

FOOD & BEVERAGE

Solution Guide



DATALOGIC SOLUTIONS FOR FOOD & BEVERAGE



Total Detection & Traceability in Food & Beverage

Total Detection & Traceability means having the full control of your Food & Beverage production and product along the complete supply chain, from farm to fork.

Sensors are essential in Food and Beverage (F&B) industrial automation to detect the presence of objects or parts, sensing the smallest or fastest moving objects, even with transparent or shiny surfaces; as well as to inspect integrity or correct assembly, and measure dimensions, distance, or positioning.

Machine vision is an indispensable tool for controlling the quality of processes and products in F&B, with smart cameras, vision processors and software tools suitable to read codes or characters (OCR), recognize patterns, detect defects, locate parts, guide robot arms, and control assembly and manufacturing lines.

Safety devices are mandatory for operator protection in potentially hazardous areas, plants or machinery, with safety light curtains for the detection of finger, hand, arm, body, or presence detection in fixed applications; whereas safety laser scanners are recommended for area protection in static or dynamic applications, such as robotic cells and automated guided vehicles (AGV).

Food and Beverage traceability is indispensable in today's fast-paced world. It ensures accurate tracking in production operations, efficient inventory management, and swift issue identification and remediation. Real-time data collection is essential for effective traceability in the production process.

Manufacturers can gain valuable insights by capturing detailed information, enabling them to make informed decisions and optimize their operations.

Traceability also plays a pivotal role in ensuring F&B safety: in the event of a recall or contamination, the ability to trace product origin and movement becomes critical for safeguarding consumer health.

This guide explores technology's multifaceted benefits and practical applications in F&B Total Detection & Traceability.

Whether you are a food manufacturer, distributor, or retailer, understanding the available technologies is crucial for operational excellence and consumer satisfaction.



Challenges of Food & Beverage Traceability

Implementing F&B traceability presents cost challenges, especially with existing production lines. Customization, space optimization, and labor-intensive installations contribute to these costs. Innovative technology solutions can help mitigate expenses and improve efficiency. To meet this challenge, traceability systems must be long-lasting and handle product tracking across all production phases and intralogistics throughout the supply chain.

Analyzing traceability data is another challenge for manufacturers handling high volumes of products and packaging materials. Automated data collection systems simplify analysis, saving time and providing valuable insights for informed decision-making and operational excellence, as well as fostering transparent and sustainable customer relationships.

F&B manufacturers must comply with government regulations, especially when selling products globally. The right technology solutions ensure compliance with local, national, and international laws, facilitating smooth global trade operations.



Forward and Backward Traceability

Traceability in modern manufacturing organizations encompasses both forward and backward directions. Forward traceability tracks the entire production process – from raw materials to finished products, while backward traceability allows manufacturers to backtrack and identify production processes step-by-step. Both types of traceability ensure operational integrity. When defects are found in finished products, manufacturers use traceability to identify the root cause and rectify the issue. But traceability is not a set-and-forget type of activity. Leading manufacturers adopt a continuous improvement approach by regularly checking traceability within their production sites. Tracing raw materials and performing mock recalls are standard assessment tools. Robust traceability systems enable F&B manufacturers to proactively address issues, enhance product quality, ensure safety compliance, and maintain consumer trust and brand reputation.

Technology and Innovation Drive F&B Traceability

Introducing new technologies is revolutionizing F&B traceability and enhancing efficiency and accuracy in tracking food from farm to fork. IoT, smart labels, and blockchain-based track- and-trace systems contribute to improved compliance with food safety standards, instilling consumer confidence in the products they purchase and consume.

Barcodes remain the primary product identification technology, making high-performance and reliable barcode readers integral to accurate traceability in fixed, hand-held, and mobile applications.

Sustainability is a Requirement

Consumers' increasing awareness of their purchases' environmental impact has driven rising demand for sustainable F&B products. This demand has spurred innovation in the food traceability industry, enabling companies to monitor and manage their supply chains to ensure sustainability.

Innovative approaches to food traceability emerged to meet the demand for transparency and sustainability, including blockchain-based systems for tracking and verifying the origin of food. Additionally, introducing artificial intelligence (AI) and machine learning (ML) systems has enhanced automated data collection and analytics to ensure food quality and safety.

Key Traceability Requirements in F&B Manufacturing

F&B manufacturers must meet several essential requirements to ensure effective traceability throughout production. These requirements include:

- **Implementing physical identifiers, such as individual item labeling and efficient barcode reading.** These identifiers are essential for production traceability, optimized intralogistics and warehouse management, shop-floor operations, and inventory control.
- **Logging manufacturing and routing steps,** including timestamps, line-operator IDs, and tools used at each routing step. By recording this information, potential issues can be easily identified and addressed when necessary.
- **Tracking serial numbers, batches, and lots of raw materials.** When properly collected, this data enables effective traceability and facilitates other inventory-management functions.
- **Conducting consistent quality control and periodic inspections.** Inspections should always be logged, creating a traceable digital paper trail that helps maintain product integrity and compliance with quality standards.

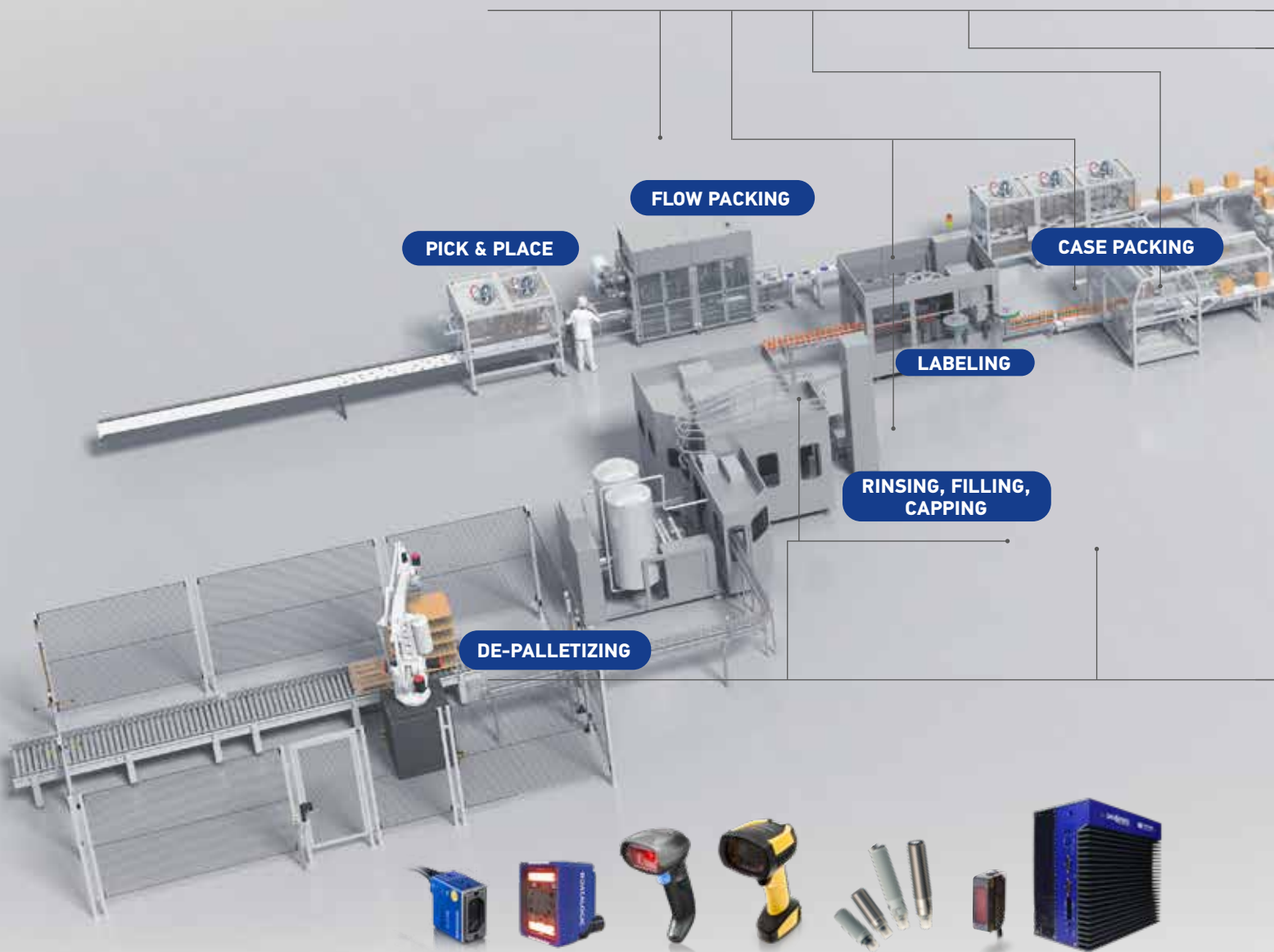
By adhering to these traceability requirements, F&B manufacturers can establish reliable traceability systems, minimize errors, and ensure the delivery of high-quality and safe products to consumers.



DATALOGIC SOLUTIONS FOR FOOD



PACKAGING MATERIAL INBOUND



FOOD & BEVERAGE PRIMARY PACKAGING



& BEVERAGE



FINISHED PRODUCT OUTBOUND



FOOD & BEVERAGE SECONDARY PACKAGING

INBOUND LOGISTICS



1



3



2

1. FORKLIFT SOLUTIONS

2. PALLETIZING

3. INCOMING INSPECTION



The Datalogic PowerScan™ 2D Auto-Range enables forklift operators to scan 1D and 2D barcodes on items to be repositioned without leaving the vehicle. Accurate at multiple reading distances, the unit provides effective identification during forklift operations in all types of conditions. Combined with the SD9030 dongle and the Rhino II vehicle mount computer, the PowerScan 2D Auto-Range helps deliver full traceability in intralogistics environments.



The extreme flexibility of the SH4 allows the safe passage of material by adapting to its size, direction and speed. For increased safety, the part of the light curtain to be muted can be limited to a fixed area or automatically adjusted to the height of the material thanks to the new “dynamic partial muting” function.



Workers must track and report picked parts in warehouse operations in real time. The Datalogic Skorpion X5™ mobile computer is the optimal choice for any application requiring reliable data collection in mobility. Offering maximum performance and ruggedness in an ergonomic design, the Skorpion X5 includes a unique midrange imager and a 2D Extra-Long Range (XLR) imager.

4



5



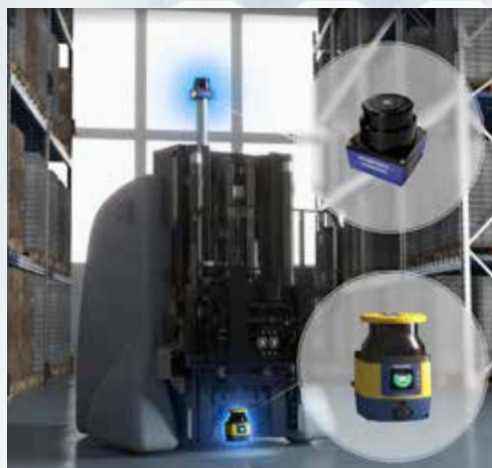
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4. AUTOMATED INTRALOGISTICS

5. INBOUND QUALITY CONTROL

6. FORKLIFTS AND PALLET STACKERS



Autonomous vehicles such as AGVs and AMRs are increasingly being used to automate the movement of goods in a flexible way. LGS Lidars and SLS Safety Laser Scanners are used to guide vehicles while avoiding dangerous collisions with operators or other goods or equipment.

Each warehouse item is verified to ensure it is free from damage. Products that pass the examination are classified as 'good', those that fail inspection are removed from the supply chain. The quality check requires proper item identification, quality status assignment and item tracking to ensure full traceability in the WMS. Datalogic's CODiScan paired with its Memor 30-35 PDA is the ideal wearable-mobile barcode reading solution, enabling a wide range of applications in the warehouse environment.

Inductive sensors are widely used in forklifts and pallet stackers. The main applications are to detect: tiller and platform positions to make sure the operator is in the right position, battery presence, speed detection on wheels.

BEVERAGE PRIMARY PACKAGING



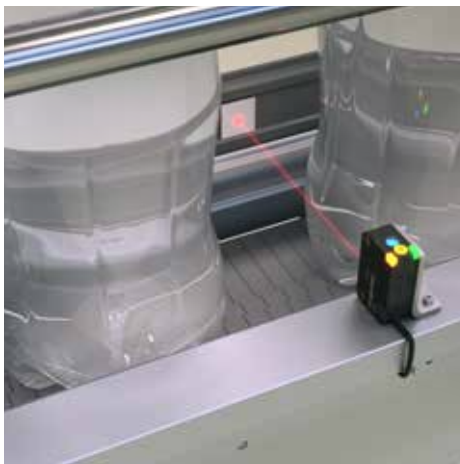
1. LEVEL DETECTION

2. CLEAR DETECTION

**3. CAP PRESENCE
VERIFICATION**



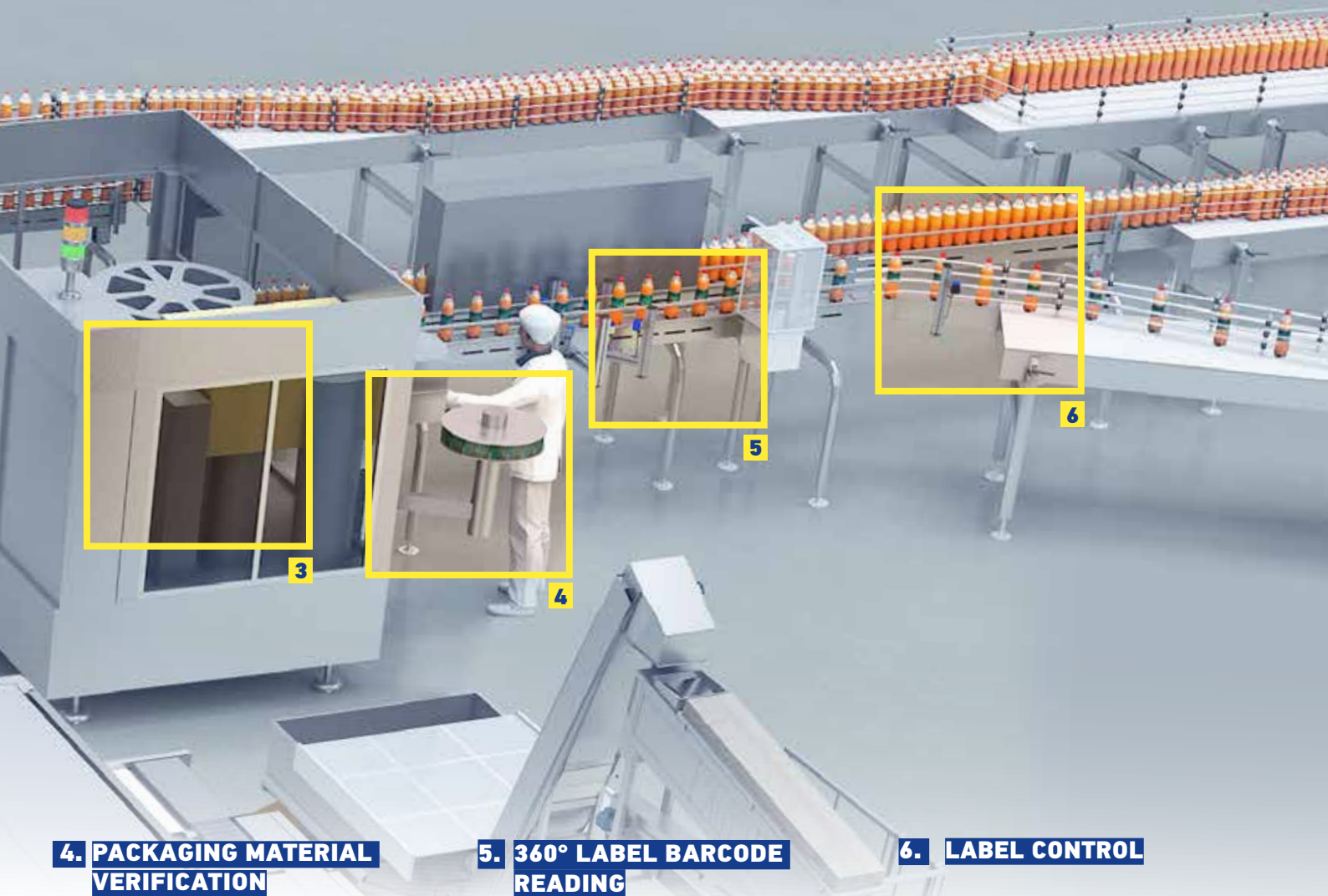
UFK (M18) and UFT (M30) IP69K AISI316L full metal ultrasonic sensors can detect the level of liquids or free flowing materials without direct contact with the targets, regardless of their color or optical properties. Sensor teaching can be done remotely allowing for simple and safe installation even in difficult application scenarios.



In production lines for the beverage industry a very critical application is the detection of clear objects. The best solution for this is a retro-reflex polarized sensor with coaxial optics; this type of sensor provides accurate and reliable detection on clear objects.



In the filling machines a quality issue is the verification of the presence and position of the bottles cap. Thanks to its machine learning-based setup and embedded AI, the Smart-VS is the best-in-class solution for detecting the presence and orientation of objects in packaging, bottling, food and beverage, and assembly lines.



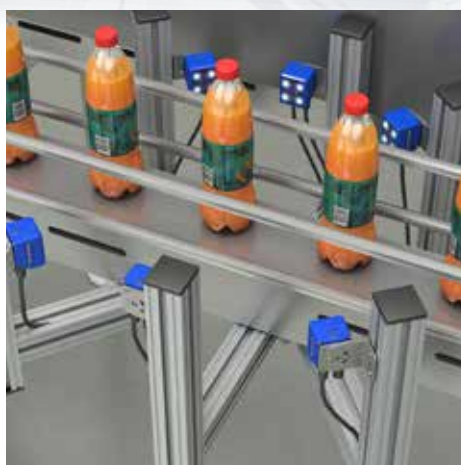
4. PACKAGING MATERIAL VERIFICATION



Loading the proper consumable packaging materials into food and beverage packaging lines is a critical step in ensuring production accuracy and the safety of end consumers.

Consumable packaging material verification before loading into production is efficiently performed by scanners like the Datalogic PowerScan™ 9600 industrial handheld reader series.

5. 360° LABEL BARCODE READING



As they leave the labeler, containers are whisked along a conveyor belt to final packaging. Friction on the conveyor's side rails causes rotational forces to take over, leaving on two containers with their associated barcoded labels oriented in the same direction. Reading these non uniformly oriented labels is a challenging task. The solution is a circular array of connected Datalogic Matrix 220™ imagers synchronized by Datalogic proprietary ID-Net protocol performing dynamic omnidirectional label barcode reading on beverage containers.

6. LABEL CONTROL



Label check is a typical need in labelling machines to prevent issues such as missing labels or mis-labelled products. P2x and P3x Smart Camera Series are able to reliably detect these production errors and can be quickly programmed users thanks to the Graphical User Interface.

FOOD PRIMARY PACKAGING

1



1. QUALITY VERIFICATION



The MX-G2000 vision processor, equipped with the latest AI and deep learning technologies, allows for the easy and intuitive implementation of advanced quality controls. Trained only on flawless products, it detects every defect, ensuring high standards and consistency in food production.

2. REGISTRATION MARK DETECTION



Packaging machines typically operate on continuous cycle, to package food and non food materials. Contrast sensors are used to detect registration marks on the package in order to synchronize the packaging phases.

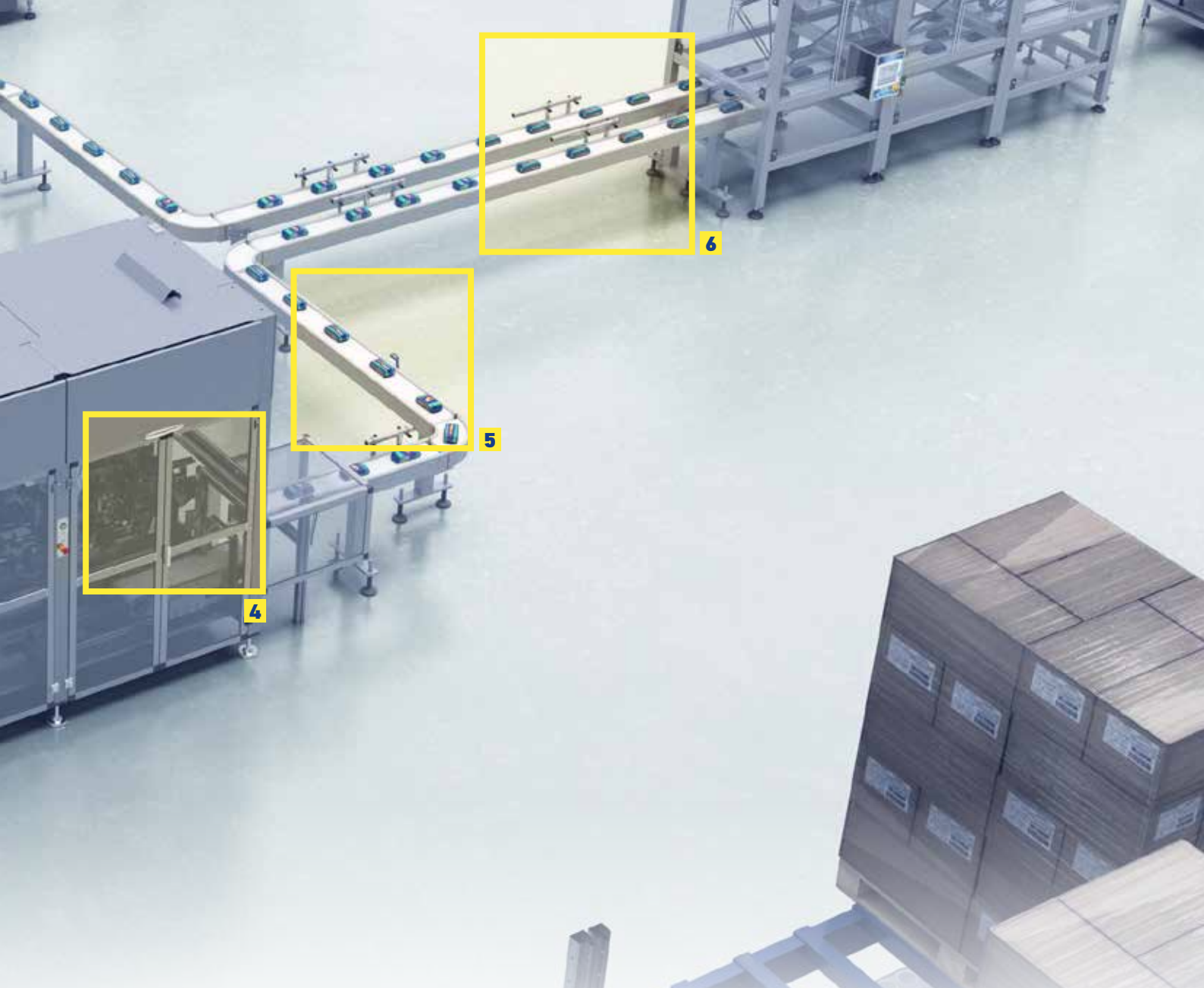
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3. TRACKING OF FOOD PRIMARY PACKAGING



Tracking items in automated food packaging lines requires superior barcode reading performance. The Datalogic Matrix 220™ stationary industrial scanner successfully addresses this challenging scenario. Moreover, the unit's compact dimensions allow for easy integration in the limited space available inside packaging machines.



4. OBJECT DETECTION IN FLOW PACK MACHINE



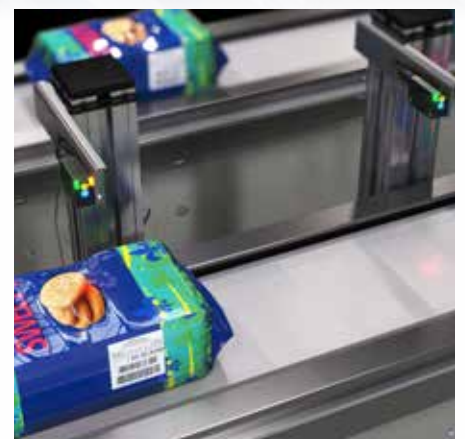
The Horizontal Form Fill Seal machines operate on continuous cycle, taking the plastic wrap from a reel and sealing it around the product. The Area Sensor is used to detect different objects inside the plastic wrap.

5. EXPIRATION DATE/BATCH NUMBER VERIFICATION



In food & beverage, the vast majority of goods must display information such as expiration date and batch number. The P2x and P3x smart cameras are capable of performing OCR reading, ensuring the readability and accuracy of these text strings, thus preventing quality issues like missing or incorrect characters.

6. OBJECT DETECTION



The Horizontal Form Fill Seal machines operate on continuous cycle, taking the plastic wrap from a reel, sealing it all around the product. BKGD suppression or polarized sensors are typically used to detect the material on the belt.

FOOD SECONDARY PACKAGING



1. CASE PACKER POINT PROTECTION



Light curtains allow safe entry to potentially dangerous operations. The ideal hazardous point protection involves minimizing ergonomic restraints and maximizing secure detection. SLIM Safety light curtains fit perfectly into the machine frame even when very little space is available.

2. BUNDLE INTEGRITY VERIFICATION IN A CASE PACKER

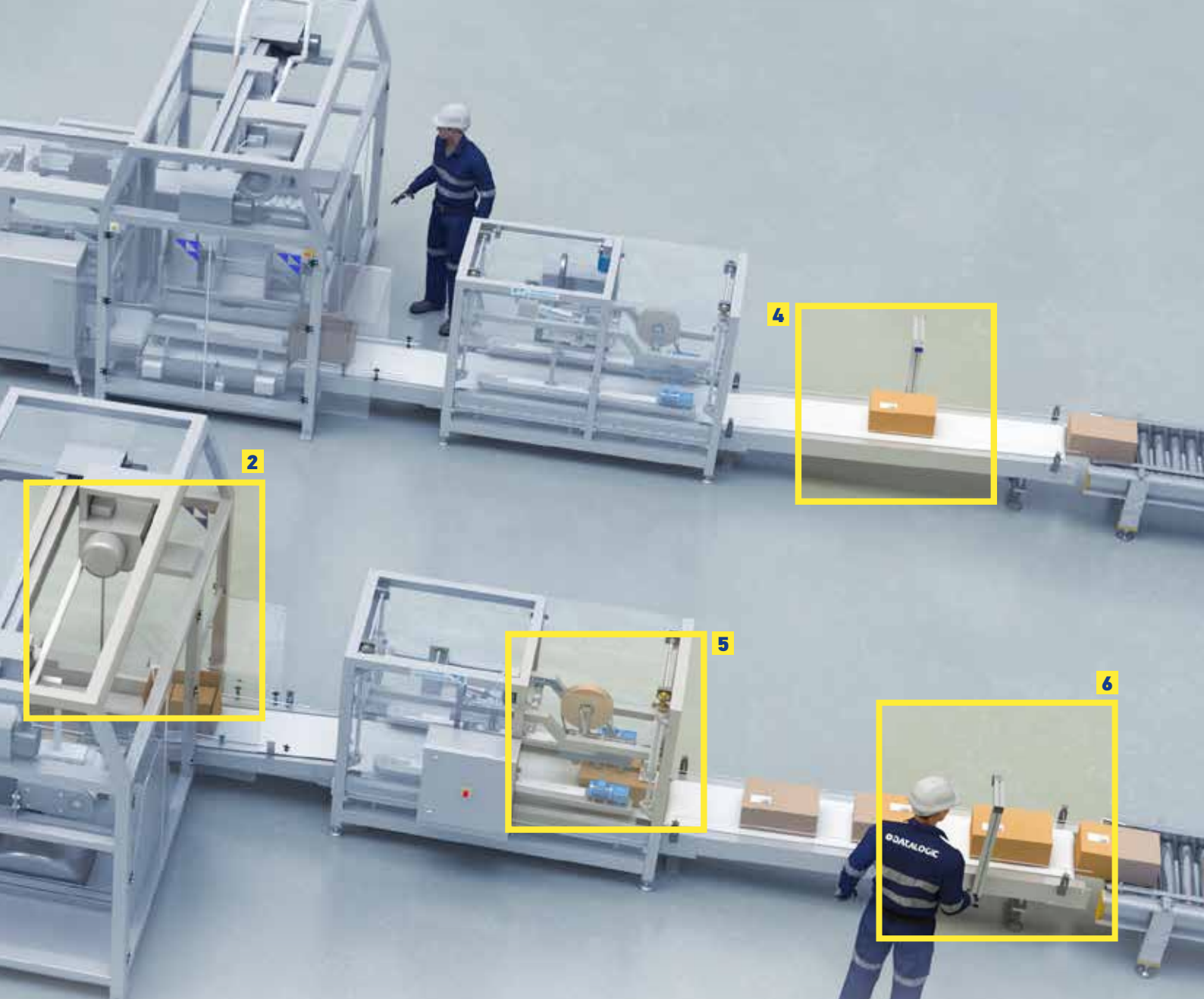


In the automatic case-packers a quality issue is the verification of the bundle completeness before the insertion of it into the case. Light grid system is used to measure the height of the bundle in order to verify that the right number of packages are wrapped and ready to be inserted into the case.

3. CARDBOARD PRESENCE CONTROL IN A CASE PACKER



The Automatic case-packers are used to solve the works of forming, loading and sealing of cases. Photoelectric sensors are used to verify the presence and the position of the cases in order to guarantee the right process.



4. BARCODE READING ON LABEL APPLICATOR



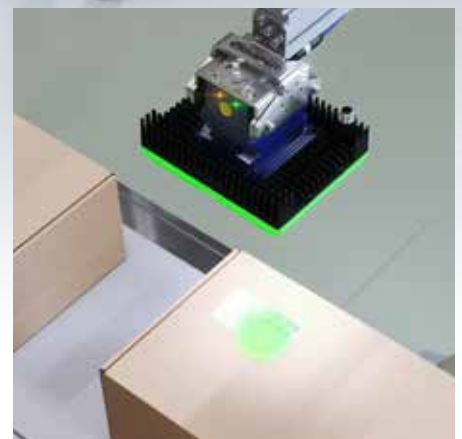
The Datalogic Matrix 120™ is the smallest ultra-compact industrial 2D imager on the market and is easily integrated into any space. The tiny form factor weighs less than 200g (7.1 oz), enabling installation directly on a label applicator arm. This allows for an immediate double-check of a package's barcode label readability and positioning.

5. LABEL COUNTING



Food and Beverage manufacturing requires complete traceability throughout the process, any changes or variations in this process must be caught immediately. Ensuring that the correct label matches the correct product is a necessity.

6. BARCODE READING ON BUNDLES



Single products are often packaged into bundles for marketing and retail logistics. Bundle-specific barcoded labels are applied to these packages. To maintain full product traceability, the Datalogic Matrix 320™ stationary imager with up to 5 MP sensor resolution and multiple lighting options facilitates an effective bundle identification and tracking system.

OUTBOUND LOGISTICS



1



2

1. SAFETY ACCESS CONTROL IN A PALLETIZER



A palletizer can be very dangerous for nearby operators, especially when they must access the pallet after the robot is finished. SG4 Body Compact with pre-mounted, pre-cabled and pre-aligned muting arms fulfils completely this requirement reducing installation costs without jeopardizing the safety level.

2. INVENTORY



When scanned with a handheld mobile device, barcoded items are instantly associated with data stored in the warehouse management system, facilitating smooth inventory management.

Datalogic's PowerScan™ 9600 ruggedized handheld scanner features industry-leading durability and reading performance. The reader's wireless charging and smart battery technology make it the top barcode-reading solution for managing inventory in any warehouse environment.

3. WAREHOUSE OPERATIONS TRACEABILITY



Operations activities are at the heart of any warehouse. The challenge is tracing inventory to verify the ID, history, location, and other important information. Barcode-based data capture makes this fast, accurate and efficient.

Datalogic's Skorpio X5™ ensures the warehouse's inventory traceability and significantly reduces the errors associated with manual traceability systems. Users can count on the fully ruggedized portable data terminal (PDT) for superior reading performance and accuracy.



4. PALLET HEIGHT CONTROL

5. PALLET TRACEABILITY

6. PALLET MEASUREMENT

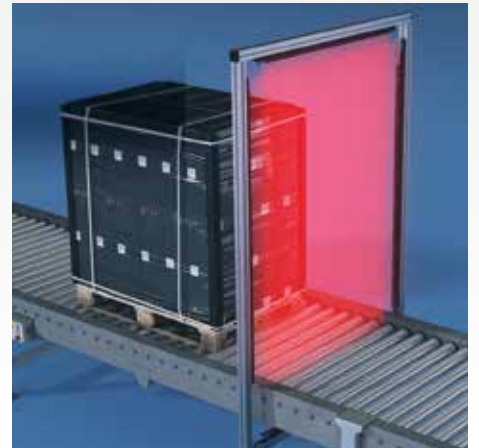


Sensors are used on automatic wrapping machines to verify the presence and position of the pallets. Distance sensors can be used to perform an accurate and reliable detection of the pallets.



Industry 4.0 revolutionizes how companies distribute and track their products. Product and pallet traceability are among the areas that will see improvements. Pallet tracking in logistics environments will benefit from complete insight into product data, streamlined production and business management.

Datalogic's Matrix 320™ stationary industrial scanner meshes perfectly with Industry 4.0 advances. The unit significantly boosts pallet traceability in the food and beverage industries by featuring a wide field of view (FOV) that effectively reads pallet labels positioned manually or by print-and-apply systems.



Measuring the size of pallets for storage is crucial for optimizing available space. The DS4 Area sensor, with its robustness and high performance, can provide precise measurements even when dealing with critical objects, including pallets wrapped in transparent film. The comprehensive and user-friendly DS4 GUI, with IO-Link or WiFi connectivity, can meet any special integration requirements in any smart manufacturing process.

PRODUCT PORTFOLIO



MATRIX 120™



- Ultra compact dimensions for easy integration
- Smart user selectable focus for high application flexibility
- ESD and Polarized Versions



MATRIX 220™



- NEW XAI DPM models for ultimate DPM reading performances
- "Smart Intelligence" AI powered software
- New "Decode X" multithread platform excellent for both DPM and high speed applications
- Smart electronic focus control for high reading flexibility

STATIONARY INDUSTRIAL SCANNERS



AV500/AV900



- High performance camera (5MPx AV500, 9MPx AV900) with integrated image processing system
- Image saving to external locations through the dedicated high-speed Gigabit Ethernet port
- White and Red lighting options



BLADE



- 1D code reading with compact dimensions
- Embedded Ethernet connectivity
- Two Ports Profinet and ETH-IP
- M12 rotating connector
- Excellent performance on low quality and damaged labels
- BLADE 100: Up to a 310 mm (12.2 in.) reading distance - BLADE 200: Up to a 600 mm (23.6 in.) reading distance



DS5100



- Medium, Long Range, Linear and Oscillating Mirror models, selectable focus for high application flexibility
- Selectable focus system
- Display and multi-language messages

STATIONARY INDUSTRIAL SCANNERS



MEMOR™ 30/35 family



- Complete range of mid-tier mobile computers with top data capture performance: 2 scan engines with a range up to 10mt, front/rear camera, green spot good read technology
- Streamlined future-proof computing & connectivity: Qualcomm 2.4 GHZ Octa core platform, 5G and WIFI 6E, Android 13
- Easy of use & versatile solution: 6" display, 12h swappable battery, multiple modular charging solutions, full accessory range
- Proven reliability & TCO: IP68 dust and water protection, wireless charging battery and cradles, full software suite to enhance optimization, deployment and protection of the asset



MEMOR™ 12/17 family



- Effortless scanning at fast pace in any environment with Green Spot technology
- Reliable and stable connectivity in crowded environments: Wi-Fi 6/6E, Bluetooth 5.3, 5G + Qualcomm 4490 platform
- Rugged and high-quality display: 6" inch capacitive multi-touch, FHD+ display, GG7
- Ultimate flexibility with three different charging options: USB-C, Wired cradles, Wireless cradles
- Quick and Effortless Payments with Multi-Side NFC reading technology

MOBILE COMPUTERS



POWERSCAN 9100 SERIES



- Datalogic's linear imaging technology
- Supports Bluetooth wireless technology SPP and HID profiles
- Ethernet Connectivity (Standard and Industrial)

HANDHELD SCANNERS



POWERSCAN 9600 SERIES



- Wireless Charging technology to avoid dirty or damaged charging contacts
- Full dust and water resistance with IP67 (scanner) and IP65 (scanner and base) ratings
- Standard Range (SR) and High Performance (HP) for standard / high resolution codes
- 1D/2D Auto Range (AR) series, able to scan at very short distances up to very far barcodes
- DPX series for traceability of DPM and label-based codes



MATRIX 320



- Innovative platform and sensor with outstanding Field of View (FoV) and Depth of Field (DoF)
- Smart configurable lighting solutions with more color options in three power versions
- Configurable 360° multicolor visual feedback
- Liquid lens remote focus control for extreme flexibility in production
- Matrix 320X Premium available: can capture and process twice as many images as the standard version in a given time period



WEBSENTINEL PLUS



- Very advanced monitor
- Offers key features, benefits, and insights to end-users and System Integrators specializing in Factory Automation and Transportation and Logistics.



WEBSENTINEL PLUS INVESTIGATOR



- No Read Root Cause Automated aggregation in classes
- Printing Quality Trend evaluation
- Analysis Result at Parcel Level
- Full integration within Websentinel Plus platform



AREX 400



- Ultra compact Scanhead with high protection grade
- High performance embedded controller
- Robotic grade robust flexible conduit, green spot marking confirmation, built-in SLO (Safe Laser Off)
- Full Lighter Software Suite with MARVIS (Mark & Verify) support



EOX



- Coding and marking applications in food, packaging, pharmaceutical, and electronics industries
- Marking on organic materials (paper, carton, wood)
- Marking on thermoplastic, painted and coated metals, glass

LASER MARKING SYSTEMS



MEMOR™ 11



- Ultra-Ergonomic, compact and robust
- 5 inch brilliant capacitive multi-touch HD display
- Validated by Google as 'Android Enterprise Recommended' for rugged devices
- Wireless charging increases reliability dramatically by eliminating contacts on both the device and docks
- Ruggedized with drop resistance to 1.5 m / 5 ft to concrete and IP65 sealing
- Full suite of cellular connectivity for voice and data, featuring LTE-Advanced/4G+



CODISCAN



- Flexible Bluetooth wearable scanner with multiple comfortable mounting options: hand, neck, belt/pocket
- Small, lightweight super reliable device
- 2 working shifts and up to 12,000 scans with a single charge
- Best-in-class scanning performances reduce TCO: 1D/2D Datalogic decoding library, smart-aiming system, Green Spot, 3 high-visible LEDs, audio and vibration feedback



SKORPIO™ X5



- Largest 4.3" high visibility display in its class
- Scan engine: 1D Imager, 2D Imager Standard Range, Mid-Range and near/far Extra-Long-Range Imager
- Handheld and/or Pistol-grip form with 3 keyboard layouts
- Fully rugged 1.8 m drop and IP65 rating
- Choice between Wireless Charging or Wired versions with dedicated docks



RHINO II™ and SH15/SH21



- 10 ,12, 15, 21 inch high resolution color display
- Operating System: Windows 10 IoT or Android 7.1
- Capacitive multi-touch screen with gloves support or resistive touch screen for cold/freezer environments



GRYPHON™ 4200 SERIES



- Best-in-class reading performance on 1D barcodes
- Enhanced reading technology for superior scanning and depth of field
- Intuitive highly visible aimer to easily target the code to be read
- Disinfectant Ready enclosures resistant to harsh chemical cleaning
- Wireless charging (no need for contact cleaning or maintenance procedures)



GRYPHON™ 4500 SERIES



- Ultimate design and undisputed ergonomics
- High-res megapixel sensor for outstanding results on both 1D and 2D codes
- Choice of Bluetooth or Datalogic's STAR Cordless System (433 MHz or 910 MHz)
- Disinfectant Ready enclosures resistant to harsh chemical cleaning
- Wireless charging (no need for contact cleaning or maintenance)

PRODUCT PORTFOLIO *by* DATA SENSING easing automation challenges



P2X-SERIES



- Field replaceable illuminators, lenses and filters
- High computing power
- 360° visual feedback



P3X-SERIES

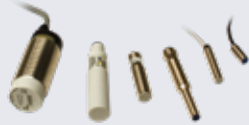


- High-end smart camera providing state of the art computing performance. With resolutions up to 5MP, P3x enables high-accuracy Quality inspection and measurement applications.

MACHINE VISION



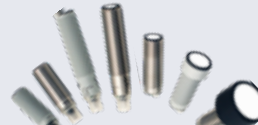
INDUCTIVE AND CAPACITIVE SENSORS
Ø3-Ø6.5 / M8-M30



- Wide portfolio with different formats and connectivity
- High reliability and state of the art detection quality
- Very high range of application also in harsh environment



UF/UK/UQ/UT IO-Link



- Wide range of housing formats and materials. Stainless Steel AISI 316L available
- High mechanical protection degree IP68, IP69K with ECOLAB certification
- Wide connectivity range



SMALL



- The smallest photoelectric sensor with all universal optic functions
- Detection of hard to reach objects or in small spaces

SENSORS



S70 IO-Link



- High resolution, fiber optic sensor detection of small objects through fiber optic cable
- Works in confined spaces and high temperature environments
- Sensor can be installed at distance far from detection object



S8 IO-Link



- Extremely high performance
- Solves difficult detection applications (i.e. target objects that are too small, too fast, too clear, too shiny)



S300-PA/PR



- Heavy duty, multi-voltage sensors with terminal block and internal relay
- Durability for integration in outdoor applications and harsh environments

SENSORS



AS1/DS1/BX



- High resolution area sensor
- Detection and measurement of small objects crossing the area, even in a random positions



DS2/CX



- Dimensional sensor with extended controlled heights
- Set controls based on height or width measurement and object positioning



DS4



- Controlled heights from 300 to 3000mm
- 5, 10 or 25mm pitch
- Operating distance up 13m
- Crossed or parallel beams
- Opaque and Transparent detection
- Outputs: analogue and digital, RS485, Ethernet TCP/IP
- Fully configurable via IO-Link or through WiFi with GUI

SENSORS



SH4



- Complete line of finger/hand/body resolution safety light curtains
- Base, Standard and Advanced models to cover all applications
- Advanced alignment tools and wireless diagnostics and programmability



SH4 ACTIVE/PASSIVE



- 2, 3 and 4 beams retroreflective version of SH4
- 500, 800, 900 and 1200 mm monitored heights
- Save installation costs with only one side connected to the machine



SLIM



- SLIM profile: 15 x 32 mm [0.6 x 1.2 in]
- 34 different protection lengths, with 30 mm [1.1 in] modularity from 150 to 1200 mm
- Cascadable up to 3 units



SG4-H



- Finger protection in applications where high hygienic requirements need frequent cleanings with highly corrosive detergents
- The first safety light curtain with stainless steel housing and glass

SAFETY AND GUIDANCE



MX-E-SERIES



- Multi-camera vision processors
- GigE Vision camera connectivity
- Four different models with different processing capabilities



MX-G2000



- Industrial vision processor with PEKAT VISION deep learning
- The MX-G2000 integrates the 12th generation INTEL chipset and NVIDIA RTX GPU providing the highest computing power to run both PEKAT VISION deep learning and IMPACT rule-based algorithms



PEKAT DEEP-LEARNING SOFTWARE



- Software solution based on proprietary advanced deep-learning algorithms and neural networks
- Ease of use and wide hardware compatibility, with preferential hardware being the MX-G2000
- Universal application for various manufacturing solutions in quality control and defect detection



S100 IO-Link



- Universal Miniature Photoelectric Sensor
- Cost saving: best price on the market
- Space saving: standard miniature dimension and universal mounting
- Time saving: quick and easy mechanical and electrical installation



S3N IO-Link



- High performance in standardized miniature housing
- Replaces larger sensors and fits in limited space in smaller machinery
- Miniaturized fast and precise mark reader is also available



S5N IO-Link



- First tubular sensor line with all optic functions and IO-Link V1.1 smart sensor profile on the market becoming a reference point for the Industry 4.0.
- All the basic optic functions available
- M18 flat plastic with universal mounting or available in M18 metal housing
- Axial or radial optics, cable or connector



S62



- 50x50 Standard universal sensor with improved performance and pricing
- Standardization of the same 50x50mm housing, mounting holes, installation and wiring for all optic functions



TL46 IO-Link



- High resolution, White, Red or RGB emission, very fast response time
- Thanks to its new Low jitter models performs very precisely in packaging machinery and synchronization based mark detection, even in extremely fast processes



LD46



- UV high power emission LED with high sensitivity
- Precise packaging machinery synchronization or material sorting and selection based on luminescent "invisible" mark detection



SMART-VS



- AI enabled
- MLAS - Machine Learning Assisted Setting

- The smart vision sensor enabled with A.I. and empowered by machine learning assisted setting algorithms.
- Simply clever solution for all your presence and orientation object detection applications



S65-M IO-Link



- Cost-Effective Long-Range Background Suppressor with Time Of Flight (TOF) technology and Infrared emission
- Risk-free Infrared LED emission and embedded green LED pointer
- Two independent fully programmable outputs



S85



- Long distance sensor based on TOF
- Accurate controls based on a target object distance and improved cost saving
- Measuring range up to 10m or 20m [32.8 - 65.6 in]
- 1 mm resolution, 7 mm [0.02 in] accuracy, 1 mm repeatability



SR21/SR23



- High-resolution, very fast response time
- Execution of precise positioning, applying and printing of labels, even when integrated in fast machinery and processes



FC8



- High resolution up label 2 mm with gap 2 mm
- High switching frequency 1500 Hz
- Dynamic and static teach-in via cable or by buttons
- Aluminium housing
- NPN and PNP output with M8 4-poles
- Rugged and sturdy aluminium housing



LASER SENTINEL MASTER/REMOTE



- More than 72 m2 safely monitored, with 5.5 m / 180.4 ft over 275°
- Master/remote topology with up to 4 units
- 3 simultaneous areas detected / up 70 zone set
- Advanced dust filtering



LASER SENTINEL PROFISAFE



- System integration command by Profinet/Profisafe fieldbus
- More than 72 m2 safely monitored, with 5.5 m / 180.4 ft over 275°
- 8 simultaneous areas detected / up 70 zone set
- Advanced dust filtering



LGS-N25



- High precision up to 25m
- 360° scan view with 0,25° resolution
- Very compact housing 65x65x70 mm
- Suitable for mapping, navigation and object profiling also for outdoor



LGS-A10



- Object detection up to 10m
- 360° scan view with 0,25° resolution
- Very compact housing 65x65x70 mm
- 3 simultaneous output and 16 different zone set
- Suitable for collision avoidance, object detection, shape recognition also for outdoor



LGS-N50



- High precision up to 50 meters
- 360° scan view with 0.06° resolution
- Compact housing 95 x 97 x 116 mm

Datalogic at a glance



Datalogic Group is a global leader in the **automatic data capture and industrial automation** markets. It is well known around the world for designing and producing barcode readers, mobile computers, sensors for detection, measurement and safety, RFID, machine vision and laser marking systems. Datalogic solutions help customers increase the quality of their processes in the **Retail, Manufacturing, Transportation & Logistics**, and **Healthcare** industries.

The Group has **more than 50 years of history** behind it, during which enormous successes have been achieved: **11 R&D centers and 3 DL Labs in Italy, USA, Vietnam, and China; 13 manufacturing and repair facilities** in USA, Hungary, Slovakia, Italy, China, Vietnam, and Australia; a **portfolio of about 1,200 patents and patent applications** in multiple jurisdictions; thousands of prestigious partners and customers spread across five continents.

Datalogic Group has **offices in 29 countries worldwide**, with the headquarters in Bologna, Italy. It is through the close cooperation of **nearly 3,000 employees** that Datalogic can boast some of the most remarkable automatic data capture and factory automation solutions available today in the market.

Datalogic Industrial Automation division



Datalogic Industrial Automation division includes **Scanning & Marking** solutions and **Datasensing Machine Vision, Sensors and Safety** products to solve the most challenging **Identification, Inspection, Detection, and Protection applications in Factory Automation**, specializing in Processing and Packaging machinery, and Automated Material Handling Systems related to Manufacturing Industries such as Automotive, Electronics, Food & Beverage, Pharmaceutical, Home & Personal Care, Paper and Printing, Metal- and Wood-working, Ceramics, Glass, Textiles etc.

DATALOGIC PRODUCT RANGE



Fixed Retail Scanners



Handheld Scanners



Stationary Industrial Scanners



Mobile Computers



Laser Marking Systems



OEM Barcode Readers



RFID Systems



Sensors & Safety
by **DATASENSING**



Machine Vision
by **DATASENSING**



CUSTOMER SERVICE

Datalogic's Customer Service offers a wide and complete range of post-sales services. It is organized in three levels of support, in order to guarantee the most appropriate professional assistance based on the specific problem. Datalogic's Customer Service can deploy in each territory a team of multi-lingual professionals, with a broad technical expertise across the whole product range. Our standard service portfolio includes: warranty extension, fast turnaround time for repairs, 24/7/365 phone support, next day on-site intervention and site audits. Datalogic can tailor the service offering to your specific needs. Our experts will support every stage of your projects, from feasibility study to extended post-sales support, performing, when necessary, root cause analysis and remediation.



EASEOFCARE Service Programs

Datalogic's EASEOFCARE Service Programs provide superior life-cycle support to ensure that products are always operating at peak performance. A variety of Service Programs are available to match your business requirements:



**FAST REPAIR TURNAROUND
(OVERNIGHT/2 DAYS)**



**ACCIDENTAL DAMAGE
COVERAGE**



**BOTH WAYS FREIGHT PAID
BY DATALOGIC**



**DATALOGIC SHIELD
FOR MOBILE PRODUCTS
INCLUDED**



**3-5 YEARS CONTRACT
SERVICE OPTIONS**

Please contact your sales representative to find out what type of services are available in your region.

www.datalogic.com

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