ALRAD Instruments Newsletter May 2024

Welcome to our May 2024 Newsletter.

In this month's issue we focus on the upcoming Machine Vision Conference MVC 2024 to be held at the Coventry Building Society Arena on 18th and 19th June 2024. The ALRAD Team will be exhibiting at Stand # E1 and also presenting on both days with our talk titled 'New Technologies and New Wavelengths for Machine Vision'

Below are some of the products we will be showcasing:

- A Winning High-Speed, High-Resolution 12 Megapixel Vision Combination - The Imaging Source and Ricoh
- The iRayple 3D Camera Series - Industrial 3D and Stereo 3D cameras
- Ultraviolet imaging capable cameras from Emergent Vision Systems
- Workswell WIC SC - Scientific Thermal Camera for Instrumentation, Research & Development and Education
- EyeSorter Checkbox High-Speed Sorting with unmatched Accuracy
- PHLOX® Machine Vision Lighting
- Lasers for Machine Vision Applications
- The Vision Engineer's Essential Equipment - Sekonic C-7000 Handheld Spectrometer
- ALRAD Instruments JOSCAR Registration

A Winning High-Speed, High-Resolution 12 Megapixel Vision Combination The Imaging Source and Ricoh

DFK 33GX545

FL BC3518-9M

The Imaging Source 33G and 38G Series GigE Cameras use the latest large format Sony Pregius S global shutter image sensors. For example the 12.3 Megapixel DFK 33GX545 Camera uses the IMX545 1/ 1.1" format sensor and provides a full frame rate speed of 9 fps and much higher with a reduced region of interest (ROI) enabled. Couple this with the Ricoh High Resolution compact 12 Megapixel 1.1" optical format lens and you have a winning combination for high speed, high resolution machine vision imaging.

For more information and to order, please follow the link → or call the ALRAD Sales Team on 01635 937000 , we will be happy to help:

The Imaging Source Cameras

The iRAYPLE 3D Camera Series

3D Industrial Camera DH-MV-D5201MG100E

3D Stereo Camera DS5131MG30CE

3D Industrial Camera Features:

- Pre-calibration during production supporting high speed output of High Accuracy 3D measurement results at mm resolution
- Configurable working distance and Field of View FOV
- Maximum scale: 1000mm × 1000mm × 2000mm (W×H×L)
- Supports functions such as point cloud image, W*H*L, volume measurement data, Integral volume, etc.

3D Stereo Camera Features:

- Built-in algorithm supports high-precision volume measurement and 3D object location
- Small dimension and high integration for better cost performance
- Speckle-module illumination for uniform reliable light
- Excellent filter design to reduce the effect of light from the environment
- 4 display indicators for debug and function
- Industrial-grade M12 connector and IP65 protection level
- Supports multi-cameras cascade

For more information and to order, please follow the link → or call the ALRAD Sales Team on 01635 937000 , we will be happy to help:

iRayple Industrial Cameras

The HR-8000-SB-U: Ultraviolet imaging capable 8.1MP 10GigE camera from Emergent Vision Systems

HR-8000-SB-U features the Ultraviolet (UV) Sony Pregius S IMX487 sensor. The Sony Pregius S technology features back-illuminated pixel structure that delivers distortion-free, high imaging performance, miniaturisation and high level of UV sensitivity. At full resolution (2840 x 2840) you get up to 145 frames per second. Its ultra high-speed SFP+ 10GigE interface offers many benefits including low-cost accessories, low CPU overhead, low latency, low jitter, and accurate multi-camera synchronisation using IEEE1588. In addition, 10GigE SFP+ offers three supported cabling options for cable lengths from 1M to 10KM.

HB-8000-SB-U: UV 8.1MP 25GigE camera

The HB-8000-SB-U also features the Ultraviolet (UV) Sony Pregius S IMX487 sensor. with all of the features of the above camera the HB-8000SB-U, 25 GigE SFP28 camera offers three supported cabling options for cable lengths from 1 M to 10 KM.

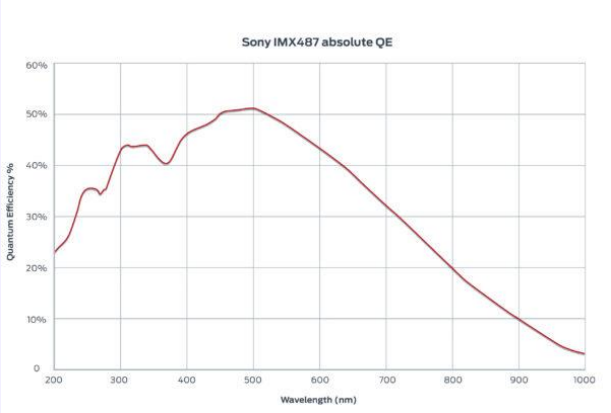
Other benefits include:

• High-speed 25GigE SFP28

• Back-illuminated pixel structure

• 25x the speed of GigE

• Simplified solution to CoaXPress



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Emergent Vision Cameras

Workswell WIC SC - Scientific Thermal Camera for Instrumentation, Research & Development and Education

Available from stock in the UK

The Workswell WIC SC is a thermal camera designed primarily for universities and research organisations. Thanks to the affordable price and parameters, this thermal camera is suitable for both R&D applications and for educational purposes at secondary schools and universities.

The camera offers a high resolution of 640 × 512 pixels, 60 Hz camera versions (9 Hz for export is also available) as well as an exceptional temperature sensitivity of 30 mK.

WIC SC - Package contents:

- Workswell WIC SC thermal imager with a premium sensitivity of 30 mK
- 2× CorePlayer software license
- 2× exchangeable interchangeable lenses
- WIC SDK for developing your own applications with a thermal imager
- IP65 protection kit in the package

For more information and to order, please follow the link → or call the ALRAD Sales Team on 01635 937000 , we will be happy to help:

WIC SC Camera

EyeSorter Checkbox
High-Speed Sorting with unmatched Accuracy

The EyeSorter is an intelligent system with adaptive parts flow control and optical workpiece identification.

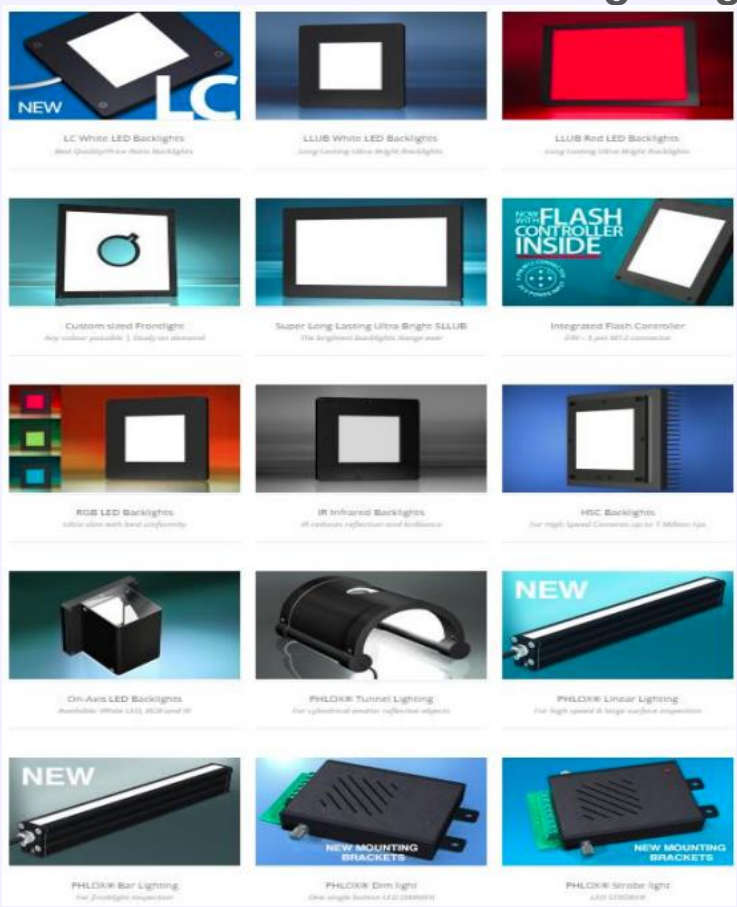
It sorts small parts according to type, position orientation, quality and also according to piece count (piece count preselection).

Particularly in the case of high part rates and a large variety of types, it is suitable for trouble-free feeding of small parts to automatic assembly and production machines. Thus, defective parts can be reliably sorted out with the EyeSorter, the assembly of wrong types can be avoided and set-up times can be reduced to a minimum.

For more information and to order, please follow the link → or call the ALRAD Sales Team on 01635 937000 , we will be happy to help:

EyeSorter Checkbox

PHLOX® Machine Vision Lighting



PHLOX Corp designs and produces high level technology products for the Machine Vision and Aerospace markets. Since it's creation in 1996, PHLOX Corp has put all of their know-how into the development of higher luminance, better uniformity and a longer life cycle lighting

PHLOX® Industrial edgelit LED backlight applications include:

- Glassmaking / Bottle inspection (glass and plastic)
- Particle measurement / Picture digitising
- Dimensional control / Shaping control
- Quality control with transparency
- Pharmaceutical / Cosmetics inspection
- Automotive / Agribusiness / Electronics
- Shadowgraphy / Particle analysis / Ballistics
- Spray analysis (Water, Paint, Fuel, etc.) Droplet impaction, Bubble formation, Powder, Solid particles
- Emulsions and Dispersions / Liquid interface
- Welding / Slowmotion.

The range of specialist backlights includes low cost, ultra-bright, custom, RGB, High Speed on-Axis and Tunnel lighting

For more information and to order, please follow the link → or call the ALRAD Sales Team on 01635 937000 , we will be happy to help:

ALRAD Lighting

Lasers for Machine Vision Applications

The Coherent StingRay Machine Vision Laser Range:
With a compact modular design measuring only 19 mm in diameter and using the industries' premier laser diodes, the StingRay delivers best-in-class performance. High-quality glass optics and sophisticated drive electronics deliver the power and control to your application to improve signal-to-noise and measurement speed.

StingRay is the highest-performing top-hat-profile laser available that comes in a variety of fan angles to create the line you need for measurement and profiling applications. The StingRay allows the user to optimise the focus location for the best measurement resolution. With optional RS-232 control the laser power is adjustable and includes onboard diagnostics for operating hours, diode current, output power, temperature, and more. Selected StingRay models also include the µFocus and Fiber-Ready (FR) versions.

The Coherent StingRay Developers Kit:
Supports eight (8) different pattern configurations, delivering optical power from 1 mW to 100 mW and patterns from a simple dot to line lengths of 0.5 meters, whilst maintaining the highest level of performance and reliability.
This kit enables end users, integrators, researchers and educational labs to quickly configure, set up, and evaluate 3D applications in which structured light lasers provide solutions.

For more information and to order, please follow the link → or call the ALRAD Sales Team on 01635 937000 , we will be happy to help:

Coherent Laser Solutions

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The Vision Engineer's Essential Equipment
Sekonic C-7000 Handheld Spectrometer

The C-7000 is a compact and lightweight spectrometer that can be carried on-site. By adopting a CMOS linear image sensor for the spectral sensor, the C-7000 can accurately measure a variety of light sources such as LED, organic EL, HMI, fluorescent light and natural light, etc. In addition, Sekonic's proprietary technology enables flash light measurement using the spectroscopic method. This single unit can measure various types of light regardless of the sources.

Sekonic C-7000

For more information and to order, please follow the link → or call the ALRAD Sales Team on 01635 937000 , we will be happy to help:

ALRAD Instruments JOSCAR Registration

JOSCAR REGISTERED

Services for Aerospace, Defence & Security Sectors:

JOSCAR is a collaborative tool used by the Aerospace,Defence and Security industries to act as a single repository for pre-qualification and compliance information.

Using JOSCAR can determine if a supplier is “fit for business”.

ALRAD Instruments - Technology Divisions

ALRAD IMAGING | ALRAD PHOTONICS | ALRAD ELECTRONICS

ALRAD THERMAL | ALRAD MEDICAL | ALRAD VACUUM

ALRAD Instruments has six technology divisions and a wide portfolio of components and products for industrial, scientific, research, medical and academic fields - please check out our divisions below - we will be happy to help with any questions:

ALRAD 50 YEARS 1970 - 2020

ALRAD Instruments Limited celebrated it's 50th Anniversary in 2020. Set up in 1970, ALRAD Instruments has been serving the Industrial, Scientific, Medical and Instrumentation markets for five decades and has a wealth of experience in all aspects of Imaging, Photonics, Thermal and Medical sectors.

+44 (0)1635 30345
sales@alrad.co.uk