

TRANSPORTATION & LOGISTICS

Industry Guide



Datalogic at a glance

Datalogic Group is a global leader in the **automatic data capture and factory 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.

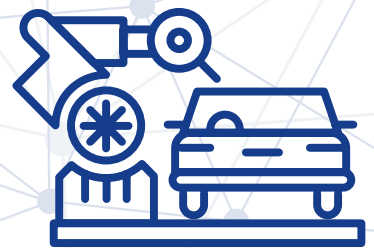
The Group has **50 years of history** behind it, during which enormous successes have been achieved: **8 R&D centers and 3 DL Labs in Italy, USA, Vietnam, and China; 11 manufacturing and repair facilities** in USA, Hungary, Slovakia, Italy, China, Vietnam, and Australia; a **portfolio of about 1,200 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 **more than 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 TARGET INDUSTRIES



RETAIL



MANUFACTURING



TRANSPORTATION
& LOGISTICS



HEALTHCARE

DATALOGIC PRODUCT RANGE



Handheld Scanners



Fixed Retail Scanners



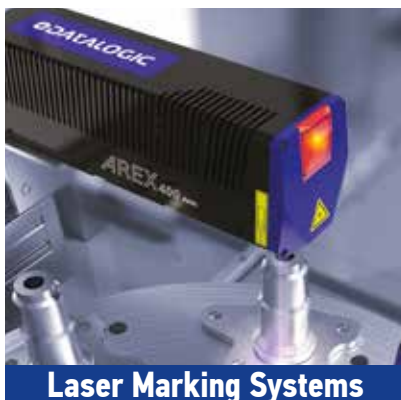
Stationary Industrial Scanners



Mobile Computers



OEM Barcode Readers



Laser Marking Systems



RFID Systems



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



Transportation &

AIRPORT

To keep travelers moving and tight schedules on time, airports rely on Datalogic data capture solutions. Datalogic imagers, long range scanners and cameras keep baggage and cargo moving while handheld scanners and mobile computers check boarding passes, track assets, and validate luggage as it is loaded. Dimensioning solutions also support exact cargo and baggage loading.

- Baggage handling systems
- Baggage reconciliation
- Out-of-gauge
- Check-in and bag drop-off handling



COURIER & PARCELS

Enterprises rely on couriers to keep merchandise and materials moving efficiently while maintaining security and traceability. When merchandise is being loaded, Datalogic dimensioning solutions track parcels onto the carrier and support exact cargo loading. Mobile computers and handheld scanners ensure visibility through the final details such as last minute activities with delivery confirmation and signature capture.

- Sorting
- Field mobility
- Outbound
- Parcel detection on belt
- Inbound & Induction



POSTAL

Postal services worldwide rely on Datalogic technology to ensure smooth and efficient movement of mail and parcels. Datalogic handheld scanners and mobile computers are used in postal offices for retail transactions, drivers license parsing, and to facilitate delivery with confirmation and signature capture.

- Field mobility
- Small parcel sortation
- Parcel transport and sortation systems
- Point-of-Sales
- Inbound & Induction





Value Proposition
We ensure efficient & effective Data Collection to Courier-Express-Parcels, Airports, Warehouse operators and sorting processes.

Logistics Industry

3PLS

Dedicated Logistics and Third Party Logistics (3PL) organizations keep commerce in motion moving materials to factories, stock to distribution centers and items to retailers. To keep this flow of efficiency, logistics organizations rely on Datalogic products and technology.

Stationary industrial scanners track items as they travel on high speed conveyors while industrial handheld scanners and rugged mobile computers are a precious help for workers as they ship, receive, pick, pack, and ship items.

- Receiving
- Put away
- Order fulfillment
- Storage
- Shipping



E-COMMERCE

Online shopping demand has gone through the roof. A decade ago, we felt the effects of the so called “Amazon effect”. However, we have now exceeded all predictions of our hunger for e-commerce. This trend will only continue to accelerate over the next 5 years. Rising e-commerce is having, of course, an increasing impact on retailers. It is worth noting that most of the well-known retail brands, that already have well-established physical stores networks, will soon move up to 50% of their business to online sales over the next 5 years, with a tremendous impact on the supply chain organization.

- Picking
- Reverse logistics
- Manual sorting
- Automated sorting
- On-field operations
- Tote identification and tracking
- Hands-free solutions



AIRPORT



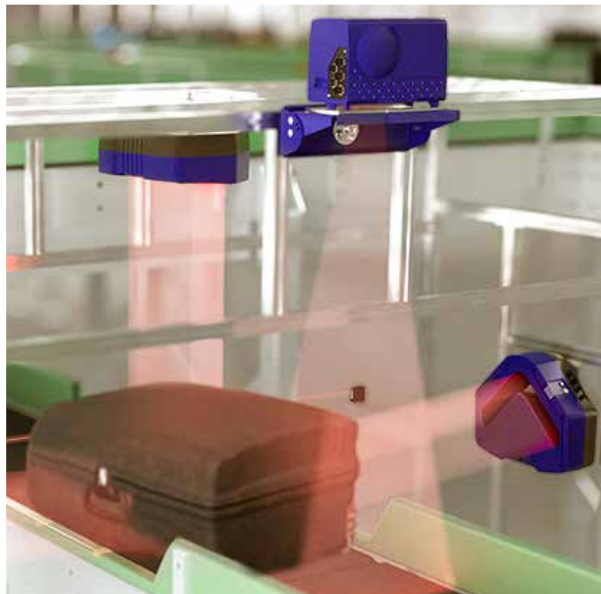
AIRPORT FRONT OPERATIONS

Datalogic barcode readers scan passenger boarding passes on paper or mobile phones at various points inside of airports. Handheld units and OEM engines easily integrated into small kiosks quickly and efficiently process passengers through boarding and security checkpoints.



OUT -OF-GAUGE

Datalogic technology is integrated into baggage handling systems for reading barcodes on checked / transit luggages. Goods that are out of the allowed dimensions to fit into the material handling system are detected and forwarded to a different path into the airport facility.





BAGGAGE HANDLING SYSTEMS

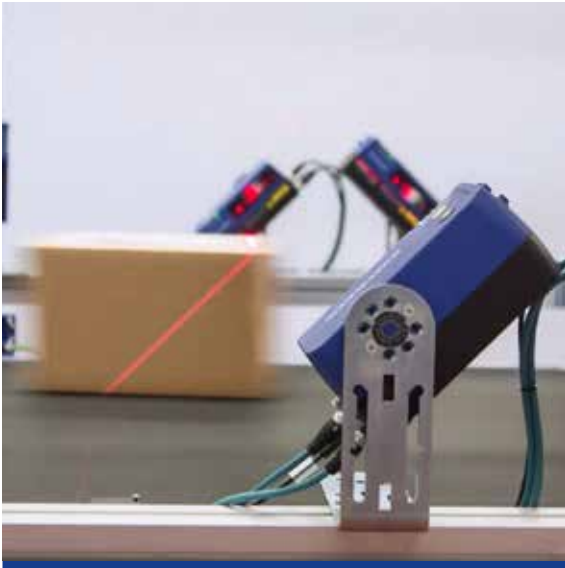
Datalogic technology is integrated into baggage handling systems for high speed baggage sorting. Imaging technologies can be implemented to get top reading performance also on baggages in transit areas where labels are often dirty or damaged.



BAGGAGE RECONCILIATION

Effective tracking of luggage loaded into airplanes is maintained using Datalogic mobile devices, industrial scanners and mobile computers. Built tough to survive rugged use at fast-paced airports, while using Wi-Fi to maintain real-time traceability.

COURIER EXPRESS PARCEL (CEP)



INBOUND & INDUCTION

While off-loading vans, trucks, trailers, and airplane containers, Datalogic technology makes identification of parcels easy as they are moved into the main facility.

Barcode information on each parcel is read by automatic stations of cameras or laser based scanners, that direct it to the right location and maintain traceability.



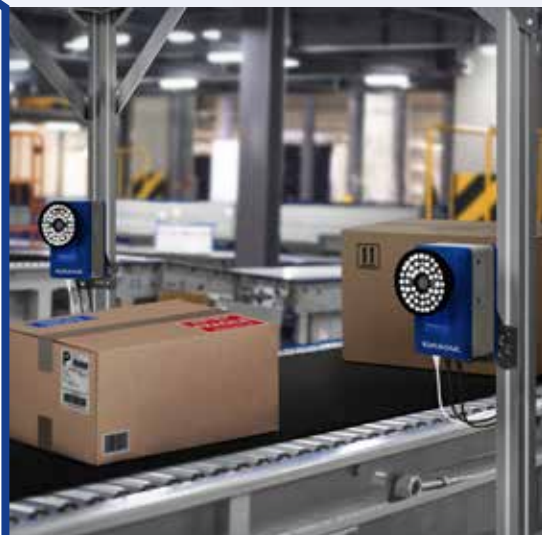
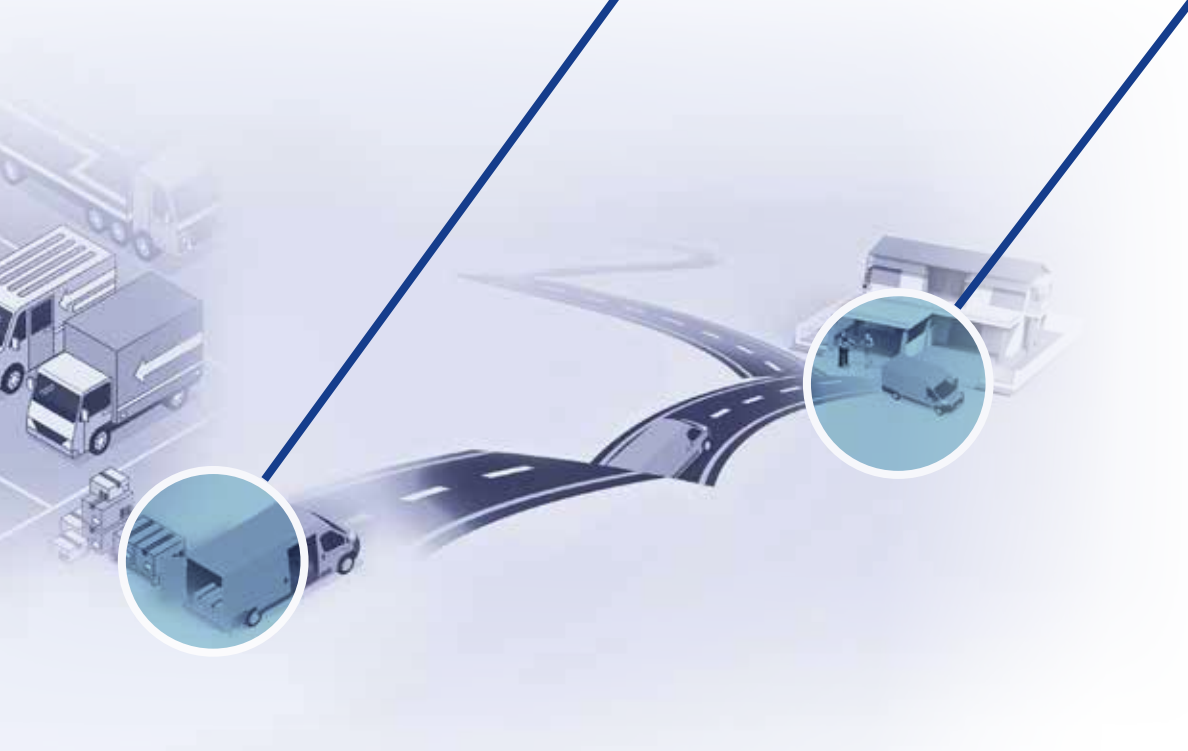
HIGH-SPEED SORTING

Single or multi-sided scanning tunnels with integrated Datalogic dimensioners, linear cameras or laser scanners, identify and sort packages on high speed sorting systems. Dimensioning systems are required by regulations for certified legal for trade measurement. Real-time image storage is used for Videocoding and OCR (Optical Character Recognition). Real-time pattern recognition technology identifies hazardous material labels helping affect sort decisions.



ON-FIELD OPERATIONS

The “last mile delivery”, is becoming more and more important, as a result of the e-commerce booming. Drivers equipped with Datalogic mobility solutions verify package pickup and delivery, collect signatures and accept payment, all while in constant communication with operations. Datalogic PDAs are perfect for route optimization Apps.



OUTBOUND LOGISTICS

Intelligent outbound systems with integrated Datalogic vision systems, smart cameras, dimensioners or fixed scanners execute the automated assignment of packages. Barcode labels are automatically applied to the parcels then automatically detected and verified by Datalogic reading systems. Manual operations for pallets or larger freight are executed by staff supported by industrial handheld scanners and PDT mobile computers.

POSTAL



DELIVERY

During the delivery phase, drivers equipped with Datalogic mobile solutions will verify package pickup, delivery, collect signatures or accept payment electronically. The mobile solution processes and updates this data in real-time, allowing delivery drivers to be in constant communication with operations via voice, data or texting.



INBOUND & INDUCTION

While off-loading vans, trucks and trailers, Datalogic technology makes identification of a large range of items, from poly bags to parcels easy as they move into a main facility. Barcode information on each item is read by scanners to direct it to the right location and maintain traceability.





POINT-OF-SALES

Datalogic handheld single plane fixed retail scanners and mobile computers are used in postal offices for retail transactions, driver's license parsing, and to facilitate delivery with confirmation and signature capture.

AUTOMATED PARCELS HANDLING

Barcode reading and item detection allows parcels to be distributed to the proper areas of the distribution center safely, fast and accurately. Oversized and small items are processed using multiple conveying technologies including high-speed systems for fast sorting applications.



SMALL ITEMS SORTATION

Small items sortation solutions from Datalogic provide an easy to use, flexible, and fully automated solution to process small poly bags and parcels, typically coming from on-line shopping. These solutions are modular and can be installed using minimal floor space. They can integrate in-motion scales and label printer applicators while providing full reporting and diagnostics functionality. These Datalogic systems are used in e-commerce, as Postal companies usually provide logistic services for on line shopping.

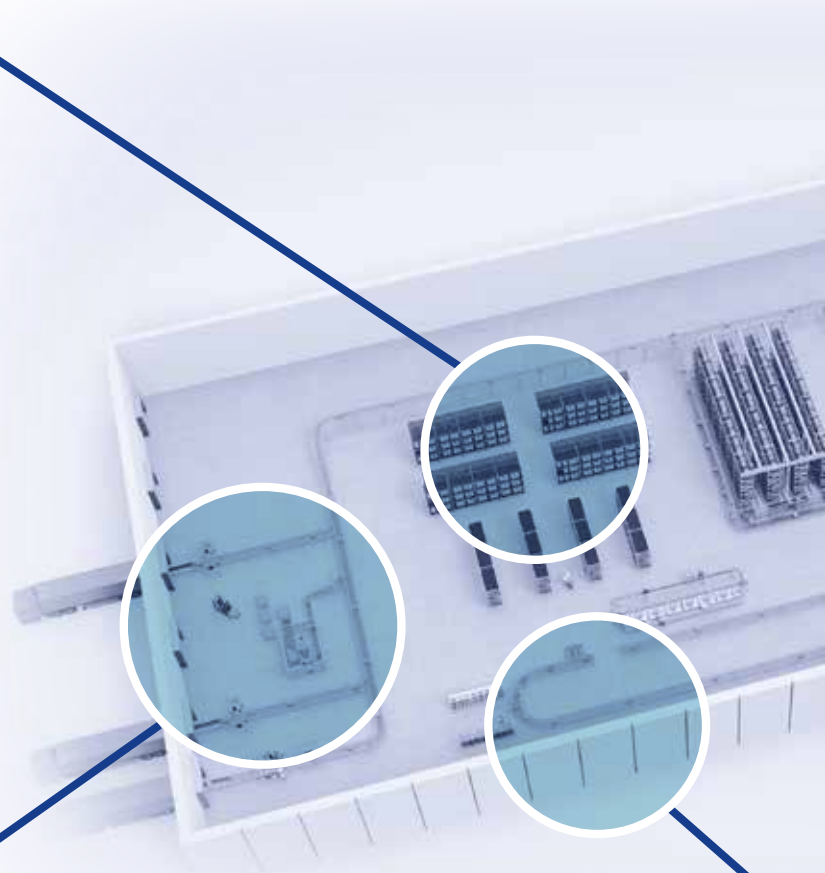
3PLs (Third Parts Logistics)



PICKING

Picking is the first step of the order fulfillment process. Manual operations, typical of 3PLs, use industrial handheld scanners, wearables and mobile computers.

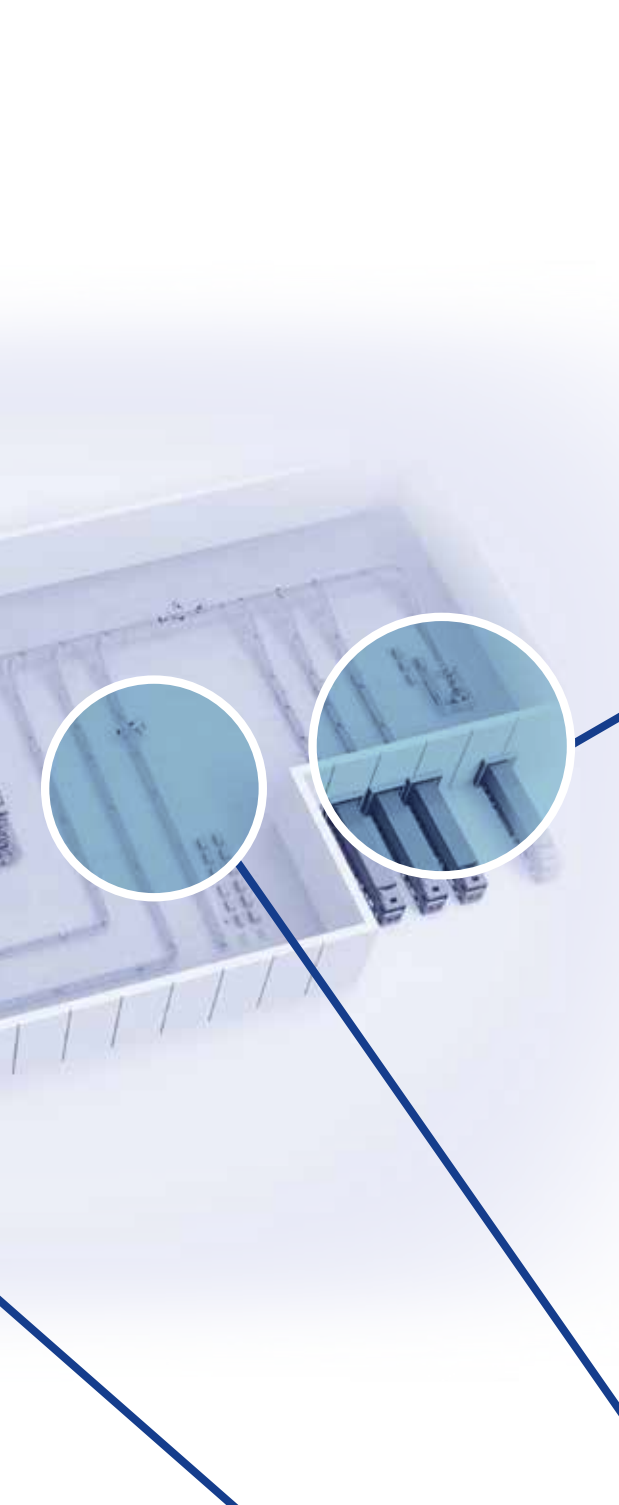
There are tons of different picking strategies: Datalogic offer value added solutions for all of them. The goal is to increase efficiency while eliminating picking mistakes.



INBOUND LOGISTICS

This is a very important part of the process, as once the goods are accepted, the goods ownership changes as well.

Datalogic technology powers automated receiving systems increasing the speed and the overall throughput of the logistic center. Driven by machine vision, dimensioners, smart cameras, fixed scanners and more. Orders are received, items are identified, labels are printed, palletization and put-away / temporary storage are ready to be executed.



OUTBOUND LOGISTICS

Outbound is another critical part of the process, as any mistake in the shipping phase will turn in consistent added costs. The Datalogic offer of PDAs is the right answer for POD (Proof Of Delivery), while DWS (Dimensioning Weighting Scanning) systems, offer Legal-For-Trade revenue recovery solutions.



WAREHOUSING

Manual Operations use forklifts to store goods on racks using Datalogic VMTs, rugged handheld scanners and wireless technology. Extra long range reading capability is very important because is very often request data capture of label at long distances, like those at 3rd or higher level of the warehouse.



ORDER FULFILLMENT

Order fulfillment is the core application into a Distribution Center. 3PLs are requested to manage the retailer logistic operations in a seamless way as if directly managed by the retailer itself. Datalogic rugged mobile and handheld devices, are the right solution for this need.

E-COMMERCE



PICKING

In automated picking, the operator is working in dedicated areas and the goods are reaching the areas by means of automated material handling solutions (Miniloads, AGVs or AMV). The items are picked and placed in the final package to complete the picking process. Hands-Free solutions help in speeding up the process.



REVERSE LOGISTICS

This typical process of e-commerce, quite often a nightmare for the e-com company, as quality checks and returns management are added costs to be minimized. Datalogic offers a complete solution of Mobile and Stationary Industrial Scanners, like the new Matrix 320 to make reverse logistics a profitable business.



AUTOMATED SORTING

Automated sorting is the only option when process is the best way to manage big volume of items into an e-commerce Distribution Center; the core of the automated sorting process is a Datalogic Stationary Industrial Scanner like the AV900, that can identify parcels on sorters running at 2,5 meter per seconds!



TOTE IDENTIFICATION AND TRACKING

Totes are automatically identified for storage into/ retrieval from automated warehouse using Datalogic stationary industrial scanners like DS2100.



ON-FIELD OPERATIONS

PoD (Proof of Delivery) is the final step of last mile delivery. Memor 11 is the ideal solution to identify the good and collect customer signature.



MANUAL SORTING

The majority of the Distribution Centers operations are done in manual mode, item sorting included. A wearable scanner like Datalogic Handscanner in combination with a Memor11 offers several benefits, like a fast and seamless barcode reading, and an easy and complete operator feedback via the Memor 11, Bluetooth connected to the wearable.



HANDS-FREE SOLUTIONS

Hands-free solutions are used in order fulfillment for e-commerce, as this type of process is quite flexible and easy to be implemented. Usually a portion of the sorter is used for e-comm and the operator at the chute prepare the order in a fast and productive way, as no hands are needed to scan the item barcode.

PRODUCTS PORTFOLIO



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 and configurable 360 degree multicolor visual feedback
- Liquid lens remote focus control for extreme flexibility in production



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

STATIONARY INDUSTRIAL SCANNERS



DM3610



- Ultra-high performance, in-motion, overhead dimensioning unit
- Automatically measures the length, width, and height of packages
- Performs highly accurate measurements
- Perfect solution for spatial management applications



SC5100



- Laser (DS-DX), Imagers (AVs), Dimensioner Native Integration
- 4 GB ETH embedded switch
- 5 inch Graphical Color display and Clear Status LEDs
- Supports Full Redundant Controller Layout

STATIONARY INDUSTRIAL SCANNERS



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+



MEMOR™ K



- Ergonomic, very light weight and pocketable size to read 1D and 2D codes in any direction, and on any surface, including mobile screens
- easy-swappable battery for a quick replacement
- Enhance productivity all over the store: run simultaneous applications smoothly

MOBILE COMPUTERS



POWERSCAN 9100 SERIES



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



POWERSCAN 9501 SERIES



- New Datalogic proprietary scan engine with extra-long range capabilities
- Fast autofocus system
- Optimized for dark environments
- Ability to scan from LCD screens
- Decodes up to 3 mils



POWERSCAN 9600 SERIES



- Ultra-rugged design, IP65 and IP67
- Embedded industrial connectivity, modular
- Wireless charging reducing TCO
- Doubled radio range and OLED display
- Smart batteries and diagnostics

HANDHELD SCANNERS



AV7000



- Single view high quality picture for large conveyors
- Patented Autofocus System offering extended DoF
- Patented PLS technology, reducing the footprint of the reading station by 50%



DS2100N/DS2400N



- Embedded Ethernet connectivity
- Two Profinet Ports (MRP supported)
- Rotating connector block
- Compact dimensions
- Excellent performance on low quality and damaged labels



DS8110/DX8210



- Ethernet Bus Connections (EBC) for high-speed data transmission and real time synchronization
- Excellent performance on low quality code and unpredictable reading conditions
- Fully redundant configuration and no single point of failure



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



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 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: WEC7, Windows 7 Emb, Windows 10 IoT or Android 7.1
- Capacitive multi-touch screen with gloves support or resistive touch screen for cold/freezer environments



FIELDBUS CONVERTER



- Serial to PROFINET, EtherNet/IP, Ethernet TCP/IP industrial gateway
- Industrial M12 connectors
- Integrated dual port switch
- Flexible mounting



SD9030 DONGLE



- Reduced dimensions and universal bracket for easy installation
- Datalogic's STAR Cordless System™ 2.0 Proprietary Narrow Band Radio
- Compatible with all PowerScan PM9XXX products
- RGB LED and 'Find Me' button



HANDSCANNER



- Improves productivity saving 4 seconds per scan
- Improves accuracy: up to 33% less errors
- Improves worker ergonomics: weight savings of up to 1.5 tons per shift
- Best performance: megapixel resolution and ability to capture 1D/2D barcodes



GRYPHON™



- 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)

