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No Reading Coffee Grounds for 2024



What will 2024 bring? From a technical perspective, certainly a lot of new things. Chris Yates, President of EMVA, names a few in his interview - from cameras for non-visible wavelengths, artificial intelligence, the competition from inline measurement technology and machine vision as well as higher resolution and faster cameras (you can read more about this from page 10). We will certainly see further products from these areas, for example at the Vision trade fair, which takes place in Stuttgart in mid-October.

Dr Ronald Müller, Managing Director of Vision Markets, takes a look at the economic situation. Based on the data he provides in his report (starting on page 12), it can be said that the European machine vision industry's home market is facing a number of challenges. In other regions, such as the USA and Asia, Müller is seeing decent growth. However, the Chinese government is making it increasingly difficult for foreign companies to be successful in their country.

What does that mean for 2024? The answer is: let's wait and see. Anything else would be reading coffee grounds. Or to put it less flippantly: The economic and political challenges – such as the war in Ukraine, the aforementioned increasingly complicated Chinese market access, high inflation compared to the last 15 years, a shortage of skilled workers, weak economic growth in Europe, etc. pp. – remain. In other words, the crisis is normal.

But the year 2024 will also bring many great opportunities; for example, opportunities to exchange ideas with like-minded people. A great event of this kind is the EMVA Business Conference in June, this year in Gdansk, Poland. The Vision trade fair in Stuttgart in mid-October is another such opportunity with a more technical focus. I'm already looking forward to seeing what awaits me there.

I wish you a wonderful 2024.

Enjoy reading the Buyer's Guide

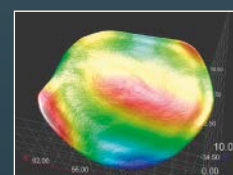
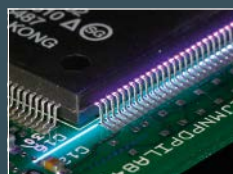
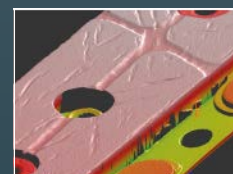
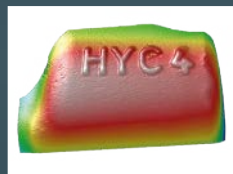
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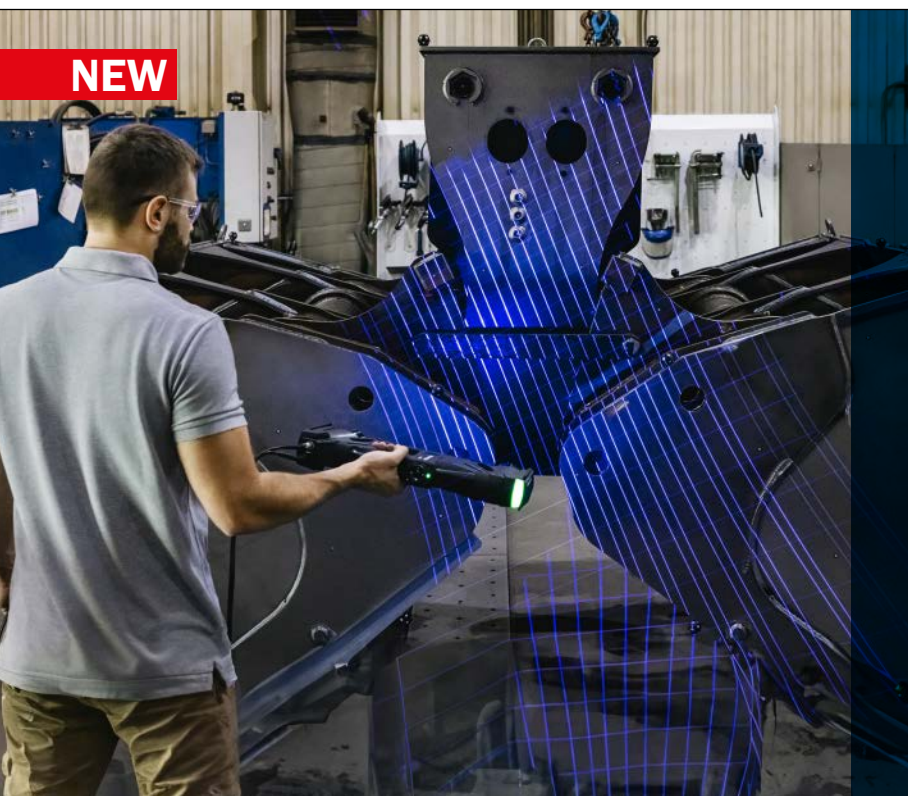


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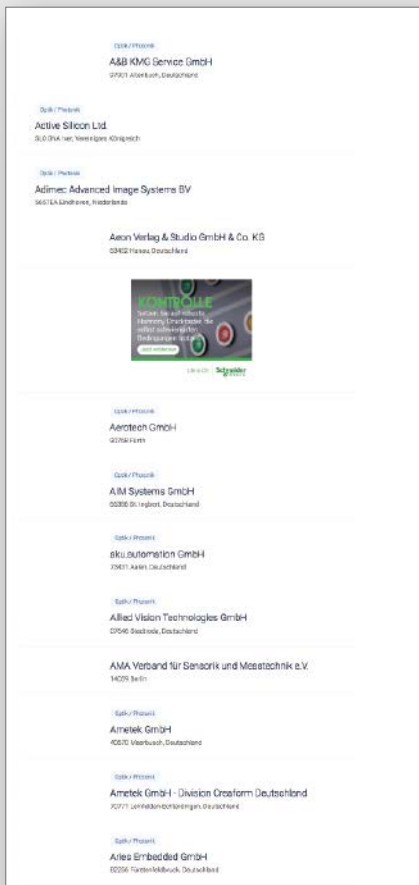
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Machine Vision and Optical Metrology in Europe

The inspect Buyer's Guide 2024

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 to you a comprehensive overview of the machine vision and optical metrology industries.



The Online Buyer's Guide provides all listed companies and much additional information – including contact details, articles and products.



Companies providing a full-fledged company profile can additionally be found in multiple categories with the keyword search.

The inspect Buyer's Guide is published in its 16th year now, for the 16th time 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 in the Buyer's Guide – either in the printed version or on our portal. Additionally, here you will 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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New GenFeA Standard Initiative Aims to Reduce Footprint for Embedded Devices

GenICam Implementation Essentials for Optimal Usage

To provide the flexibility to describe the various features of every machine vision camera, GenICam employs a standardized XML format. But this step requires memory and processing time that may not be acceptable for embedded systems. The GenFeA initiative therefore aims to define a programming interface that allows bypassing the XML file while retaining GenICam's full flexibility.

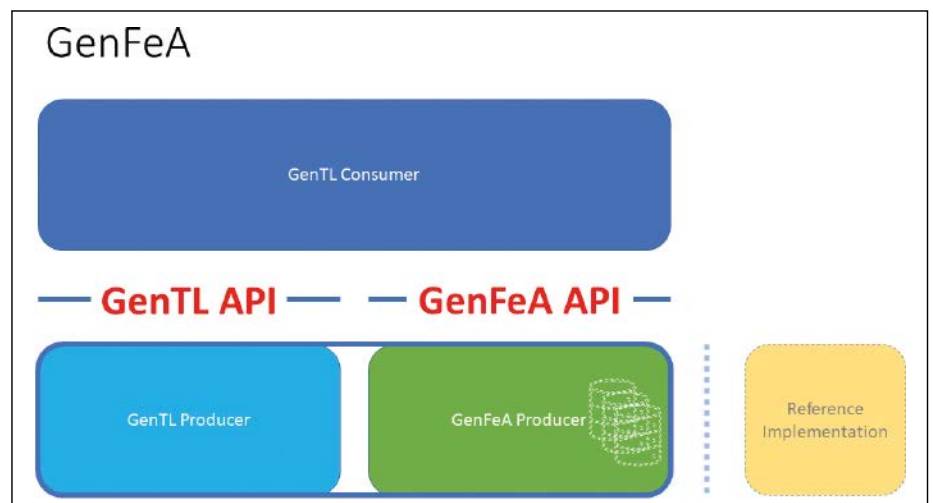
Cameras and PCs as the main components of machine vision systems tremendously miniaturized over the last years. The combination of a processing board with a powerful small camera makes it possible to design a very compact vision system, which can be integrated into a larger system. Such embedded vision systems are of high interest to the machine vision industry. However, adaptation is needed in order to enable industrial solutions to use embedded systems. Hosted by the European Machine Vision Association (EMVA), in August 2018 a new standard initiative formed to address these needs.[1]

One outcome of this initiative was an extensive exploratory process driven by EMVA and Khronos. It involved over seventy companies working together to forge a strong industry consensus on the need, terminology, scope, requirements, and design methodology for a new open standard camera system API. On October 6, 2022, the working group officially adopted the 'Kamaros' name.[2]

GenFeA Follows GenICam

Another outcome of the embedded system standard initiative was the formation of a subgroup consisting of GenICam standard working group members to investigate how

to enable the embedded requirements within the ecosystem of the GenICam standards. The working title of their approach of a new standard API is Generic Feature Access (GenFeA). It should be tailored



A future GenFeA Producer can use GenICam devices inside but can also completely avoid GenApi and XML.

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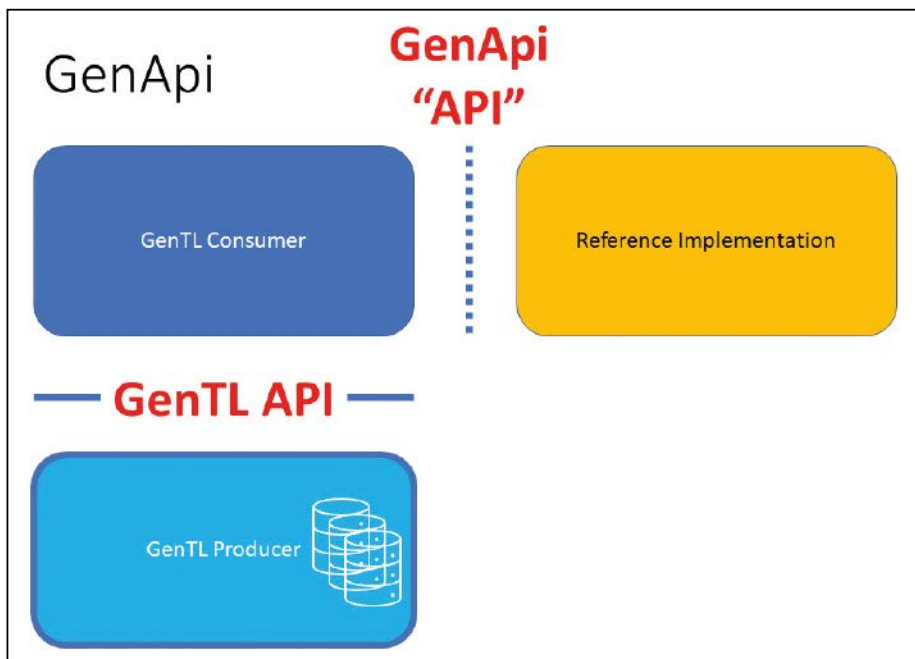


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Today's GenTL can't work without XML description files which are interpreted by the GenApi.

towards the needs of the machine vision industry.

Cameras for machine vision often have numerous functions not found in other camera products. To provide the flexibility to describe the various features, GenICam employs a standardized XML format. However, the step of reading and translating the XML file to a suitable binary representation for the control program requires memory and processing time that may not be acceptable for lightweight embedded systems. The GenFeA initiative therefore aims to define a programming interface that allows bypassing the XML file, if necessary, while retaining GenICam's full flexibility. This means it should not only be simpler to implement and to use but also reduce dependencies, including third-party software packages and technological requirements on the device side.

Bringing non-GenICam Devices into the GenICam World

Consequently, the standard proposal is motivated by several requirements to use GenICam devices in a leaner and more efficient way. One of them is that GenFeA allows implementations without XML parsing and therefore reduces the overall footprint in both memory and performance. Nevertheless, GenFeA allows implementations that use GenApi inside and GenFeA's user interface relies on feature names from the well-established Standard Feature Naming Convention.

In addition, the GenFeA initiative allows bringing non-GenICam devices and libraries or even software-defined cameras with an already existing API to the GenICam world. In order to facilitate those cases, GenFeA only knows about features, not about implementation details as implemented nowadays in XML, while it separates function (actual value) and presentation (attributes like category, descrip-

tion, etc.) of features. Furthermore, the working group members aim to design GenFeA allowing to implement layered architectures. Functionality from different vendors can easily be combined into one system, such as an ISP wrapping around a Mipi device, or a camera wrapping around a lens controller.

Currently, the GenFeA working group is working on the design of an API derived from these high-level requirements. Once the API draft reaches a stable state, prototype implementations are planned to verify that the requirements are fulfilled. ■

References:

- 1: www.emva.org/standards-technology/emva-standardization-philosophy/
- 2: www.khronos.org/kameros/

Technology in detail GenICam

The GenICam standard is hosted by the European Machine Vision Association (EMVA). The goal of GenICam (Generic Interface for Cameras) is to provide a generic programming interface for all kinds of devices (mainly cameras), no matter what interface technology (GigE Vision, USB3 Vision, CoaXPress, Camera Link HS, Camera Link etc.) they are using or what features they are implementing. The result is that the application programming interface (API) will be identical regardless of interface technology.

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Chris Yates, EMVA President:
 “There is certainly more than one technological trend currently influencing our industry.”

“The fundamental drivers of the machine vision industry remain strong”

Interview with Chris Yates, EMVA President

EMVA’s Chris Yates résumés 2023 and unveils the technological trends that will drive the machine vision market in 2024. This includes non-visible wavelengths, artificial intelligence, inline measurement technology versus machine vision as well as higher resolution and faster cameras.

inspect: Chris, let’s begin with a brief look back and how the machine vision year 2023 has been from the EMVA perspective.

Chris Yates: For our association 2023 certainly was an outstanding year as the EMVA celebrated its 20th anniversary, which was toasted in the beautiful settings of Seville during the EMVA Business Conference. This event as well as all others, including the Parma Vision Night and the 6th European Machine Vision Forum were extremely well received. In addition, our membership grew again significantly and we were able to welcome no less than twenty new EMVA members during the year. And business-wise, feedback we received against

the background of so many difficult economic and political uncertainties is that although the machine vision industry is facing certain headwinds in 2023, the fundamental drivers of the industry remain strong.

inspect: We want to take a closer look at what technical trends currently drive the machine vision community. EMVA for sure can give an overview.

Yates: There is certainly more than one technological trend currently influencing our industry. One trend we already observed in recent years is that vision technologies increasingly emerge beyond the visible wavelength. While in the past non-visible wavelengths has

been a specialized niche we’re seeing now that many more camera manufacturers and suppliers are interested in technologies beyond either end of the visible spectrum. In the shorter wavelengths more UV and X-ray imaging technologies emerge, while in the longer wavelengths we are seeing more in the short-wave (Swir), mid-range and long-wave infrared range. A key motivation is that machine vision firms are looking to cover a wider range of the electromagnetic spectrum through their portfolios. The costs and availability of the enabling components have improved in the past, which has allowed camera manufacturers that were historically serving only the visible wavelength range to extend beyond that. One example

driver for these extended wavelengths, particularly in the UV and Swir, is the demand for increasingly advanced packaging in the semiconductor and electronics markets which is being done, for example, using stacking and system-on-chip configurations. From a machine vision standpoint this means traditional, top-down inspection no longer suffices which is where UV and Swir imaging can be used.

inspect: What about AI which has finally reached many industries even down to consumer level in 2023?

Yates: In fact, artificial intelligence has been in the vision industry for at least eight years now. At the moment we see a lot of companies deploying AI solutions, especially early-stage companies, with the technology having matured significantly since it was first introduced. It's becoming much more understood where it can add value in applications. Consequently most, if not all of the companies in the machine vision sector are now addressing AI to some extent. What is important to understand is that AI is not displacing traditional rule-based imaging, but rather adding value to applications that can't be addressed using rule-based methods. If an application can be solved and maintained well using traditional machine vision, then it will likely remain that way. In order for AI to be deployed effectively, it needs to add value beyond the quality inspection accuracy 99.x percent which we can already achieve using rule based machine vision. This bar must be exceeded for AI to provide a benefit when introduced to an existing application. Nonetheless, AI certainly enables a wider spread of vision, and offers considerable benefit to the industry overall. And in line with the increasing maturity and adoption of AI synthetic data emerges.

inspect: Can you further explain what is behind the use of synthetic data?

Yates: Industrial data is often tightly held, so synthetic data is attractive to industry. For example, large datasets of industrial defects aren't widely available in contrast to publicly available general datasets, and industrial datasets tend to be quite specific. So I think we will see an increasing level of synthetic data generated from CAD, also because parts are often already manufactured using CAD tools. There are already companies in our industry looking to provide or use synthetic data in AI solutions. For example a cloud-based solution that generates synthetic data based on a customer's CAD model, and then uses that synthetic data to train an AI neural network, which it then delivers back to the customer.

inspect: Besides AI related innovations, are there other trends that will shape the machine vision industry in 2024?

Yates: One trend I'd like to address here is inline metrology versus inline vision. Metrology has historically involved parts being measured



EMVA celebrated its 20th anniversary during the EMVA Business Conference in Seville in May 2023.

away from the manufacturing line, while vision inspection is often performed inline at high speeds. What we are seeing now is that all of the major metrology providers are looking to deploy their systems inline. This means traditional inline vision inspection and inline metrology are becoming two halves of the same coin. With that a lot of the traditional metrology players are becoming increasingly interested in Vision Tech. I suspect that when we look back in let's say 5–10 years, we will see metrology and inline vision inspection just being two different aspects of automated inline quality control. Consequently, vision technology will play an important strategic role for metrology companies in the coming years.

Another, slightly more noticeable trend, is that the number and use of higher resolution and higher speed cameras is increasing throughout industry. For one thing this has a pricing background: Where a 4 MP camera would have previously been sufficient for an application, for the same cost 12 MP cameras are now available. However, that triggers a knock-on effect throughout the rest of a vision system as more data is generated that then needs to be handled. We are seeing increasing use of interfaces such as CoaX-Press, 10GigE and even 100GigE, which are designed to transfer higher bandwidths of data. But initially, all of these directions are driven by the adoption of increasing image resolutions and higher frame rates.

And finally, another trend observed is that vision players are increasingly recognising the additional value found in machine vision data. I think we'll see more machine vision firms looking to extract data and provide it to their customers or make it accessible to higher level enterprise software platforms. To give an example, on a production line, the data from inspection systems overtime may reveal a degrading tool as the quality of production drops, which could be used to inform predictive maintenance.

inspect: With all these technical trends in mind, looking into next year, what will 2024 bring for the machine vision industry?

Yates: At the EMVA we expect 2024 to become a busy year with lots of opportunities for the Vision-tech industry to meet and exchange. Of course, we are looking forward to the 22nd EMVA Business Conference taking place in June in Gdansk and the 7th European Machine Vision Forum in autumn in Salzburg, Austria. Apart from that, "Vision" trade fair in Stuttgart takes place and with it another popular EMVA Vision Night. "Vision" as the number one showcase for our industry will reveal how many of the above mentioned trends have been transformed into actual products.

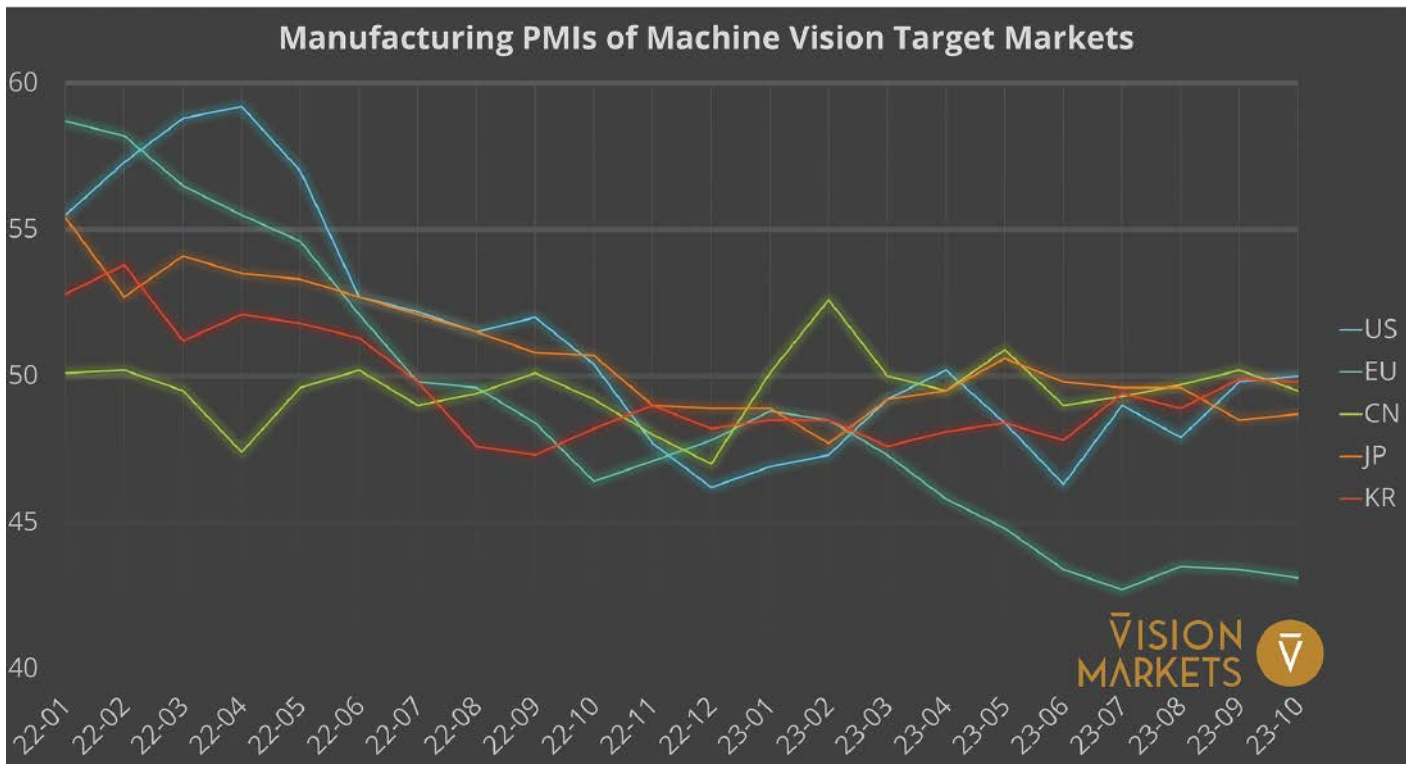
Economically, we still are in a period of many uncertainties. However, the main drivers for machine vision technology, which are automation, digitalization, AI integration, and the smart factory remain intact which is why I also keep an optimistic view on the overall performance of our industry. ■

EMVA events 2024

- Joint EMVA Member Booth at LogiMAT, March 19–21, Stuttgart, Germany
- EMVA Parma Vision Night (eve of "SPS Parma show"), May 27, Parma, Italy.
- 22th EMVA Business Conference, June 13–15, Gdansk, Poland
- 7th European Machine Vision Forum, Fall 2024, Salzburg, Austria
- EMVA Vision Night (eve of "Vision" show), Oktober 7, Stuttgart, Germany

CONTACTS

EMVA – European Machine Vision Association, Barcelona, Spain
www.emva.org



Manufacturing PMIs by region: The EU is still going down, US shows signs of a slowing decline.

Searching the Light

Machine Vision Market Update October 2023

This market update includes the market data from Q3 2023 available at the time of writing by end of October. This allowed for a more grounded forecast of the trend in 2024, and shows that the USA is well on the way to recovery, while the European machine vision market is still waiting for better times. Although the Chinese market is growing relatively strongly, access is increasingly being blocked for foreign companies.

After growing by 2.9 percent year-on-year in 2022, the US manufacturing output (blue line) has been hovering around zero growth since early 2023, with a slight downward trend. The September reading was the second positive one in a row, but it did not indicate any change in the trend, at only 0.08 percent growth. The US Manufacturing PMI also confirmed the stagnation of industrial activity, with 49.8 points in September and a preliminary reading of 50.0 for October. On a positive note, manufacturing capacity utilization rose [1] by 0.2 percent to 79.7 percent in September, matching its long-run average from 1979 to 2022.

However, the overall US economy delivered the strongest quarter-on-quarter GDP growth of 4.9 percent (seasonally and inflation adjusted) in two years in Q3, thanks to consumer spending defying higher prices, rising interest rates, and widespread recession forecasts.

The US labor market is extremely strong, leading to an unemployment rate below 4 percent for 20 consecutive months. Consumers' mortgages as well as a good share of corporate mortgages have fixed and favorable interest rates. Thus, the impact of the FED's rate hikes will only fully materialize when those mortgages are due and need to be refinanced with new contracts.

For 2024, The Economist's market intelligence unit predicts a GDP growth of less than 1 percent for North America, which would be the lowest growth among all economic regions. Wall Street's common sense, however, points more towards a mild recession in 2024, driven by tighter monetary policies fighting the inflation and wage spiral as well as the trade tensions with China and the detrimental impacts of global warming. The US GDP depends on consumer spending by 70 percent. Hence, a recession in

the national GDP does not necessarily imply a recession in industrial output, considering the re- and near-shoring initiatives of supply chains supported by Bidenomics [2] with its US CHIPS Act (analysis by PwC: [3]) and Inflation Reduction Act (analysis by McKinsey: [4]).

Investments into the construction of factories boom throughout the US at a 30-year high which a map of commercial construction activities in semiconductor plants, EV plants, and other manufacturing facilities shows [5]. These activities raise expectations for an upswing in the Automation and Machine Vision investments in the US manufacturing industry against mid-2024.

European Union: Pessimistic Outlook, still

The recession of the manufacturing industry in the EU, especially in Germany, is worsening. The EU manufacturing output plunged to -5.1 percent in August, the lowest

level since the 2008-2009 financial crisis. The M-PMI, which measures the activity of purchasing managers in the manufacturing sector, stabilized slightly above its July low at 42.7 but remained at a devastating 43.4 for September. These five months with readings below 45 indicate a long-term and severe downward trend.

Germany, which is expected to become the world's third-largest economy in 2023 overtaking Japan, is suffering from multiple factors that are hurting its manufacturing sector. Some of these factors are: China's efforts to reduce its dependence on foreign technologies and increase its domestic production; the trade tensions and tariffs imposed by the US; the environmental regulations and policies that require a transition to cleaner and more efficient technologies; and the lack of skilled workers and digitalization in most industries. Eventually, the German association VDMA reported a YoY decline of -16 percent in machinery orders from June to August 2023, wherein orders

from the Eurozone fell behind by -14 percent [6].

Industrial players such as Dürr AG revised their earnings forecast for 2024 following a -32 percent downturn in order intake, especially for woodworking machines [7]. The pan-European Machine Vision component distributor and solution provider Stemmer Imaging adjusted its revenue forecast to a level below 3-7 percent compared to its previous fiscal year [8].

Besides Manufacturing, which is our focus in this economic trend series, the Logistics sector in Europe is suffering. In Germany alone, e-commerce revenues dropped by 14 percent in Q3 2023 YoY.

China: Great Potential – Hard to Tap

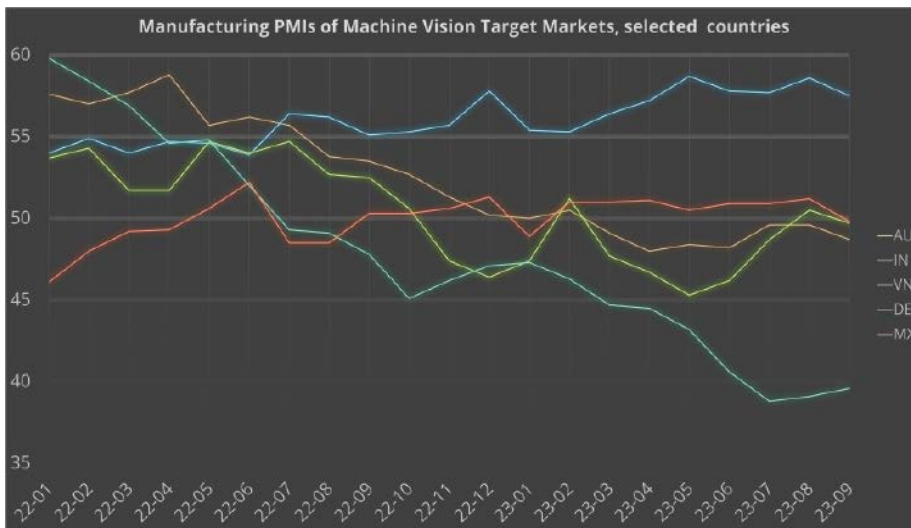
Since 2022, China (green line) is the largest single target market for machine vision components (Source: Annual market report Machine Vision Components 2017 to 2027) [9]. Unlike the other economies here, China's manufacturing output has remained well in

positive territory throughout 2023. According to official figures, the manufacturing output grew by 4.5 percent in both August and September 2023. On average, growth will be between 4 and 5 percent, despite China's huge manufacturing GDP in the denominator. The "Made-in-China" policy makes it increasingly difficult for non-domestic vendors to benefit from this growth, as domestic suppliers are favored. Moreover, as economic and political relations are worsening and the fear of an invasion of Taiwan rises, western giants in semiconductors and electronics are relocating production sites to India, Thailand, Vietnam, Singapore, and other "ROW" countries – see below.

Japan & Korea: Waiting for the Semiconductors Industry

The manufacturing output of South Korea is still in negative growth territory, but it showed a significant and surprising jump to -0.5 percent in August, from -8 percent in July. Korea's defense industry benefits from large orders from Nato countries in their support of Ukraine against Russia. However, Asia's fourth-largest economy is struggling with weak demand in its core export markets, especially in Europe.

Vision Markets' quarterly monitor of the top OEMs in Semiconductor Manufacturing Equipment reported their revenue to be 15.3 billion USD in Q2 2023, which constitutes a decline of -8.5 percent year-on-year and -4.8 percent quarter-on-quarter. Korea, with its exposure to the semiconductor industry, is suffering from its current weakness. Yet, the SEMI association reports that the semiconductor industry bottomed out at the end of the first half of 2023, and has since started a recovery, setting the stage for continued growth in 2024. All segments are projected to log year-on-year increases in 2024, with electronics sales surpassing their 2022 peak.



Manufacturing PMIs of some specific countries: Whereas India shows a stable growth, Germany's Index falls, the rest is somewhere in between.

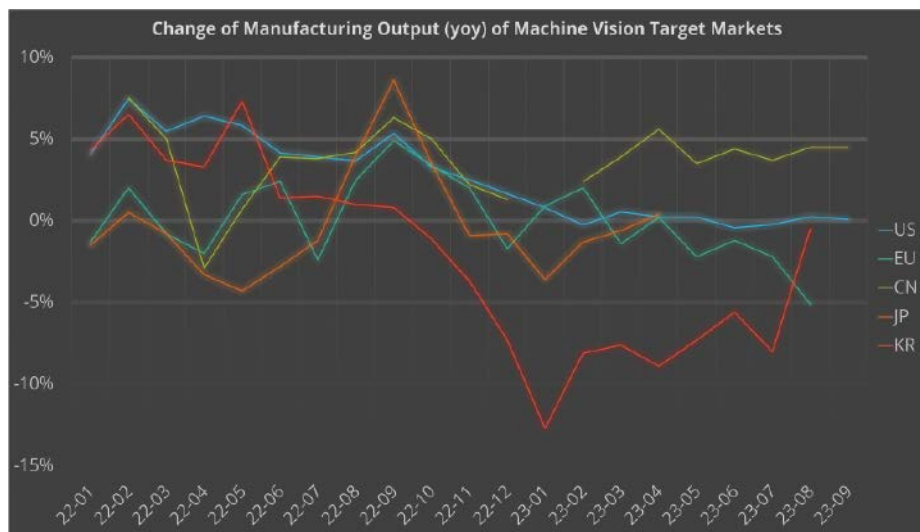
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Japan is seeing its Manufacturing PMI decline to 48.5 in September. Japan's key manufacturing industries are expected to grow by 1.8 percent in 2023, mainly supported by Automotive and Medical products growing between 2.2 and 2.5 percent. The total for 2024 is said to be in a similar range, but the long-term outlook shows a continued deceleration of growth in industrial manufacturing. The Japanese yen has lost about 13 percent in valuation against the US dollar since the beginning of 2023, as a result of Japan's struggling economy and different monetary policies. The reduced costs of products from Japan can hardly compensate for the fact that China's OEMs and users have

Vietnam contributed an added-value manufacturing output of 90 bn US dollars in 2021 and as such it is a tiny player in global terms. Being the closest emerging market to China, Vietnam attracted billions of manufacturing investments beyond its traditionally strong textile industry. Vietnam's M-PMI showed high volatility in H1 2023 coming from positive territory in 2022 declining to its lowest reading of 45.3 in May. It recovered to a flat to growth-suggesting reading of 50.5 in August but dropped slightly back below the neutral 50 points line in September. China is the second largest export destination of Vietnam, thus, the weakness of its northern neighbor harms manufacturing activities.



Year over year manufacturing output per region: South Korea is still in negative growth territory, but it showed a significant and surprising jump in August

turned into competitors rather than customers for Japanese companies.

Rest of World (RoW): Opportunities in Southeast Asia

Purchasing managers of manufacturers in the emerging markets have lost a bit of confidence since our last report in August. But let's take a look one by one.

Mexico is coming from a growth in Manufacturing GDP of 5.2 percent in 2022 vs. 2021. Since September 2022, Mexico's M-PMI readings were all slightly above 50, except for January this year. This resulted in a growth of 2.7 percent in industrial production output, approximated by the average monthly YoY trend in H1 2023. The average M-PMI reading of 50.6 in 2023 was undercut by a drop to 49.8 in September dropping into the contraction area correspondingly. Despite all the billions of USD investments by automakers and heavy industry into new factories, Mexico is dependent on the demand for goods of its big neighbor in the north. As described above, the US manufacturing industry is shaky with detrimental effects on Mexico's OEMs.

Furthermore, Vietnam is known for its manufacturing capacities of rather low-cost consumer goods. Globally, and especially in Europe, consumer spending is contracting. As Vietnam's power and transportation infrastructure keeps improving, Machine Vision players are witnessing growing demand to automate all the new factories being built. For detailed insights in Vietnam's current and future role as manufacturing hub, McKinsey's recent report "Boosting Vietnam's manufacturing sector: From low cost to high productivity" provides valuable clues [10].

India's purchasing managers of manufacturers are among the most enthusiastic when it comes to near-term growth. Despite the drop to 57.5 in September from close to a record-high 58.6 in August, the Indian manufacturing industry is growing the fastest among all economies in Southeast Asia in absolute terms. With a population of over 1.4 billion and a growing per capita GDP of 2,257 USD in 2021, India features a large domestic market, low labor costs, and a well-educated workforce. Players like Cognex, Edmund Optics, and OPT Machine Vision, have set up their own marketing,

sales, and support centers in India. German sensor OEMs Wenzel Group and Schäfter+Kirchhoff has just recently opened R&D centers and manufacturing facility in India showing the growing importance of this region for Machine Vision players.

Getting Prepared for the Future

Despite all economic concerns, the need for yield, quality, flexibility, and cost-cutting drives manufacturing automation across the globe. Industrial Production Output and Manufacturing PMI are important but they are only a small part of over 100 economic indicators and companies that Vision Markets is constantly including in its continuous analysis of the machine vision market [11]. Especially for business planning for the next fiscal year and further strategy development, the unique market insights by the researchers of Vision Markets provide data-driven decision-making support [12]. Our team of business consultants consists of former CEOs and executives of major machine vision corporations. They facilitate the development and implementation of successful growth strategies for ambitious machine vision players.

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Company Profiles

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About AutoVimation

AutoVimation builds protective camera enclosures and accessories that allow the use of vision systems in any environment. Thanks to the patented camera mounts, the enclosure works like a heat-sink and cools the installed camera, so it can be used at higher temperatures.

Water- and Peltier- climatisation permit the operation of vision systems from -40 °C to +250 °C. Shutter and Wind Curtains ensure clear vision in dirty environments.

The „Machine Vision Building Kit“ enables easy installation of vision components with pre-fabricated parts. The „Hygienic Building Kit“ offers the



same for sensitive food- and pharma productions.

New Products 2023:

- New Stingray and Elephant enclosures for large cameras
- New Turtle enclosure
- New Tuatara Atex enclosure
- Improved camera mounts



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Management

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Foundation

2008

Staff

7

Products

Protective Camera and Laser Enclosures and Accessories, LED Ring Light, Mounting Equipment, R&D, other

Applications

Character Recognition, Digitalization, High Speed Analysis, Inspection Piece Parts, Inspection Webbed Material, Material Testing, Metrology 2D/3D, Robot Vision 2D/3D, Particle Analysis, Part Identification, Symbol Recognition, Thermography

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

Companies represented

Swivellink

Associations

VDMA

Regions served

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

About Balluff

Founded in 1921 in Neuhausen a. d. F., Balluff has established itself as a global leader in innovative technology, quality, and cross-industry expertise in industrial automation. With 3,900 employees worldwide, this fourth-generation family-owned company offers a comprehensive portfolio of high-quality sensor, identification, and image processing solutions, including networking technology and software. In 2022, the Balluff Group achieved a revenue of approximately 567 million euros. In addition to its central headquarters in Neuhausen a.



d. F., Balluff has sales, production, and development locations around the globe, operating 38 subsidiaries and having additional representations in 61 countries. This ensures customers rapid worldwide availability of products and high-quality consulting and service directly on-site.

Foundation

1921 in Neuhausen auf den Fildern

Staff

3,900

Products

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



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About Edmund Optics

Edmund Optics is a leading global provider of optical technology solutions that has been serving a variety of markets since 1942. The company employs 1,250+ people across 18 global locations and continues to expand.



The company serves its customers through two distinct offerings: Edmund Optics' Marketplace – one-stop shop for the best brands and products in optics and photonics with off-the-shelf products available for immediate shipping; and Optical Manufacturing Services – custom design, prototyping,

and volume manufacturing of high-quality optical and imaging components and systems. With great competency in imaging and imaging components, custom or off-the shelf, the company provides complete imaging solutions: EO – Your Partner in Imaging Optics.

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EO Europe has locations in Finland, France, Spain, Netherlands, Germany, and the UK and cooperates with various representatives throughout the continent. Request our free catalogue for optical components, imaging products and laser optics.

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Edmund Optics GmbH
Dr. Boris Lange, Manager Imaging Europe

Foundation

1942 in USA, 2000 in Germany

Staff appr. 1,000

Products

Cameras, Imaging Lenses, Lighting Equipment, Microscopes, Optics, Optical Components, etc.

Industries served

Electronics/Semiconductors, Medical Technology, Mechanical Engineering, Line Building, Pharmaceutical, Cosmetics, Chemical, Precision Engineering, Optics, Machine Vision, Traffic, Logistics, etc.

Associations

AIA, EMVA, JIIA

Regions served

Worldwide



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About Materion Balzers Optics

Materion Balzers Optics is a global leader in optical thin film coating solutions. We are the preferred partner for providing innovative optical coatings and solutions for over 70 years. From the UV through the Far IR, we custom manufacture and supply precision optical filters and coatings. As a high-tech company with five production sites worldwide, our focus is on a variety of markets such as Life Science, Industry, Consumer, Lighting, Space, Defense and Automotive. With a full range of unparalleled products, services, and support technologies, our customers benefit from our strategically located global facilities that provide regional manufacturing and technical support.

Materion Balzers Optics superior quality products are fully supported by a large volume manufacturing environment that produces highly repeatable results, contributing to reduced costs and market advantage. We also have scalable processes that are economical for customers who require small quantities. Our technical expertise and access to broad resources throughout Materion, we are uniquely positioned to offer solutions to our customer's most demanding challenges. Our offerings include Filter Arrays, DLC, Ultra-Narrow Bandpass, Linear Variable, High Reflector, Patterned Coatings, Wafer Level Coatings, and Getters, and many others.



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Foundation

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Staff

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Products

Optics, Optical Coatings, Optical Components

Industries served

Automotive, Medical Technology, Packaging, Precision Engineering/Optics/Machine Vision, Semiconductor, Space

Applications

Others

Regions served

Americas, Asia, EMEA, Europe



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About Micro-Epsilon

Micro-Epsilon plays a leading role in measurement technology. For more than 50 years we have offered reliable, high performance, unique solutions particularly when high precision measurements are required.

Our product range covers displacement and position sensors, temperature and color sensors, as well as sensor systems for dimensional measurement and defect detection.



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Foundation

1968

Staff

1,500

Products

Vision Sensors/Smart Cameras, Optical Instruments, Turn-Key Systems, Other

Applications

Inspection Piece Parts, Metrology 2D, Metrology 3D, Robot Vision 2D, Robot Vision 3D, Part Identification, High Speed Analysis, Thermography

Industries served

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

Associations

AMA

Regions served

Asia, China, Europe, North America, South/Central America, national

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.

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

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Management

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Foundation

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Staff

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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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With powerful components such as lenses, lighting, filters, frame grabbers and cables, we support customers in the realization of economical and, if necessary, individual image processing solutions for a wide range of industries.



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Management

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Foundation

1987

Staff

90–120

Products

Cameras, Consulting, Frame Grabber, Integration Services, Interfaces/Cables/Peripherals, Lighting Equipment, Optics, Software, Vision Sensors

Applications

Character Recognition, High Speed Analysis, Motion Analysis, Inspection Piece Parts, Metrology, Part Identification, Robot Vision, Symbol Recognition, Machine Process Analysis, Crash Test, Others

Industries served

Automotive and Suppliers, Electronics/Semiconductors, Engery/Water/Solar Technol-

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Companies represented

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Associations

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[Simple Vision sensors for presence detection, measuring, counting, code reading | Leuze](#)

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Producer

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

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Producer, Solution Provider

Software: Image processing toolkit
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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

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Research Facility

The AIT Austrian Institute of Technology, Austria's largest non-university research institute, is among the European 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.

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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.

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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 about 9,000 people globally and is listed on the SIX Swiss stock exchange (AMS).

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Distributor

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Tel: +49 89 895 770, info@ams.de, www.ams.de

Distributor, Producer, Solution Provider

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Producer

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Solution Provider

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Consultant, Producer

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Solution Provider

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Distributor, Integrator, Machine Builder/OEM

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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 sen-

sor 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.

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Producer

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Producer

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Producer, Solution Provider

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Producer

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Producer, Solution Provider

BAP Image Systems GmbH · Am Weichelsgarten 7, 91058 Erlangen, Germany,
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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.

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Producer

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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

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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

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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 Headquarters in Öhringen (Germany) provide users with complete solutions for inline metrology and implement customized

solutions for all leading German 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
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Producer

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Producer

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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.

Carl Zeiss Spectroscopy GmbH · Carl-Zeiss-Promenade 10, 07745 Jena, Germany
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Distributor, Producer

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Solution Provider

Ceres Vision GmbH · Kurt-Schumacher-Str. 1, 33615 Bielefeld, Germany,
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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 de-

velopment, 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.

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Producer

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Integrator

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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.

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Producer

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Machine Builder/OEM, Solution Provider

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Producer, Solution Provider

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Consultant, Distributor, Integrator, Machine Builder/OEM

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Producer

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Integrator, Solution Provider

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Research Facility, Solution Provider

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Producer

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Producer

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Solution Provider

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

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Producer

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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 AI and ML analysis.

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Machine Builder/OEM

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building machine vision

Consultant

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.

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Solution Provider

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Solution Provider

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Distributor

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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.

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Distributor, Producer

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Solution Provider

EHR GmbH · Wittumstr. 10, 75181 Pforzheim, Germany,
Tel: +49 7231 973 10, vision@ehr.de, www.ehr.de

Producer

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Producer

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Distributor, Producer, Solution Provider

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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.

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Producer

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Producer

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Solution Provider

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Producer

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Producer, Solution Provider

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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 Kerschhagl GmbH · Josef Krainer Str. 35, 8074 Raaba, Austria,
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Consultant, Producer, Other

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Producer

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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.

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Machine Builder/OEM

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Producer

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Producer

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Integrator, Solution Provider

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Producer, Solution Provider

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Producer

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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,
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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.

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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

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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.

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Institute (Research Facility)

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Institute (Research Facility)

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Institute (Research Facility)

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Institute (Research Facility)

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Research Facility

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Institute (Research Facility)

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Institute (Research Facility)

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Institute (Research Facility)

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Research Facility

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Fraunhofer-Institut für Photonische Mikrosysteme IPMS

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Institute (Research Facility)

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Producer

FRT, Fries Research & Technology GmbH

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Integrator, Solution Provider

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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

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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

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Machine Builder/OEM

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Producer

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Integrator, Solution Provider

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Producer

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Producer

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Producer

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Producer

Hamamatsu Photonics Deutschland GmbH

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Producer

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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, Mathematik 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

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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.

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Producer, Research Facility

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Producer

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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 vision.

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Producer

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Producer

As a member of the HOYA Group, HOYA CORPORATION OPTICS SECTION 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).

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Integrator

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Producer, Solution Provider

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Integrator, Solution Provider

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Manufacturer / Producer

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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

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Manufacturer / Producer

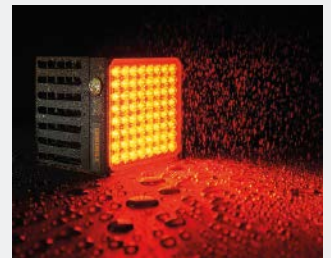
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Producer

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The team of iim AG has extensive experience in Machine Vision and can apply this knowledge excellently when designing and realising its products and when providing consulting.



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Producer

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Solution Provider

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Distributor, Producer, Solution Provider

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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.

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Integrator

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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.

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Integrator

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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 tech-

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Integrator, Machine Builder/OEM, Producer, Solution Provider

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Producer

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Producer

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,
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Producer

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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 opera-

tions, 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.

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Integrator, Solution Provider

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Producer

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Producer

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Manufacturer / Producer

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Machine Builder/OEM, Solution Provider

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Producer

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Producer

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

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Media

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Distributor, Producer

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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 applications 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.

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Producer

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Distributor

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Producer

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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.

Medabsy UG · Speisemarkt 8, 84130 Dingolfing, Germany, Tel: +49 157 783 311 96, info@medabsy.com, medabsy.eu

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Machine Builder/OEM, Producer

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Producer

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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 development 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.

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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,
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Producer

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Producer

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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.

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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 particular, 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.

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Integrator, Producer, Solution Provider

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Solution Provider

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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 Ilsfeld, 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 high-speed video cameras for scientific and industrial applications. Our high-end 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 know-how 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,
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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@piezोजना.com, www.piezosystem.com

Producer

Planistar Lichttechnik GmbH · Wiesenweg 4, 97267 Himmelstadt, Germany,
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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 solu-

tions. 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

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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 · Bötzingenstr. 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, semiconductor, 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 logistics..

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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 + Kirchoff 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

Producer, Solution Provider

Schöly 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@seiwaoptics.com, www.seiwaoptics.com

Producer

SensoPart Industriesensorik GmbH · Nägelsestr. 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 GigE Vision, USB3-Vision and CoaXPress with more than 150 customers around the world. Sensor to Image is serving the technical commitments of GigE Vision & USB3 vision and

GenlCam for more than 10 years, and coauthoring the CoaxPress 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 · Malmshheimer 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
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Integrator

Stöhrmann Systemtechnik · Im Erlenwäldle 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 net-

work 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 Qualitätsicherung & 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

Producer

We are proud to announce the new super compact M112FM series: The lenses have been developed for cameras with large 1/1.2" imagers, like the IMX174/IMX249. They deliver cutting edge optical performance with no vignetting and reach a 3.45 micrometer pixel pitch resolution for imagers like IMX250/IMX264. All this in a super small body of just 29 mm diameter.

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

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,
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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,
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Integrator

UG Systems GmbH & Co. KG · Kronacher Str. 41, 96052 Bamberg, Germany,
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Producer, Solution Provider

Unique Vision GmbH · Kleine Bahnstr. 8, 22525 Hamburg, Germany,
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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
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Tel: +49 451 290 28 60, info@visiconsult.de, www.visiconsult.de

Solution Provider

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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

Vision & Control is a leading German manufacturer of components for industrial machine vision with a track record of more than 30 years. Our imaging components - Made in Germany - make machines seeing and hidden details visible. Development and production of customer specific products in Optics, Lighting and Multi-Camera-Systems are our passion. A wide-ranging catalogue is the showcase of our technology and quality. With imaging components

from Vision & Control, we support our valued customers to make their leading edge.



Vision & Control GmbH
Mittelbergstr. 16
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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

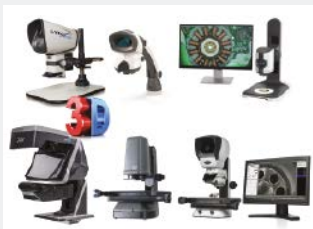
Vision Components is a leading international manufacturer of embedded vision systems with over 25 years of experience. The product range extends from versatile MIPI camera modules to freely programmable board cameras with ARM/Linux and OEM systems for

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 turn-key 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,
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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

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 sell-side 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

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Integrator, Solution Provider

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Distributor

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Producer, Solution Provider

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Hasengartenstr. 14, 65189 Wiesbaden, Germany,
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Distributor, Integrator, Producer, Solution Provider

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Distributor

VKT Video Kommunikation GmbH, Technisches Fernsehen
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sandrafrueh@vkt.de, www.vkt.de

Solution Provider

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

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Solution Provider

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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 Tettngang, 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,
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Solution Provider

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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 technology 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

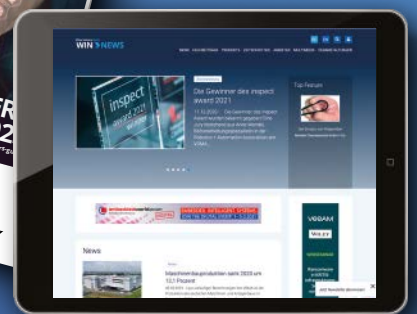
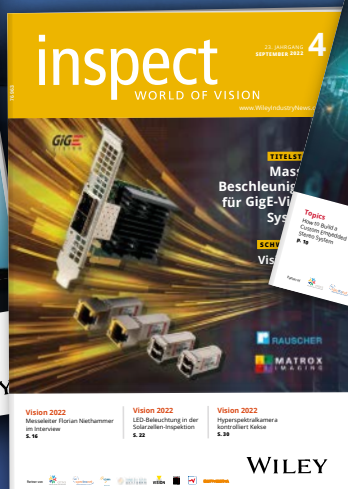
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Tel: +49 241 997 71 64, info@zertrox.de, www.zertrox.de

Machine Builder/OEM, Producer, Solution Provider

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Integrator, Machine Builder/OEM, Solution Provider

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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 QNX.

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 a classic or complex, Apex 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 con-

tinuously 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.

Apex Solutions · Campus Artem 2 Allée André Guinier, 54000 Nancy, France,
www.apex-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 pro-

cessed 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

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

Distributor

CSI · 7 Meadowfield Park South, NE43 7QA Stocksfield, United Kingdom, Tel: +44 1661 842 741, gilscott@csi.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 collection

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 OptiScan 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

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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 indus-

trial 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

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Solution Provider

FDS Research, d.o.o. · Suhadolcánova 28, 1231 Ljubljana-Črnuče, 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

control 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 Buckingham 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 Grayhill 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@globalasertech.com, www.globalasertech.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 boundaries 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 mar-

kets. 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 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, military, medi-

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.

cal 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 tech-

nology, 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 industry 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

Producer

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

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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-

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

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Integrator, Solution Provider

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

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Distributor, Integrator, Solution Provider

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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

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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

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Producer

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

Distributor

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Solution Provider

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Distributor

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

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Prophesee (formerly Chronocam)

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Solution Provider

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Solution Provider

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Manufacturer / Producer

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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

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.com, 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,
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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@saplttd.co.uk, www.saplttd.co.uk

Distributor

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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

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Producer

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

Techway · 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,

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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 ap-

plications. 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 Tiamo.

Tiamo Group · ZA des Plattes, 1 Chemin des Plattes, 69390 Vourles, France, www.tiamo.com

Producer

Tordivel AS · Storgata 20, 184 Oslo, Norway,
Tel: +47 2315 870 0, office@tordivel.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

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Machine Builder/OEM

Videometer A/S · Lyngso Allé 3, 2970 Horsholm, Denmark,
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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

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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 process.

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 technol-

ogy. 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 technologies, 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 development 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 systems

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 technical equipment

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Producer

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

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Solution Provider

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Machine Builder/OEM

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Machine Builder/OEM

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Producer

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Machine Builder/OEM

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Distributor

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Producer

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Tel: +1 412 487 82 11, sales@apgvision.com, www.apgvision.com

Machine Builder/OEM

Altair Industries, Inc.
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Machine Builder/OEM

Applied Electro-Optics Inc.
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Producer, Solution Provider

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Distributor

AutomationDirect
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Producer

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Other

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Distributor

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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

Producer

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

Solution Provider

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

Solution Provider

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Research Facility, Solution Provider

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Solution Provider

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Producer, Solution Provider

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Machine Builder/OEM

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Producer

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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 Builder/OEM

Deposition Sciences, Inc. (DSI) · 3300 Coffey Lane, 95403 Santa Rosa, CA, United States of America, Tel: +1 707 573 67 85, solutions@depisci.com, www.depisci.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

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Producer

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Producer

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Producer

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Producer

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Producer

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Machine Builder/OEM, Solution Provider

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Integrator, Solution Provider

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Producer

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Other

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Machine Builder/OEM, Producer, Solution Provider

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Distributor

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Producer

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Producer

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Producer

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Consultant

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Producer, Solution Provider

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Producer

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Producer

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Cameras, Image Sensors

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Distributor

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Producer

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Producer

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

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Distributor

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Producer

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Machine Builder/OEM

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Software, Solution Provider, Vision Systems, Turnkey Solutions, Integration Services

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Integrator

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Producer

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Producer

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Solution Provider

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Producer

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Producer

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Producer

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Consultant, Distributor, Integrator

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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

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Producer

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Machine Builder/OEM

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Solution Provider

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Distributor

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Solution Provider

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Integrator, Solution Provider

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Producer

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Consultant

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Producer

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System Solution Provider

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 as- set 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 camera field.

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, Biomed- ical & 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 technology is set to transform the AI chip industry, putting new compute possibilities within reach. The AI 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

Imelligent 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.

Imelligent Technology (Shanghai) Co. Ltd. · 306-7, 3rd floor, no.1-72, Lane 2855, Huqingping Road, Shanghai, China, www.imelligent.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-of-the-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 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 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@jiaa.org, www.jiaa.org

Producer

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 Neshar, 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, LongWu 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 Chenul 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

Producer

NED (Nippon Electro-Sensory Devices Ltd.) · Shinagawa-ku, Oh1 1-45-2 Gibraltar Oh1 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, AI 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 Ditstric, 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

Producer

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 its 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.com

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 Oppenheimer 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 vis-

ible 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, Tangtuo Shiyan, 51818 Shenzhen, China, Tel: +86 755 297 818 35, zteyhb@gmail.com, www.ksfiber optic.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 au-

tomotive 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 AI 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.

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

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 maintain-

ing 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@whhec8.cn, www.w-hec.com/en



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ABS	www.abs-jena.de
Acal BFi Germany	www.bfiophtilas.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
Applied Scintillation Technologies	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.bapimingsys.com
Basler Vision Technologies	www.baslerweb.com
Baumer	www.baumer.com
Becom Systems	www.becom-group.com
Beijing Microview	www.microview.com.cn
Bock Optronics	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
Datalogic Automation	www.datalogic.com
Datapixel	www.datapixel.com
Dedo Weigert	www.dedoweigertfilm.de
Digital West Imaging	www.highspeedvideos.com
E2v	www.e2v.com
Ebs Automatisierte Thermographie 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.imagesrll.com
Imaging Solutions Group	www.isgcameras.com
Imi tech	www.imi-tech.com
Imperx	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.ios-web.de
Ircam	www.ircam.de
IS Imaging Solutions	www.imaging-solutions.de
ISVI	www.isvi-corp.com
JAI	www.jai.com
Japan F.A. Systems	www.jfas.co.jp
JenCam	www.jencam.de
Jenoptik	www.jenoptik.de
Kamera Werke Dresden	www.kwdo.de
Kappa opto-electronics	www.kappa.de
Karlheinz Hinze Opto-engineering	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
Micro-Epsilon	www.micro-epsilon.com
Microsystems	www.microsystems.it

Mikromak Service	www.mikromak.com
Mikrotron	www.mikrotron.de
Mitsubishi Electric	www.mitsubishielectric.com
MsiVision	www.msivision.com
NAC	www.nacinc.de
Narragansett Imaging	www.nimaging.com
National Instruments	www.ni.com
NED	www.ned-sensor.co.jp
NET	www.net-gmbh.com
NeuPro Solutions	www.neupro-solutions.com
New Imaging Technologies	www.new-imaging-technologies.com
Notavis	www.notavis.com
NTI	www.nti-measure.com
Odem Technologies	www.odem.co.il
Olympus	www.olympus-europa.com
Omron Microscan Systems	www.microscan.com
Omron	www.industrial.omron.de
ON Semiconductor	www.onsemi.com
Opto Fidelity	www.optofidelity.com
Opto Sonderbedarf	www.opto.de
Optomotive	www.optomotive.com
Optrima	www.optrima.com
Optris	www.optris.de
Optronis	www.optronis.com
Orbis	www.orbis.eu
Panasonic Electric Works	www.panasonic-electric-works.de
Parameter	www.parameter.se
PCO	www.pco.de
Pentacon	www.pentacon.de
PerkinElmer Optoelectronics	www.perkinelmer.com
Phaer	www.phaer.be
Philips	www.apptech.philips.com/vision
Photonfocus	www.photonfocus.com
Photron	www.photron.com
Phytec Messtechnik	www.phytec.de
Pi4_robotics	www.pi4.de
Pieper	www.pieper-video.de
PixelLink	www.pixelink.com
PMDTec	www.pmdtec.com
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Princeton Instruments	www.princetoninstruments.com
Prophesee	www.prophesee.ai
Proxitronic	www.proxitronic.com
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Rad-ICON Imaging	www.rad-ICON.com
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RH Engineering	www.rhengineering.de
Ricoh International B.V. - German Branch	www.ricoh-iosd.eu
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
Teledyne Lumenera	www.teledynelumenera.com
The Imaging Source	www.theimagingnsources.com
Thermosensorik	www.thermosensorik.de
Tichawa Vision	www.tichawa.de
Toshiba Teli	www.toshiba-teli.co.jp
Toshiba	www.toshiba.ch
TriDiCam	www.tridicam.de
TVI Vision	www.tvivision.com
Unibrain	www.unibrain.com
VDS Vosskühler	www.vdsvossk.de
Vega Technology Group	www.vegatcgroup.com
Vialux	www.vialux.de
Vicon Motion Systems	www.vicon.com
Videology Imaging Solutions	www.videologyinc.com
Videor Technical	www.videor.com
Vidisys	www.vidisys.de
Vieworks	www.vieworks.com
Visicontrol	www.visicontrol.com
Visiolaser	www.vannier-photelec.fr/visiolaser
Vision & Control	www.vision-control.com
Vision Components	www.vision-components.com
Vision Research	www.visionresearch.com
Vision Tools	www.vision-tools.com
Visiosens	www.visiosens.de
Vistas	www.vistas-gmbh.de
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
Ximea	www.ximea.com
Zertrox	www.zertrox.de
Zhejiang Huaray Technology	www.huaraytech.com

Consulting, Marketing, Education & Other Services

AIA Automated Imaging Association	www.machinevisiononline.org
Alfavision	www.alfavision.de
Arvoo Imaging Products	www.arvoo.com
AS Thermographie	www.as-thermografie.de
Asentics	www.asentics.de
CMES - Chinese Mechanical Engineering Society	www.cmes.org
Cmos Vision	www.cmosvision.com
CMOSIS	www.cmosis.com
Cognex	www.cognex.com
Collischon Optik-Design	www.mikro-optik.de
CSEM	www.csem.ch
CTMV	www.ctmv.de
Datapixel	www.datapixel.com
De Man Industrie-Automation	www.deman.de
Digital West Imaging	www.highspeedvideos.com
Duwe 3D	www.duwe-3d.de
EMVA European Machine Vision Association	www.emva.org
Entner Electronics	www.entner-electronics.com
Envision	www.envision.co.kr
Erhard + Leimer	www.erhardt-leimer.com
Farbmessung Schröder	www.farbmessung.com
FiberVision	www.fibervision.de
Framos	www.framos.eu
Fraunhofer Allianz Vision	www.vision.fraunhofer.de
G4 Technology	www.g4.com.tw
Gesellschaft für Bild- und Signalverarbeitung (GBS)	www.gbs-ilmenau.de
GFal	www.gfai.de
IDS	www.ids-imaging.com
Imaging Lab	www.imaginglab.it
Impuls	www.impuls-imaging.com
INB Vision	www.inb-vision.com
Infaimon	www.infaimon.com
InRay Solutions	www.inrays.com
Inspect	www.WileyIndustryNews.com
Irida Labs	www.irdalabs.gr
IS Imaging Solutions	www.imaging-solutions.de
IVAN	www.feda.nl
Dr.-Ing. Jänchen Business Development	www.jaenchen-bd.com

JIIA Japan Industrial Imaging Association	www.jiia.org
Joanneum Research	www.joanneum.at
Kappa opto-electronics	www.kappa.de
Landesmesse Stuttgart	www.vision-fair.de
Lincoln Laser Company	www.lincolnlaser.com
Messe München	www.messe-muenchen.de
Michigan Metrology	www.michmet.com
MsiVision	www.msivision.com
Neurocheck	www.neurocheck.com
Norman N. Axelrod Associates	www.axelrodassociates.com
NTI	www.nti-measure.com
Omron	www.industrial.omron.de
Optical Research Associates	www.opticalres.com
Opto	www.opto.de
Opto Fidelity	www.optofidelity.com
P.E. Schall	www.schall-messen.de
Phytec Messtechnik	www.phytec.de
Pi4_robotics	www.pi4.de
Polytec	www.polytec.de/bv
Rubroeder	www.rubroeder.de
Sensor to Image	www.sensor-to-image.de
SmartSurv	www.smartsurv.de
Solving3D	www.solving3d.de
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
Sympo	www.symop.com
Systematic Vision	www.systematicvision.com
Ukiva	www.ukiva.org
University of Applied Sciences	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
Zertrox	www.zertrox.de

Frame Grabber

Active Silicon	www.activesilicon.com
Adlink	www.adlinktech.eu
Advantech Europe	www.advantech.eu
Alacron	www.alacron.com
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
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
Schäfer+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-ilmeneau.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.theimagingnsources.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

ABW	www.abw-3d.de
Acal Bfi Germany	www.bfiophtilas.com
Advanced Illumination	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 Sistemas	www.dcmsistemas.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
iIM	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.schneiderindustrial-optics.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.lddligh.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.net-.com
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	www.pi4.de
Planistar Lichttechnik	www.planistar.de
POG Präzisionsoptik Gera	www.pog.eu
Polytec	www.polytec.de/bv
Power Technology	www.powertechnology.com
Profactor	www.profactor.at
Qualimatest	www.qmt.ch
Quioptiq	www.quioptiq.de
Rauscher	www.rauscher.de
RH Engineering	www.rhengineering.de
Rheintacho Messtechnik	www.rheintacho.com
Schael-Optik	www.schael-optik.de
Schäfer + 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
Special Application Products	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.theimagingnsources.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
Bock Optronics	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.feicom.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.alicon.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 Technologies	www.scintacor.com
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 eltomat 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
Chunghwa Leading Photonics Tech (CLPT)	www.clpt.com.tw
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.electronicssystem.it
ElektroPhysik Dr. Steingroever	www.elektrophysik.com

EVK DI Kerschhagl	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.hdvvisionsystems.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
Isi-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
OptoMess	www.optomess.de
Optometron	www.optometron.de
OptoPolymer	www.optopolymer.de
Optoprim	www.optoprim.de
OptoSurf	www.optosurf.com
Optris	www.optris.de
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
Quest Innovations	www.quest-innovations.com
Raytek	www.raytek.de
Rheintacho Messtechnik	www.rheintacho.com
Richard Wolf	www.richard-wolf.com
Roper Scientific	www.roperscientific.de
Rudolph Technologies	www.rudolphtech.com
Schäfer Technologie	www.schaefer-tec.com
Schäfer + Kirchhoff	www.sukhamburg.de
Sensor Instruments	www.sensorinstruments.de
Sensors Unlimited	www.sensorsinc.com
SGM Schut	www.schut.com
Shape Drive	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	www.stiefelmayer.de
STIL	www.stilsa.com

Optics

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

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
Visiolaser	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

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.berlinglas.com
Birger Engineering	www.birger.com
BK Interferenzoptik	www.interferenzoptik.de
Bock Photonics	www.bockphotonics.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.gyooptical.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
IiM	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 Optoengineering	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 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
Sedeco Vision Components	www.sedeco.nl
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.theimagingnsources.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.zygotot.de

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Adlink	www.adlinktech.eu
Aerotech	de.aerotech.com
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Alysium-Tech	www.alysium-tech.com
AMS Technologies	www.amstechnologies.com

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Baumer	www.baumer.com
Bock Optronics	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-ilmeneau.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.theimagingnsorce.com
Thinklogical	www.thinklogical.com
Unibrain	www.unibrain.com
USBFireWire	www.usbfirewire.com
Vidisy	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

R&D

Acal BFi Germany	www.bfiophtilas.com
Alfvision	www.alfvision.de
Alicona Imaging	www.alicon.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
GFai	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 + Kirchoff	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
Tecnia	www.tecnialia.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

A&B Software	www.ab-soft.com
ABW	www.abw-3d.de
Adaptive Vision	www.adaptive-vision.com
Advantech Europe	www.advantech.eu
Alditech	www.alditech.ru
Alfvision	www.alfvision.de
Alicona Imaging	www.alicon.com
Alliance Vision	www.alliancevision.com
Alrad Imaging	www.alrad.co.uk
Aku.automation	www.aku.eu
AMS Technologies	www.amstechnologies.com
Andor Technology	www.andor.com
AOS Technologies	www.aostechnologies.com
Applied Electro-Optics	www.aeoua.com
Artray	www.artray.co.jp
Asentics	www.asentics.de
Attentra	www.attentra.de
B&R Industrie-Elektronik	www.br-automation.com
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 Technology	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
iIM	www.iimag.de
Image House	www.imagehouse.dk
Image S	www.imagesrl.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.isravis.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 Optoengineering	www.hinze-opto.de
Klughammer	www.klughammer.de
Kortiq	www.kortiq.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
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
Msvision	www.msvision.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
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.qmt.ch
Rapidform	www.rapidform.com
Rauscher	www.rauscher.de
RH Engineering	www.rhengineering.de
Rubroeder	www.rubroeder.de

SAC	www.sac-vision.de
Schäfer+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
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.theimagingnsources.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

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Active Silicon	www.activesilicon.com
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Advantech Europe	www.advantech.eu
AIT Göhner	www.visionandid.com
Alfvision	www.alfvision.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
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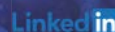
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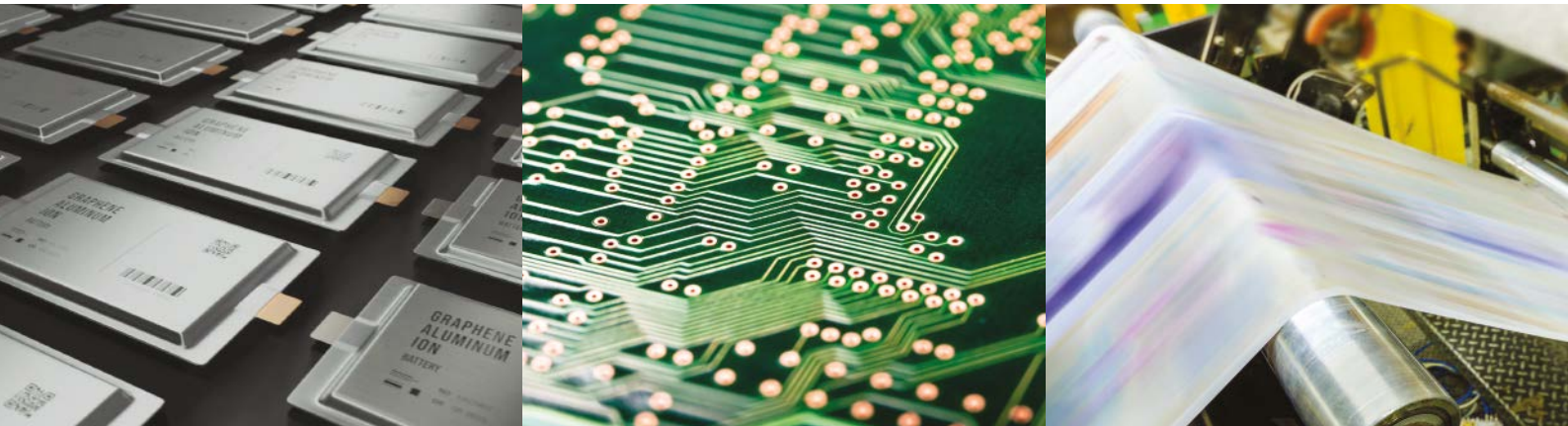
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