Str. 3, Gilching, Germany, Tel: +49 8105 39 87 60, info@svs-vistek.com, www.svs-vistek.com

#### Producer

SynView GmbH · Hessenring 83, 61348 Bad Homburg, Germany, Tel: +49 6172 388 000, info@synview.com, www.synview.com

#### We are proud to announce the new super compact M112FM series: The lenses have been developed

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mance with no vignetting and reach a 3.45 micrometer pixel pitch resolution for imagers like IMX250/IMX264.

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Tamron Europe GmbH · Robert Bosch Str. 9, 50769 Köln, Germany, Tel: +49 221 970 32 50, info@tamron.de, www.tamron.eu/de/industrial-optics

#### Producer

Producer

Teledyne Dalsa · Lise-Meitner-Str. 7, 82152 Krailling, Germany, Tel: +49 89 895 457 30, sales.europe@teledynedalsa.com, www.teledynedalsa.com/mv

#### Solution Provider

Tema · Wilhelmstr. 41-43, 58332 Schwelm, Germany, Tel: +49 2336 929 850, info@temavisio.com, www.temavisio.com

#### Manufacturer / Producer

Established in 1990, The Imaging Source is one of the leading manufacturers of industrial cameras, video converters and embedded vision components for factory automation, quality assurance, medicine, science, security and a variety of other markets. Our comprehensive range of

cameras with USB 3, USB 2, GigE, and MIPI interfaces as well as other innovative machine vision products are renowned for their high quality and ability to meet the performance requirements of demanding applications.

The Imaging Source Europe GmbH · Überseetor 18, 28217 Bremen, Germany, Tel: +49 421 335910, www.theimagingsource.com

#### Producer, Solution Provider

Thermosensorik GmbH · Am Weichselgarten 7, 91058 Erlangen, Germany, Tel: +49 9131 691 400, info@thermosensorik.de, www.thermosensorik.de

#### Producer

Tichawa Vision GmbH · Burgwallstr. 14, 86316 Friedberg, Germany, Tel: +49 821 455 55 30, sales@tichawa.de, www.tichawa.de

#### Producer

TriDiCam GmbH · Finkenstr. 61, 47057 Duisburg, Germany, Tel: +49 204 378 329 37, jochen.noell@tridicam.de, www.tridicam.de

#### Machine Builder/OEM

**Trioptics GmbH** · Strandbaddamm 6, 22880 Wedel, Germany, Tel: +49 4103 180 060, sales@trioptics.com, www.trioptics.com

#### Integrator

 $\begin{array}{lll} \textbf{UG Systems GmbH \& Co. KG} \cdot \text{Kronacher Str. 41, 96052 Bamberg, Germany,} \\ \textbf{Tel: +49 951 700 85 80, info@ug-systems.com, www.ug-systems.com} \end{array}$ 

#### Producer. Solution Provider

Unique Vision GmbH · Kleine Bahnstr. 8, 22525 Hamburg, Germany, Tel: +49 40 278 648 50, info@unique-vision.net, www.unique-vision.net

#### University

Apart from industry driven research projects in Photonics and Photonics-related precision measurement and calibration services, University of Applied Sciences of the Grisons Chur

– FHGR offers both a BSc in Photonics as well as a Masters of Advanced Studies (MAS) in Photonics, which are unique in Switzerland.

**University of Applied Sciences of the Grisons Chur – FHGR** Pulvermühlestr. 57, 7000 Chur, Switzerland,

Tel: +41 81 286 24 24, hochschule@fhgr.ch, www.fhgr.ch/en

#### Association

The VDMA Machine Vision Group forms part of the Robotics+ Automation Association within the VDMA Engineering Federation. VDMA Machine Vision currently more than 100 members. Our members are manufacturers and suppliers of machine vision technology and cover customer-specific solutions, system integration, standard systems as well as components.

VDMA Machine Vision · Lyoner Str. 18, 60528 Frankfurt / Main, Germany, vision@vdma.org, vdma.org/machine-vision

Producer

Vialux GmbH · Am Erlenwald 10, 9128 Chemnitz, Germany, Tel: +49 371 334 24 70, info@vialux.de, www.vialux.de

Distributor

Videor E. Hartig GmbH · Carl-Zeiss-Str. 8, 63322 Rödermark, Germany, Tel: +49 6074 888 0, info@videor.com, www.videor.com

Consultant, Integrator, Machine Builder/OEM, Producer, Solution Provider, Other

VisiConsult X-ray Systems & Solutions GmbH

Brandenbrooker Weg 2-4, 23617 Stockelsdorf, Germany, Tel: +49 451 290 28 60, info@visiconsult.de, www.visiconsult.de

Solution Provider

Visicontrol GmbH · Ettishofer Str. 8, 88520 Weingarten, Germany, Tel: +49 751 560 130, info@visicontrol.com, www.visicontrol.com

Machine Builder/OEM, Solution Provider

Visimation GmbH · Arbuchtalstr. 20, 72800 Eningen, Germany, Tel: +49 7121 304 08 00, post@visimation.de, www.visimation.de

Producer



We are a global acting OEM-Supplier of PHOTONICS-based SOLUTIONS. We support leading companies in the field of Metrology, Semiconductor, Glassinspection, Life-siences, Automation and Laser-Processing to bring them to the leading-edge. Our Know-How is characterized by a broad portfolio of technologies grounded on Photonics and the unique nature of Light. A comprehensive Catalog is the Show-Case of our TECHNOLOGY and QUALITY.



Vision & Control GmbH Mittelbergstr. 16

78527 Suhl / Germany Tel.: +49 3681 79 74 0 sales@vision-control.com www.vision-control.com

Media

Vision Communications · Albert-Schäffle-Str. 107, 70186 Stuttgart, Germany, Tel: +49 151 124 285 85, breyer@vision-communications.eu, www.vision-communications.eu

#### Manufacturer / Producer

Vision Components is a leading international manufacturer of embedded vision systems with over 25 years of experience. The product range extends from versatile MIPI camera modules to freely programmable board cameras with ARM/Linux and OEM systems for 2D and 3D

image processing. The company was founded in 1996 by Michael Engel, inventor of the first industrial-grade intelligent camera. VC operates worldwide, with sales offices in the USA and Japan and local partners in over 25 countries.

Vision Components GmbH • Ottostr. 2, 76275 Ettlingen, Germany, Tel: +49 7243 2167-24, info@vision-components.com, www.vision-components.com

#### Producer

Vision Engineering is a global leading-edge manufacturer of unique ergonomic stereo microscopes and non-contact measuring systems. Since its formation in 1958, Vision Engineering has become one of the world's most innovative and dynamic microscope manufacturers, with a global distribution network. The product range includes solutions for almost every inspection and measurement application. Choose unparalleled clarity and precision. Innovative and superior ergonomic designs lead to performance and productivity gains. Quality is the goal! For us and our customers as well. That's the reason why we present to our customer worldwide successful products. The eyepiece-less technology which is implemented in our systems allows a nearly fatigue-free operation with the microscope. More comfort is not possible.





Vision Engineering Ltd. Anton-Pendele-Str. 3 82275 Emmering Germany Tel: +49 8141 401 67 0 Fax: +49 8141 401 67 55 info@visioneng.de www.visioneng.de

#### Consultant

Vision Markets is a Marketing and Management Consulting Company exclusively dedicated to the global Machine Vision industry. Since 2014, many dozens SMEs as well as multi-billion-dollar companies from Japan, China, Vietnam, Europe, Canada, and USA relied on

the services of Vision Markets. The quality of Vision Markets' offerings derives from the technical know-how in imaging technologies, the market expertise built over decades, and the executive management experience of our consultants.

Vision Markets · Ganghoferstr. 13, 82291 Mammendorf, Germany, Tel: +49 89 215 536 65, contact@markets.vision, www.markets.vision

#### Solution Provider

Vision On Line GmbH is a specialist for machine vision and robot technology. The company builds turnkey automation solutions and full functional sub-systems matching users application requirements by combining machine vision, robotics and automation technologies. Close

partnerships with leading technology manufacturers combined with competence and experience are the basis for the work. Vision On Line is technology-open and assures to use the best fitting and most efficient components.

Vision On Line GmbH · Am Pappelried 3, 63505 Langenselbold, Germany, Tel: +49 6184 20 57 780, info@vision-online.eu, vision-online.eu

#### Solution Provider

Vision Tools Bildanalyse Systeme GmbH · Goethestr. 63-65, 68753 Waghäusel, Germany, Tel: +49 7254 935 10, info@vision-tools.com, www.vision-tools.com

www.WileyIndustryNews.com inspect 7/2024 | 33

#### Consultant

Vision Ventures is an independent, internationally operating boutique M&A advisory that focuses on SMEs active in machine vision and optical technologies. Our services cover strategy consulting, identification and improvement of value drivers – especially in preparation

of company transactions –, market-based enterprise valuation and the end-to-end management of sellside and buy-side M&A. For investors we also provide expert opinions on enterprise value, business plan and market environment.

Vision Ventures GmbH & Co. KG • P.O. Box 1148, 64629 Heppenheim, Germany, Germany, Tel: +49 178 175 59 72, www.vision-ventures.eu

Producer

Visiosens GmbH · Hannah-Vogt-Str. 1, 37085 Göttingen, Germany, Tel: +49 551 305 410 80, info@visiosens.de, www.visiosens.de

Integrator, Solution Provider

Visotect GmbH · Heubergstr. 19, 70806 Kornwestheim, Germany, Tel: +49 7154 800 88 61. info@visotect.de. www.visotect.de

Distributor

Vistas GmbH · Freisinger Str. 13, 85737 Ismaning, Germany, Tel: +49 89 929 280 90, info@vistas-gmbh.de, www.vistas-gmbh.de

Producer, Solution Provider

Vitronic Dr.-Ing. Stein Bildverarbeitungssysteme GmbH Hasengartenstr. 14, 65189 Wiesbaden, Germany,

Tel: +49 611 7152 0, sales@vitronic.com, www.vitronic.com

Distributor, Integrator, Producer, Solution Provider

Vizaar AG · Hechinger Str. 152, 72461 Albstadt, Germany, Tel: +49 7432 983 75 0, info@vizaar.de, www.vizaar.de

Distributor

VKT Video Kommunikation GmbH, Technisches Fernsehen

Sandwiesenstr. 15, 72793 Pfullingen, Germany, Tel: +49 7121 979 70, sandrafrueh@vkt.de, www.vkt.de

Solution Provider

VMT Vision Machine Technic Bildverarbeitungssysteme GmbH Mallaustr. 50-56, 68219 Mannheim, Germany,

Mallaustr. 50-56, 68219 Mannheim, Germany, Tel: +49 621 842 500, info@vmt-gmbh.com, www.vmt-gmbh.com

Producer

Volpi AG · Wiesenstr. 33, 8952 Schlieren, Switzerland, Tel: +41 4473 243 43, mail@volpi.ch, www.volpi.ch

Solution Provider

Volume Graphics GmbH · Speyerer Str. 4 - 6, 69115 Heidelberg, Germany, Tel: +49 6221 739 20 60, info@volumegraphics.com, www.volumegraphics.com

Producer

VRmagic Imaging GmbH · Turley-Str. 20, 68167 Mannheim, Germany, Tel: +49 621 400 416 20, info.imaging@vrmagic.com, www.vrmagic-imaging.com

Producer

Waygate Technologies · Robert-Bosch-Str. 3, 50354 Hürth, Germany, Tel: +49 2233 601272, @bakerhughes.com, www.waygate-tech.com

Integrator, Solution Provider

Weber Systemtechnik · Hans-Sachs-Str. 10, 35576 Wetzlar, Germany, Tel: +49 6441 378 040, info@wesys.de, www.wesys.de

Distributor, Integrator, Solution Provider

Weiss Imaging and Solutions GmbH Kohlstattstr. 3, 85235 Odelzhausen, Germany,

Tel: +49 8131 379 80 68, info@weiss-imaging.de, www.weiss-imaging.de

Producer

The wenglor sensoric group develops innovative Machine Vision products, sensors as well as safety systems with intelligent interfaces and software for industries all over the world. Founded in 1983, wenglor is one of the world's key high-tech

providers of automation technology. As a Machine Vision full-service provider, wenglor offers Smart Cameras, Vision Sensors, 2D/3D Profile Sensors, 3D Sensors, Code Scanners, manifold Illumination and Software.

Wenglor Sensoric GmbH · Wenglor Str. 3, 88069 Tettnang, Germany, Tel: +49 7542 539 90, info@wenglor.com, www.wenglor.com

Machine Builder/OEM, Solution Provider

Wenzel Group GmbH & Co. KG · Werner-Wenzel-Str., 97859 Wiesthal, Germany, Tel: +49 6020 201 0, info@wenzel-cmm.com, www.wenzel-cmm.com

Producer

Werth Messtechnik GmbH · Siemensstr. 19, 35394 Giessen, Germany, Tel: +49 641 793 80, mail@werth.de, www.werth.de

Solution Provider

Wickon Hightech s.r.o. · Mezi Zahradami 470, 250 64 Hovorčovice, Czech Republic, Tel: +420 602 424 153, info@wickon.com, www.wickon.com

Producer

WIR electronic GmbH · Muehlenstr. 34-36, 09111 Chemnitz, Germany, Tel: +49 371 404 606 0, wir@wir-electronic.de, www.wir-electronic.de

Solution Provider

Wolf Systeme AG · Südweg 3, 75245 Neulingen, Germany, Tel: +49 7237 486 900, info@wolfsysteme.de, www.wolfsysteme.de

Producer

X-Rite Europe GmbH · Althardstr. 70, 8105 Regensdorf, Switzerland, Tel: +41 44 842 24 00, info-germany@xrite.com, www.xrite.com

Producer

Xapt GmbH · Neidenburger Str. 10, 45897 Gelsenkirchen, Germany, Tel: +49 209 883 07 00, info@xapt-gmbh.de, www.xapt-gmbh.de

Producer

Ximea designs and produces leading-edge, high-performance cameras with the lowest power consumption and the smallest footprint, as well as highly optimized camera and imaging solutions for volume OEM applications. Our camera designs are based on powerful, flexible technol-

ogy platforms that include an application programming interface (API) for many common Vision libraries as well as compliance with industry standards like USB3 Vision. xiAPI supports Windows, Linux and OS X operating systems.

Ximea GmbH · Am Mittelhafen 16, 48155 Münster, Germany, Tel: +49 251 202 40 80, info@ximea.com, www.ximea.com

Producer

Z-Laser is known as a reliable partner for the machine vision industry with extensive knowledge of more than 30 years in laser production.

Our new ZX lasers are based on a fully automated production process that guarantees highest levels of precision and reproducibility. Numerous optical configurations, different module dimensions, and the stainless-steel housing (IP67) are key to a smooth integration in any machine vision system.

The Z-Fiber series is the high-end choice wherever an exceptional beam performance (micro lines) for high-resolution measurements is required.

Z-Laser Optoelektronik GmbH · Merzhauserstr. 134, 79100 Freiburg, Germany Tel: +49 761 296 44 44, info@z-laser.de, www.z-laser.com

Integrator, Solution Provider

Zertrox GmbH & Co. KG · Altstraße 52, 52066 Aachen, Germany, Tel. +49 241 997 71 64, info@zertrox.de, www.zertrox.de

Machine Builder/OEM, Producer, Solution Provider

Ziemann & Urban GmbH · Am Bleichbach 28, 85452 Moosinning, Germany, Tel: +49 8123 936 88 0, info@ziemann-urban.de, www.ziemann-urban.de

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#### Integrator, Machine Builder/OEM, Solution Provider

AceLabs s.r.l. · Via Enrico Fermi 30, 20019 Settimo Milanese (MI), Italy, Tel: +39 024 550 64 88, info@acelabs.it, www.acelabs.it

#### Producer

Active Silicon designs and manufactures digital imaging products and technologies. These include embedded vision systems, camera-end interface boards and frame grabbers. Embedded vision systems include customized solutions typically built around the COM Express or Xilinx

Zynq architecture; camera interface boards include 3G-SDI, HDMI, USB 3.0 and IP solutions; CoaXPress and Camera Link frame grabbers are available in PC and embedded form-factors and are supported under Windows, Linux and ONX.

Active Silicon Ltd. · Pinewood Mews, Bond Close, Iver SL0 0NA, United Kingdom, Tel: +44 1753 650 600, info@activesilicon.com, www.activesilicon.com

#### Producer

Adaptive Vision · ul. Bojkowska 37A, 44-100 Gliwice, Poland, Tel: +48 32 461 23 30, info@adaptive-vision.com, www.adaptive-vision.com

#### Producer

Adimec designs and manufactures high-performance industrial cameras for equipment manufacturers worldwide with demanding machine vision, medical, or military applications whose goal is to be a product leader in their market. The Netherlands-based Holding company

has business offices in Europe, the United States, Japan, and Singapore. Adimec cameras use high quality CCD and CMOS sensor technologies and support a range of interfaces such as CameraLink, GigE, CoaXPress, LVDS, HD-SDI, DVI or custom.

Adimec Advanced Image Systems, B.V. · Luchthavenweg 91, 5657 EA Eindhoven, Netherlands, Tel: +31 40 235 39 00, info@adimec.com, www.adimec.com

#### Distributor

Advanced Technologies S.p.A. · via Giosuè Carducci 35, 20090 Trezzano sul Naviglio, Italy, Tel: +39 02 44 55 154, infocom@adv-tech.it, www.adv-tech.it

#### Manufacturer / Producer

Advantech Europe BV · Ekkersrijt 5708 Science Park, 5692 ER Son Eindhoven, Netherlands, Tel: +1 888 576 9668, www.advantech.eu

Producer

Alditech · Institutskaya, 142290 Pushchino, Russia, Tel: +7 4967 736 220, web@alditech.ru, www.alditech.ru

#### Producer

Alkeria designs, develops, and manufactures high-performance USB3 machine vision cameras for industrial inspection and scientific and medical applications.

Founded in 2004, Alkeria started developing machine vision cameras

for OEM custom projects: the expertise gained through custom projects, has contributed to the creation of an entire line of standard products. Both activities are still carried out today, allowing the company to enrich its offer of products and services.

Alkeria S.r.L. · Via Mario Giuntini 25, 56021 Cascina (PI), Italy, Tel: +39 (050) 77 80 60, sales@alkeria.com, www.alkeria.com

#### Solution Provider

Alliance Vision · 7 avenue du Meyrol, 26270 Montélimar, France, Tel: +33 4 755 314 00, infos@alliancevision.com, www.alliancevision.com

#### Producer

Andor Technology · 7 Millenium Way, BT12 7AL Belfast, United Kingdom, Tel: +44 28 902 371 26, marketing@andor.com, www.andor.com

#### Integrator / Solution Provider

Whether the customer needs are classic or complex, Aprex Solutions has developed a simple and effective solution for it. It has the ability to identify a very large number of defects or elements, simultaneously and in real time. Moreover, users can

integrate it into their production line, even continuously and at very high speed. The software will be able to detect and track at a very fast pace, pushing the limits of current solutions

Aprex Solutions · Campus Artem 2 Allée André Guinier, 54000 Nancy, France, www.aprex-solutions.com

#### Solution Provider

Averna · Research Campus 8, 3500 Hasselt, Belgium, Tel: +32 113 525 48, info-eu@averna.com, www.averna.com

#### Distributor

By combining innovative technology and customer-oriented service, Baumer ranks among the leading manufacturers of digital cameras and vision sensors. Modern image processing applications face the challenge of successfully completing complex inspection tasks at top

speed. Baumer products are specially developed for demanding applications with high performance and quality requirements. With long-time stable reliability, versatility and easy integration, they convince customers all over the world.

Baumer Italia S.r.l. · Via Resistenza 1, 20090 Assago MI, Italy Tel: +39 02 4570 6065, sales.it@baumer.com, www.baumer.com

#### Producer

Bentham Instruments Ltd. · 2 Boulton Road, RG2 0NH Reading, United Kingdom, Tel: +44 118 975 13 55, sales@bentham.co.uk, www.bentham.co.uk

#### Manufacturer / Producer

Bizerba Luceo, a French specialist in inspection solutions for industry for over 30 years, has been part of the Bizerba Group since April 2015. Bizerba Luceo designs, manufactures and installs vision solutions dedicated to 100 percent quality control

of processed products and individual packages.

Combining seamless food safety with increasing automation of industrial processes leads food manufacturers to implement 100 percent quality control and traceability.

Bizerba Luceo S.A.S. · 16 rue Laennec, 35772 Vern-Sur-Seiche, France, Tel: +33 0800 730069, commercial@bizerba.fr, www.bizerba.com

#### Manufacturer / Producer

Carl Zeiss AG · c/o Carl Zeiss Shared Services Sp. z o.o. ul. Abpa A. Baraniaka 88E, 61-131 Poznan, Poland, Tel: +49 800 934 77 33, www.zeiss.com/lenses4industry

#### Producer

CCS has advocated a spirit of "love and appreciation for customers" ever since its establishment. The corporate name stands for Creating Customer Satisfaction and means the intention to engage in corporate activities to ensure customer satisfaction. CCS eagerly pursues technologies and

products that please our customers and make a contribution to society by realizing them.

As a global leading company in the field of LED lights for machine vision, CCS have retained overwhelming know-how and technological capabilities that outclass other companies.

CCS Europe N.V. · Bergensesteenweg 421B, 1600 Sint-Pieters-Leeuw, Belgium, Tel: +32 2 333 0080, info@ccseu.com, www.ccs-grp.com

#### Distributor

ClearView Imaging helps create great vision systems and since 2008, the company has been supplying machine vision developers with components, sub-systems, and services to help their customers succeed. With staff and offices located in the

UK, Spain, and Germany, ClearView is

well positioned to support customers throughout Europe.

Their unique approach ensures to have certified Machine Vision experts throughout the company, who have the knowledge and experience to reduce development time and risk for customers.

ClearView Imaging Ltd • 4 Thame Park Business Centre, Wenman Road, OX9 3XA Oxfordshire, UK, Tel: +44 01844 217270, info@clearview-imaging.com, www.clearview-imaging.com

#### Producer

Comar Optics · Photon House, Station Road, Linton, CB21 4NW Cambridge, United Kingdom, Tel: +44 1223 866 120, info@comaroptics.com, www.comaroptics.com

#### Producer, Solutions Provider

Conoptica has been providing high tech camera based measurement solutions for the metal working industry since the 1993. The company makes sure that the metal working industry has access to key quantitative data about their products and

tools. Conoptica is the market leader for measurement equipment in the wire & cable industry. They are working to create a generation shift for inline measurement equipment in the machine tool industry.

Conoptica AS · Hallsetvegen 3, 7540 Klaebu-Trondheim, Norway, Tel: +47 72 83 01 50, conoptica@conoptica.com, conoptica.com

#### Producer

Crometic · Via Julius-Durst Str. 98, 39042 Bressanone/Brixen, Italy, Tel: +39 0472 273 730, info@crometic.com, www.crometic.com

#### Distributor

CSI · 7 Meadowfield Park South, NE43 7QA Stocksfield, United Kingdom, Tel: +44 1661 842 741, gilscott@csi1.co.uk, www.csi-stocksfield.co.uk

#### Producer

Our core specialties are Automatic Data Capture and Industrial Automation for the retail, manufacturing, transportation & logistics and healthcare industries.

As a total solutions provider, we've got a long history of creating innovative bar code readers, data col-

lection mobile computers, sensors, vision systems and laser marking systems that meet the ever-changing demands of industry. Our dedication to exceeding customer expectations resulted in us having the widest range of high-performance products and solutions in the industry.

Datalogic · Via Candini, 2, 40012 Lippo di Calderara di Reno, Bologna, Italy, Tel: +39 051 314 70 11, corporate@datalogic.com, www.datalogic.com

### Producer, Solution Provider

DataPixel develops and manufactures 3D vision solutions for high speed and high accuracy non-contact measurement for automotive, aerospace, electronics, plastics and glass. DataPixel Opti-Scan sensors can be integrated

on Coordinate Measurement Machines (CMM), robots and in-line inspection machines. DataPixel 3D pointcloud analysis software products provide the most advanced geometrical feature extraction and CAD comparison functions.

Datapixel S.L. · Carretera de Asúa, 6, 48030 Las Arenas – Getxo, Bizkaia, Spain, Tel: +34 94 480 51 83, info@datapixel.com, www.datapixel.com/en/

#### Producer

Datasensing is merging Datalogic's Sensor & Safety and Machine Vision business unit with M.D. Micro Detectors, both with 50 years of experience and representing the history of sensors in Italy since the early '70s. The company is developing, manufacturing and supplying Machine Vision,

Sensor and Safety, with more than 200 product lines, including 22.500 standard and custom part numbers, protected by over 100 patents. The products are designed to inspect, detect and protect the production in manufacturing and intralogistics processes.

Datasensing S.r.l. · Strada Santa Caterina 235, 41122 Modena, Italy, Tel: +39 059 420411, info@datasensing.com, www.datasensing.com

#### Producer, Solution Provider

DataVision s.r.o. · Ukrajinska 1487/2a, 10100 Prague 10, Czech Republic, Tel: +42 077 733 11 58, info@datavision.software, www.datavision.software

#### Distributor, Producer, Solution Provider

Deben UK Ltd. · Brickfields Business Park, IP30 9QS Woolpit, Bury St. Edmunds, Suffolk, United Kingdom, Tel: +44 1359 244 870, info@deben.co.uk, www.deben.co.uk

#### Producer

Delta Optical Thin Film develops and manufactures continuously variable filters for applications in spectroscopy, HSI and fluorescence diagnostics, and customised classical optical filters that match your specific applications and requirements. We are your reliable partner for high-performance optical filters in the UVA/VIS/ NIR wavelength range.

Delta Optical Thin Film A/S · Venlighedsvej 4, 2970 Hørsholm, Denmark Tel: +45 70 707 146, info@deltaopticalthinfilm.com, www.deltaopticalthinfilm.com

#### Solution Provider

Digital Surf · 6 rue Lavoisier, 5000 Besançon, France, Tel: +33 3 815 048 00, contact@digitalsurf.fr, www.digitalsurf.com

Integrator

E3tam · B.Bulv 177d2, 34394 Istanbul, Turkey, Tel: +90 212 275 22 80, inform@e3tam.com, www.e3tam.com

#### Producer

Optical Innovation for LED Illumination. Effilux is a worldwide supplier of LED lighting devices for the machine vision market. Effilux offer includes a wide range of standard patented products for line scan inspection, 3D triangulation, 3D stereovision, accurate optical sorting and others. Additionally, Effilux uses its expertise in optical design to create innovative custom solutions meeting OEM and end users specific requirements.

Effilux · 1, Rue de Terre Neuve, Mini Parc du Verger, Bâtiment E 91940 Les Ulis, France, Tel: +33 9 72 52 70 03, sales@effilux.fr, www.effilux.fr

#### Producer

Emberion produces high performance visible to short wavelength (VIS-SWIR) infrared cameras with its unique nanomaterial based sensor solution and custom CMOS read out integrated circuit. The company

focuses on industrial machine vision. The cameras has already been enabled in various applications within machine vision, surveillance, medical and key areas where both visible and infrared capabilities are utilized.

Emberion Oy · Metsänneidonkuja 8, 02130 Espoo, Finland, sales@emberion.com, www.emberion.com

## Association

The European Machine Vision Association EMVA is a non-for-profit and non-commercial association representing the Machine Vision industry in Europe. The association has been founded in 2003 in Barcelona by industry representatives from all

over Europe as a network to promote the development and use of machine vision technology. The EMVA is open for all types of organizations having a stake in machine vision, computer vision, embedded vision or imaging technologies.

EMVA – European Machine Vision Association · Gran Via de Carles III, 84 (3rd floor), 08028 Barcelona, Spain, Tel: +34 93 180 70 60, info@emva.org, www.emva.org

#### Producer

Euresys is a leading and innovative high-tech company, designer and provider of image and video acquisition components, frame grabbers, FPGA IP Cores and image processing software. Active in computer vision, machine vision, factory automation

and medical imaging, the company's more than 30 years of expertise covers digital video acquisition, FPGA programming, camera control, as well as image analysis for optical character recognition, 2D/3D inspection and classification using deep learning.

Euresys SA · Rue du Bois Saint-Jean 20, 4102 Seraing, Belgium, Tel: +32 4 367 72 88, sales.europe@euresys.com, www.euresys.com

### Distributor

EyeC-UK Ltd. · 6 Dauntless Road, RG7 3NZ Reading, Berkshire, United Kingdom, Tel: +44 118 983 33 47, info@eyec-ukandireland.co.uk, www.eyec-ukandireland.co.uk

#### Solution Provider

FDS Research, d.o.o. · Suhadolcânova 28, 1231 Ljubljana-Ĉrnuče, Slovenia, Tel: +386 1 589 75 81, info@fdsresearch.si, www.fdsresearch.si

#### Machine Builder/OEM

Flir Advanced Thermal Solutions · 19, bld Bidault, 77183 Croissy-Beaubourg, France, Tel: +33 1 413 397 97, info@flir.com, www.flir.com

#### Manufacturer / Producer

FLIR Systems AB · Antennvägen 6, PO Box 7376 Täby, Sweden, Tel: +46 8 753 25 00, www.flir.eu/

#### Producer

Fort SA · 3 rue Lambert ZL de la Gaudre, 91410 Dourdan, France, Tel: +33 1 608 118 18. info@fort-fr.com, www.fort-fr.com

#### Producer

Gardasoft Vision was founded in 1999 producing LED lighting controllers for the Machine Vision industry, and is now established as a global leader in the design, manufacture and application of high performance LED con-

trol technology and high intensity LED lighting. Since its inception, Gardasoft has grown strongly through a continuous high level of re-investment in Research and Development.

Gardasoft Vision Limited · Trinity Court Buckingway Business Park Swavesey, CB24 4UQ Cambridge, United Kingdom,

Tel: +44 1954 234 970, vision@gardasoft.com, www.gardasoft.com

#### Producer

Gas Sensing Solutions (GSS) · 60 Grayshill Road, G68 9HQ Cumbernauld, United Kingdom, Tel: +44 1236 781 900, info@gassensing.co.uk, www.gassensing.co.uk

#### Producer, Distributor

GeT Cameras sells industrial cameras (USB2, USB3, GigE), lenses and machine vision lighting. The company provides support, 3-year camera warranty, has large local stock and the cameras are certified by TüV Rheinland. GeT Cameras has offices in The Netherlands, UK, Germany and USA.

The company's vision is that customers deserve fair priced camera technology, with excellent support, service and quality. GeT Cameras sells industrial cameras with low margin, because they believe that every project starts with the order of a single camera.

GeT Cameras · Torenallee 20, 5617BC Eindhoven, Netherlands, Tel: +31 4085 14 838, cs@get-cameras.com, www.get-cameras.com

#### Producer

Global Laser Ltd. · Units 9-10 Roseheyworth Business Park, NP131SP Abertillery, Gwent, United Kingdom, Tel: +44 1495 212 213, sales@globallasertech.com, www.globallasertech.com

#### Integrator

Gpixel delivers off-the-shelf and customized CMOS image sensors that meet the demands of scientific, industrial, professional, and medical cameras. At Gpixel a seasoned, multi-disciplinary team of experts is passionate about pushing the bounda-

ries of image sensing technologies. As a proven designer and supplier of advanced CMOS image sensors, they deliver both off-the-shelf and fully-customized advanced image sensor solutions.

Gpixel NV · Copernicuslaan 60, 2018 Antwerp, Belgium, Tel: +32 330 344 42, info@gpixel.eu, www.gpixel.com

#### Machine Builder/OEM

**Graticules Optics Limited** · 17-19 Morley Road, TN9 1RN Tonbridge, United Kingdom, Tel: +44 1732 360 460, sales@graticulesoptics.com, www.graticulesoptics.com

#### Solution Provider

Hexagon Manufacturing Intelligence · World Headquarters Office, Cedar House, 78 Portsmouth Road, KT11 1AN Cobham, Surrey, United Kingdom, Tel: +44 20 706 865 80, marketing@hexagonmi.com, www.hexagonmi.com

#### Producer

Ibsen Photonics is a global leader in developing and manufacturing transmission grating components and grating based OEM spectrometer modules for a wide range of telecom, analytical, sensing, and laser

markets. With more than 25 years of experience in transmission gratings and more than 10 years in high volume OEM spectrometer production (from 175 to 2500 nm), we are perfect fit for all kind of instrument makers.

Ibsen Photonics A/S · Ryttermarken 17, 3520 Farum, Denmark Tel: +45 4434 700 0, inquiry@ibsen.com, ibsen.com

#### Solution Provider

Icos Vision Systems · Industriepark Haasrode zone 1 Esperantolaan 8, 3001 Heverlee, Belgium, Tel: +32 16 398 220, info@icos.be, www.icos.be

#### Research Facility

Ideko S.Coop develops its activity in eight research lines under the common scope of developing new products and/or services for manufacturing industry. In particular, Inspection and Measurement research line aims with the development of innovative automated measuring solutions based on Machine Vision and Photonic technologies.

Ideko S.Coop · Arriaga Kalea 2, 20870 Elgoibar, Spain, amendikute@ideko.es, www.ideko.es

#### System Solution Provider

IHFood is a first mover in the development of Machine Vision systems for Quality Inspection and Robot Guidance, mainly in the food industry and several other markets. IHFood works with food machinery market leaders within the handling of eggs,

poultry, pork, beef, lamb and fish. IHFood develop Machine Vision systems using intelligent image analysis software capable of automating quality control and grading, and enabling control of advanced robots for replacing ergonomically stressful jobs.

IHFood A/S • Titangade 9C, 2200 Copenhagen, Denmark, Tel: +45 3318 9120, contact@ihfood.dk, www.ihfood.dk

### Distributor

Founded in 1994, Image S, based in Mariano Comense (CO) Italy, is a reference for system integrators and OEMs in the machine vision industry in Italy for over two decades. The solutions offered find application in different fields: manufacturing, mil-

itary, medical and scientific. Image S supplies all the products required to deploy vision systems: industrial cameras, frame grabbers, lenses, LED lights, laser and optical fiber standard and special cables, software and accessories.

Image S S.p.A. · Via Vittorio Alfieri, 64, , 22066 Mariano Comense (Co), Italy, Tel: +39 031 746 512, sales@imagessrl.com, www.imagesspa.it

#### Distributor

Infaimon, S.L. · Vergós, 55, 8017 Barcelona, Spain, Tel: +34 93 252 57 57, infaimon@infaimon.com, www.infaimon.com

### Distributor

InRay Solutions Ltd. · 125 Tzarigradsko shosse blvd., block 2, room 510, 1113 Sofia, Bulgaria, Tel: +359 2 971 57 51, inrays@inrays.com, www.inrays.com

#### Solution Provider

intoPIX creates innovative image processing & compression technologies for applications where image is a crucial asset. intoPIX delivers flexible IP cores for FPGA/ASIC, ref designs and SDKs for CPU/GPU, to manage more pixels, preserve quality with no latency, save cost & power and

simplify connectivity. The solutions include sensor, image and video coding for industrial cameras to carry bandwidth-optimized content for video analysis, inspection or remote monitoring with lossless quality compression: Lossless quality for Machine Vision & Human Vision.

IntoPIX SA · Rue Emile Francqui 9, 1435 Mont-Saint-Guibert, Belgium, Tel: +32 10 23 84 70, sales@intopix.com, www.intopix.com

## Machine Builder/OEM, Solution Provider

Irida Labs · Patras Science Park, 26504 Rio, Achaia, Greece, Tel: +30 26 109 115 68, info@iridalabs.gr, www.iridalabs.gr

#### Machine Builder/OEM

Ivisys · Siktgatan 2, 162 50 Vällingby, Sweden, Tel: +46 073 464 66 63, vp@ivisys.com, www.ivisys.com

#### Producer

JAI is a global manufacturer of digital cameras for machine vision, traffic imaging, global security, medical imaging and scientific research.Besides a broad range of leading-edge 1-CMOS progressive area scan and line scan cameras, JAI is a leading provider of multi-imager cameras incorporating advanced prism-block technology,

including 3-CMOS RGB area scan cameras, 2-CMOS multi-spectral cameras plus a complete family of 3-CMOS/4-CMOS line scan cameras. JAI's product program includes cameras for visible, UV, NIR and SWIR imaging with GigE Vision, USB3 Vision, CoaXPress, Camera Link and SFP+ interfaces.

JAI A/S · Valby Torvegade 17, 1st floor, 2500 Valby, Denmark Tel: +45 4457 8888, camerasales.emea@jai.com, www.jai.com

#### Integrator

As a global supplier for quality tools for injection molding of thermosets and thermoplastic, Kolektor provides integral services and expert support in the demanding segments of the automotive industry and the indus-

try of household appliances. The company specializes in development and production of lines and machines, specialized equipment for production processes, production automation and machine vision.

Kolektor Orodjarna d.o.o. – BU Vision · Cesta v Gorice 34a, 1000 Ljubljana, Slovenia, Tel: +386 31 525 189, vision@kolektor.com, www.kolektorvision.com

#### Distributor

Lambda Photometrics Ltd. · Lambda House, Batford Mill, AL5 5BZ Harpenden, United Kingdom, Tel: +44 1582 764 334, adrian@lambdaphoto.co.uk, www.lambdaphoto.co.uk

#### Producer

Lambert Instruments · Leonard Springerlaan 19 (5th floor), 9727 KB Groningen, Netherlands, Tel: +31 50 501 84 61, info@lambertinstruments.com, www.lambertinstruments.com

#### Producer

Laser Quantum Ltd. · Emery Court, SK4 3GL Stockport, United Kingdom, Tel: +44 161 975 53 00, info@laserquantum.com, www.laserquantum.com

#### Producer

LAT elektronik AB · Krossgatan 18, 16250 Vällingby, Sweden, Tel: +46 87 049 225, info@latab.se, www.latab.se

#### Producer

LED Microsensor NT · Kurchatova, 10A, 1N, 194223 Saint-Petersburg, Russia, Tel: +7 812 633 06 35, info@lmsnt.com, www.lmsnt.com

#### Distributor

Macnica ATD Europe looks back on 30 Years of Trusted Imaging Solutions. Founded in 1990 as ATD Electronique, the company distributes innovative components dedicated to imaging applications for the European market. Its product portfolio

includes image sensors (CCD, CMOS, InGaAs, etc.), optics, interface circuits, IPs, imaging processors, cables and M-OLED displays. It also covers development tools and design services enabling fast and efficient realization of high-performance camera systems.

Macnica ATD Europe · 2-6 Rue Emile Pathé - Espace Lumière Bât 2, 78400 Chatou, France, Tel: +33 1 301 569 70, sales@atdelectronique.com, www.atdelectronique.com

#### Producer

Materion Optics Balzers AG · Neugrüt 35, 9496 Balzers, Liechtenstein, Tel: +423 388 92 00, info@opticsbalzers.com, www.opticsbalzers.com

#### Producer

Microtec · Julius-Durst 98, 39042 Brixen, Italy, Tel: +39 0472 273 611, info@microtec.eu, raymetic.com

#### Distributor

Molenaar Optics VOF · P.O. Box 2, 3700 AA Zeist, Netherlands, Tel: +31 30 695 10 38, info@molenaar-optics.nl, www.molenaar-optics.com

#### Solution Provider

Neadvance Machine Vision S.A. · Travessa de Gaiao, 5/6 2ªFase, 4705-025 Braga, Portugal, Tel: +49 3221 322 21 53, sales.de@neadvance.com, www.neadvance.com

#### Producer

New Imaging Technologies (NIT) · 1-4 Impasse de la noisette, Bat D-1er étage, 91370 Verrières le Buisson, France, Tel: +33 1 644 788 58, info@new-imaging-technologies.com, www.new-imaging-technologies.com

#### Producer

NTI · 32 Route de Seichebrières, 45530 Vitry aux Loges, France, Tel: +33 238 593 051, info@nti-measure.com, www.nti-measure.com

#### Producer, Solution Provider

Odos Imaging is a technology and manufacturing company specializing in the development and manufacture of advanced cameras for industrial and scientific sectors. Core technologies are targeted on 3D time-of-flight applications. Founded in 2010 and

based in Edinburgh, Scotland, odos imaging offers both complete systems and component technologies for use in logistics, industrial automation, safety, traffic systems and numerous other demanding applications.

Odos Imaging Ltd a Rockwell Automation Company · Unit 37C Castlebrae Business Centre, EH16 4BB Edinburgh, United Kingdom, Tel: +44 131 677 0260, info@odos-imaging.com, www.odos-imaging.com

#### Producer, Solution Provider

Omron Europe B.V. · Wegalaan 67-69, 2132 JD Hoofddorp, Netherlands, Tel: +31 23 568 13 00, info@eu.omron.com, www.industrial.omron.eu

#### Produce

Omron Microscan Systems Inc. · Lemelerberg 17, 2402 ZN Alphen aan den Rijn, Netherlands, Tel: +31 172 423 360, emea@microscan.com, www.microscan.com

#### Producer

ON Semiconductor is a leading supplier of both CCD and CMOS image sensors to applications ranging from mainstream consumer and automotive imaging through industrial applications such as machine vision, security, scientific, and medical imaging. Leveraging a legacy of imaging exper-

tise ON Semiconductor supplies camera manufacturers around the world with high performance devices ranging in pixel size from 1 to 24 microns, resolutions from VGA to 50 megapixels, and optical formats from 1/13 inch to over 60 mm diagonal.

ON Semiconductor Belgium BVBA · Schalienhoevedreef 20b, 2800 Mechelen, Belgium, Tel: +55 33 22 11, imagers@onsemi.com, www.onsemi.com

Opto Engineering® is one of the only companies in the world that can design, manufacture, sell, and offer assistance for advanced products and technologies in the field of machine vision.

We are known for our many optical innovations, solving once-impossible machine vision applications, and establishing as one of the world leaders in telecentric technology and 360° view special lenses.

Today our product range encompasses all the components needed to build a machine vision system: Optics, Area Scan Cameras, Software, and Lighting.





#### **Opto Engineering Headquarters**

Strada Circonvallazione Sud, 15 46100 Mantova / Italy Tel: +39 0376 699 111 press@opto-e.com www.opto-e.com

#### Integrator, Solution Provider

OptoFidelity Oy · Hemiankati 8 D, 33729 Tampere, Finland, Tel: +35 840 774 92 59, sales@optofidelity.com, www.optofidelity.com

#### Consultant, Machine Builder/OEM, Producer, Research Facility, Solution Provider

Optomotive designs and manufactures cutting-edge, high-performance cameras and 3D smart sensors based on FPGA technology. Optomotive is an established and trusted supplier to OEMs and system integrators who need high-speed peak detection, high-speed blob detection, RLE

compression and other high-speed machine vision algorithms. In addition, Optomotive provides complete camera and sensor solutions with a standard product line, technical expertise and fully customized solutions.

Optomotive LTD. · Koprska ulica 98, 1000 Ljubljana, Slovenia, Tel: +386 1 429 29 14, info@optomotive.com, www.optomotive.com

#### Distributor, Integrator, Solution Provider

PCS Industries Ltd. · Unit 2 Brocks Business Park, SS11 2UG Wickford, Essex, United Kingdom, Tel: +44 1268 733 515, info@pcs-industries.co.uk, www.pcs-industries.co.uk

#### Solution Provider

Phase One Industrial · Roskildevej 39, 2000 Frederiksberg, Denmark, Tel: +45 36 460 111, industrial@phaseone.com, industrial.phaseone.com

#### Producer

Phlox Corporation · Lot n° 8, Rue Louis Berton, Quartier de l'Enfant -ZAC du Quartier, 13100 Aix-en-Provence, France, Tel: +33 4 429 076 20, christinablanc@mac.com, www.phlox-gc.com

#### Producer, Solution Provider, Other

Photoneo s.r.o. · Plynárenská 6, 821 09 Bratislava, Slovakia, Tel: +421 948 766 598, sales@photoneo.com, www.photoneo.com

#### Distributor, Producer

Photonic Products Ltd. · Sparrow Lane, Hatfield Broad Oak CM22 7BA, United Kingdom, Tel: +44 1279 717 170, sales@photonic-products.com, www.photonic-products.com

#### Producer, Solution Provider

PHOTONIS is a global manufacturer of electro-optic solutions used in the detection of ions, electrons, and photons. The company develops, produces, and markets innovative sensors for detecting and amplifying

very low levels of light, charged particles, and radiation. The products are used in a wide range of applications from night vision to machine vision including analytical instruments.

Photonis Group · 18 Avenue Pythagore, 33700 Mérignac, France, Tel: +33 5561 6405 0, reception.holding@photonis.com, www.photonis.com

#### Producer

Photron (Europe) Ltd. · The Barn, Bottom Road, West Wycombe, Bucks, HP14 4BS, United Kingdom,

Tel: +44 1494 481 011, ahilton@photron.com, www.photron.com

Producer

PIXILM · Pikksilma st. 2/2-45, 10159 Tallin, Estonia, info@pixilm.com, www.pixilm.com

#### Distributor

Premier Electronics Ltd. · Old Bishops College/Churchgate, EN8 9XH Waltham Cross, Herts, United Kingdom, Tel: +44 1992 637 211, sales@premierelect.co.uk, www.premierelect.co.uk

#### Solution Provider

Pro-Lite Technology France · 2 Allee Ulysse Gayon, 33650 Martillac, France, Tel: +33 5 564 924 92, jerome.castay@pro-lite.fr, www.pro-lite.fr

#### Distributor

Pro-Lite Technology Ltd. · Innovation Centre, University Way, MK43 0BT Cranfield, United Kingdom, Tel: +44 1234 436 110, info@pro-lite.co.uk, www.pro-lite.co.uk

#### Distributor, Integrator, Producer, Solution Provider

Prophesee is the inventor of the world's most advanced neuromorphic vision systems. The company's patented sensors and Al algorithms introduce a new computer vision

paradigm based on how the human eye and brain work. Like the human vision, it sees events: essential, actionable information in the scene, not a succession of conventional images.

## Prophesee (formerly Chronocam)

74 Rue du Faubourg Saint Antoine, 75012 Paris, France, Tel: +33 1 85 73 27 33, contact@prophesee.ai, www.prophesee.ai

#### Solution Provider

Qtechnology A/S · Emdrupvej 28A, 2nd floor, 2100 Copenhagen, Denmark, Tel: +45 3616 6537, info@qtec.com, www.qtec.com

#### Solution Provider

Robosystem srl · via Pertini 51, 20041 Bussero, Italy, Tel: +39 03 463 043 219, m.rossi@robosystemsrl.com, www.robosystemsrl.com

#### Manufacturer / Producer

Rockwell Automation Ltd · Pitfield Kiln Farm Milton Keynes MK11 3DR, United Kingdom, www.rockwellautomation.com

#### Producer

SACMI's know-how and experience for the Control & Vision Systems dates back to 1987 and includes a comprehensive offer for a cutting-edge range of products and technologies for the quality and process controls within the Group's business areas but also in new sectors outside the traditional industries. Computer vision and advanced sensors have been the company's goals in the recent years and the developments in which it's investing the research.

SACMI IMOLA S.C. · Via Selice Provinciale 17/A C.P. 113, 40026 Imola, Italy. Tel: +39 542 607111, sacmi@sacmi.it, sacmi.com/en-US/Control-and-Vision-Systems

#### Solution Provider

Scintacor Ltd. · 8 Roydonbury Industrial Estate, CM19 5BZ Harlow, Essex, United Kingdom, Tel: +44 1279 641 234, sales@scintacor.com, www.scintacor.com

Producer

#### Solution Provider

SEA Vision · via Folla di Sopra, 21, 27100 Pavia, Italy, Tel: +39 0382 529 576, czetta@seavision.it, www.seavision.it

#### Producer, Solution Provider

Sensofar · Parc Audiovisual de Catalunya, Crta. BV-1274 Km 1, 8225 Terrassa, Spain, Tel: +34 93 700 14 92, info@sensofar.con, www.sensofar.com

#### Producer

Silios Technologies is specialized in micro-optics. Design and manufacture of VIS/NIR multispectral cameras and custom multispectral filters for any pixelated sensors from any manufacturer. Also diffractive optics for intense lasers, large grisms and CGH. The applications' fields are: Agriculture, Agro-food, MedTechs, Cosmetics, Lasers, Space & Astronomy, Homeland Security & Defense and Forensics.

Silios Technologies · ZI Peynier-Rousset, Rue Gaston Imbert prolongée, 13790 Peynier, France, Tel: +33 442 53 89 60, contact@silios.fr, www.silios.com

Producer

SKS Vision Systems OY · P.O. Box 353, 40101 Jyväskylä, Finland, Tel: +358 20 764 89 60, sales@visionsystems.fi, www.visionsystems.fi

Producer

Smartek Vision · Bana Josipa Jelacica 22c, HR-40000 Cakovec, Croatia, Tel: +385 40 493 800, info@smartekvision.com, www.smartekvision.com

#### Producer

Smart Vision Lights is a leading designer and manufacturer of high-brightness LED lights for industrial applications, including machine vision. All products come with universal internal current-control drivers, offering constant or strobed operation, reduced wiring requirements, and easy installation. Smart Vision Lights products are the safest on the market thanks to the company's in-house IEC 62741 light-testing laboratory, guaranteeing conformity and compliance.

Smart Vision Lights · The Village House, Brook Street, NN11 3SL Moreton Pinkney, United Kingdom, Tel: +44 7831 622844, sales@smartvisionlights.com, smartvisionlights.com

### Producer

Sony Semiconductor Solutions Corporation is the global leader in image sensors. We strive to provide advanced imaging technologies that bring greater convenience and joy to people's lives. In addition, we also

work to develop and bring to market new kinds of sensing technologies with the aim of offering various solutions that will take the visual and recognition capabilities of both human and machines to greater heights.

Sony Europe B.V. · The Heights, Brooklands, KT13 0XW Weybridge, Surrey, United Kingdom, semicon.press@sony.com, www.pro.sony.eu/vision

#### Producer

SPC Company b.v. · Vimmerik 28, 5253 CB Nieuwkuijk, Netherlands, Tel: +31 73 513 11 88, sales@spccompany.nl, www.spccompany.nl

#### Distributor

Special Application Products Ltd. · Unit 5 Manor Farm Business Centre, Ipswich IP9 2TD, United Kingdom, Tel: +44 1473 327 732, sales@sapltd.co.uk www.sapltd.co.uk

#### Distributor

Spectrum Metrology Ltd. · Unit 8 Ireton Ave, LE4 9EU Leicester, United Kingdom, Tel: +44 116 276 62 62, sales@spectrum-metrology.co.uk, www.spectrum-metrology.co.uk

#### Distributor

Stemmer Imaging AB · Sandhamnsgatan 63C, 102 52 Stockholm, Sweden, Tel: +46 85 551 10 00, michael.cohn@stemmer-imaging.se, www.stemmer-imaging.com

#### Machine Builder/OEM

Stil · 595 rue Pierre Berthier - Domaine Saint Hilaire, 13855 Aix-en-Provence, France, Tel: +33 4 423 966 51, contact@stilsa.com, www.stilsa.com

#### Sundance Multiprocessor Technology Ltd

"Ciltern House", HP5 1PS Waterside, Chesham, United Kingdom, Tel: +44 1494 793 167, divp@sundance.com, www.sundance.com

#### Association

The Association for Manufacturing Technologies counts almost 250 companies including both international groups and small businesses. Machine tools, Tools, components and equipment, Assembly, Welding-brazing-cutting, Metrology, CNC and Software, Robotics, Vision, Woodworking machinery, Machinery for paper and board industry, Machinery for the graphic arts industry, Machinery for the packaging industry... these sectors are all represented in Symop.

SYMOP - Syndicat des machines et technologies de production 45 Rue Louis Blanc Maison de la mécanique, 92038 Paris-La Défense Cedex, France, Tel: +33 02 35 81 80 00, contact@visionic.fr, www.visionic.fr

#### Solution Provider

· 19 avenue de Norvège, 91140 Villebon sur Yvette, France, Tel: +33 1 64 53 37 90, info@techway.fr, www.techway.fr

#### Manufacturer / Producer

Teledyne e2v is designer and manufacturer of high tech electronic components and subsystems including semiconductors, sensors and electronic tubes.E2v supplies high performance CCD and CMOS imaging sensors and cameras for a broad range of demanding applications,

operating across the electro-magnetic spectrum from X-rays, through ultraviolet and visible light to infrared. Delivered to standard or highly customized designs, our sensors serve space, astronomy, dental, scientific, medical and industrial markets.

Teledyne e2v Semiconductors SAS · P.O. Box 123, 38521 Saint Egrève Cedex, France, Tel: +33 0 4 76 58 30 00, www.teledyne-e2v.com

#### Producer

Teledyne e2v Ltd is a leading designer and manufacturer of high performance image sensors (CMOS, CCD, EMCCD) and cameras for a broad range of applications including machine vision, medical, science, aerospace and defense imaging. e2v produces the class-leading Uniiqa+, Eliixa+, Aviiva, and Diviina line scan camera ranges, which address a broad range of applications.

Teledyne e2v Ltd · 106 Waterhouse Lane, CM1 2QU Chelmsford, United Kingdom, www.teledyne-e2v.com

#### Producer

Teledyne Innovaciones Microelectronicas SLU is specialized in the design and production of custom high-speed, high-performance CMOS camera systems on-chip (camera SoC) and vision systems on-chip (VSoC) for industrial, surveillance, scientific, and

medical applications. The team consists of fifty experienced and highly specialized engineers and PhDs expert in high-performance image sensor and SoC design, and in all aspects of vision technology

#### Teledyne Innovaciones Microelectronicas SLU

C/ Isaac Newton 4, Pabellón de Italia, Planta 5 SE-NE, 41092 Sevilla, Spain, Tel: +34 954 081 273, teledyne-anafocus.com

#### Solution Provider, Producer

MSC and SGCC started inside two famous glassmakers: 1963 MSC is created within BSN, as a small department, to invent on-line inspection solutions for its hollow glass production. 1973 SGCC starts its existence

within Saint-Gobain glassmaker to perform multi- inspection on glass containers with the first star-wheel principle machine. On December 1st, 2015 the corporate name of the company has changed for Tiama.

Tiama Group · ZA des Plattes, 1 Chemin des Plattes, 69390 Vourles, France, www.tiama.com

Producer

Tordivel AS · Storgata 20, 184 Oslo, Norway, Tel: +47 2315 870 0, office@toridvel.no, www.scorpionvision.com Producer

TriVision · Havnegade 23, 5000 Odense, Denmark, Tel: +45 28 353 135, korsgaard@trivision.dk, www.trivision.dk

Integrator

Operating in Europe, US and Asia markets for over 20 years, TST Engineering & Vision is specialized in artificial vision products and solutions. The

company designs, develops deploy and market artificial vision systems for quality control, track & trace of industrial processes.

TST Engineering & Vision · Rua do Centro Empresarial Beloura Office Park Edifício 7 - Piso 0 - Loja 2, 2710 - 693 Sintra, Portugal, contact@tstvision.com, www.tstvision.com

Producer

TVI Vision · Asentajankatu 3, 880 Helsinki, Finland, Tel: +358 207 579 518, www.tvivision.com

Association

UKIVA - UK Industrial Vision Association · Stafford Road, SM6 9AA Wallington, Surrey, United Kingdom, Tel: +44 20 8773 8111, chris.valdes@ppma.co.uk, www.ukiva.org

Integrator, Solution Provider

Univision SrI · via Appiani 3, 20038 Seregno, Italy, Tel: +39 0362 600 201, info@univision.it, www.univision.it

Machine Builder/OEM

Videometer A/S · Lyngso Allé 3, 2970 Horsholm, Denmark, Tel: +45 457 610 77, info@videometer.com, www.videometer.com

Distributor. Producer

Vision Light Tech · Protonenlaan 22, 5405 NE Uden, Netherlands, Tel: +31 413 260 067, info@vlt.nl, www.visionlighttech.com

Distributor

Visionlink Srl · Via Marco Polo 22, 20038 Seregno, Italy Tel: +39 0362 600 202, info@visionlink.it, www.visionlink.it

Solution Provider

VisionX is your solution provider in the field of advanced machine vision. The primary mission revolves around ensuring impeccable product quality. Thanks to the company's vision systems, users can monitor, analyze, and refine every facet of their production,

enabling them to achieve the highest levels of quality and efficiency. One of the key strengths lies in the comprehensive approach. VisionX doesn't just provide vision systems; it partners with clients throughout the entire pro-

VisionX Sp. z.o.o. · Trzy Lipy 3B, 80-172 Gdańsk, Poland, Tel: +48 72 472 74 44, info@visionx.com.pl, www.visionx.com.pl

Distributor, Integrator, Solution Provider

Vistek Machine Vision and Automation AS · Kemal Nehrozoglu caddesi, 41480 Kocaeli, Turkey, Tel: +90 262 678 89 02, info@vistekas.com, www.vistekas.com

Producer

V-Optics designs, manufactures and sells sensors and measurement systems enable to characterize light reflective and transparent surfaces. The proposed solutions are based on phase shifting deflectometry technology. V-Optics developed a set of sensors and equipment for several applications used in various industries, e.g. Plastics and Composites, Glazing, Paper Mills, Medical Devices.

V-Optics SAS · 2 rue du Travail, 67400 Illkirch Graffenstaden, France, Tel: +33 3 67 10 28 60, info@v-optics.fr, www.v-optics.fr

Research Facility

Vicomtech (Visual Interaction and Communication Technologies Centre) is an applied research centre specialising in Advanced Interaction, Computer Vision, Data Analytics and Computer Graphics technologies The

centre aims to respond to the innovation requirements of companies and institutions. To do this, it conducts applied research and develops multimedia visual interaction and communications technnologies, and complements and closely collaborates with

industry, universities and other technology centres.

Vicomtech · Paseo Mikeletegi 57, Parque Científico y Tecnológico de Gipuzkoa, 20009 Donostia / San Sebastian, Spain, Tel: +34 943 309 230, info@vicomtech.org, www.vicomtech.org

Producer

Video Systems is a company specialized on embedded vision systems develop and production. A 20th year experienced staff support customer on R&D, develop and production of industrial quality control and process control systems. 3D acquisition and elaboration and neural network sys-

tems are key-points of final systems. The experience handed down over the years has been well-consolidated permitting Video Systems to work side by side with some of the leaders of major industrial sectors: Hollow Glass, Automation, Steel, Robotics, Paper, Cardboard, Wood, Plastic.

Video Systems Srl · Viale G.Mangiarotti 4, 33033 Z.I. Codroipo (UD) Italy, Tel: +39 0432 913 582, info@videosystems.it, videosystems.it

Association

The Vision Club of Finland has over 200 members representing machine

vision companies, endusers, universities and research organisations.

Vision Club of Finland · Asemapäällikönkatu 12 B, 00520 Helsinki, Finland, Tel: +358 50 400 6624, office@automaatioseura.fi, www.automaatioseura.fi

Distributor, Integrator

ViTec was established in 1995 with headquarters located in Saint-Petersburg. Since that time the company has been working in the field of industrial measurements and automation. Through access to modern technologies and tech-

nical equipment teh team of professionals can efficiently solve the most complex technical problems. In order to increase the speed of customer service in Siberia and the Far East a ViTec-Siberia department was opened in 2006 in Tomsk.

ViTec · Fontanka 170, 198035 Saint-Petersburg, Russian Federation, info@vitec.ru, www.vitec.ru

Producer

VST Europe B.V · · Herikerbergweg 292–342, 1101 CT Amsterdam, Netherlands, Tel: +31 20 305 1310, vst.co.jp

Producer, Solutions Provider

Zebra Technologies is an innovator at the edge of the enterprise with solutions and partners that enable businesses to gain a performance edge. Zebra's products, software, services,

analytics and solutions are used to intelligently connect people, assets and data to help our customers in a number of industries make business-critical decisions.

Zebra Technologies Europe Limited · Dukes Meadow, Millboard Road, SL8 5XF Bourne End, United Kingdom, Tel: + 44 800 328 2424, contact.emea@zebra.com, www.zebra.com

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# North America

#### Consultant, Distributor, Integrator, Machine Builder/OEM, Research Facility, Solution Provider

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#### Solution Provider

A&B Software · 5 Holly Ter, 6320 New London, CT, United States of America, Tel: +1 860 823 83 01, sales@ab-soft.com, www.ab-soft.com

Acubed is the Silicon Valley innovation center of Airbus. We provide a lens into the future for the aerospace industry, transforming risk into opportunity to build the future of flight now.

A3 by Airbus LLC · 601 W California Ave., 94086 Sunnyvale, CA, USA, hello@airbus-sv.com, acubed.airbus.com

#### Machine Builder/OEM

Acculogic Inc. · 175 Riviera Drive, L3R 5J6 Markham, ON, Canada, Tel: +1 905 475 59 07, sales@acculogic.com, www.acculogic.com

#### Machine Builder/OEM

Acculogic Ltd. · 112-20992 Bake Parkway, 92630 Lake Forest, CA, USA, Tel: +1 949 595 40 80, sales@acculogic.com, www.acculogic.com

#### Producer

#### **Advanced Optics, Inc**

PO Box 117, 53072 Pewaukee, WI, United States of America, Tel: +1 262 548 11 51, sales@advancedoptics.com, www.advancedoptics.com

#### Machine Builder/OEM

#### AGR International, Inc.

615 Whitestown Road, 16001 Butler, PA, United States of America, Tel: +1 724 482 21 63, sales@agrintl.com, www.agrintl.com

#### Distributor

#### Allied Scientific Pro

815 Boul. de la Carrière, bureau 202, J9J2S8 Gatineau, QC, Canada, Tel: 1 800 253 41 07, info@alliedscientificpro.com, www.alliedscientificpro.com

#### Producer

Allison Park Group, Inc. 4055 Alpha Drive, 15101 Allison Park, PA, United States of America, Tel: +1 412 487 82 11, sales@apgvision.com, www.apgvision.com

## Machine Builder/OEM

#### Altair Industries, Inc

217 Racquette Drive, #5, 80524 Fort Collins, CO, United States of America, Tel: +1 970 217 16 23, altair.industries@comcast.net, www.altairindustriesinc.com

#### Machine Builder/OEM

Applied Electro-Optics Inc.
10619 Senna Hills DR. 78733-5729 Austin. TX. United States of America. Tel: +1 512 686 07 52, sales@aeousa.com, www.aeousa.com

#### Producer. Solution Provider

### **Asylum Research**

6310 Hollister Ave., 93117 Santa Barbara, CA, United States of America, Tel: +1 805 696 64 66, sales@asylumresearch.com, www.asylumresearch.com

### Distributor

#### AutomationDirect

3505 Hutchinson Road, 30040 Cumming, GA, United States of America, Tel: +1 800 633 04 05, sales@automationdirect.com, www.automationdirect.com

#### Distributor

By combining innovative technology and customer-oriented service, Baumer ranks among the leading manufacturers of digital cameras and vision sensors. Modern image processing applications face the challenge of successfully completing complex inspection tasks at top speed.

Baumer products are specially developed for demanding applications with high performance and quality requirements. With long-time stable reliability, versatility and easy integration, they convince customers all over the

Baumer Ltd. · 122 Spring Street, Unit C-6, 6489 Southington CT, United States of America, Tel: +1 860 621 2121, sales.us@baumer.com, www.baumer.com

#### Producer

"Any Lens. Any Camera." Birger Engineering manufactures lens mounts and motion control systems for high-quality low-cost lenses made for consumer and professional imaging. Remote and automated control of focus and aperture.

**Birger Engineering Inc.** · 38 Chauncy Street 1101, 02111 Boston, MA, United States of America, info@birger.com, www.birger.com

#### Other

BitFlow has been developing industrial frame grabbers & software for the imaging industry since 1993. We specialize in interfacing to cameras with very high data/frame rates; working in environments with complex triggering and I/O requirements; and run-

ning in applications where every CPU cycle is precious. Our primary interfaces are Camera Link & CXP. Our software is some of the easiest to use, vet incredibly powerful and reliable. We are confident that we can solve your imaging challenges.

**BitFlow, Inc.** · 400 W Cummings Park, Suite 5050, 1801 Woburn, MA, United States of America, Tel: +1 781 932 29 00, sales@bitflow.com, www hitflow com

#### Distributor

Bock Optronics Inc. · 14 Steinway Blvd., Suite 7, M9W 6M6 Toronto, ON, Canada Tel: +1 416 674 28 04, sales@bockoptronics.ca, www.bockoptronics.ca

#### Producer, Solution Provider

#### **Breault Research Organization**

2175 E Valencia Rd #125, 85706 Tucson, AZ, United States of America, Tel: +1 520 721 05 00, marketing@breault.com, www.breault.com

Capovani Brothers Inc. · 704 Prestige Parkway, 12302 Scotia, NY, United States of America, Tel: +1 518 346 83 47, cbi@capovani.com, www.capovani.com

#### Integrator

Cepoint Networks, LLC. · 1W Otterson Street, 03060-4500 Nashua, NH, United States of America, Tel: +1 603 883 79 79, sales@cepoint.com, www.cepoint.com

Cimetrix Inc. · 6979 S. High Tech Drive, Salt Lake City, UT 84047, United States of America, Tel: +1 801 256 65 00, sales@cimetrix.com, www.cimetrix.com

Cimetrix Inc. · 6979 S. High Tech Drive, Salt Lake City, UT 84047, United States of America, Tel: +1 801 256 65 00, sales@cimetrix.com, www.cimetrix.com

#### Solutioan Provider

Cogniac enables enterprise customers to extract information from ever-increasing streams of video and image data. If you can see an item or condition of interest — even if it requires professional expertise — the system can automatically observe images and video and detect that item. Using modern advances in deep learning, the products achieve better-than-human performance at many highly-focused observation tasks.

Cogniac Corporation · 150 Almaden Blvd, Suite 1200, 95113 San Jose, CA, United States of America, contact@cogniac.co, www.cogniac.com

#### Producer

Coherent Canada · 275 Kesmark, H9B3J1 Montreal, QC, Canada, Tel: +1 514 685 22 03, lasers@stockeryale.com, www.coherent.com

#### Research Facility, Solution Provider

Coherix, Inc. · 3980 Ranchero Drive, 48108-2775 Ann Arbor, MI, United States of America, Tel: +1 734 922 40, rons@coherix.com, www.coherix.com

#### Solution Provider

Complete Inspection Systems, Inc. · 334 Fourth Avenue, 32903 Indialantic, FL, United States of America, Tel: +1 321 952 24 90, gparish@autoproofpro.com, www.completeinspectionsystems.com

#### Producer

Components Express, Inc. is an authorized manufacturer and global supplier of CameraLink and related cable assemblies serving the Machine Vision Industry. Components Express' extensive product development & engineering support is recognized

throughout the industry as being the forefront in cabling technology. Specializing in both custom and standard applications. Come visit us today and see why Components Express is the worlds' greatest machine vision cable manufacturer!

Components Express, Inc. · 10330 Argonne Woods Drive Suite 100, 60517 Woodridge, IL, United States of America, Tel: +1 630 257 0605, cei@componentsexpress.com, www.componentsexpress.com

#### Producer

Computer Dynamics · 7640 Pelham Road, Greenville, SC 29615, United States of America, Tel: +1 864 627 88 00, cdisales@gefanuc.com, www.cdynamics.com

#### Producer, Solution Provider

Creaform, Inc. · 4700 rue de la Pascaline, Lévis QC G6W 0L9, Canada, Tel: +1 418 833 4446, Fax: +1 418 833 9588 creaform.info@ametek.com

#### Machine Builder/OEM

Crowley Company, The · 5111 Pegasus Court, Suite M, 21704 Frederick, MD, United States of America, Tel: +1 240 215 02 24, cherib@thecrowleycompany.com, www.thecrowleycompany.com

#### Producer

**CyberOptics Semiconductor, Inc.** · 13555 SW Millikan Way, Beaverton, OR 97005, United Staates of America, Tel: +1 503 495 22 00, csinfo@cyberoptics.com, www.imagenation.com

#### Integrator

Cyth Systems, Inc. · 9835 Carroll Centre Road, Suite 104, 92126 San Diego, CA, United States of America, Tel: +1 888 508 73 55, info@cyth.com, www.cyth.com

#### Machine Buildear/OEM

**Deposition Sciences, Inc. (DSI)** · 3300 Coffey Lane, 95403 Santa Rosa, CA, United States of America, Tel: +1 707 573 67 85, solutions@depsci.com, www.depsci.com

#### Distributor

**Digital West Imaging** · 450 Mountain View Road, El Cajon, CA 92021, United States of America, Tel: +1 866 593 19 00, sales@digitalwestimaging.com, www.digitalwestimaging.com

#### Producer

**Directed Perception** · 890C Cowan Road, Burlingame, CA 94010, United States of America, Tel: +1 650 692 39 00, sales@dperception.com, www.dperception.com

#### Machine Builder/OEM

**Dover Motion** • 159 Swanson Road, 1719 Boxborough, MA, United States of America, Tel: +1 800 227 1066, sales@dovermotion.com, dovermotion.com

#### Solution Provider

**Dunkley International Inc.** · 1910 Lake St., MI 49001 Kalamazoo, United States of America, Tel: +1 269 343 55 83, nhatzinikolis@dunkleyintl.com, www.dunkleymachinevision.com

#### Machine Builder/OEM

E-con Systems · 11027 Sandistan Manor Ct, 63146 St Louis, MO, United States of America, Tel: +1 314 732 11 52, sales@e-consystems.com, www.e-consystems.com

#### Producer

#### **EDT Engineering Design Team Inc.**

3423 NE John Olsen Avenue, 97124 Hillsboro, OR, United States of America, Tel: +1 503 690 12 34, info@edt.com, www.edt.com

#### Producer

Efinix® U.S. · 20400 Stevens Creek Boulevard, Suite 200, Cupertino, CA 95014, USA, Tel: +1 408 789-6917, sales-na@efinixinc.com, www.efinixinc.com

#### Producer

Since 2012, Eigen Innovations has been helping manufacturers overcome challenges related to managing and integrating machine vision systems at scale. Eigen's OneView software generates standardized digital quality records of every prod-

uct produced. Leveraging OneView's extensive analytics and toolset, factory teams leverage these records to seamlessly introduce automation and leverage analytics and insights to prevent defects across their operations.

**Eigen Innovations** · 255-444 Aberdeen Street, E3B1S1 Fredericton, New Brunswick, Canada, support@eigen.io, eigen.io

#### Producer

Epix, Inc. · 381 Lexington Drive, Buffalo Grove, IL 60089-6934, United States of America, Tel: +1 847 465 18 18, epix@epixinc.com, www.epixinc.com

#### Producer

FastVision · 131 D.W. Highway #529, 3060 Nashua, NH, United States of America, Tel: +1 603 891 43 17, sales@fast-vision.com, www.fast-vision.com

#### Producer

Fiberoptics Technology · 1 Quassett Road, Pomfret, CT 06258, United States of America, Tel: +1 860 928 04 43, sgiamundo@fiberoptix.com, www.fiberoptix.com

#### Producer

**FiFo Optics Co., Ltd.** · 2010 Crow Canyon Place, Suite 100, 94583 San Ramon, CA, United States of America, Tel: +1 925 234 48 68, fiorinashen@fifooptics.com, www.fifooptics.com

#### Producer

FJW Optical Systems, Inc. · 322 N Woodwork Ln, Palatine, IL 60067-4933, United States of America, Tel: +1 847 358 25 00, irsales@findrscope.com, www.findrscope.com

#### Producer

Flir Systems is a global leader in the design and manufacture of innovative machine vision cameras. Starting with the acquisition of Point Grey in 2016, Flir is developing a machine

vision center of excellence with the goal of delivering best-in-class customer experiences and helping our customers be more competitive.

Flir Systems, Inc. · 12051 Riverside Way, Richmond, BC V6W 1K7, Canada, Tel: +1 604 242 99 37, mv-sales@flir.com, www.flir.com/mv

#### Machine Builder/OEM, Solution Provider

Fresh Digit · 22671 Brookhaven, 92630 Lake Forest, CA, United States of America, Tel: +1 949 204 02 88, online@freshdigit.com, www.freshdigit.com

#### Integrator, Solution Provider

FSI Technologies Inc. · 668 Western Ave., 60148 Lombard, IL, United States of America, Tel: +1 630 932 93 80, info@fsinet.com, www.fsinet.com

#### Producer

 $\begin{tabular}{l} \textbf{Gevicam Inc.} \cdot 673 \text{ S. Milipitas Blvd, Milpitas, CA 95035, United States of America,} \\ \textbf{Tel: +1 408 262 57 72, info@gevicam.com, www.gevicam.com} \end{tabular}$ 

#### Other

HD Barcode LLC · 334 Fourth Ave, 32903 Indialantic, FL, United States of America, Tel: +1 321 862 24 89, gparish@hdbarcode.com, www.hdbarcode.com

#### Producer

Imaging Solutions Group · 1387 Fairport Road, 14450 Fairport, NY, United States of America, Tel: +1 585 388 52 20, sales@isgcameras.com, www.isgcameras.com

#### Provider

IMPERX is a leading global designer and manufacturer of superior quality digital imaging products and software. IMPERX products serve in aerospace and defense, machine vision, transportation and engineered systems,

automation, plus many more industries. Imperx is certified meeting the requirements of ISO 9001:2015 and ISO 14001:2015. Most IMPERX cameras meet or exceed MIL-STD-810G requirements.

Imperx Inc. · 6413 Congress Avenue, 33487 Boca Raton, FL, United States of America, Tel: +1 561 989 00 06, info@imperx.com, www.imperx.com

#### Producer

Intercon 1 · 7746 Goedderz Rd., Ste 110, 56425 Buxter, MN, United States of America, Tel: +1 218 828 31 57, intercon@nortechsys.com, www.intercon-1.com

#### Producer

IO Industries · 15940 Robin's Hill Road, N5V 0A4 London, ON, Canada, Tel: +1 519 663 95 70, sales2@ioindustries.com, www.ioindustries.com

#### Machine Builder/OEM, Producer, Solution Provider

ISVI Corp. · 290 Highland Ave 2nd FI, 6410 Cheshire, CT, United States of America, Tel: +1 951 317 00 19, sales@isvi-corp.com, www.isvi-corp.com

#### Producer

JAI is a global manufacturer of digital cameras for machine vision, traffic imaging, global security, medical imaging and scientific research.Besides a broad range of leading-edge 1-CMOS progressive area scan and line scan cameras, JAI is a leading provider of multi-imager cameras incorporating advanced prism-block technology,

including 3-CMOS RGB area scan cameras, 2-CMOS multi-spectral cameras plus a complete family of 3-CMOS/4-CMOS line scan cameras. JAI's product program includes cameras for visible, UV, NIR and SWIR imaging with GigE Vision, USB3 Vision, CoaXPress, Camera Link and SFP+ interfaces.

JAI Inc. · 6800 Santa Teresa Blvd., Suite 175, 95119 San Jose, CA, USA, Tel: +1 408 383 0300, camerasales.americas@jai.com, www.jai.com

#### Solution Provider

For over 30 years the DSI brand has been active in waterjet portioning of boneless proteins. The addition of intelligent horizontal slicing in 2008 enabled true three-dimensional portioning and double digit yield enhancement in the portioning of large poultry breast meat.

New DSI blade portioning and sorting equipment in 2016 as well as an X-ray guided waterjet solution in 2017 has allowed DSI products to continue to reach new customers worldwide including poultry, beef, pork, fish and bakery applications.

**JBT – John Bean Technologies Corporation** · 15304 NE 95th St, 98052 Redmond, USA, www.jbtc.com/foodtech, hello@jbtc.com

#### Producer

Lambda Research Corporation · 25 Porter Road, 01460-1434 Littleton, MA, United States of America, Tel: +1 978 486 07 66, sales@lambdares.com, www.lambdares.com

#### Distributor

LDD Trading Associates, LLC · 119B Emerson Road, 3055 Milford, NH, United States of America, Tel: +1 603 732 57, sales@lddlight.com, www.lddlight.com

#### Producer

**Lincoln Laser Company** · 234 East Mohave, Phoenix, AZ 85004, United States of America, Tel: +1 602 257 04 07, bcmcgrath@lincolnlaser.com, www.lincolnlaser.com

### Solution Provider

At LMI Technologies we work to advance quality and productivity with 3D sensor technology. Our award-winning, FactorySmart solutions improve the quality and efficiency of factory production by providing fast, accurate, reliable inspection

solutions that leverage smart 3D technologies. Unlike contact based measurement or 2D vision, our products remove complexity and dramatically reduce implementation cost while achieving repeatable, highly accurate measurement.

LMI Technologies Inc. • 9200 Glenlyon Parkway, V5J 5J8 Burnaby, BC, Canada, Tel: +1 604 636 10 11, contact@lmi3d.com, www.lmi3d.com

#### Machine Builder/OEM

Lumetrics, Inc. 1565 Jefferson Rd, #420, 14623 Rochester, NY, United States of America, Tel: +1 585 214 24 55, sales@lumetrics.com, www.lumetrics.com

#### Producer

Mad City Labs, Inc. · 2524 Todd Drive, 53713 Madison, WI, United States of America, Tel: +1 608 298 08 55, sales@madcitylabs.com, www.madcitylabs.com

#### Manufacturer / Producer

Matrox Imaging is the machine vision industry's most trusted supplier of vision software, smart cameras, 3D sensors, vision controllers, I/O cards, and frame grabbers. For more than 40 years, we have developed prod-

ucts with assured quality and longevity, applying trusted industry standards. Our products are backed by meticulous in-house design expertise and come with dedicated customer support.

Matrox Imaging (Zebra Technologies Cooperation) • 1055 St-Regis Blvd., H9P 2T4 Dorval, Canada, Tel: + 1 800 804 6243, www.matrox.com/en/imaging

#### Machine Builder/OEM

Mega Speed Corporation · 45 MainSt S, Unit B, ROJ 1E0 Minnedosa, Manitoba, Canada, Tel: +1 204 867 37 67, info@megaspeedusa.com, www.megaspeedusa.com

#### Droducor

Metaphase Technologies, Inc. · 3412 Progress Drive (unit C), Bensalem, PA 19020, United States of America, Tel: +1 215 639 86 99, info@metaphase-tech.com, www.metaphase-tech.com

#### Consultant

Michigan Metrology LLC · 17199 N. Laurel Park Drive Ste. #51, 48152-2679 Livonia, MI, United States of America, Tel: +1 734 953 50 30. info@michmet.com. www.michmet.com

#### Producer

MidOpt is a manufacturer of custom precision optical components and systems since 1988, Midwest Optical Systems is recognized as a leading resource for machine vision filters, lenses and accessories used for industrial imaging. MidOpt has an extensive history in optical component design, fabrication and inspection, and continues to develop innovative new products for industrial imaging that are not found elsewhere.

Midwest Optical Systems, Inc. · 322 N. Woodwork Lane, 60067 Palatine, IL, United States of America, Tel: +1 847 359 35 50, info@midopt.com, www.midopt.com

#### Distributor, Integrator, Solution Provider

MsiVision · 5 Herbert Drive, Suite 1N, 12309 Latham, NY, United States of America. Tel: +1 518 346 71 36. info@msivision.com. www.msivision.com

## Consultant, Integrator, Machine Builder/OEM, Producer, Research Facility, Solution Provider

Nanovea · 6 Morgan Ste 156, 92618 Irvine, CA, United States of America, Tel: +1 949 461 92 92, info@nanovea.com, nanovea.com/profilometers

#### Producer, Solution Provider

Navitar · 200 Commerce Drive, 14623 Rochester, NY, United States of America, Tel: +1 585 359 40 00, info@navitar.com, www.navitar.com

#### Association, Machine Builder/OEM, Solution Provider, Other

Newnex Technology Corporation · 3041 Olcott St., 95054 Santa Clara, CA, United States of America, Tel: +1 408 986 99 88, information@newnex.com, www.newnex.com

#### Consultant, Integrator, Machine Builder/OEM, Research Facility, Solution Provider, Other

Norman N. Axelrod Associates · 445 East 86th Street, 10028 New York, NY, United States of America, Tel: +1 212 741 63 02, naxelrod@axelrodassociates.com, www.axelrodassociates.com

#### Producer

Norpix, Inc. · 1751 Richardson St., Suite 6117, H3KIG6 Montreal QC, Canada, Tel: +1 514 846 0009 ex:22, In@norpix.com, www.norpix.com

#### Producer

#### **Novacam Technologies Inc.**

277 Lakeshore Road, Suite 04, H9S 4L2 Pointe Claire, QC, Canada, Tel: +1 866 694 40 02, info@novacam.com, www.novacam.com

#### Cameras, Image Sensors

Omron Microsystems Inc · 700 SW 39th Street, Ste. 100, WA 98057, Renton, United States of America

#### Producer

Onsemi (Nasdaq: ON) is driving disruptive innovations to help build a better future. With a focus on automotive and industrial end-markets, the company is accelerating change in megatrends such as vehicle electrification and safety, sustainable energy grids, industrial automation, and 5G and cloud infrastructure. With a highly differentiated and innovative product portfolio, onsemi creates intelligent power and sensing technologies that solve the world's most complex challenges and leads the way in creating a safer, cleaner, and smarter world.

Onsemi · 5005 East McDowell Road, Phoenix, AZ 85008, United States of America, Tel: +1 602 244 6600, www.onsemi.com

#### Solution Provider

#### **Optel Vision**

2680, boul. du Parc Technologique, G1P 4S6 Quebec City, QC, Canada, Tel: +1 418 688 334, info@optelvision.com, www.optelvision.com

Optical Research Associates - Wholly Owned Subsidiary of Synopsys, Inc.

199 South Los Robles Avenue, Suite 400, 91101 Pasadena, CA, United States of America, Tel: +1 626 795 91 01, optics@synopsys.com, www.opticalres.com

#### Integrator

Orus Integration Inc. · 1109 Hwy 13, H7W 5J8 Laval, QC, Canada, Tel: +1 450 688 31 51, Idicaire@orusintegration.com, orusintegration.com

#### Distributor

#### PCE Instruments / PCE Americas Inc.

711 Commerce Way, Suite 8, 33458 Jupiter, FL, United States of America, Tel: +1 561 320 91 62, info@pce-americas.com, www.pce-instruments.com

#### Distributor

Phase 1 Technology 44 Jefryn Boulevard, Suite Y, 11729 Deer Park, NY, United States of America, Tel: +1 888 732 64 74, info@phase1tech.com, www.phase1tech.com

#### Solution Provider

Phrontier Technologies, LLC. · 26471 Rancho Parkway South, Suite A, 92630 Lake Forest, CA, United States of America,

Tel: +1 949 305 66 22, info@phrontier-tech.com, www.phrontier-tech.com

#### Producer

PixeLink · 1900 City Park Drive, Suite 410, K1I 1A3 Ottawa, ON, Canada, Tel: +1 613 247 12 11, sales@pixelink.com, www.pixelink.com

#### Machine Builder/OEM

Pleora's video interface expertise brings the advantages of GigE Vision and USB3 Vision to imaging applications requiring high-bandwidth, low latency video. Manufacturers rely on our products, standards expertise, and systems knowledge to bypass development and integration complexities in mission-critical imaging applications. Our interfaces revolutionized the factory automation market, and today we're bringing new levels of intelligence to medical and military applications.

Pleora Technologies · 340 Terry Fox Dr, Suite 300, K2K 3A2 Kanata, ON, Canada, Tel: +1 613 270 06 25, info@pleora.com, www.pleora.com

### Producer

# Power Technology, Inc. PO Box 191117, 72219-1117 Little Rock, AR. United States of America.

Tel: +1 501 407 07 12, sales@powertechnology.com, www.powertechnology.com

PPT Vision · 6301 Old Shakopee Road, 55438 Bloomington, MN, United States of America, Tel: +1 952 996 95 00, sales@pptvision.com, pptvision.com

#### Solution Provider

Pressco Technology Inc. · 29200 Aurora Road, 44139 Cleveland, OH, United States of America, Tel: +1 440 498 26 00, sales@pressco.com, www.pressco.com

#### **Rice Camera Technologies**

330 East Fifth Street, 48067 Royal Oak, MI, United States of America Tel: +1 800 809 01 93, sales@ricecamera.com, ricecamera.com/contact

#### Solution Provider

Distributor

Rockwell Automation, Inc. · 1201 South Second Street, 53204-2496 Milwaukee, WI, United States of America, Tel: +1 414 382 20 00, webmaster@rockwellautomation.com, www.rockwellautomation.com

#### Producer

SensorDesk, Inc. · 30 Merion Pl., 8648 Lawrenceville, NJ, United States of America, Tel: +1 609 642 13 77, voigt@sensordesk.com, www.sensordesk.com

Sensors Unlimited, Inc. · 3490 Route 1 Building 12, 08540-5914 Princeton, NJ, United States of America, Tel: +1 609 520 06 10, karen.jeffers@goodrich.com, www.sensorsinc.com

#### Software, Solution Provider, Vision Systems, Turnkey Solutions, Integration Services

senswork Inc. · 2109 West Market Street, Suite 154, Johnson City, TN 37604, USA, Tel: +1 423.283.8550, www.senswork.us

#### Integrator

Serview, Inc. · 420D Kelley Drive, 8091 West Berlin, NJ, United States of America, Tel: +1 856 719 90 34, steveL@serview.net, www.serview.net

#### Producer

Servo-Robot Inc. · 1370 Hocquart, J3V 6E1 St-Bruno, QC, Canada, Tel: +1 450 653 78 68, sales@servorobot.com, www.servorobot.com

#### Machine Builder/OEM

Smart Vision Lights is a leading designer and manufacturer of high-brightness LED lights for industrial applications, including machine vision. All products come with universal internal current-control drivers, offering constant or strobed operation, reduced wiring requirements, and easy installation. Smart Vision Lights products are the safest on the market thanks to the company's in-house IEC 62741 light-testing laboratory, guaranteeing conformity and compliance.

Smart Vision Lights · 2359 Holton Road, 49445 Muskegon, MI, United States of America, Tel: +1 231 722 11 99, info@smartvisionlights.com, www.smartvisionlights.com

## Producer

Spectrum Illumination · 5114 Industrial Park Rd., 49437 Montague MI, United States of America, Tel: +1 231 894 4590, sales@spectrumillumination.com www.spectrumillumination.com

#### Solution Provider

SPG Data 3D Corporation · 2151 Leonard de Vinci, J3E 1Z3 Ste-Julie, QC, Canada, Tel: +1 450 922 35 15, sales@spgdata3d.com, www.spgdata3d.com

Sunex, Inc. · 3160 Lionshead Ave, Suite B, 92010 Carlsbad, CA, United States of America, Tel: +1 760 597 2966, sales@sunex.com, www.sunex.com

#### Producer

Sydor Optics · 31 Jet View Drive, 14624 Rochester, NY, United States of America, Tel: +1 585 271 73 00, mikev@sydor.com, www.sydor.com

### Producer

Syntec Optics · 515 Lee Road, 14606 Rochester, NX, United States of America, Tel: +1 585 768 25 13, info@syntecoptics.com, syntecoptics.com/

Systematic Vision · PO Box 490, 1721 Ashland, MA, United States of America, Tel: +1 508 532 11 16, info@systematicvision.com, www.systematicvision.com Producer

Teledyne Dalsa is part of the Teledyne Imaging group of leading-edge companies aligned under the Teledyne umbrella. With unrivalled expertise across the spectrum and decades of experience, the collective offers world-leading capabilities in sensing, signal generation and processing, enabling customers to succeed across a wide range of applications and industries. Offering world-wide customer support and the technical expertise to handle the toughest tasks, Teledyne Imaging tools, technologies, and vision solutions are built to deliver to their customers a unique and competitive advantage.

**Teledyne Dalsa** • 605 McMurray Road, N2V-2E9 Waterloo, ON, Canada, Tel: +1 519 886 60 00, sales.americas@teledynedalsa.com, www.teledynedalsa.com/mv

#### Producer

Teledyne Lumenera, part of the Teledyne Imaging Group, provides an extensive range of high-quality digital cameras with unique combinations of speed, resolution, and sensitivity to satisfy the demands of today's imaging applications. Teledyne Lumenera also offers custom design services to OEM partners requiring specialized hardware and software features. Our core competencies include digital bus technologies such as USB 3.0, USB 2.0, Ethernet, HDMI and Gigabit Ethernet (GigE) as well as a complete command of digital imaging hardware and software built around CMOS and CCD based imagers.

**Teledyne Lumenera Corporation •** 7 Capella Court, K2E 8A7 Ottawa, ON, Canada, Tel: +1 613 736 40 77, lumenera.info@teledyne.com, www.teledynelumenera.com

#### Producer

**Teledyne Dalsa Rad-icon Imaging** · 765 Sycamore Drive, 95035 Milpitas, CA, United States of America, Tel: +1 408 736 60 00, sales.rad-icon@teledynedalsa.com, www.rad-icon.com

#### Producer

Teledyne IIS (Integrated Imaging Solutions) designs, develops, manufactures, markets, and distributes industrial-grade technologies that enhance productivity and development. The company provides innovative sensing solutions, enriching lives through

machine vision, spherical imaging, and stereo-imaging technologies. Teledyne IIS offers a diversified portfolio that serves a wide variety of applications in industrial, medical, geospatial, and advanced robotics markets.

Teledyne Integrated Imaging Solutions Inc. · 12051 Riverside Way, Richmond, BC V6W 1K7, Canada, Tel: +1 604 242 99 37, mv-sales@teledyne.com, www.flir.com/iis/machine-vision

#### Producer

Theia Technologies applies American innovation with Japanese optics expertise to deliver high performance optics to meet the exacting requirements of machine vision, intelligent transportation, security and other industrial imaging applications. Theia's compact, 5mpx & 4K resolution lenses are used by companies worldwide for Machine Vision, Robotics, ITS, Video Surveillance and other applications to provide high image detail in both visible and NIR light.

Theia Technologies · 29765 SW Town Center Loop W. Suite 4, 97070 Wilsonville, USA, Tel: +1 5035 7032 96, info@theiatech.com, www.theiatech.com

Tekstar Optical Inc. 270 Kohr Rd., 11754-1237 Kings Park, NY, United States of America, Tel: +1 631 663 35 58, info@tekstaroptical.com, www.tekstaroptical.com

#### Machine Builder/OEM

Toshiba Imaging Systems Division · 9740 Irvine Blvd., 92618-1697 Irvine, CA, United States of America, Tel: +1 877 595 44 25, vincent.giovinco@tais.toshiba.com, www.cameras.toshiba.com

#### Solution Provider

TYZX, Inc. · 3715 Haven Avenue, Suite 110, 94025 Menlo Park, CA, United States of America, Tel: +1 650.906.84 34, info@tyzx.com, www.tyzx.com

#### Distributor

USBFireWire · 1815 E Douglas, 67211 Wichita, KS, United States of America, Tel: +1 877 522 37 79, sales@usbfirewire.com, www.USBFireWire.com

#### Solution Provider

Venturi Astrolab, Inc. (Astrolab) is pioneering the development of next-generation rovers for the moon, Mars and beyond. The company is singularly focused on designing, building,

and operating a fleet of multi-purpose commercial rovers that will extend and enhance humanity's presence in space.

#### Integrator, Solution Provider

Vision Machines Inc. · PO Box 447, 1730 Bedford, MA, United States of America, Tel: +1 781 275 20 20, info@vision-machines.com, www.vision-machines.com

#### Producer

Vision Research / Ametek Materials Analysis Division 100 Dey Rd., 7470 Wayne, NJ, United States of America, Tel: +1 973 696 45 00, phantomn@visionresearch.com, www.visionresearch.com

#### Consultant

Vizzion, Inc. · 321 Sasamat Lane, V7G 2S4 North Vancouver, BC, Canada, Tel: +1 604 985 9399, info@vizzion.com, www.vizzion.com/development

#### Machine Builder/OEM

Xiris Automation Inc. · 5046 Mainway, Unit 2, L7L 5Z1 Burlington, ON, Canada, Tel: +1 905 331 66 60, sales@xiris.com, www.xiris.com



#### Distributor

Adept Electronic Solutions · Level 1, 15 Drake St, 6017 Osborne Park, WA Australia, Tel: +61 08 924 253 50, adept@adept.net.au, www.adept.net.au

#### Machine Builder/OEM

Awesome Tape Specialties · Huli Industrial Zone #3, 361100 Xiamen, Fujian, China, Tel: +86 592 70 75 788, info@awtape.com, www.awtape.com

#### Distributor

By combining innovative technology and customer-oriented service, Baumer ranks among the leading manufacturers of digital cameras and vision sensors. Modern image processing applications face the challenge of successfully completing complex inspection tasks at top speed.

Baumer products are specially developed for demanding applications with high performance and quality requirements. With long-time stable reliability, versatility and easy integration, they convince customers all over the

**Baumer (China) Co., Ltd.** · Building 11, No. 1525 Minqiang Road, Songjiang District Shanghai PRC, 201612 Shanghai, China, Tel: +86 21 6768 7095, sales.cn@baumer.com, www.baumer.com

#### Producer

BitRefine group · 8 Argyle Street, 999077 Hong Kong, Hong Kong, Tel: +852 8197 4631, hello@bitrefine.group, bitrefine.group

Bright Machines · Frances Bldg. Greenwork Ind. Park., 6097200 Yakum, Israel, www.brightmachines.com

#### Distributor, Producer

Founded in 1991, Daheng Imaging is the most famous high-tech enterprise focusing on developing and manufacturing machine vision components, machine vision system and internet medical products in China. As core asset of public company Daheng Tech, Daheng Imaging are committed to providing our customers with cutting edge technology, high quality products and perfect service.

China Daheng Group Inc. Beijing Image Vision Technology Branch No.3 Suzhou Str., Haidian District 12F Daheng Science&Technology Tower, 100080 Beijing, China, Tel: +86 10 828 288 788 081, www.daheng-image.com

#### Consultant, Integrator, Producer, Solutions Provider

Enlitech is the leading company in photon-electron conversion inspection field and invests more than 10 years in the non-destructive and optical inspection technology on CIS and CCM. The company provides complete testing solutions covering the whole industry chain, including CIS wafer, CIS die, CIS chip, CIS module, and CIS camera. Application fields cover CCD and CMOS image sensors in mobile phone, automobile, aerospace, defense, and scientific cam-

Enli Technology Co. Ltd. 1F., No.96, Luke 5th Rd., Luzhu Dist., (Kaohsiung Science Park), Kaohsiung City, 821, Taiwan, Tel: +886-7-6955669, qeservice@enli.com.tw, enlitechnology.com

#### Producer

Focuz provides advanced EMS & ODM manufacturing services with extensive experiences since 2009 in hybrid electronic packaging, packaging of optoelectronic and precision electromechanical components, modules, and sub-systems, as well as SMT & box build for OEMs in Industrial, Biomedical & Healthcare, Clean Energy, Datacom, Automotive.

Focuz is highly specialized in EMS/Service for CMOS/Image Sensor packaging, for industrial sensors and detectors in biomedical and industrial camera application.

Focuz Manufacturing Co., Ltd · 60/97 Moo 19, Paholyothin Rd., Navanakorn Industrial Estate, Klongluang Patumthanee 12120, Thailand, Tel: +66-2-5295708, contact@focuz-mfg.com, www.focuz-mfg.net

#### Distributor, Solution Provider

G4 Technology Co., Ltd. · 5F, No. 46, Sec. 3, Minquan E. Rd, Taipei 104-77, Taiwan, Tel: +886 2 250 318 03, ken@g4.com.tw, www.g4.com.tw

#### Producer, Solution Provider

Gidel Ltd. · 2 Ha'ilan St. P.O.Box 281, 30600 Or Akiva, Israel, Tel: +972 4 610 25 00, sales\_eu@gidel.com, www.gidel.com

#### Producer

Goyo Optical Inc. · 3-8-31 Hamazaki, 351-0033 Asaka-Saitama, Japan, Tel: +81 48 474 22 35, info@goyooptical.com, www.goyooptical.com

#### Solution Provider

Guangzhou Eusens Technology Co., Ltd · Panyu Luoxi, 510075 Guangzhou, ACT, China, Tel: +1 3760 812 861, sales@panasonicservomotor.com, panasonicservomotor.com/e5cn

#### Producer

Established in Israel in 2017, Hailo developed the world's best performing AI processors for edge devices. As a leading AI chip company with worldwide business activities and world-leading partners in different domains, Hailo's deep learning tech-

nology is set to transform the AI chip industry, putting new compute possibilities within reach. The Al processor is designed to fit into smart devices in various industries and use cases including automotive, smart cities, retail, and industry 4.0.

Hailo Technologies LTD. · 82 Yigal Alon St., 6789124 Tel-Aviv, Israel, sales\_emea@hailo.ai, hailo.ai

#### Producer

Hangzhou Hikvision Digital Technology Co. No.555 Qianmo Road, Binjiang District, 310051 Hangzhou, China, Tel: +86 571 88075998, overseasbusiness@hikvision.com, www.hikvision.com

#### Producer

#### Hangzhou Hikrobot Technology Co., Ltd.

Binjiang District, 700 Dongliu Road, 310051 Hangzhou, China Tel: +86 0571 889 679 98, hikrobot@hikrobotics.com, www.hikrobotics.com/en

### Producer

Hirakawa Hewtech, which established in September 1948 in Tokyo, is specializing in manufacturing and sales of electric wires for the electrical and electronic industries and consistently pursue leading-edge technologies

that fill the needs of the times. In the FA field, Hirakawa Hewtech has developed a wide range of cables including Camera Link, USB3Vision, GigE Vision, CoaXPress and IEEE 1394b cable.

Hirakawa Hewtech Corp. ·7F, Sotetsu Tamachi Bldg., 4-17-5 Shiba, Minato-ku, 108-0014 Tokyo, Japan, eigyo@hewtech.co.jp, www.hewtech.co.jp/en

#### Manufacturer / Producer

Zhejiang HuaRay Technology Co., Ltd. is a professional company focusing on R&D, production, and sales of machine vision and autonomous mobile robot (AMR) products and solutions. Concentrating on smart manufacturing and logistics, the company has always insisted on satisfying customers' needs, creating value to help customers reduce costs, and making factories smarter.

HuaRay's products and solutions are widely used in the logistics, automotive, 3C, lithium battery, photovoltaic, semiconductor, and pharmaceutical industries.

Huaray Technology Co., Ltd. · NO.1199 BinAn Road, Hangzhou, China, Tel: +86 18969108325, shaoming.wu@irayple.com, www.irayple.com/en

## Producer

Imalligent technology, founded in 2015, is a well-known domestic manufacturer of machine vision products, specializing in the production, R&D and sales of machine vision products. Since the establishment of the enterprise, it has deeply cultivated the practical problems encountered by users at the application level, combined with 3D machine vision innovation technology, to provide users with the most landing visual solutions.

Imalligent Technology (Shanghai) Co. Ltd. · 306-7, 3rd floor, no.1-72, Lane 2855, Huqingping Road, Shanghai, China, www.imalligent.com

#### Producer

Inspekto Autonomous Machine Vision systems are designed to put the Machine Vision market on a one-way course, replacing existing expert-centric solutions by ready-to-go out-ofthe-box QA systems put at the very

hands of the industrial plant QA manager. Inspekto is transforming the €30B machine vision sector, introducing the world's first powerful entry into the new Autonomous Machine Vision Category

Inspekto AMV Ltd. · 7 Zeev Jabotinsky St, Aviv Tower, 52520 Ramat Gan, Israel, info@inspekto.com, inspekto.com

#### Producer

JAI is a global manufacturer of digital cameras for machine vision, traffic imaging, global security, medical imaging and scientific research. Besides a broad range of leading-edge 1-CMOS progressive area scan and line scan cameras, JAI is a leading provider of multi-imager cameras incorporating advanced prism-block technology,

including 3-CMOS RGB area scancameras, 2-CMOS multi-spectral cameras plus a complete family of 3-CMOS/4-CMOS line scan cameras. JAI's product program includes cameras for visible, UV, NIR and SWIR imaging with GigE Vision, USB3 Vision, CoaXPress, Camera Link and SFP+ interfaces.

JAI Ltd. - Japan · 10-35 Sakae-chou Kanagawa-ku, 221-0052 Yokohama, Kanagawa, Japan, Tel: +81 45 440 0154, camerasales.apac@jai.com, www.jai.com

#### Association

#### **Japan Industrial Imaging Association**

2-10-15, Nakameguro, Yamate Ave. K Bldg., 153-0061 Meguro, Tokyo, Japan, Tel: +81 3 371 639 33, info@jiia.org, www.jiia.org

Kamiera · 6A Massada St., 45294 Hod Hasharon, Israel. Tel: +972 9 760 34 25, info@kamiera.com, www.kamiera.com

#### Producer

Kaya Instruments · 20 HaMesila St., 3688520 Nesher, Israel, Tel: +972 72 272 35 00, george@kayainstruments.com, www.kayainstruments.com

#### Machine Builder/OEM, Solution Provider

KOS Laboratory Homogenizer · A18 Second Floor, Building 1,

Shunlian Machinery Plaza, ChenCun Town, 528313 Foshan, Guangdong, China, Tel: +86 757 293 185 41, drbluejack@yahoo.com,

www.emulsifyingmixer.com/homogenizer/lab-homogenizer.html

#### Distributor, Machine Builder/OEM, Producer, Solution Provider

#### Lanoptik Technologies Ltd.

R1002, No.140 Zhongshan Avenue, 510630 Guangzhou, China, Tel: +86 20 389 860 17, info@lanoptik.com, www.lanoptik.com

#### Machine Builder/OEM

#### Leading-Tech Laser Co., Ltd.

5th floor, building 52, No.5688, Long Wu Road, 200241 Shanghai, China, Tel: +86 21 335 881 22, sale@leading-techlaser.com, www.leading-techlaser.com

#### Producer

Mega Phase Industrial Inspection Technology (Shanghai) Co., Ltd. (Mega Phase Technology), as the leading industrial structured light 3D camera manufacturer and a member of Shanghai Software Industry Association, is located in Shanghai Zhangjiang Science City. Since the establishment, the company has achieved great technical development and obtained a number of patent certificates, including invention patents, utility model patents and software copyrights.

Mega Phase Industrial Inspection Technology(Shanghai) Co., Ltd. · #88 Chenui Road, Building 1, Room 303, Pudong New District, 201203 Shanghai, China, Tel: +86 21 63631362, sales@mega-phase.cn, megaphase3d.com/en

#### Producer

Nacacue Corporation was established in August 1980. The company specializes in developing new technology. Specifically in fields closely link to trends in society. It manufactures optical equipment, LED lighting solutions and electronic control systems for industrial machine vision. The company goal is to contribute to the societies in which our customers are located through developing new technology to cultivate new markets.

Nacacue Corporation · 194-1, Higashitsuchikawa-cho, Kuze, Minami-ku, 601-8204 Kyoto, Japan, Tel: +81 75 934 41 78, info@nacacue.co.jp, www.nacacue.com

**NED (Nippon Electro-Sensory Devices Ltd.** · Shinagawa-ku, Ohi 1-45-2 Gibraltar Ohi Bldg, 4f, 140-0014 Tokyo, Japan, Tel: +81 3 571 831 81, info@ned-sensor.com, www.ned-sensor.co.jp/en

#### Manufacturer / Producer

Neousys Technology is a manufacturer of rugged embedded systems, GPU computers and modules. With all products designed, assembled and built in Taiwan, Neousys aims to accelerate the application developments for industrial automation, machine vision, transportation, Al training and inference systems. Our patented products feature effective, simple and yet robust architecture and the machine vision platforms offer highly integrated vision controllers.

Neousys Technology Inc. · 15F., No. 868-3, Zhongzheng Rd., Zhonghe Ditstrict, 235 New Taipei City, Taiwan, Tel: +886 2 222 361 82, sales@neousys-tech.com, www.neousys-tech.com

#### Producer, Solution Provider

Neurocle · 32, Maeheon-ro 16-gil, Seocho-gu, Seoul, 06770, Korea, Tel: +82 2 6952 6897, info@neuro-cle.com, www.neuro-cle.com/en

#### Integrator

Nexus Engiconsults · A 115 2nd floor Shakarpur, 110092 New Delhi, India, Tel: +91 98 107 698 31, info@nexusengiconsults.com, www.nexusengiconsults.com

OPT is founded in 2005, following its continuous growing, OPT has developed one of the leading enterprise in machine vision industry. The main products are LED lights for machine vision application, lens, and other vision solution components.

OPT is a LED lights provider, which is focused on LED light and vision components for research and production. By the hard works of OPTers, the company has enlarged it's standard series into 38 types, besides that there are more than 100,000 customized lights available for support.

OPT Machine Vision Tech Co., LTD NO8. Jinsheng Road, 523853 Jinxia Chang'an Dongguan, Guangdong, China, Tel: +86 769 827 161 88, optmv1@optmv.com, www.optmv.net

#### Distributor, Machine Builder/OEM, Solution Provider

Prime Technologies · # 302, Bajsons Industrial Estate, Cardinal Gracious road Chakala, Andheri (East), 400099 Mumbai, India, Tel: +91 98 905 321 89, primetechindia@gmail.com, www.primetechindia.co.in

#### Producer

Proteus Electronics Pvt. Ltd. · 18D, Kandivali Industrial Estate, Charkop, Kandivali (W), 400067 Mumbai, India, Tel: +91 22 286 047 77, sales@ proteuselectronics.in, www.proteuselectronics.in

#### Machine Builder/OEM

RAA Vision Pvt Ltd. · Om vihar, 110058 New Delhi, Delhi, India, Tel: +91 99 116 902 40, amit@raavision.com, www.raavision.com

#### Machine Builder/OEM

Runma Cartesian Robot Arm Co., Ltd. · Yuning Industrial Zone, Hengli Town, 523461 Dongguan, Fujian, China, Tel: +86 769 821 819 87, runmarobot@jeawin.com, www.runmarobot.com

#### Solution Provider

Saccade Vision is a startup company that develops a novel three-dimensional machine vision solution for Industrial Dimensional Inspection and Vision Guided Robotics. The solution includes two main components: a unique smart hybrid 3D camera and flexible and autonomous software. Employing a proprietary, patent-pending technology, the company simulates the way human vision works, by zooming into important information on the measured part and by disregarding the non-useful information.

Saccade Vision · 2 Oppenhaimer st. 6th Floor, Scientific Park, Rehovot, 7670102, Israel, Tel: +972 50 2088966, info@saccadevision.com, www.saccadevision.com

#### Manufacturer / Producer

Shenzhen Dongzheng Optical Co. Ltd (DZO in short) is a manufacturer of industrial lenses as well as optical and mechanical components for machine vision applications. Our product line ranges from line scan lens, area scan lens and tele-centric lens, for both

visible and infrared application and mainly applicable for camera image sensor larger than 1.1". DZO lenses are widely applied in automated industries, mainly in optical inspection and measurement, e.g., Semi-conductor, New Energy, Consumer Electronics.

Shenzhen Dongzheng Optical Co. LTD · 6F, Building One, Xinwuxia Industrial Park, No.32, Cuibao Road, Baolong Street, Longgang District, 518000 Shenzhen, China, Tel: +86 755 2907 9702, sales01@dzoptics.com, www.dzoptics.com

#### Producer

Shenzhen Kuangshi Communication Technology · 6/F, No.1 Building, Zhongyuntai Industry Park, Tangtou Shiyan, 51818 Shenzhen, China, Tel: +86 755 297 818 35, zteyhb@gmail.com, www.ksfiberoptic.com

#### Manufacturer / Producer

**sInfraRed Pte Ltd. A Xenics company** • Blk 28 Sin Ming Lane, #06-143 Midview City, 573972, Singapore, Tel: +65 647 666 48, sales@sinfrared.com, www.sinfrared.com

#### Solution Provider

TMS Lite Sdn Bhd · 2A-2, Tingkat Kenari 5, Desa Ria, Sungai Ara, 11900 Bayan Lepas, Penang, Malaysia, Tel: +604 646 84 28, sales@tms-lite.com, www.tms-lite.com

#### Producer

Toshiba Teli Corporation provides CCD and CMOS cameras for various application in a global market such as machine vision, industrial automation, as well as ITS and medical imaging. Toshiba Teli Corporation has a variety of camera lineup with a multiple selection of digital interfaces, GigE Vision,

USB3 Vision, Cameralink and Firewire with using high quality sensors to meet customer's demands. Our products are subject to total in-house manufacturing from the procurement and supply of components to assembly, wiring and inspection.

**Toshiba Teli Corporation** · 4-7-1 Asahigaoka, 1910065 Hino, Tokyo, Japan, Tel: +81 425 898 771, teli\_glb@toshiba-teli.co.jp, www.toshiba-teli.co.jp

#### Solution Provider

Tower Semiconductor Ltd., the leader in high-value analog semiconductor foundry solutions, provides technology and manufacturing platforms for

integrated circuits (ICs) in growing markets such as consumer, industrial, automotive, mobile, infrastructure, medical and aerospace and defense.

**Tower Semiconductor** · Ramat Gavriel Industrial Park 20 Shaul Amor Avenue P.O. Box 619, Migdal Haemek, 2310502 Israel, Tel: +972 4 6506 611, towersemi.com

#### Producer

TriEye revolutionizes machine vision with the world's first CMOS-based Short-Wave Infrared (SWIR) sensing solution to provide mission-critical information for multiple industries and enable imaging in all weather & lighting conditions. Focusing first on

the automotive market, the company delivers image data where other cameras fail. TriEye's vision and remote material sensing capabilities dramatically increase the efficacy of ADAS & AV to prevent accidents & save lives.

TriEye Ltd. · Yigal Alon 94, 6789139 Tel Aviv, Israel, info@trieye.tech, trieye.tech

#### Distributor

VICO is dedicated to promoting the development of machine vision/computer vision/digital imaging technology. The brands the company distributes include COOLENS, Carm, Lontry, etc., and is still expanding. Those of

the most excellent quality manufactured in China in the vision area are their focus. The products involved include lenses, smart cameras, illuminations, cables, controllers, digital image test solutions, and more.

**HongKong Vico Technology Limited** · Flat/RM A 12/F ZJ 300, 300 Lockhart Road, Wan Chai, Hong Kong, China, Tel: +86 (755) 28342978-802, sales@vicoimaging.com, vicoimaging.com

#### Producer

Vecow is a team of global embedded experts committed to designing, developing, producing, and selling industrial-grade computer products. Vecow offers One-Stop Edge Al Solution Services with leading performance, trusted reliability, advanced

technology, and innovative concepts. Vecow aims to be your trusted embedded business partner. Vecow experienced project team is providing integrated services for machine vision, mobile robots, smart manufacturing, digital rail, transportation and V2X.

Vecow Co. Ltd. · 3F, No. 10, Jiankang Rd., Zhonghe Dist., 23586 New Taipei City, Taiwan, Tel: +886 2 2268 5658, info@vecow.com, www.vecow.com

Integrator

**View-Factor** · Av Circunvalacion, Cochabamba, Bolivia, Tel: +591 4 445 45 95, agalindo@view-factor.com, www.view-factor.com

#### Distributor

ViTec company was established in 1995 with headquarters located in Saint-Petersburg. Since that time it has been working in the field of industrial measurements and automation. Through access to modern technologies and technical equipment the

team of professionals can efficiently solve the most complex technical problems. In order to increase the speed of customer service in Siberia and the Far East a ViTec-Siberia department was opened in 2006 in Tomsk

 $\begin{tabular}{ll} \textbf{ViTec} \cdot Fontanka 170, 198035 Saint-Petersburg, Russian Federation, info@vitec.ru, www.vitec.ru \end{tabular}$ 

#### Producer

Vieworks' industrial cameras create values beyond what is visible.

Vieworks develops industrial cameras based on the industry's top optical design technology. The industrial camera plays the role of an "eye" in the machine vision, which is one of

the core areas of industrial automation. For quality control and stabilization of the inspection objects, the company focuses on the development of camera technologies for taking higher resolution at a faster speed.

Vieworks Co., Ltd. · 41-3, Burim-ro 170beon-gil, Dongan-gu, Anyang-si, Gyeonggi-do, 14055 Republic of Korea, Tel: +82 70 7011 6161, vision@vieworks.com, vision.vieworks.com

#### Producer

Voyage81 is working on implementing a custom color filter array on a CMOS sensor, that re-invents conventional RGB imaging under low-light conditions. The technology can increase the combined performance of existing sensors, optics, and even software post-processing by over 100 percent

in low-light conditions, while providing at the same time rich hyperspectral information that facilitates material sensing of objects in the captured image. The material sensing solution can also be implemented as a software only add-on to a standard RGB camera

Voyage81 · Yigal Alon 94, Tel Aviv, Israel, Tel: +972 5566 1200 7, voyage81.com

# Manufacturer / Producer

Weihai Hualing Opto-Electronics (WHEC) is a Sino-Japanese joint venture with 26-year experience of developing and manufacturing contact image sensors (CIS). Compared with traditional line scan cameras, CIS works at a close working distance while maintaining clear, sharp

image definition over its entire length, is used for vision inspection applications such as web, label, battery film, etc. Besides, WHEC offers flexible customization service to enable CIS technology to fit a wide range of devices and applications.

Weihai Hualing Opto-Electronics Co., Ltd · 179 Keij Road Hi-Tech IDZ, 264209 Weihai Shandong, China, Tel: +86 631 569 81 28, shikexing@whec8.cn, www.w-hec.com/en



# **Cameras & Image Sensors**

ABS	www.abs-jena.de
Acal BFi Germany	www.bfioptilas.com
Adimec	www.adimec.com
AIM Infrarot Module	www.aim-ir.de
Allied Vision Technologies	www.alliedvisiontec.com
Allison Park Group	www.apgvision.com
Alrad Imaging	www.alrad.co.uk
AMS Technologies	www.amstechnologies.com
AnaFocus	www.anafocus.com
Andanta	www.andanta.de
Andor Technology	www.andor.com
AOS Technologies	www.aostechnologies.com
<b>Applied Scintillation Technologies</b>	www.scintacor.com
Artray	www.artray.co.jp
Asentics	www.asentics.de
Automation Technology	www.automationtechnology.de
B&R Industrie-Elektronik	www.br-automation.com
BAP Image Systems	www.bapimgsys.com
Basler Vision Technologies	www.baslerweb.com
Baumer	www.baumer.com
Becom Systems	www.becom-group.com
Beijing Microview	www.microview.com.cn
<b>Bock Optronics</b>	www.bockoptronics.ca
B&R Industrie-Elektronik	www.br-automation.com
C-Cam Technologies	www.c-cam.be
China Daheng Group	www.daheng-image.com
Chromasens	www.chromasens.de
Cmos Vision	www.cmosvision.com
Cognex	www.cognex.com
Cohu	www.cohu-cameras.com
Compar	www.compar.ch
Cosyco	www.cosyco.de
CSEM	www.csem.ch
Cypress Semiconductor	www.cypress.com
<b>Datalogic Automation</b>	www.datalogic.com
Datapixel	www.datapixel.com
Dedo Weigert	www.dedoweigertfilm.de
Digital West Imaging	www.highspeedvideos.com
E2v	www.e2v.com
Ebs Automatisierte Thermo- graphie und Systemtechnik	www.irpod.net
Edmund Optics	www.edmundoptics.de
EHD imaging	www.ehd.de

Eltec Elektronik	www.eltec.com
Entner Electronics	www.entner-electronics.com
Epix	www.epixinc.com
Erhard + Leimer	www.erhardt-leimer.com
Eureca Messtechnik	www.eureca.de
EVision Systems	www.evision-systems.de
EVK DI Kerschhaggl	www.evk.biz
Fabrimex Systems	www.fabrimex-systems.ch
Fairchild Imaging	www.fairchildimaging.com
Fastec Imaging	www.fastecimaging.com
FiberVision	www.fibervision.de
FJW Optical Systems	www.findrscope.com
Flir Advanced Thermal Solutions	www.flir.com
Flir Systems	www.flir.com
Flir Systems	www.flir.com/mv
Fluke	www.fluke.de
Fort	www.fort-fr.com
Framos	www.framos.eu
Fraunhofer IMS	www.ims.fraunhofer.de
FSI Technologies	www.fsinet.com
Fuzhou Feihua Optoelectronic Technology	www.fzfh.com
G4 Technology	www.g4.com.tw
Gevicam	www.gevicam.com
Gpixel	www.gpixelinc.com
Gsvitec	www.gsvitec.com
Hamamatsu Photonics	www.hamamatsu.com
Helion	www.helionvision.com
Heliotis	www.heliotis.ch
Hexagon DEU01	www.hexagonmi.com
High Speed Vision	www.hsvision.de
Hitachi Kokusai Electric Europe	www.Hitachi-keu.com
Horn Imaging	www.horn-imaging.de
Ico Data	www.icodata.de
IDS	www.ids-imaging.com
Ifm electronic	www.ifm.com
Ikegami	www.ikegami.de
Illunis	www.illunis.com
Image House	www.imagehouse.dk
Image S	www.imagessrl.com
Imaging Solutions Group	www.isgcameras.com
Imi tech	www.imi-tech.com
	www.imperx.com

IMS Chips	www.ims-chips.de
Industrial Vision Systems	www.industrialvision.co.uk
Infaimon	www.infaimon.com
InfraTec	www.infratec.de
Innomiles International	www.innomiles.com
Insensiv	www.insensiv.de
IOS	www.ins-web.de
Ircam	www.ircam.de
IS Imaging Solutions	www.incam.de
ISVI	
IAI	www.isvi-corp.com
•	www.jai.com www.jfas.co.jp
Japan F.A. Systems JenCam	
•	www.jencam.de
Jenoptik Kamera Werke Dresden	www.jenoptik.de www.kwdo.de
Kappa opto-electronics	www.kappa.de
Karlheinz Hinze Optoengineering	www.hinze-opto.de
KeeKoon Electronics	www.keekoon.com
Klughammer	www.klughammer.de
Kvant	www.kvant.sk
Lambda Photometrics	www.lambdaphoto.co.uk
Lambert Instruments	www.lambert-instruments.com
Leitner Industrial Endoscopy	www.leitner-efer.de
Leutron Vision	www.leutron.com
Leuze Electronic	www.leuze.com
LMI Technologies	www.lmi3d.com
Lord Ingenierie	www.lord-ing.com
LOT Quantum Design	http://lot-qd.de
Lucid Vision Labs	www.thinklucid.com
Lumasense Technology	www.lumasenseinc.com
Luster LightVision Tech	www.lusterinc.com
MAK Bildtechnik	www.mak-bildtechnik.de
Matrix Vision	www.matrix-vision.de
MaxxVision	www.maxxvision.com
Menzel Vision and Robotics	www.menzelab.com
Mega Phase Industrial Inspection Technology	www.mega-phase.cn
Mesa Imaging	www.mesa-imaging.ch
MG Optical Solutions	www.mgopticalsolutions.com
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<b>Pieper</b> www.pieper-video.de
<b>PixeLink</b> www.pixelink.com
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<b>Polytec</b> www.polytec.de/bv
<b>Precitec</b> www.precitec.ch
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Proxitronic	www.proxitronic.com
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Rauscher	www.rauscher.de
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Roper Scientific	www.roperscientific.de
Rubroeder	www.rubroeder.de
Salvador Imaging	www.salvadorimaging.com
Schael-Optik	www.schael-optik.de
Schäfter + Kirchhoff	www.sukhamburg.de
Schmachtl	www.schmachtl.at
SDT - Dr. Seitner	www.sdt-seitner.com
Second2None	www.visiondragon.com
Secube	www.secube.co.kr
Sedeco Vision Components	www.sedeco.nl
Seiwa Optical	www.seiwaopt.co.jp
Sensors Unlimited	www.sensorsinc.com
Sentech	www.sentech.co.jp
Sglux	www.sglux.com
Sharp Microelectronics	www.sharpsme.com
SKS Vision Systems	www.visionsystems.fi
Slomotec	www.slomotec.de
Smartek	www.smartek.hr
Smartray	www.smartray.de
Soliton Technologies	www.solitontech.com
Sony	www.pro.sony.eu/vision
Stemmer Imaging	www.stemmer-imaging.com
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
Sugitoh	www.sugitoh.jp
SVS Vistek	www.svs-vistek.com
Symco	www.symco.co.jp
Systematic Vision	www.systematicvision.com
Tattile	www.tattile.com
Tekno Optik	www.teknooptik.se
Tekstar Optical	www.tekstaroptical.com
Teledyne Dalsa	www.teledynedalsa.com
Teledyne e2v	www.teledyne-e2v.com
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Thermosensorik	www.thermosensorik.de
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Toshiba Teli	www.toshiba-teli.co.jp
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Unibrain	www.unibrain.com
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Vega Technology Group	www.vegatcgroup.com
Vialux	www.vialux.de
Vicon Motion Systems	www.vicon.com
<b>Videology Imaging Solutions</b>	www.videologyinc.com
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Vieworks	www.vieworks.com
Visicontrol	www.visicontrol.com
Visiolaser	www.vannier-photelec.fr/ visiolaser
Vision & Control	www.vision-control.com
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Vision Research	www.visionresearch.com
Vision Tools	www.vision-tools.com
Visiosens	www.visiosens.de
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Vitronic	www.vitronic.com
Vizaar	www.vizaar.de
VKT	www.vkt.de
V-Optics	www.v-optics.fr
VRmagic	www.vrmagic.com
Weiss Imaging and Solutions	www.weiss-imaging.de
Wenglor Sensoric	www.wenglor.com
Werner Nophut	www.dsam.de
Xenics	www.xenics.com
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CMOSIS	www.cmosis.com
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SPG Data 3D	www.spgdata3d.com
Stemmer Imaging	www.stemmer-imaging.com
Strategema   Frank Olschewski Consulting	www.stra-te-gema.com
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
Supercomputing Systems	www.scs-vision.ch
SVS Vistek	www.svs-vistek.com
Symop	www.symop.com
Systematic Vision	www.systematicvision.com
Ukiva	www.ukiva.org
University of Applied Scienes	www.fbmn.h-da.de
Univision	www.univision.it
Van de Loosdrecht Machine Vision	www.vdlmv.nl
VDMA Industrielle Bildverarbeitung	www.vdma.org/vision
Vega Technology Group	www.vegatcgroup.com
Vision & Control	www.vision-control.com
Vision Club of Finland	www.automaatioseura.fi
Vision Machines	www.vision-machines.com
Vision Tools	www.vision-tools.com
Vision Ventures	www.vision-ventures.eu
Visionlink	www.visionlink.it
Vitronic	www.vitronic.com
VMT	www.vmt-gmbh.com
Wenglor Sensoric	www.wenglor.com

# Frame Grabber

Active Silicon	www.activesilicon.com
Adlink	www.activesilicon.com
7.4	www.advantech.eu
Advantech Europe	www.alacron.com
7 11441 011	
Alrad Imaging	www.alrad.co.uk
Arvoo Imaging Products	www.arvoo.com
B&R Industrie-Elektronik	www.br-automation.com
Baumer	www.baumer.com
Beijing Microview	www.microview.com.cn
BitFlow	www.bitflow.com
Bock Optronics	www.bockoptronics.ca
China Daheng Group	www.daheng-image.com
Cognex	www.cognex.com
Cosyco	www.cosyco.de
Cyberoptics Semiconductor	www.imagenation.com
EDT	www.edt.com
EHD imaging	www.ehd.de
Ellips	www.ellips.nl
Eltec Elektronik	www.eltec.com
Epix	www.epixinc.com
Euresys	www.euresys.com
Fabrimex Systems	www.fabrimex-systems.ch
Fast	www.fast-corp.co.jp
Framos	www.framos.eu
G4 Technology	www.g4.com.tw
Gidel	www.gidel.com
HaSoTec	www.hasotec.com
IDS	www.ids-imaging.com
Image House	www.imagehouse.dk
Image S	www.imagessrl.com
Imaging Solutions Group	www.isgcameras.com
Imperx	www.imperx.com
Infaimon	www.infaimon.com
IS Imaging Solutions	www.imaging-solutions.de
Isra Vision	www.isravision.com
Japan F.A. Systems	www.jfas.co.jp
Karlheinz Hinze Optoengineering	www.hinze-opto.de
Kvant	www.kvant.sk
Lambda Photometrics	www.lambdaphoto.co.uk
Leutron Vision	www.leutron.com
Luster LightVision Tech	www.lusterinc.com
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Matrix Vision	www.matrix-vision.de
Matrox Imaging	www.matrox.com/imaging
MaxxVision	www.maxxvision.com
Menzel Vision and Robotics	www.menzelab.com
Microsystems	www.microsystems.it
Mikrotron	www.mikrotron.de
MsiVision	www.msivision.com
National Instruments	www.ni.com
Odem Technologies	www.odem.co.il
Omron Microscan Systems	www.microscan.com
Orbis	www.orbis.eu
Parameter	www.parameter.se
Phaer	www.phaer.be
Phytec Messtechnik	www.phytec.de
Pi4_robotics	www.pi4.de
Polytec	www.polytec.de/bv
Premier Electronics	www.premierelect.co.uk
Qualimatest	www.qmt.ch
Rauscher	www.rauscher.de
Schael-Optik	www.schael-optik.de
Schäfter+Kirchhoff	www.sukhamburg.de
Schmachtl	www.schmachtl.at
Second2None	www.visiondragon.com
Sensor to Image	www.sensor-to-image.de
Silicon Software	www.silicon-software.de
Stemmer Imaging	www.stemmer-imaging.com
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
Sundance Multiprocessor Technology	www.sundance.com
SVS Vistek	www.svs-vistek.com
Symco	www.symco.co.jp
Systematic Vision	www.systematicvision.com
Teledyne Dalsa	www.teledynedalsa.com
The Imaging Source	www.theimagingnsource.com
Videology Imaging Solutions	www.videologyinc.com
Vidisys	www.vidisys.de
Vision Tools	www.vision-tools.com
Visionlink	www.visionlink.it
Vistek	www.vistekas.com
Weiss Imaging and Solutions	www.weiss-imaging.de

# **Illumination & Lighting Systems**

A DIA/	1 211
ABW	www.abw-3d.de
Acal BFi Germany	www.bfioptilas.com
Advanced Illumiation	www.advancedillumination.com
Allison Park Group	www.apgvision.com
Alrad Imaging	www.alrad.co.uk
AutoVimation	www.autovimation.com
B&R Industrie-Elektronik	www.br-automation.com
Balluff	www.balluff.com
Baumer	www.baumer.com
Bock Optronics	www.bockoptronics.ca
Büchner Lichtsysteme	www.buechner-lichtsysteme.de
Cavitar	www.cavitar.com
CCS Europe	www.ccs-grp.com
Ceres Vision	www.ceresvision.de
Chromasens	www.chromasens.de
Cognex	www.cognex.com
Coherent	www.coherent.com
Collischon Optik-Design	www.mikro-optik.de
DCM Sistemes	www.dcmsistemes.com
Dedo Weigert	www.dedoweigertfilm.de
Digital West Imaging	www.highspeedvideos.com
Edmund Optics	www.edmundoptics.de
Effilux	www.effilux.fr
Erhard + Leimer	www.erhardt-leimer.com
Fabrimex Systems	www.fabrimex-systems.ch
Falcon Illumination MV	www.falcon-illumination.de
Faseroptik Henning	www.faseroptik-henning.de
Fiberoptics Technology	www.fiberoptix.com
FiberVision	www.fibervision.de
Finger	www.finger-kg.de
Framos	www.framos.eu
Frankfurt Laser Company	www.frlaserco.com
FSI Technologies	www.fsinet.com
G4 Technology	www.g4.com.tw
Gardasoft Vision	www.gardasoft.com
GPP Chemnitz	www.gppc.de
Hamamatsu Photonics	www.hamamatsu.com
Helmut Hund	www.hund.de
Hema	www.hema.de
Herbert Waldmann	www.waldmann.com
IB/E Optics	www.ibe-optics.com
Ifm electronic	www.ifm.com
liM	www.iimag.de
ILEE	www.ilee.ch
Image House	www.imagehouse.dk
Image S	www.imagessrl.com
Infaimon	www.infaimon.com
Innomiles International	www.innomiles.com
Insensiv	www.insensiv.de
IS Imaging Solutions	www.imaging-solutions.de
ISVI	www.isvi-corp.com
Japan F.A. Systems	www.jfas.co.jp
Jenoptik Laser, Optik, Systeme	www.jenoptik-los.de
Jos. Schneider Optische Werke	www.schneiderindustrialoptics.com
Karlheinz Hinze Optoengineering	www.hinze-opto.de

Keyence	www.keyence.de
Klastech	www.klastech.com
Klughammer	http://kms-e.de
Kvant	www.kvant.sk
Lambda Photometrics	www.lambdaphoto.co.uk
Laser 2000	www.laser2000.de
Laser Components	www.lasercomponents.com
LAT elektronik	www.latab.se
LDD Trading Associates	www.lddlight.com
Leistungselektronik Jena	www.lej.de
Leitner Industrial Endoscopy	www.leitner-efer.de
Leutron Vision	www.leutron.com
LMI Technologies	www.lmi3d.com
LOT Quantum Design	http://lot-qd.de
Luster LightVision Tech	www.lusterinc.com
Matrix Vision	www.matrix-vision.de
MaxxVision	www.maxxvision.com
MBJ Imaging	www.mbj-imaging.com
Menzel Vision and Robotics	www.menzelab.com
Metaphase Technologies	www.metaphase-tech.com
MG Optical Solutions	www.mgopticalsolutions.com
Microsystems	www.microsystems.it
Moritex	www.moritex.com
MsiVision	www.msivision.com
MTD	www.mtd-light.com
Myutron	www.myutron.com
Nacacue	www.nacacue.com
NET	www.netcom
NeuPro Solutions	www.neupro-solutions.com
Odem Technologies	www.odem.co.il
Olympus	www.olympus-europa.com
Omicron Laserage	www.omicron-laser.de
Omron Microscan Systems	www.microscan.com
Omron	www.industrial.omron.de
Opto	www.opto.de
Opto Engineering	www.opto-e.com
Opto Precision	www.optoprecision.de
Optometron	www.optometron.de
OptoPolymer	www.optopolymer.de
Orbis	www.orbis.eu
Parameter	www.parameter.se
PerkinElmer Optoelectronics	www.perkinelmer.com
Phaer	www.phaer.be
Phlox	www.phlox-gc.com
Phytec Messtechnik	www.phytec.de
Pi4_robotics Planistar Lichttechnik	www.pi4.de
	www.planistar.de
POG Präzisionsoptik Gera	www.pog.eu
Polytec Polytec	www.polytec.de/bv
Power Technology	www.powertechnology.com
Profactor	www.profactor.at
Qualimatest	www.qmt.ch
	www.quioptiq.de
Quioptiq	
Rauscher RH Engineering	www.rauscher.de www.rhengineering.de

Rheintacho Messtechnik	www.rheintacho.com
Schael-Optik	www.schael-optik.de
Schäfter + Kirchhoff	www.sukhamburg.de
Schmachtl	www.schmachtl.at
Schott Lighting and Imaging	www.schott.com
Second2None	www.visiondragon.com
Sedeco Vision Components	www.sedeco.nl
Seiwa Optical	www.seiwaopt.co.jp
Sharp Microelectronics	www.sharpsme.com
Sill Optics	www.silloptics.de
Smart Vision Lights	www.smartvisionlights.com
Smartek Vision	www.smartekvision.com
Soliton Technologies	www.solitontech.com
<b>Special Application Products</b>	www.sapltd.co.uk
Spectrum Illumination	www.spectrumillumination.com
Stemmer Imaging	www.stemmer-imaging.com
StockerYale	www.stockeryale.com
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
SVS Vistek	www.svs-vistek.com
Symco	www.symco.co.jp

Tecin	www.tecin.de
Tekno Optik	www.teknooptik.se
Tema	www.temavisio.com
The Imaging Source	www.theimagingnsource.com
Univision	www.univision.it
V Cubed	www.vcubed.co.uk
Vialux	www.vialux.de
Visicontrol	www.visicontrol.com
Visiolaser	www.vannier-photelec.fr/visiolaser
Vision & Control	www.vision-control.com
Vision Light Tech	www.visionlighttech.com
Vision Tools	www.vision-tools.com
Visionlink	www.visionlink.it
Visitool	www.visitool.de
Vistas	www.vistas-gmbh.de
Volpi	www.volpi.ch
VS Technology	www.vst.co.jp
Weiss Imaging and Solutions	www.weiss-imaging.de
Wenglor Sensoric	www.wenglor.com
Zertrox	www.zertrox.de

# Microscopes, Endoscopes & Equipment

Alrad Imaging	www.alrad.co.uk
AMS Technologies	www.amstechnologies.com
Andor Technology	www.andor.com
Asylum Research	www.asylumresearch.com
<b>Bock Optronics</b>	www.bockoptronics.ca
Breitmeier Messtechnik	www.breitmeier.de
Carl Zeiss Microimaging	www.zeiss.de/microscopy
Deben UK	www.deben.co.uk
Dr. Heinrich Schneider Messtechnik	www.dr-schneider.de
Edmund Optics	www.edmundoptics.de
EHD Imaging	www.ehd.de
Fei Company	www.fei.com
Fort SA	www.fort-fr.com
FRT Fries Research & Technology	www.frt-gmbh.com
G4 Technology	www.g4.com.tw
Heliotis	www.heliotis.ch
Helmut Hund	www.hund.de
Hipp Endoskop Service	www.hipp-endoskopservice.com
Horn Imaging	www.horn-imaging.de
Infaimon	www.infaimon.com
Infinity Photo-Optical	www.infinity-usa.com
Karl Storz	www.karlstorz.com
Karlheinz Hinze Optoengineering	www.hinze-opto.de
Kdorf Automation	www.kdorf.de
Keyence	www.keyence.de
Klughammer	www.klughammer.de
Kvant	www.kvant.sk
Leica Microsystems	www.leica-microsystems.com
Leitner Industrial Endoscopy	www.leitner-efer.de
LOT Quantum Design	http://lot-qd.de
MBR	www.mbr-gmbh.com
Micos	www.micos.ws
Micro-Epsilon	www.eltrotec.com
Mikroskoptechnik Rathenow	www.askania.de

Mitutoyo	www.mitutoyo.de
Moritex	www.moritex.com
MsiVision	www.msivision.com
NanoFocus	www.nanofocus.de
Nanosurf	www.nanosurf.com
Nikon	www.nikoninstruments.eu
Olympus	www.olympus-europa.com
Opto	www.opto.de
OptoMess	www.optomess.de
Optometron	www.optometron.de
Optoprim	www.optoprim.de
Oxford Instruments	www.oxford-instruments.com
Panasonic	http://business.panasonic.co.uk/imv
PCE Power Control	www.pce-powercontrol.de
Physik Instrumente	www.pi.ws
Pi4_robotics	www.pi4.de
Pro Design Electronic	www.prodesign-europe.com
Richard Wolf	www.richard-wolf.com
Rubroeder	www.rubroeder.de
Schael-Optik	www.schael-optik.de
Schäfer Technologie	www.schaefer-tec.com
Seiwa Optical	www.seiwaopt.co.jp
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
Tecin	www.tecin.de
Tekno Optik	www.teknooptik.se
Thermosensorik	www.thermosensorik.de
Vega Technology Group	www.vegatcgroup.com
Vision Engineering	www.visioneng.de
Visitool	www.visitool.de
Walter Uhl	www.walteruhl.de
Weiss Imaging and Solutions	www.weiss-imaging.de
Werth Messtechnik	www.werthmesstechnik.de
Wild	www.wild.at

# **Optical Metrology**

3D Shape	www.3d-shape.com
Alicona Imaging	www.alicona.com
Allsens Messtechnik	www.allsens.de
Ametek	www.ametek.de
AMS Technologies	www.amstechnologies.com
Andor Technology	www.andor.com
Applied Electro-Optics	www.aeousa.com
Applied Scintillation	www.scintacor.com
Technologies	
Armstrong Optical	www.armstrongoptical.co.uk
Avantes	www.avantes.com
Benteler Maschinenbau	www.benteler.de
Bentham Instruments	www.bentham.co.uk
Berliner Glas Gruppe	www.berlinerglas.de
Breitmeier Messtechnik	www.breitmeier.de
BST eltromat International	www.bst-international.com
BST International	www.bst-international.com
Carl Zeiss IMT	www.zeiss.de/Messtechnik
Carl Zeiss Microimaging	www.zeiss.de/microscopy
Carl Zeiss Optotechnik	optotechnik.zeiss.com
<b>Chunghwa Leading Photonics</b>	www.clpt.com.tw
Tech (CLPT)	
CMC Kuhnke	www.cmc-kuhnke.de
ColorLite	www.colorlite.de
Comet Yxlon	www.yxlon.comet.tech
Confovis	www.confovis.com
Creaform Deutschland	www.creaform3d.com
Dantec Dynamics	www.dantecdynamics.com
Datapixel	www.datapixel.com
Digital Surf	www.digitalsurf.com
Dr. Heinrich Schneider Messtechnik	www.dr-schneider.de
Dr. Wehrhahn Messsysteme	www.drwehrhahn.com
Dyoptyka	www.dyoptyka.com
EHD Imaging	www.ehd.de
Electronic Systems	www.electronicsystems.it
ElektroPhysik Dr. Steingroever	www.elektrophysik.com
EVK DI Kerschhaggl	www.evk.biz
Farbmessung Schröder	www.farbmessung.com
Faro	www.faro.com
FJW Optical Systems	www.findrscope.com
Fraunhofer IFF	www.mpt.iff.fraunhofer.de
FRT Fries Research & Technology	www.frt-gmbh.com
G4 Technology	www.g4.com.tw
GE Sensing & Inspection Technologies	www.gemeasurement.com
GOM	www.gom.com
Hamamatsu Photonics	www.hamamatsu.com
HD Vision Systems	www.hdvisionsystems.com
Heitronics Infrarot Messtechnik	www.heitronics.com
Hexagon Manufacturing Intelligence	www.hexagonmi.com
Hipp Endoskop Service	www.hipp-endoskopservice.com
IB/E Optics	www.ibe-optics.com
Ico Data	www.icodata.de
Ideko	www.ideko.es
iiM	www.iimag.de

ILEE	www.ilee.ch
Imetric	www.imetric.com
Infaimon	www.infaimon.com
Infinity Photo-Optical	www.infinity-usa.com
InfraTec	www.infratec.de
Innowep	www.innowep.com
InSystems Automation	www.insystems.de
lsi-sys	www.isi-sys.com
Jenoptik	www.jenoptik.de
Jos. Schneider Optische Werke	www.schneiderkreuznach.com
Kleiber Infrared	www.kleiberinfrared.com
Konica Minolta	www.konicaminolta.eu
Kreon Technologies	www.kreon3d.com
Lambda Photometrics	www.lambdaphoto.co.uk
LamTech	www.lamtech.de
Land Instruments	www.landinst.com
LAP	www.lap-laser.com
Laser 2000	www.laser2000.de
Laser Components	www.lasercomponents.com
Laser Quantum	www.laserquantum.com
LayTec	www.laytec.de
LDV Systeme	www.ldv-systeme.de
Leitner Industrial Endoscopy	www.leitner-efer.de
Limess	www.limess.com
LOT Quantum Design	http://lot-qd.de
Mahr	www.mahr.de
Meta Vision Systems	www.meta-mvs.co.uk
Metris	www.metris.com
MG Optical Solutions	www.mgopticalsolutions.com
Michigan Metrology	www.michmet.com
Mikropack	www.mikropack.de
Mirco-Epsilon Eltrotec	www.eltrotec.com
Mitutoyo	www.mitutoyo.de
Moeller-Wedel Optical	www.moeller-wedel-optical.com
Molenaar Optics	www.molenaar-optics.com
Moritex	www.moritex.com
M-u-t	www.mut-group.com
Mycrona	www.mycrona.de
NanoFocus	www.nanofocus.de
Nikon Metrology	www.nikonmetrology.com
Novacam Technologies Inc.	www.novacam.com
NTI	www.nti-measure.com
Nub3d	www.nub3d.com
Odem Technologies	www.odem.co.il
OGP Messtechnik	www.ogpmesstechnik.de
Olympus	www.olympus-europa.com
Opsira	www.opsira.de
Optimet Optical Metrology	www.optimet.com
Opto	www.opto.de
Opto Fidelity	www.optofidelity.com
Opto Precision	www.optoprecision.de
Opto Engineering	www.opto-e.com
OptoMess	www.optomess.de
Optometron	www.optometron.de
OptoPolymer	www.optopolymer.de
Optoprim	www.optoprim.de
OptoSurf	www.optosurf.com
Optris	www.optris.de

Kleiber Infrared	www.kleiberinfrared.com
Konica Minolta	www.konicaminolta.eu
Kreon Technologies	www.kreon3d.com
Lambda Photometrics	www.lambdaphoto.co.uk
LamTech	www.lamtech.de
Land Instruments	www.landinst.com
LAP	www.lap-laser.com
Laser 2000	www.laser2000.de
Laser Components	www.lasercomponents.com
Laser Quantum	www.laserquantum.com
LayTec	www.laytec.de
LDV Systeme	www.ldv-systeme.de
Leitner Industrial Endoscopy	www.leitner-efer.de
Limess	www.limess.com
LOT Quantum Design	http://lot-qd.de
Mahr	www.mahr.de
Meta Vision Systems	www.meta-mvs.co.uk
Metris	www.metris.com
MG Optical Solutions	www.mgopticalsolutions.com
Michigan Metrology	www.michmet.com
Mikropack	www.mikropack.de
Mirco-Epsilon Eltrotec	www.eltrotec.com
Mitutoyo	www.mitutoyo.de
Moeller-Wedel Optical	www.moeller-wedel-optical.com
Molenaar Optics	www.molenaar-optics.com
Moritex	www.moritex.com
M-u-t	www.mut-group.com
Mycrona	www.mycrona.de
NanoFocus	www.nanofocus.de
Nikon Metrology	www.nikonmetrology.com
Novacam Technologies Inc.	www.novacam.com
NTI	www.nti-measure.com
Nub3d	www.nub3d.com
Odem Technologies	www.odem.co.il
	WWW.odern.co.ii
OGP Messtechnik	www.ogpmesstechnik.de
Olympus	www.ogpmesstechnik.de www.olympus-europa.com
Olympus Opsira	www.ogpmesstechnik.de
Olympus Opsira Optimet Optical Metrology	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com
Olympus Opsira Optimet Optical Metrology Opto	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.opto.de
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.opto.de www.optofidelity.com
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.opto.de www.optofidelity.com www.optoprecision.de
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision OptoMess	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.opto.de www.optofidelity.com www.optoprecision.de www.optomess.de
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision OptoMess Optometron	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.opto.de www.optofidelity.com www.optoprecision.de www.optomess.de www.optometron.de
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision OptoMess Optometron OptoPolymer	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.opto.de www.optofidelity.com www.optoprecision.de www.optomess.de www.optometron.de www.optopolymer.de
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision OptoMess Optometron OptoPolymer Optoprim	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.optofidelity.com www.optoprecision.de www.optomess.de www.optometron.de www.optopolymer.de www.optoprim.de
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision OptoMess Optometron OptoPolymer Optoprim OptoSurf	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.optofidelity.com www.optoprecision.de www.optomess.de www.optometron.de www.optopolymer.de www.optoprim.de www.optosurf.com
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision OptoMess Optometron OptoPolymer Optoprim OptoSurf Optris	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.opto.de www.optofidelity.com www.optoprecision.de www.optomess.de www.optometron.de www.optopolymer.de www.optoprim.de www.optosurf.com www.optris.de
Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision OptoMess Optometron OptoPolymer Optoprim OptoSurf Optris Orbis	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.optofidelity.com www.optoprecision.de www.optomess.de www.optometron.de www.optopolymer.de www.optoprim.de www.optosurf.com www.optris.de www.optris.de
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Olympus Opsira Optimet Optical Metrology Opto Opto Fidelity Opto Precision OptoMess Optometron OptoPolymer Optoprim OptoSurf Optris Orbis Oxford Instruments Parameter Pentacon	www.ogpmesstechnik.de www.olympus-europa.com www.opsira.de www.optimet.com www.optofidelity.com www.optoprecision.de www.optomess.de www.optometron.de www.optopolymer.de www.optoprim.de www.optosurf.com www.optosurf.com www.optosurf.com www.optosurf.com www.optosurf.com www.optosurf.com www.optosurf.com www.optosurf.com www.optosurf.com
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Orbis	www.orbis.eu
Oxford Instruments	www.oxford-instruments.com
Parameter	www.parameter.se
Pentacon	www.pentacon.de
Perceptron	www.perceptron.com
PerkinElmer Optoelectronics	www.perkinelmer.com
Phaer	www.phaer.be
Phynix	www.phynix.de
Pi4 robotics	www.pi4.de
Plasmo Industrietechnik	www.plasmo.eu
Polygon	www.polygon-technology.de
Polytec	www.polytec.de/bv
Precitec Optronik	www.precitec-optronik.de
Premosys	www.premosys.com
Princeton Instruments	www.princetoninstruments.com
Proxitronic	www.proxitronic.com
Ouest Innovations	www.quest-innovations.com
Raytek	www.raytek.de
Rheintacho Messtechnik	www.rheintacho.com
Richard Wolf	www.richard-wolf.com
Roper Scientific	www.renard-woil.com www.roperscientific.de
Rudolph Technologies	www.rudolphtech.com
Schäfer Technologie	www.schaefer-tec.com
Schäfter + Kirchhoff	www.sukhamburg.de
Sensor Instruments	www.sensorinstruments.de
Sensors Unlimited	www.sensorsinc.com
SGM Schut	www.schut.com
Shape Drive	www.schut.com www.shape-drive.com
Sick	www.sick.com
SIOS Meßtechnik	
	www.sios.de
SKS Vision Systems	www.visionsystems.fi
Soliton	www.soliton-gmbh.de
Specim Spectral Imaging	www.specim.fi
Stiefelmayer STIL	www.stiefelmayer.de www.stilsa.com
SynView	www.synview.com
Taylor Hobson	www.taylor-hobson.com
Tec5	www.tec5.com
TechnoTeam	www.technoteam.de
Tekno Optik	www.teknooptik.se
Topometric	www.topometric.net
Tordivel	www.scorpionvision.com
Ulis	www.ulis-ir.com
Vialux	www.vialux.de
Videometer	www.videometer.com
Vision Formanian	www.vannier-photelec.fr/visiolaser
Vision Engineering	www.visioneng.de
Vision Machines	www.vision-machines.com
ViZaar	www.vizaar.de
Volform	www.volform.se
Waygate Technologies	www.waygate-tech.com
Wente/Thiedig	www.wente-thiedig.de
Werth Messtechnik	www.werthmesstechnik.de
Wild	www.wild.at
Xenics	www.xenics.com
X-Rite	www.xrite.com
Z-Laser	www.z-laser.com
Zwick	www.zwick.de
Zygo BU der Ametek Germany	www.zygo.de

# **Optics**

	1.6
Acal BFi Germany	www.bfioptilas.com
AHF Analysentechnik	www.ahf.de
Allied Vision Technologies	www.alliedvisiontec.com
Alrad Imaging	www.alrad.co.uk
AMS Technologies	www.amstechnologies.com
Anteryon	www.anteryon.com
Armstrong Optical	www.armstrongoptical.co.uk
Azure Photonics	www.azurephotonics.com
B&M Optik	www.bm-optik.de
B&R Industrie-Elektronik	www.br-automation.com
Basler	www.baslerweb.com
Baumer	www.baumer.com
Berliner Glas Gruppe	www.berlinerglas.com
Birger Engineering	www.birger.com
BK Interferenzoptik	www.interferenzoptik.de
Bock Optronics	www.bockoptronics.ca
Carl Zeiss IMT	www.zeiss.de/messtechnik
Carl Zeiss Microimaging	www.zeiss.de/microscopy
Carl Zeiss	www.zeiss.com/lenses4industry
CBC Deutschland	www.cbc-de.com
China Daheng Group Inc.	www.daheng-image.com
Collischon Optik-Design	www.mikro-optik.de
Cosyco	www.cosyco.de
Deposition Sciences	www.depsci.com
Docter Optics	www.docteroptics.com
Edmund Optics	www.edmundoptics.de
EHD imaging	www.ehd.de
Eureca Messtechnik	www.eureca.de
Fabrimex Systems	www.fabrimex-systems.ch
FiberVision	www.fibervision.de
Finger	www.finger-kg.de
Fisba Optik	www.fisba.ch
Flir Advanced Thermal Solutions	www.flir.com/mv
Framos	www.framos.eu
FRT Fries Research & Technology	www.frt-gmbh.com
Fujifilm	www.fujifilm.eu
G4 Technology	www.g4.com.tw
Goyo Optical	www.goyooptical.com
Helmut Hund	www.hund.de
Holoeye Photonics	www.holoeye.com
IB/E Optics	www.ibe-optics.com
IDS	www.ids-imaging.com
Ifm Electronic	www.ifm.com
liM	www.iimag.de
Image House	www.imagehouse.dk

Image S	www.imagessrl.com
IMT	www.imtag.ch
Infaimon	www.infaimon.com
Ircam	www.ircam.de
IS Imaging Solutions	www.imaging-solutions.de
ISVI	www.isvi-corp.com
Japan F.A. Systems	www.jfas.co.jp
Jenoptik	www.jenoptik.de
Jos. Schneider Optische Werke	www.schneiderkreuznach.com
Karlheinz Hinze Optoenginee- ring	www.hinze-opto.de
KeeKoon Electronics	www.keekoon.com
Keyence	www.keyence.de
Kowa Europe	www.kowa.eu
Kvant	www.kvant.sk
Lambda Photometrics	www.lambdaphoto.co.uk
Laser 2000	www.laser2000.de
Laser Components	www.lasercomponents.com
Leading-Tech Laser	www.leading-techlaser.com
Lensation	www.lensation.de
Leoni	www.leoni-fiber-optics.com
Lincoln Laser Company	www.lincolnlaser.com
LMI Technologies	www.lmi3d.com
LOT Quantum Design	http://lot-qd.de
Lucid Vision Labs	www.thinklucid.com
Luster LightVision Tech	www.lusterinc.com
Materion Optics Balzers	www.materionbalzersoptics.com
Matrix Vision	www.matrix-vision.de
MaxxVision	www.maxxvision.com
Menzel Vision and Robotics	www.menzelab.com
Meuser Optik	www.meuser-optik.com
MG Optical Solutions	www.mgopticalsolutions.com
Micos	www.micos.ws
Micro-Epsilon	www.eltrotec.com
Microsystems	www.microsystems.it
Midwest Optical Systems	www.midopt.com
Moeller-Wedel Optical	www.moeller-wedel-optical.com
Molenaar Optics	www.molenaar-optics.com
Moritex	www.moritex.com
MsiVision	www.msivision.com
Myutron	www.myutron.com
Nacacue	www.nacacue.com
Navitar	www.navitar.com
NET	www.net-gmbh.com
NeuPro Solutions	www.neupro-solutions.com
Notavis	www.notavis.com
Odem Technologies	www.odem.co.il

Olympus	www.olympus-europa.com
Omron	www.industrial.omron.de
Optec	www.optec.eu
Optics Balzers	www.opticsbalzers.com
Opto	www.opto.de
Opto Engineering	www.opto-e.com
Opto Precision	www.optoprecision.de
Optometron	www.optometron.de
Orbis	www.orbis.eu
Parameter	www.parameter.se
Phaer	www.phaer.be
Photonic Products	www.photonic-products.com
Pi4_robotics	www.pi4.de
POG Präzisionsoptik Gera	www.pog.eu
Polytec	www.polytec.de/bv
Profactor	www.profactor.at
Qioptiq	www.qioptiq.de
Qualimatest	www.qmt.ch
Rauscher	www.rauscher.de
Resolve Optics	www.resolveoptics.com
RH Engineering	www.rhengineering.de
Ricoh International B.V German Branch	www.ricoh-iosd.eu
Schael-Optik	www.schael-optik.de
Schäfter + Kirchhoff	www.sukhamburg.de
Schmachtl	www.schmachtl.at
Schott Lighting and Imaging	www.schott.com
Second2None	www.visiondragon.com
Secondentine	0

Seiwa Optical	www.seiwaopt.co.jp
Sill Optics	www.silloptics.de
Space	www.spacecom.co.jp
Spectros	www.spectros.ch
Spectrum Illumination	www.spectrumillumination.com
Stemmer Imaging	www.stemmer-imaging.com
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
Sugitoh	www.sugitoh.jp
Sunex	www.sunex.com
SVS Vistek	www.svs-vistek.com
Sydor Optics	www.sydor.com
Symco	www.symco.co.jp
Tamron	www.tamron.de
Tekno Optik	www.teknooptik.se
Tekstar Optical	www.tekstaroptical.com
The Imaging Source	www.theimagingnsource.com
Thermosensorik	www.thermosensorik.de
Vega Technology Group	www.vegatcgroup.com
Videology Imaging Solutions	www.videologyinc.com
Videor Technical	www.videor.com
Vision & Control	www.vision-control.com
Vision Engineering	www.visioneng.de
Vision Light Tech	www.visionlighttech.com
Visitool	www.visitool.de
Volpi	www.volpi.ch
VS Technology	www.vst.co.jp
Weiss Imaging and Solutions	www.weiss-imaging.de
ZygoLOT	www.zygolot.de

# Processors, Interfaces, Cables, Peripherals

www.abs-jena.de
www.activesilicon.com
www.adaptive-vision.com
www.adlinktech.eu
de.aerotech.com
www.alliedvisiontec.com
www.alysium-tech.com
www.amstechnologies.com
www.andonelect.com
www.arvoo.com
www.autovimation.com
www.br-automation.com
www.bapimgsys.com
www.baumer.com
www.bockoptronics.ca

Components Express	www.componentsexpress.com
D.SignT	www.dsignt.de
De Man Industrie-Automation	www.deman.de
EDT	www.edt.com
Eltec Elektronik	www.eltec.com
Epix	www.epixinc.com
Ernst & Engbring	www.eue-kabel.de
Evision Systems	www.evision-systems.de
Fabrimex Systems	www.fabrimex-systems.ch
FiberVision	www.fibervision.de
Framos	www.framos.eu
G4 Technology	www.g4.com.tw
Gidel	www.gidel.com
GigaLinx	www.gigalinx.net
HaSoTec	www.hasotec.com

Hema	www.hema.de
Hirakawa Hewtech	www.hewtech.co.jp
IDS	www.ids-imaging.com
Igus	www.igus.de
Image House	www.imagehouse.dk
Image S	www.imagessrl.com
Imaging Solutions Group	www.isgcameras.com
Infaimon	www.infaimon.com
Intercon1	www.intercon-1.com
JAI	www.jai.com
Japan F.A. Systems Corporation	www.jfas.co.jp
Lemo	www.lemo.com
Leoni	www.leoni-fiber-optics.com
LMI Technologies	www.lmi3d.com
Lucid Vision Labs	www.thinklucid.com
Luster LightVision Tech	www.lusterinc.com
Mad City Labs	www.madcitylabs.com
Matrix Vision	www.matrix-vision.de
Matrox Imaging	www.matrox.com/imaging
MaxxVision	www.maxxvision.com
MaZet	www.mazet.de
Menzel Vision and Robotics	www.menzelab.com
Micro-Epsilon	www.eltrotec.com
Micron	www.micron.com
Microsystems	www.microsystems.it
Mikrotron	www.mikrotron.de
Nacacue	www.nacacue.com
NET New Electronic Technology	www.net-gmbh.com
Newnex Technology	www.newnex.com
Northwire Technical Cable	www.northwire.com
Orbis	www.orbis.eu

Parameter	www.parameter.se
Phaer	www.phaer.be
Phytec Messtechnik	www.phytec.de
Pi4_robotics	www.pi4.de
Pleora Technologies	www.pleora.com
Pro Design Electronic	www.prodesign-europe.com
Schäfter+Kirchhoff	www.sukhamburg.de
Schmachtl	www.schmachtl.at
Seidenader	www.seidenader.de
Serview	www.serview.net
Sglux	www.sglux.com
Silicon Software	www.silicon-software.de
Stemmer Imaging	www.stemmer-imaging.com
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
Supercomputing Systems	www.scs-vision.ch
SVS Vistek	www.svs-vistek.com
Symco	www.symco.co.jp
Teledyne Dalsa	www.teledynedalsa.com
The Imaging Source	www.theimagingnsource.com
Thinklogical	www.thinklogical.com
Unibrain	www.unibrain.com
USBFireWire	www.usbfirewire.com
Vidisys	www.vidisys.de
Vision & Control	www.vision-control.com
Vision Tools	www.vision-tools.com
Vistas	www.vistas-gmbh.de
WIR Electronic	www.wir-electronic.de
Xilinx	www.xilinx.com
Ximea	www.ximea.com

# **Research & Development**

Acal BFi Germany	www.bfioptilas.com
Alfavision	www.alfavision.de
Alicona Imaging	www.alicona.com
Anafocus	www.anafocus.com
Austrian Institute of Technology	www.ait.ac.at
AutoVimation	www.autovimation.com
Cmos Vision	www.cmosvision.com
Cognex	www.cognex.com
Collischon Optik-Design	www.mikro-optik.de
Creaform Deutschland	www.creaform3d.com
CSEM	www.csem.ch
CTR Carinthian Tech Research	www.ctr.at
Cypress Semiconductor	www.cypress.com
De Man Industrie-Automation	www.deman.de

Department of Mechanical and Industrial Engineering (DIMI) of the University of Brescia	https://en.unibs.it/ departments/mechanical- and-industrial-engineering
Docter Optics	www.docteroptics.com
Eltec Elektronik	www.eltec.com
Entner Electronics	www.entner-electronics.com
Erhard + Leimer	www.erhardt-leimer.com
FiberVision	www.fibervision.de
Flir Advanced Thermal Solutions	www.flir.com
Fraunhofer Allianz Vision	www.vision.fraunhofer.de
Fraunhofer IMS	www.ims.fraunhofer.de
FRT Fries Research & Technology	www.frt-gmbh.com
Gesellschaft für Bild- und Signalverarbeitung	www.gbs-ilmenau.de
Gevicam	www.gevicam.com

GFal	www.gfai.de
HaSoTec	www.hasotec.com
HCI at IWR Heidelberg University	hciweb.iwr.uni-heidelberg.de
Helion	www.helionvision.com
Ideko	www.ideko.es
IDS	www.ids-imaging.com
Imaging Lab	www.imaginglab.it
Impuls	www.impuls-imaging.com
IMS Chips	www.ims-chips.de
Infaimon	www.infaimon.com
Isomorph	www.isomorph.it
Joanneum Research	www.joanneum.at
Jos. Schneider Optische Werke	www.schneiderkreuznach.com
Kamera Werke Dresden	www.kwdo.de
Kappa opto-electronics	www.kappa.de
Lincoln Laser Company	www.lincolnlaser.com
LMI Technologies	www.lmi3d.com
Matrix Vision	www.matrix-vision.de
Mazet	www.mazet.de
Micro-Epsilon	www.eltrotec.com
Mikromak Service	www.mikromak.com
MsiVision	www.msivision.com
Norpix	www.norpix.com
Opto	www.opto.de
Panavision Imaging	www.panavisionimaging.com
PCO	www.pco.de
Photonfocus	www.photonfocus.com

Phytec Messtechnik	www.phytec.de
Pi4_robotics	www.pi4.de
Profactor	www.profactor.at
Schäfter + Kirchhoff	www.sukhamburg.de
Sensor to Image	www.sensor-to-image.de
Smartsurv	www.smartsurv.de
SPG Data 3D	www.spgdata3d.com
SPIE	www.spieeurope.org
Stemmer Imaging	www.stemmer-imaging.com
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
Tecnalia	www.tecnalia.com
Tekno Optik	www.teknooptik.se
Tema	www.temavisio.com
Thermosensorik	www.thermosensorik.de
Tichawa Vision	www.tichawa.de
Tordivel	www.scorpionvision.com
University of Applied Sciences of the Grisons Chur – FHGR	www.fhgr.ch
Univision	www.univision.it
Vega Technology Group	www.vegatcgroup.com
Vicomtech	www.vicomtech.org
Vision & Control	www.vision-control.com
Vision Machines	www.vision-machines.com
Vision Tools	www.vision-tools.com
V-Research	www.v-research.at
Zertrox	www.zertrox.de

# **Software**

www.ab-soft.com
www.abw-3d.de
www.adaptive-vision.com
www.advantech.eu
www.alditech.ru
www.alfavision.de
www.alicona.com
www.alliancevision.com
www.alrad.co.uk
www.aku.eu
www.amstechnologies.com
www.andor.com
www.aostechnologies.com
www.aeousa.com
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www.artray.co.jp
www.artray.co.jp

Baumer	www.baumer.com
Cimetrix	www.cimetrix.com
Cognex	www.cognex.com
Cosyco	www.cosyco.de
Datapixel	www.datapixel.com
De Man Industrie-Automation	www.deman.de
Dhs Solutions	www.dhssolution.com
Digital Surf	www.digitalsurf.com
Duwe 3D	www.duwe-3d.de
Dynalog	www.dynalog-us.com
Ebs Automatisierte Thermo- graphie und Systemtechnik	www.irpod.net
EHD Imaging	www.ehd.de
Eltec Elektronik	www.eltec.com
Energid	www.energid.com
Epix	www.epixinc.com
Erhard + Leimer	www.erhardt-leimer.com
Euresys	www.euresys.com

EVK DI Kerschhaggl	www.evk.biz
EVT Eye Vision Techology	www.evt-web.com
Fabrimex Systems	www.fabrimex-systems.ch
Fast	www.fast-corp.co.jp
FDS Research	www.fdsresearch.si
FiberVision	www.fibervision.de
Flir Advanced Thermal Solutions	www.flir.com
Framos	www.framos.eu
FSI Technologies	www.fsinet.com
G4 Technology	www.g4.com.tw
Gefasoft	www.gefasoft.com
Geomagic	www.geomagic.com
Gesellschaft für Bild- und Signalverarbeitung	www.gbs-ilmenau.de
Gevicam	www.gevicam.com
Goldlücke Ingenieurleistungen	www.giib.de
Hasotec	www.hasotec.com
Hexagon Manufacturing Intelligence	www.hexagonmi.com
IB/E Optics	www.ibe-optics.com
IDS	www.ids-imaging.com
liM	www.iimag.de
Image House	www.imagehouse.dk
Image S	www.imagessrl.com
Imagic	www.imagic-imaging.com
Imaging Lab	www.imaginglab.it
Impuls	www.impuls-imaging.com
INB Vision	www.inb-vision.com
Industrial Vision Systems	www.industrialvision.co.uk
Infaimon	www.infaimon.com
Innomiles International	www.innomiles.com
Inray Solutions	www.inrays.com
In-situ	www.in-situ.de
Ircam	www.ircam.de
IS Imaging Solutions	www.imaging-solutions.de
Isomorph	www.isomorph.it
Isra Vision	www.isravision.com
IVS	www.industrialvision.co.uk
JAI	www.jai.com
Japan F.A. Systems	www.jfas.co.jp
Joanneum Research	www.joanneum.at
Kappa opto-electronics	www.kappa.de
Karlheinz Hinze Optoenginee- ring	www.hinze-opto.de
Klughammer	www.klughammer.de
Kortiq	www.kortig.com
Kvant	www.kvant.sk
Lambda Photometrics	www.lambdaphoto.co.uk
Lambda Research	www.lambdares.com
Leica Microsystems	www.leica-microsystems.com
Leutron Vision	www.leutron.com
LMI Technologies	www.lmi3d.com
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Luster Lightvision Tech	www.lusterinc.com
Math & Tech Engineering	www.mathtech.eu
Matrix Vision	www.matrix-vision.de
Matrox Imaging	www.matrox.com/imaging
MaxxVision	www.maxxvision.com
Menzel Vision and Robotics	www.menzelab.com
Merz freeform.technologies	www.merz-technologies.com
Mettler Toledo Product Inspection	www.mt.com
Micro Epsilon	www.micro-epsilon.com
Microsystems	www.microsystems.it
Mikromak Service	www.mikromak.com
Mitutoyo	www.mitutoyo.de
Msivision	www.msivision.com
MVTec Software	www.mvtec.com
National Instruments	www.ni.com
Neogramm	www.neogramm.de
NET New Electronic Technology	www.net-gmbh.com
Neurocheck	www.neurocheck.com
Norpix	www.norpix.com
Notavis	www.notavis.com
Odem Technologies	www.odem.co.il
Olympus	www.olympus-europa.com
Omron Microscan Systems	www.microscan.com
Omron	www.industrial.omron.de
Optical Research Associates	www.opticalres.com
Optis	www.optis-world.com
Opto	www.opto.de
Opto Engineering	www.opto-e.com
Optometron	www.optometron.de
Orbis	www.orbis.eu
Parameter	www.parameter.se
Photonfocus	www.photonfocus.com
Pi4_robotics	www.pi4.de
Pleora Technologies	www.pleora.com
Polytec	www.polytec.de/bv
Profactor	www.profactor.at
Qualimatest	www.gmt.ch
Rapidform	www.rapidform.com
Rauscher	www.rauscher.de
RH Engineering	www.rhengineering.de
Rubroeder	www.rubroeder.de
SAC	www.sac-vision.de
Schäfter+Kirchhoff	www.sukhamburg.de
Schmachtl	www.schmachtl.at
Second2None	www.visiondragon.com
Sedeco Vision Components	www.sedeco.nl
SensorDesk	www.sensordesk.com
Senswork	www.senswork.com
Silicon Software	www.silicon-software.de
Simon IBV	www.simon-ibv.de
SmartSurv	www.smartsurv.de
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SPG Data 3D	www.spgdata3d.com
Stemmer Imaging	www.stemmer-imaging.com
STZ Qualitätssicherung und Bildverarbeitung	www.stz-ilmenau.de
Sualab	www.sualab.com
Supercomputing Systems	www.scs-vision.ch
SVS Vistek	www.svs-vistek.com
Symco	www.symco.co.jp
Systematic Vision	www.systematicvision.com
Tekno Optik	www.teknooptik.se
Teledyne Dalsa	www.teledynedalsa.com
Tema	www.temavisio.com
The Imaging Source	www.theimagingnsource.com
The Mathworks	www.mathworks.com
Thermosensorik	www.thermosensorik.de
Tordivel	www.scorpionvision.com
Trivision	www.trivision.dk
TYZX	www.tyzx.com

Unique Vision	www.unique-vision.net
Univision	www.univision.it
Van de Loosdrecht Machine Vision	www.vdlmv.nl
Vega Technology Group	www.vegatcgroup.com
Visicontrol	www.visicontrol.com
Visiolaser	www.vannier-photelec.fr/visiolaser
Vision & Control	www.vision-control.com
Vision Components	www.vision-components.com
Vision Machines	www.vision-machines.com
Vision Tools	www.vision-tools.com
Visionlink	www.visionlink.it
Vitronic	www.vitronic.com
Vizzion	www.vizzion.com
Weiss Imaging and Solutions	www.weiss-imaging.de
Wenzel	www.wenzel-group.com
X-Rite	www.xrite.com
Zertrox	www.zertrox.de

# Vision Sensors, Smart Cameras & Embedded Systems

Acal BFi Germany	www.bfioptilas.com
Active Silicon	www.activesilicon.com
Adaptive Vision	www.adaptive-vision.com
Adlink	www.adlinktech.eu
Advantech Europe	www.advantech.eu
AIT Göhner	www.visionandid.com
Alfavision	www.alfavision.de
AMS Technologies	www.amstechnologies.com
Asentics	www.asentics.de
B&R Industrie-Elektronik	www.br-automation.com
Banner Engineering	www.bannerengineering.com
Basler Vision Technologies	www.baslerweb.com
Baumer	www.baumer.com
Camsensor Technologies	www.camsensor.com
Cmos Vision	www.cmosvision.com
Cognex	www.cognex.com
Compar	www.compar.ch
Computer Dynamics	www.cdynamics.com
Cosyco	www.cosyco.de
Cretec	www.cretec.gmbh
Datalogic	www.datalogic.com
De Man Industrie-Automation	www.deman.de
Si-soric	www.di-soric.de
Eltec Elektronik	www.eltec.com

Erhard + Leimer	www.erhardt-leimer.com
EVK DI Kerschhaggl	www.evk.biz
EVT Eye Vision Techology	www.evt-web.com
Fabrimex Systems	www.fabrimex-systems.ch
Fastvision	www.fast-vision.com
Festo	www.festo.com
Fibervision	www.fibervision.de
Finger	www.finger-kg.de
Flir Advanced Thermal Solutions	www.flir.com
Framos	www.framos.com
FSI Technologies	www.fsinet.com
G4 Technology	www.g4.com.tw
Hans Turck	www.turck.com
Hema	www.hema.de
Hexagon Manufacturing Intelligence	www.hexagonmi.com
IBN	www.ibn-gmbh.de
IDS Imaging Development Systems	www.ids-imaging.com
Ifm Electronic	www.ifm.de
Image House	www.imagehouse.dk
Image S	www.imagessrl.com
Imaging Solutions Group	www.isgcameras.com
Imago Technologies	www.imago-technologies.com
Imagsa Technologies	www.imagsa.com

IMR Automatisierungstechnik	www.imr-le.de
Infaimon	www.infaimon.com
IOS	www.ios-web.de
IOSS	www.ioss.de
Ipf Electronic	www.ipf-electronic.de
IS Imaging Solutions	www.imaging-solutions.de
Isra Vision	www.isravision.com
ISW	www.isw-gmbh.biz
Japan F.A. Systems Corporation	www.jfas.co.jp
K + P Krempien + Petersen	www.kup-image.de
Keyence	www.keyence.de
Kontron	www.kontron.com
Lambda Photometrics	www.lambdaphoto.co.uk
Leutron Vision	www.leutron.com
Leuze Electronic	www.leuze.com
LMI Technologies	www.lmi3d.com
Lord Ingenierie	www.lord-ing.com
Luster LightVision Tech	www.lusterinc.com
Matrix Vision	www.matrix-vision.de
Matrox Imaging	www.matrox.com/imaging
MaxxVision	www.maxxvision.com
MaZet	www.mazet.de
Menzel Vision and Robotics	www.menzelab.com
Micro Epsilon	www.micro-epsilon.com
Microsystems	www.microsystems.it
Msivision	www.msivision.com
National Instruments	www.ni.com
NET New Electronic Technology	www.net-gmbh.com
Neupro Solutions	www.neupro-solutions.com
Neuricam	www.neuricam.com
Norpix	www.norpix.com
Odem Technologies	www.odem.co.il
Omron Microscan Systems	www.microscan.com
Omron	www.industrial.omron.de
Opto	www.opto.de
Optomotive	www.optomotive.com
Orbis	www.orbis.eu
Panasonic Electric Works	www.panasonic-electric-works.de
Parameter Parameter	www.parameter.se
Pepperl & Fuchs	www.penameter.se www.pepperl-fuchs.com
Peter Scholz Software +	www.pepperi-rucris.com
Engineering	*******.36110123415.415
Phytec Messtechnik	www.phytec.de
Pi4_robotics	www.pi4.de
PMDTec	www.pmdtec.com
Pollux	www.pollux.com.br
Polytec	www.polytec.de/bv
PPT Vision	www.pptvision.com
Profactor	www.profactor.at
Pulsotronic	www.bildverarbeitung.pulsotronic.de
Qualimatest	www.qmt.ch
Rauscher	www.rauscher.de

DCD Outstanderill	value rela contata chaile da
RSB Optotechnik	www.rsb-optotechnik.de
SAC Schäfter+Kirchhoff	www.sac-vision.de
Schmachtl	www.sukhamburg.de www.schmachtl.at
Schunk	
Scintacor	www.schunk.com
Second2none	www.scintacor.com
	www.visiondragon.com
Sedeco Vision Components	www.sedeco.nl
Sensopart Industriesensorik	www.sensopart.de
Sensor to Image	www.sensor-to-image.de
Shape Drive	www.shape-drive.com
Sharp Microelectronics	www.sharpsme.com
Sick	www.sick.com
Siemens	www.siemens.de/simatic- sensors/mv
SKS Vision Systems	www.visionsystems.fi
Smartek Vision	www.smartekvision.com
Smartray	www.smartray.de
Smartsurv	www.smartsurv.de
Soliton Technologies	www.solitontech.com
Sony	www.pro.sony.eu/vision
Stemmer Imaging	www.stemmer-imaging.com
Supercomputing Systems	www.scs-vision.ch
SVS Vistek	www.svs-vistek.com
Symco	www.symco.co.jp
Tattile	www.tattile.com
Tekno Optik	www.teknooptik.se
Teledyne Dalsa	www.teledynedalsa.com
Tichawa Vision	www.tichawa.de
Topsenso	www.topsenso.de
Tordivel	www.scorpionvision.com
Turck	www.turck.de
TYZX	www.tyzx.com
Vega Technology Group	www.vegatcgroup.com
Vialux	www.vialux.de
Videor Technical	www.videor.com
Video Systems	www.videosystems.it
Visicontrol	www.visicontrol.com
Visiolaser	www.vannier-photelec.fr/visiolaser
Vision & Control	www.vision-control.com
Vision Components	www.vision-components.com
Vision Tools	www.vision-tools.com
Visionlink	www.visionlink.it
VRmagic	www.vrmagic.com
Webview	www.webspec.com
Wenglor Sensoric	www.wenglor.com
Werth Messtechnik	www.werthmesstechnik.de
Wintriss Engineering	www.weco.com
Ximea	www.ximea.com
Xiris Automation	www.xiris.com
Zertrox	www.zertrox.de
ZheJiang Huaray Technology	www.huaraytech.com

# Vision Systems, Turnkey Solutions, Integration Services

2D Chana	unun 2d chang com
3D Shape ABB	www.3d-shape.com
Act Smartware	
	wp.act-smartware.de
Adaptive Vision	www.adaptive-vision.com
Adept Electronic Solutions	www.adept.net.au
Adept Technology	www.adept.de
AGR International	www.agrintl.com
AIT Göhner	www.ait.de
Aku.automation	www.aku.eu
Alfa Vision Systems	www.alfavisionsystems.com
Alfavision	www.alfavision.de
Alliance Vision	www.alliancevision.com
Altair Industries	www.altairindustriesinc.com
Applied Vision	www.appliedvision.com
Asentics	www.asentics.de
ATN Automatisierungstechnik	www.atn-gmbh.com
Attentra	www.attentra.de
Automation Technology	www.automationtechnology.de
Automation W+R	www.automationwr.de
Autoware	www.autoware.it
AVT Advanced Vision Technology	www.avt-inc.com
B&R Industrie-Elektronik	www.br-automation.com
Balluf	www.balluf.com
Basler Vision Technologies	www.baslerweb.com
Baumer	www.baumer.com
Beratronic	www.beratronic.de
Bertram Elektrotechnik	www.bertram-bevern.de
Bi-Ber	www.bilderkennung.de
Böwe Systec	www.boewe-systec.com
Brainware Solutions	www.null-ppm.info
BST eltromat International	www.bst-international.com
BST International	www.bst-international.com
Camsensor Technologies	www.camsensor.com
Carl Zeiss Optotechnik	optotechnik.zeiss.com
Ceres Vision	www.ceresvision.de
China Daheng Group	www.daheng-image.com
CLK	www.clkgmbh.de
Cognex	www.cognex.com
Cogniac	www.cogniac.co
Coherix	www.coherix.com
Compar	www.compar.ch
Cosyco	www.cosyco.de
-	www.cosynth.com
Cosynth	
Cyth Systems	www.cyth.com
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Cyth Systems	www.cyth.com www.datalogic.com
Cyth Systems  Datalogic	www.cyth.com

De Man Industrie-Automation	www.deman.de
DE Software & Control	
	www.desceppre.de
Desconpro Engineering	www.desconpro.de
Digital West Imaging Divisoft	www.highspeedvideos.com
DMC Vision & Motion	www.dmc-vision-motion.de
Dr. Schenk Industriemesstechnik	www.drschenk.com
Dr. Schwab Inspection	www.schwabinspection.com
Technology	www.scriwabiiispection.com
Dunkley International	www.dunkleymachinevision.com
<b>Dutch Vision Systems</b>	www.dvs-vision.de
E3tam	www.e3tam.com
Eckelmann	www.eckelmann.de
Edixia	www.edixia.com
EHR	www.ehr.de
Eines	www.eines.es
Electronic Systems	www.electronicsystems.it
Ellips	www.ellips.nl
Emhart Glass	www.emhartglass.com
Envision	www.envision.co.kr
Еріх	www.epixinc.com
Epson Deutschland	www.epson.de/robots
Erhard + Leimer	www.erhardt-leimer.com
EVK DI Kerschaggl	www.evk.biz
EVT Eye Vision Techology	www.evt-web.com
Eyec-UK	www.eyec-ukandireland.co.uk
Fast	www.fast-corp.co.jp
Faude Automatisierungstechnik	www.faude.de
FAW Freudenberg Anlagen und Werkzeugtechnik	www.faw-freudenberg.de
FDS Research	www.fdsresearch.si
FiberVision	www.fibervision.de
Finger	www.finger-kg.de
Fuchs engineering	www.fuchs-engineering.de
Fuetec	www.fuetec.de
Futec Europe	www.futeceurope.com
G4 Technology	www.g4.com.tw
Gefasoft	www.gefasoft.com
Gefat Engineering	www.gefat-engineering.de
Gesellschaft für Bild- und Signalverarbeitung	www.gbs-ilmenau.de
GFal	www.gfai.de
Gidel	www.gidel.com
Goldlücke Ingenieurleistungen	www.giib.de
GOM	www.gom.com
Göpel Electronic	www.goepel.com
GPP Chemnitz	www.gppc.de
Grecon	www.grecon.de
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H k	
Hasotec	www.hasotec.com
Heitec	www.heitec.de
Helms Technologie	www.helms-technologie.de
Hengstmann Solutions	www.hengstmann.com
Hexagon Manufacturing Intelligence	www.hexagonmi.com
13 Tech	www.i3tech.de
Ibea	www.ibea.de
ICW [industrie-elektronik]	www.icw-news.de
liM	www.iimag.de
Ikegami	www.ikegami.de
Image House	www.imagehouse.dk
Image S	www.imagessrl.com
Imago Technologies	www.imago-technologies.com
I-mation	www.i-mation.de
Imess	www.imess.com
Impuls	www.impuls-imaging.com
IMR Automatisierungstechnik	www.imr-le.de
INB Vision	www.inb-vision.com
Industrial Vision Systems	www.industrialvision.co.uk
Infaimon	www.infaimon.com
Infratec	www.infratec.de
Inos Automationssoftware	www.inos-automation.com
Inray Solutions	www.inrays.com
Insensiv	www.insensiv.de
In-situ	www.in-situ.de
Inspectron	www.inspectron.ch
Inspekto AMV	www.inspekto.com
Insystems Automation	www.insystems.de
Intego	www.intego.de
Intopii	www.intopii.fi
IOS	www.ios-web.de
loss	www.ioss.de
Irida Labs	www.iridalabs.gr
IS Imaging Solutions	www.imaging-solutions.de
Isa Industrielektronik	www.isaweiden.de
Isomorph	www.isomorph.it
Isra Vision	www.isravision.com
ISW	www.isw-gmbh.biz
Itech Engineering	www.itecheng.com
IVS	www.industrialvision.co.uk
J&P Vision	www.jupvision.de
Japan F.A. Systems	www.jfas.co.jp
Jasvisio - Vision Artificial	www.jasvisio.com
JLI Vision	www.jli.dk
Joanneum Research	www.joanneum.at
K + P Krempien + Petersen	www.kup-image.de
Kaiser Computersysteme	www.isotronika.de
Kdorf Automation	www.kdorf.de
Keyence	www.keyence.de
Kirin Techno-System	www.kirintechno.co.jp
KMS Engineering	www.kms-e.de
Kolektor Orodjarna	www.kolektorvision.com
L&P	www.lp-gmbh.de

Leuze Electronic Limess Www.laetus.com Lincoln Laser Company Www.limess.com Wachine Vision Technology Www.machine-vision-technology.co.uk Menzel Vision and Robotics Www.merzelab.com Metz freeform.technologies Www.merzelab.com Meta Vision Systems Www.meta-mvs.co.uk Mettler Toledo Product Inspection Mevisco Www.meto-mvs.co.com Micro Epsilon Www.micro-epsilon.com Micro Epsilon Www.micro-epsilon.com Middular Digits Www.modi-gmibh.de Woser Industrielektronik Wisiosion Neogramm Www.neogramm.de Neupro Solutions Neurotech Neuroteched. Www.neurotechnology.com Nikka Research Deutschland Nikka Research Deutschland Nikka Research.com Northwire Www.northwire.com Ocs Www.northwire.com Ocs Www.northwire.com Octum Www.nothedility.com OptoFidelity Www.option.com OptoFidelity Www.option.com OptoFidelity Www.option.com Otto Wision Technology Www.nothedility.com OptoFidelity Www.option.com Www.nothedility.com OptoFidelity Www.option.com Www.option.com Otto Vision Technology Www.ortion.jena.de Www.ortosinetegration.com OptoFidelity Www.optioneva.se Orbis Www.ortionisequation.com Peter Scholz Software + Engineering Phytec Messtechnik Www.pikargus.de		
Limess www.limess.com Lincoln Laser Company www.lincolnlaser.com Machine Vision Technology www.machine-vision-technology. Co.uk Menzel Vision and Robotics www.merzelab.com Metz freeform.technologies www.merzetechnologies.com Meta Vision Systems www.meta-mvs.co.uk Mettler Toledo Product Inspection Mevisco www.mevisco.com Micro Epsilon www.micro-epsilon.com Omron Microscan Systems www.microscan.com Mikrotron www.mikrotron.de Modi Modular Digits www.modi-gmbh.de Moser Industrielektronik www.neogramm.de Neupro Solutions www.neugramm.de Neupro Solutions www.neurocheck.com Neurocheck www.neurocheck.com Neurotechnology www.neurotechnology.com Nika Research Deutschland www.nikka-research.com Nikon Metrology www.neurotechnology.com Nokra www.neurocheck.com Norpix www.northwire.com OCS www.northwire.com OCS www.northwire.com Octum www.northwire.com Optolidelity www.optofidelity.com Optolidelity.com Optolidelity www.optofidelity.com Optolidelity.com Optolidelity.com Optolidelity.com Optolidelity.com Optolidelity.com Optol	Laetus	www.laetus.com
Lincoln Laser Company Machine Vision Technology Co.uk Menzel Vision and Robotics Merz freeform.technologies Meta Vision Systems Meta Vision Systems Meta Vision Systems Metiler Toledo Product Inspection Micro Epsilon Micro Epsilon Micro Epsilon Modi Modular Digits Moser Industrielektronik Moser Industrielektronik Msvision Neugramm Neupro Solutions Neuroteck Neuroteck Neuroteck Neurotechnology Nikka Research Deutschland Nikon Metrology Nokra Norpix Norpix Norpix Norpix Norpix Norpix Northwire Orts Ortum Ortor Solutions Opto Fidelity OptoNova Opto Fidelity OptoNova Ortor Solutions Ortic Solutions Ortic Solutions Noww.neurotechnology.com Northwire Ortic Www.neurotechnology.com Ortoten Ortoten Ortum OptoFidelity OptoNova OptoFidelity OptoNova Ortic Www.optofidelity.com OptoFidelity OptoNova Ortic Www.optofidelity.com Ortotech Orus Integration Orto Vision Technology Potal Leibinger Www.parameter.se Pattern Recognition Company Paul Leibinger Www.parameter.se Pattern Recognition Company Potal Leibinger Www.parameter.se Www.parameter.se Potal Stoftware + Engineering Phytec Messtechnik Www.pit.de Pilz Www.pit.de	Leuze Electronic	www.leuze.com
Machine Vision Technology COUK         www.machine-vision-technology. COUK           Menzel Vision and Robotics         www.menzelab.com           Meta Vision Systems         www.meta-mvs.co.uk           Metal Vision Systems         www.meta-mvs.co.uk           Metal Vision Systems         www.microm           Mevisco         www.microm           Micro Epsilon         www.microscan.com           Micro Epsilon         www.microscan.com           Mikrotron         www.microscan.com           Mikrotron         www.microscan.com           Modi Modular Digits         www.medi-gmbh.de           Moser Industrielektronik         www.medi-gmbh.de           Moser Industrielektronik         www.megramm.de           Mesor Industrielektronik         www.megramm.de           Mesor Industrielektronik         www.neupro-solutions.com           Neupro Solutions         www.neupro-solutions.com           Neupro Solutions         www.neupro-solutions.com           Neuroteck         www.neupro-solutions.com           Neuroteck         www.neuroteck.com           Neuroteck         www.neuroteck.com           Neuroteck         www.neuroteck.com           Noria         www.neuroteck.com           Noria         www.neuroteck.com		
Menzel Vision and Robotics Merz freeform.technologies Meta Vision Systems Meta Vision Systems Mettler Toledo Product Inspection Mevisco Micro Epsilon Micro Epsilon Micro Epsilon Modi Modular Digits Moser Industrielektronik Msivision Neurocan Neurocheck Neurocheck Neurotechnology Nikka Research Deutschland Nikon Metrology Norrink Nor	Lincoln Laser Company	www.lincolnlaser.com
Merz freeform.technologies         www.meta-mvs.co.uk           Meta Vision Systems         www.meta-mvs.co.uk           Mettler Toledo Product Inspection         www.meta-mvs.co.uk           Mevisco         www.micro-epsilon.com           Micro Epsilon         www.micro-epsilon.com           Omron Microscan Systems         www.microscan.com           Mikrotron         www.moli-gmbh.de           Modi Modular Digits         www.moli-gmbh.de           Moser Industrielektronik         www.moegramh.de           Msivision         www.neugramm.de           Neugramm         www.neugramm.de           Neugramm         www.neurocheck.com           Neuroteck         www.neurocheck.com           Neuroteck         www.neurocheck.com           Neurotechology         www.neurocheck.com           Neurotechology         www.neurocheck.com           Neurotechology         www.neurocheck.com           Neurotechology         www.neurocheck.com           Norra         www.neurocheck.com           Norra         www.neurocheck.com           Norra         www.neurocheck.com           Norra         www.neurocheck.com           Norra         www.neurocheck.com           Norra         www.neurocheck.com <th>Machine Vision Technology</th> <th><del></del></th>	Machine Vision Technology	<del></del>
Metal Vision Systems         www.meta-mvs.co.uk           Mettler Toledo Product Inspection         www.mt.com           Mevisco         www.micro-epsilon.com           Micro Epsilon         www.microscan.com           Omron Microscan Systems         www.microscan.com           Mikrotron         www.microscan.com           Modi Modular Digits         www.modi-gmbh.de           Moser Industrielektronik         www.moser-gmbh.de           Msivision         www.neogramm.de           Neugramm         www.neogramm.de           Neupro Solutions         www.neupro-solutions.com           Neurocheck         www.neurocheck.com           Neurotechnology         www.neurocheck.com           Neurotechnology         www.nika-research.com           Nika Research Deutschland         www.nika-research.com           Nikon Metrology         www.nika-research.com           Norran N. Axelrod Associates         www.nokra.de           Norran N. Axelrod Associates         www.nokra.de           Norran N. Axelrod Associates         www.norpix.com           Northwire         www.norpix.com           Octum         www.norpix.com           Octum         www.norpix.com           Optal         www.nokra.de           Optal	Menzel Vision and Robotics	www.menzelab.com
Mettler Toledo Product Inspection         www.mt.com           Mevisco         www.mevisco.com           Micro Epsilon         www.micro-epsilon.com           Omron Microscan Systems         www.microscan.com           Mikrotron         www.mikrotron.de           Modi Modular Digits         www.modi-gmbh.de           Moser Industrielektronik         www.moser-gmbh.de           Misvision         www.mewision.com           Neogramm         www.neogramm.de           Neupro Solutions         www.neupro-solutions.com           Neuricam         www.neupro-solutions.com           Neuricam         www.neuprotech.com           Neurocheck         www.neuprotech.com           Neurocheck         www.neurocheck.com           Neurotheck         www.neurocheck.com           Neurotheck         www.neurocheck.com           Norika Research Deutschland         www.neurocheck.com           Nika Research Deutschland         www.neurocheck.com           Norika         www.neurocheck.com           Norika         www.neurocheck.com           Norika         www.neurocheck.com           Norika         www.neurocheck.com           Norika         www.neurocheck.com           Orbita         www.neurocheck.com	Merz freeform.technologies	www.merz-technologies.com
Inspection  Mevisco www.mevisco.com  Micro Epsilon www.micro-epsilon.com  Omron Microscan Systems www.microscan.com  Mikrotron www.mikrotron.de  Modi Modular Digits www.modi-gmbh.de  Moser Industrielektronik www.mosi-gmbh.de  Misvision www.neogramm.de  Neogramm www.neogramm.de  Neupro Solutions www.neupro-solutions.com  Neurocheck www.neurocheck.com  Neurocheck www.neurocheck.com  Neurotechnology www.neurotechnology.com  Nikka Research Deutschland www.nikka-research.com  Nikon Metrology www.nikonmetrology.com  Nokra www.nokra.de  Norman N. Axelrod Associates  Norpix www.norpix.com  Northwire www.northwire.com  OCS www.ocsgmbh.com  Octum www.octum.de  Omron www.industrial.omron.de  Opsis www.opsis.de  Optel Vision www.optorision.com  OptoFidelity www.optofidelity.com  OptoFidelity www.optonowa.se  Orbis www.orbis.eu  Orbotoch www.orbis.eu	Meta Vision Systems	www.meta-mvs.co.uk
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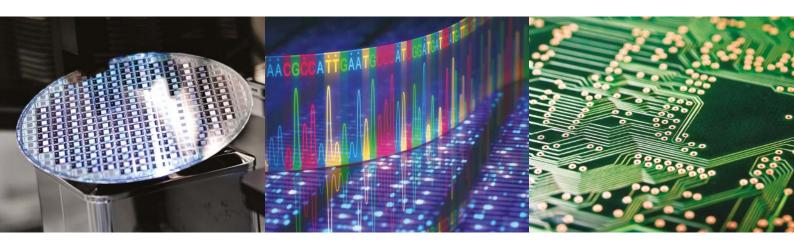
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