DATALOGIC

DATASENSING

INDUSTRIAL AUTOMATION PRODUCT GUIDE



INDUSTRIAL AUTOMATION

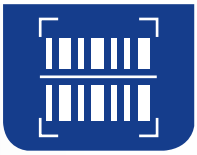
Product Guide

DATALOGIC
EMPOWER YOUR VISION

DATASENSING
easing automation challenges

INDEX

10 | STATIONARY INDUSTRIAL SCANNERS



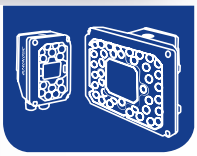
22 | LASER MARKING SYSTEM



30 | HANDHELD AND WEARABLE SCANNERS AND MOBILE COMPUTERS



38 | MACHINE VISION



44 | SENSORS



58 | SAFETY AND GUIDANCE



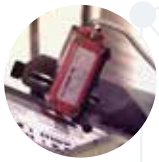
50+ YEARS OF EXPANSI



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 more than 50 years of history behind it, during which enormous successes have been achieved: 9 R&D centers in China, Czech Republic, Italy, Sweden, USA and Vietnam; 9 manufacturing and repair facilities in China, Italy, Slovakia, Hungary, USA and Vietnam; a portfolio of about 1,200 patents in multiple jurisdictions; thousands of prestigious partners and customers spread across five continents.

Datalogic Group has offices in 30 countries worldwide, with the headquarters in Bologna, Italy. It is through the close cooperation of approximately 2,700 employees that Datalogic can boast some of the most remarkable automatic data capture and factory automation solutions available today in the market.



1972 FOUNDATION
- Established in Bologna

1974 SENSOR
- DATALOGIC develops photoelectric sensors for Packaging Machinery

1974 BARCODE
- DATALOGIC introduces the first stationary barcode reader manufactured in Europe





1984 AUTO ID
- DATALOGIC installs the first automaticbarcode reading station in airport (Milan, Italy)

1989 HANDHELD READER
DATALOGIC develops the first handheld linear imager for barcode reading



1997-1998 EXPANSION
- Escort Memory Systems Inc.
- IDWare mobile Computing & Communications

2001 LISTING
- Listed on the STAR segment of the Italian Stock Exchange

2001 SAFETY LIGHT CURTAIN
DATALOGIC introduces machine safeguarding





2002-2011 VISION
DATALOGIC introduces machine vision technology with a smart camera sensor

2002-2011 EXPANSION
- Minec AB
- Laservall SpA
- Informatics Inc.
- PSC Inc.
- Datasensor SpA
- Evolution Robotic Retail Inc.
- Accu-Sort System Inc.
- PPT Vision Inc.

ON

To further strengthen its market position in Industrial Automation, in 2021 Datalogic acquired M.D. Micro Detectors, an Italian company specializing in optical, inductive, capacitive and ultrasonic sensors. This, merged with Datalogic's Sensors & Safety and Machine Vision Business Unit in early 2022, creating a new company and brand **Datasensing**.

Datasensing's Machine Vision, Sensors and Safety portfolio solves the most challenging 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.

With advanced Inspection, Detection, and Protection devices, the Datasensing Mission is to create added value through smart sensing solutions based on sustainable standard and custom products. They are developed with care and leading know how, with the Vision to be the premier partner for innovative sensing solutions for industrial automation.



2012-2015

INNOVATION
- Acquisition of Multiware Photonics SA
- Partnership with CAEN RFID Srl

2017-2020



SAFETY LASER SCANNERS
DATALOGIC develops safety for AGV and robotics

EXPANSION
- Set up newOne Datalogic
- Acquisition of SOREDI Touch Systems GmbH

2021

EXPANSION
Acquisition of M.D. Micro Detectors SpA

DATASENSING
DATASENSING is the Datalogic Group company specializing in development, production, and sales of Sensors, Safety, and Machine Vision products

2022

ANNIVERSARY
- 50th Years of innovation

EXPANSION
- Acquisition of Pekat Vision

2025

EXPANSION & INNOVATION
- New operating model with two new segments: Data Capture & Industrial Automation
- Listed on the Euronext Tech Leaders
- Entry into the share capital of Oversonic Robotics
- Acquired 100% of Datema Retail Solutions AB

MATRIX 220 XAI
- First AI based DPM scanner



2026

DL CONNECT
First IOT platform



OUR SOLUTIONS

TRACEABILITY

Product traceability is becoming more and more important in every industry, where the identification of items along every manufacturing and intra-logistic process is required, from raw material receiving to finished good shipment whilst passing through work-in-progress management and monitoring. Datalogic provides a wide portfolio of products and solutions to solve all traceability needs.

INSPECTION

Machine vision is an indispensable tool for controlling the quality of processes and products in factory automation and intra-logistics. For this purpose Datasensing offers smart cameras, industrial 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.





DETECTION

Photoelectric, inductive, capacitive, and ultrasonic sensors are essential in industrial automation to detect the presence of objects or parts, inspect their integrity or correct assembly, and measure dimensions, distance, or positioning. Datasensing sensors are available in many different lines, models and functionalities, sensing the smallest or fastest moving objects, even with transparent or shiny surfaces.

PROTECTION

Safety devices are mandatory for operator protection in potentially hazardous areas, plants or machinery. Datasensing safety light curtains are used 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).





TRACEABILITY



STATIONARY INDUSTRIAL SCANNERS

Stationary industrial scanning solutions are specifically designed for applications that are not permanently monitored by operators and are used in a wide variety of industries.

With Datalogic's versatile portfolio of stationary industrial scanners, customers can get a solution for a full array of barcode reading needs. From printed 1D and 2D barcodes, to Direct Part Marking (DPM), Datalogic offers a solution for nearly every barcode reading application. Whether your application requires image-based, omni-direction, or line scan barcode reading capabilities, Datalogic has you covered.

Stationary industrial scanning allows innovative companies to increase throughput, improve accuracy, and add a high level of traceability to their manufacturing, warehousing, logistic, and distribution processes. Since 1972, Datalogic has helped you maximize your organizations capabilities with innovative stationary industrial scanning technologies.

Datalogic stationary industrial scanners product range

1D SCANNERS

2D SCANNERS

DIMENSIONERS

SYSTEM INTEGRATION

SOLUTIONS

SOFTWARE AND TOOLS

1D SCANNERS

DS5100

APPLICATIONS

- Automotive: WIP Control, Parts Traceability
- Food & Beverage: Shipping Process, End of Line Palletizing
- Pharmaceutical: Secondary Package Control
- Warehousing: Tote Tray Identification, Automatic Picking Process Control
- Sorting on logistic and distribution lines
- Print & Apply



HIGHLIGHTS

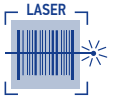
- Selectable focus
- Display and multi-language messages
- Single/Double Ethernet port
- Integrated oscillating mirror models
- Profinet (MRP supported)
- Compatible with SC5100/DS8110/DX8210

TECHNICAL DATA

- 800-1000 scans /sec
- 2 inputs + 2 outputs
- RS232 + RS485 serial port, Ethernet, Profinet
- Typical reading range of 200 – 1350 mm
- Subzero ver. up to -35°C (-31°F)
- Power supply:10-30 Vdc
- Protection class: IP65

DS8110 linear barcode scanner
DX8210 omnidirectional barcode scanner

- Airport Baggage Handling
- Parcel Sorting
- Retail Distribution Center
- Loading/Unloading System





- Top class reading performance
- Excellent performance on Low quality code
- DST (Digital Signal Technology) stable performance at any operative conditions
- Multi laser ASTRA G3, electronic focusing
- Ease of use and ease of installation
- e-GENIUS web browser programming tools
- Ease maintenance and automatic replacement
- Ready for Redundant Layout
- Minimum Object gap (50mm) for Maximum throughput

DS8110 linear barcode scanner

- Scan pattern type: linear
- Scan rate: 1000 scans/s
- Reading range: 500 to 1900mm
- Resolution: min 0.25 mm (10 mils)/max 0.50 mm (20 mils)
- Dimensions: 216 x 96 x 127 mm [8.5 x 3.8 x 5 in]
- Protection class: IP65
- Operating temperature: 0°C to 50°C

DX8210 omnidirectional barcode scanner

- Scan pattern type: X-Pattern
- Scan rate: 1000scans/s
- Resolution: min 0.25 mm (10 mils)/max 1.0 mm (40 mils)
- Dimensions: 381 x 328 x 92.5 mm [15 x 13 x 3.6 in]
- Protection class: IP65
- Operating temperature: 0°C to 50°C

BLADE

Logistics automation

- Tote reading
- Conveyor sorting
- Picking systems
- Automated storage and retrieval systems
- Sorting on logistic and distribution lines
- Parcel sorting

Automated Shopfloor

- Item and part tracking
- Process control and packaging
- Packaging and compliance

OEM

- Print & apply systems
- Laboratory automation



- 1D code reading
- Embedded Ethernet connectivity
- Two Ports Profinet and ETH-IP
- M12 rotating connector
- Compact dimensions
- 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

BLADE 100

- Reading range: 40 to 310mm
- Max. resolution: 0.12mm (5mils)
- Power supply: 10 to 30VDC
- Protection class: IP65
- I/O: 2 inputs (optocoupled; NPN/PNP); 2 outputs
- Operating temperature: 0°C to 50°C
- Embedded Profinet, Ethernet-IP Embedded TCP/IP

BLADE 200

- Reading range: 40 to 600mm
- Max. resolution: 0.12mm (5mils)
- Power supply: 10 to 30VDC
- Protection class: IP65
- I/O: 1 input (optocoupled; NPN/PNP)
- Operating temperature: 0°C to 50°C
- Embedded Profinet, Ethernet-IP Embedded TCP/IP

BLADE HIGHLIGHTS

DL.CODE software

- DL.CODE Config Tool
- Multi-Code settings and Autolearn
- High-visibility feedback for good or no read
- Web Monitor
- Enhanced: New X-PRESS™ interface with 5 LEDs and Backup/Restore function

Performance

- C-MOS Sensor (1920x128)
- HW acceleration HDR improvement
- Illuminator with TIR Lenses (Red Color)

Solutions

- MicroSD CARD and BM100 for Fast Replacement
- Availability:
  - Blade100 Fixed focus for low range
  - Blade100 High-Resolution
  - Blade200 with 3 points Adjustable focus for Medium and High Range
- Compact dimensions (Same as DS Laser Scanners) and rotating connector for easy integration
- Mixed ID-Net (With Matrix and DS)



Certifications

- CE, KCC, FCC, NOM, BIS

Industrial Strength

- IP65
- Operating Temperature: from 0 to 50°C
- Shock & Vibration Tested

Industrial Connectivity

- M12 17pin DS2K connector
- HMS NP40 Module for Certified Fieldbuses
- Industrial connectivity:
- Serial: RS232 on Blade100
- Programmable Serial (RS232/422) on Blade200
- Ethernet-IP embedded models
- PROFInet 2 ethernet ports models available (Profinet Conformance Class B)
- Modbus/TCPIP Models

2D SCANNERS

APPLICATIONS

MATRIX 120™

Manufacturing

- Electronics: Track and trace PCB board manufacturing
- Print & Apply: label verification
- Food & Beverage: traceability
- Automotive: End of line, tire finishing and inspection

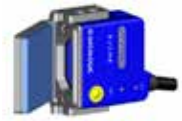
OEM

- Kiosks: ticketing machine

Healthcare

- Clinical Lab: vials identification
- Chemical and biomedical analysis machine





MATRIX 120™ deflection mirror accessory

HIGHLIGHTS

- Ultra compact dimensions and short cable versions for easy integration and ideal to mount on robotic arms
- External smart user selectable focus for high application flexibility
- ESD Version for electronic applications
- Polarized Version for reflecting surfaces
- Wide angle models for proximity reading
- New flexible cables suitable for robotic arms applications
- 90 degree deflection mirror for compact installation, for Matrix 210N easy replacement

TECHNICAL DATA

- WVGA for standard applications and 1.2MP models for high resolution codes
- Glass free protection window for application in the food industry
- Embedded Ethernet connectivity
- Serial and USB on the same model
- Protection class: IP65
- Operating temperature: 0°C to 45°C (32°F to 113°F)
- Supply Voltage: extended range 5 to 30 Vdc

MATRIX 220™

Manufacturing

- Electronics: Tracking/tracing of electronic products and components, DPM barcode reading
- Automotive: DPM code validation after marking, work-in-progress control, parts and assembly traceability
- Packaging: Primary packaging barcode reading, package traceability, food and beverage application

Logistics Automation

- Carton and tote traceability
- Automated warehousing



- The new AI-powered platform introduces cutting-edge algorithms that enhance decoding capabilities, delivering unprecedented performance like never before
- Compact dimension and rotating connectors for easy integration
- White, red and blue light All-In-One DPM illuminator for strong DPM reading performance including diffuser and polarizer in the same model
- Top performing High Power Illuminator model for challenging high speed applications
- Smart electronic focus control for high reading flexibility
- ESD and YAG cut filter protection premounted or as front cover accessory for extreme flexibility

- DecodeX is the new barcode processing approach which guarantee fast and reliable reading in every conditions
- New AutoSetup: Fast, Intuitive, and User-Friendly – Ready to Use!
- Multicore image processing platform excellent for high speed applications
- 1.2 MP high resolution image sensor
- High Dynamic Range to improve image quality and contrast
- OPC UA protocol for Industry 4.0
- Protection class: IP65 and IP67 extreme industrial grade for harsh environments
- Operating temperatures: 0 °C to 45°C (32°F to 113°F)

MATRIX 320™

Manufacturing

Automotive, Food & Beverage, Pharmaceutical, Electronics, General Manufacturing

- Direct Part Marking Reading
- Component and Part Traceability
- Wip Traceability (Automatic)
- Secondary Packaging Traceability
- End of Line Traceability

Logistics Automation

Intralogistics, Automated Warehouse, Distribution, 3PL, Retail, Transportation and Logistics

- Inbound, Pallet Picking (Forklift)
- Print & Apply verification (Re-labelling)
- Depalletizing, Part Traceability
- Order Fulfillment (Automatic, Manual)
- Palletizing (Automatic, Manual), Cage Preparation
- Pallet Traceability, Pallet Wrapping
- Inbound, Pallet Picking and retrieval for outbound (Forklift)
- Reverse Logistics



- Innovative 2MP sensor performs outstanding Depth of Field (DOF) and amazing Horizontal Field of View (FOVh) as a traditional 3MP sensor
- Liquid lens (only 2MP) electronic focus control for extreme flexibility in production
- C-Mount lens (2 and 5MP) for maximum optical configurability, high intrinsic DOF, highest flexibility in the selection and combination of the parts to solve application requirements, reducing feasibility time and cost
- Smart configurable lighting solutions
- New UHP (Ultra High Power) illuminator for challenging applications in term of high speed and code resolution (only on 5MP)
- Packtrack capability to minimize the gap between objects on conveyor and increase the system productivity

- Sensor: **2.0 Mpixel** (1920 x 1080) 16:9 form factor - 1/3'' CMOS global shutter, 60 frames/s ; **5.0 Mpixel** (2560 ×1936) - 1/1.8" CMOS global shutter, 25 frames/s

Liquid Lens models (2MP only)

- Electronic focus control on Liquid Lens: 6mm (48°), 9mm (34°), 16mm (20°)
- Internal illuminators colors: Blue, Red, White lights
- Internal illuminators power: High Power 14 LEDs and Very High Power 36 LEDs

C-Mount models (2 and 5MP)

- C-Mount high quality lenses: 4mm (68°) [only 2MP], 6mm (48°) [only 2MP], 8mm (50°), 12mm (34°), 16mm (25°), 25mm (16°), 35mm (12°), 50mm (8°)
- Internal illuminators power: Very High Power 36 LEDs and Ultra High Power 72 LEDs [only 5MP]
- Smart illuminator adapter for live quick and easy C-Mount lens setup

APPLICATIONS

STS320™

Factory Automation / Manufacturing

Automotive, Tires Manufacturing and Tires Distribution Center

- Tire and Wheel identification
- Tire tracking and traceability both in Green Vulcanized Tires (curing press) and Finished Tires
- High speed sorting on omnidirectional conveyors
- Bottom (under belt) reading





HIGHLIGHTS

- Outstanding reading performance
- Compact and out of the box solution fully pre-assembled, for the quickest installation on the field
- Run time diagnostics and unreadable code classification to increase the overall productivity
- Live and high-speed image saving for post processing analysis
- Web Mosaic view to monitor all the readers
- Indisputed leader

TECHNICAL DATA

- Extra-large Field of View (FOV) and increased Depth of Field (DoF)
- Configurable 360 degree multicolor visual feedback, green spot and Red spot LEDs
- Standard and high resolution models, standard and long range, top and bottom reading models
- Sulfur gas resistance available for all the models according to ISO EN 60068-2-43
- Protection class: IP65 and IP67 top industrial grade for harsh environments
- Operating temperature: -10 to 50°C (14 to 122°F)

MATRIX 220 XAI DPM HIGHLIGHTS

2.5X PROCESSING POWER (4 PROCESSING CORES+1 NEURAL PROCESSING UNIT)



Auto Setup

Fast, intuitive and user-friendly: ready to use

DecodeX

New barcode processing approach to capture and collect DPM codes quickly

Smart Intelligence

Fast reading of challenging DPM codes with AI-based algorithm

UNLOCK PEAK PERFORMANCE WITH THE MATRIX FAMILY SCANNERS



Experience the industry's fastest scanning speeds with The Matrix Family. These innovative scanners offer unparalleled flexibility, ensuring exceptional quality regardless of material or scanning angle. Designed for high efficiency, they can read multiple codes simultaneously, making them the ideal solution for demanding environments. Powered by advanced AI algorithms, The Matrix scanners quickly and accurately decode all types of barcodes, even in the toughest conditions. Enhance your workflow with fast, reliable, and precise scanning technology.

2D SCANNERS

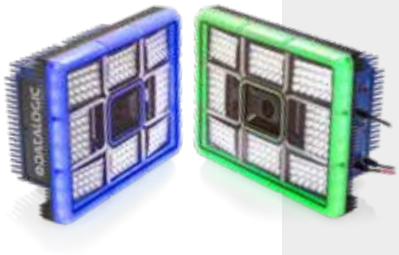
APPLICATIONS

MATRIX 830-930

Transportation and Logistics
- Automated sorting
- Dimension Weigh Scan System
- Non conveyable Auto dimension systems
- Carton and tote traceability
- OCR, Hazmat, Package analytics, cross belt cell inspection, label blurring
- Extended image saving

Distribution & Retail
- Order fulfillment and verification
- Multimedia sorting
- Reverse Logistics process

NEW



HIGHLIGHTS

- Wider field of view and higher-resolution imaging, allowing one reader to cover belt widths that normally require multiple devices
- Beyond Barcode capability on board (Premium version) enables Hazmat recognition, parcel inspections, OCR
- Advanced PackTrack technology enables accurate code reading with very small item gaps, maximizing throughput and efficiency

TECHNICAL DATA

- Image sensor: 16 MP (Matrix 830) / 28 MP (Matrix 930), up to 30 FPS at full resolution
- Advanced focus system (dynamic, sequential, or software-adjustable) for extended depth of field
- High-performance illumination and ROI windowing for optimized reading on wide belts
- High speed capability to read items moving at 3.2.\ m/s
- Next-generation decoding for 1D, 2D, stacked, and postal symbologies
- High-speed connectivity: Gigabit Ethernet / Gigabit Ethernet + SyncNet4
- PackTrack capability for efficient item tracking and spacing
- Flexible image saving formats and 360° visual feedback system
- Dual laser aiming and e-GENIUS web interface for easy setup and use
- Industrial-grade design (IP65) for harsh environments (0–50 °C)

MATRIX 830-930 HIGHLIGHTS

16Mpx & 28Mpx 2D image sensors

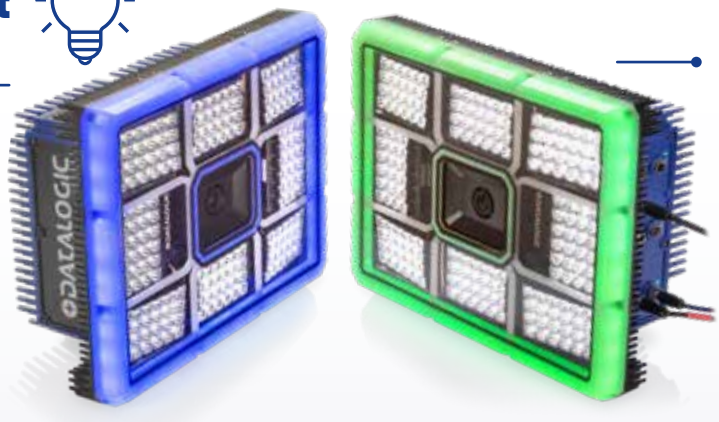
- Matrix 830: 16 MP image sensor
- Matrix 930: 28 MP image sensor
- Up to 32 fps at full resolution
- High-speed, high-resolution image capture
- Reliable performance for demanding industrial applications

360° LED surround User feedback

- 360° LED indicator for full visibility
- Programmable colors for status signaling
- Immediate visual feedback of device condition
- Clear and intuitive operator interaction

Advanced Smart Illumination Design

- Continuous white illumination with no flashing for stable reading conditions
- Optimized rectangular lighting for wide belt applications
- Enhanced image uniformity for consistent decoding performance
- Designed to improve readability in high-speed industrial environments



AI based localization to decrease decode time

- AI-driven code localization for faster detection
- Reduced decoding time through smart targeting
- Improved reading efficiency in complex scenarios
- Enhanced performance on multiple symbologies

3 Focus options to optimize performance

- Dynamic focus for real-time adjustment
- Sequential focus for step-based acquisition
- Software-adjustable focus for flexible setup
- Extended depth of field for stable reading

Next Generation of Barcode Decode Engine

- Advanced decoding algorithm for high performance reading
- Reliable decoding of 1D, 2D, stacked, and postal codes
- Improved speed and accuracy in challenging conditions
- Robust performance across multiple symbologies

APPLICATIONS

AV500/AV900

Transportation and Logistics
- Automated sorting
- Manual sorting
- Dimension Weigh Scan System
- Non conveyable Auto dimension systems
- Carton and tote traceability
- OCR and Videocoding
- Extended ID and image saving

Distribution & Retail
- Order fulfillment and verification
- Multimedia sorting
- Reverse Logistics process

Airports
- Baggage handling systems
- Automated tag reading



AV7000™

Transportation and Logistics
- Courier, express, and postal sorting
- Revenue recovery
- Reverse logistic processes.
- OCR, Hazmat, and Videocoding
- Extended ID and Image saving

Distribution & Retail
- Large distribution centers
- Receiving / shipping systems
- Multimedia sorting



HIGHLIGHTS

- High performance camera (5MP AV500, 9MP AV900) with integrated image processing system
- Patented dynamic, sequential or adjustable focus system offering extended depth of field
- Continuous, no-flashing white or red illumination
- Image saving to external locations through the dedicated high speed Gigabit Ethernet port
- New generation decode algorithm to read very bad quality label
- Multiple format Image saving from full definition to highly compressed JPG
- Patented PackTrack allows for item spacing of >50mm (2 in) for maximum throughput

- Single view high quality picture on large conveyor (1600 mm/63 inch)
- Excellent reading performances on high-speed conveyors: 3.5m/s (690fpm)
- Patented Pulsed Lighting System to reduce reading station footprint 2.2m (7ft)
- Patented Autofocus System offering extended DoF.
- Patented Digital Zoom technology assuring constant DPI resolution.
- Advanced decode algorithm to read poor quality 1D and 2D barcodes.
- Multiple format Image saving from full definition to highly compressed JPG
- Seamless integration with dimensioning and scale systems

TECHNICAL DATA

- Sensor: CMOS 5MP (AV500), 9MP (AV900)
- Max image Acquisition = 32 frames/s
- Readable symbologies: all standard 1D and 2D codes
- Connectivity: 2 Ethernet TCP/IP, 2 serial communication interfaces
- Protection class: IP65
- Operating temperature: 0°C to 50°C
- Factory warranty: 2 years

- CMOS linear sensor: 12,288 pixels
- Image resolution: up to 320pixels/inch (application dependant)
- Scan rate: up to 40KHz
- Readable symbologies: all standard 1D and 2D codes
- High quality Image for OCR, Hazmat and Videocoding
- Connectivity: RS232/RS485, Ethernet
- Video output: Gigabit Ethernet, CC-Link
- Protection class: IP65
- Operating temperature: 0°C to 50°C
- Factory warranty: 2 years

AV7000 HIGHLIGHTS

Advanced reading performance

- **12K** linear **CMOS sensor**
- **40Khz line rate** supports belt speeds up to **3.5 m/s**
- **Advanced decode engine with region of interest** algorithm for fast decoding
- **Patented dynamic zoom** for extended focus range

Ease of setup and use

- **X-PRESS™ interface** for easy and intuitive setup
- **e-GENIUS browser-based** configuration to configure readers performance
- **Dynamic calibration** for optimized and expedited installation

Industrial connectivity

- **Embedded Industrial Fieldbus (Ethernet/IP, TCP/IP)** removes need for external switches/converters
- **Communication interfaces:** two Ethernet TCP/IP and two serial interfaces
- **SyncNet Technology** with **Primary/ Secondary, Ethernet Point-to-Point**



Advanced features

- **Pulsed lighting system**
- **PackTrack** for minimal gaps **Digital Zoom** for **OCR** and storage Red illumination
- Integration with **Datalogic devices**

Industrial strength

- **IP65** industrial grade design for harsh environments
- **Operating temperature:** 0 °C to 50 °C / 32 °F to 122 °F

DIMENSION AND VOLUME

APPLICATIONS

DMS100 (1xDM3610)

- Parcel revenue recovery
- Distribution Center spatial management
- Automated shipping and manifesting systems
- Trailer load planning



HIGHLIGHTS

- NTEP, OIML and MC certified for Legal for Trade applications on belt conveyors
- NTEP and OIML certified for Legal for Trade applications on cross-belt
- Works for cuboidal
- Works for singulated and non-singulated package flows

TECHNICAL DATA

- Only cuboidals
- Singulated (spacing >20mm)
- Accuracy (L x W x H) = +/-5mm x +/- 5mm x +/- 2mm at transport speeds up to 3.1 m/s
- Maximum box size 2500x1200x900mm
- Operating temperature: 0°C to 50°C
- Protection class: IP 65
- Factory warranty: 2 years

DMS200 (2xDM3610)

- Parcel revenue recovery
- Distribution Center spatial management
- Automated shipping and manifesting systems
- Trailer load planning



- NTEP and OIML certified for Legal for Trade applications on belt conveyor and cross-belt
- Works for cuboidal and irregular package flows
- Works for singulated and non-singulated package flows
- Reduced shadowing

- Cuboidals and Irregulars
- Singulated (spacing > 25mm)
- Maximum box size 2500x1600x1000mm
- Operating temperature: 0°C to 50°C
- Protection class: IP 65
- Factory warranty: 2 years

SYSTEM CONTROLLER

APPLICATIONS

SC5100

- Parcel Sorting
- Small Package / E-Commerce
- DWS
- Airport BHS
- Distribution centers
- Irregulars / Extra large / Pallets
- Loading / Unloading



HIGHLIGHTS

- Laser (DS-DX), Imagers (AVs), Dimensioner Native Integration
- 4 GB ETH embedded switch
- RFID scale and 3rd Party Integration
- Industrial Grade protection (IP65, no need for added enclosure)
- 5 inch Graphical Color display and Clear Status LEDS
- Supports Full Redundant Layout
- Support to Legal For Trade DWS Systems (provide Alibi for scale, DWS systems)
- Built-in Ethernet, Ethernet/IP and optional Profibus and Profinet models
- Access locally or remotely from one point all the connected components

TECHNICAL DATA

- Power supply: 24 VDC +/- 20%
- Serial Main (isolated) RS-232/ RS-422 full-duplex: 1,200 to 115,200 bits/s
- Serial Aux RS-232: 1,200 to 115,200 bits/s
- EBC and SyncNet Internal Network: 100 Mbit/s
- Inputs (main): 3 polarity insensitive optocoupled inputs: Trigger, Encoder/Tachometer, IN3
- Outputs (main): 3 optocoupled outputs
- LCD display: 5 inch graphical color
- Keypad: 5 keys
- Configuration modes: e-Genius
- Parameter storage: Non-volatile extractable SD card
- Operating temperature: 0 to 50 °C
- Protection Class EN60529: IP65
- Mechanical dimensions: 349 x 175 x 89 mm / 13.75 x 6.89 x 3.5 in

CONNECTIVITY

Wide range of connectivity for the identification product range with standard IP65 (NEMA4) protection class and operating temperature from 0°C to 50°C.



CBX SERIES

- Simplified wiring to speed up installation
- Scalable and modular connectivity
- Base and extended models
- Modular fieldbus connectivity
- Optional backup/restore module
- Optional display
- Low temperature model



QL SERIES

- Easy, fast, modular and cost-effective solution with “plug-in connection”
- Ethernet TCP/IP and EtherNet IP (QL500)



EBC CONNECTION BOX

- Complex applications and upgrades can be easily solved with reduced investments
- Allows SIS product interoperability in EBC network through SC5100 controller
- For smart hybrid system integrating different SIS product lines Matrix, AV line (AV500/AV900) and DS Laser Scanner

WEBSENTINEL™ SOFTWARE SUITE

WebSentinel™ PLUS

WebSentinel Plus is a supervisory software solution for monitoring operational activities of reading devices through a single web browser based interface. It collects data from scan points over Ethernet network, presents the information flow and updates the database. Diagnostics and tracking reports are available periodically or on demand.

APPLICATIONS

- Transportation and logistics (postal and couriers)
- Distribution & retail (warehouse and distribution centers)
- Airport baggage handling
- Automated warehouse intralogistics
- Factory automation work in progress traceability
- Tracking and traceability for tire manufactures
- Factory automation work in progress traceability

HIGHLIGHTS

- Real-Time Performance at a glance
- Main dashboard with reading performances, package activity and device diagnostics
- Complete control from enterprise to device
- Database searches and reporting
- Image file browsing for imager devices Configurable alarm & event notification via email
- Individual user accounts with configurable roles and privileges
- Web-based client
- Cross platform server application (Windows and Linux OS)



WebSentinel™ PLUS INVESTIGATOR

INVESTIGATOR is an upgrade to the WebSentinel Plus, suitable for Datalogic 2D Scanners (AV and Matrix series).
INVESTIGATOR extracts value from parcels data by performing 'No Read' image analysis and providing automated recognition of the main 'No Read' root cause (no label, damaged label, obscured label, etc.).

APPLICATIONS

- Transportation and Logistics (Postal and couriers, 3PL)
- Retail and E-Commerce (Distribution centers, Fulfillment)
- Intralogistics (Automated Warehousing)
- Automatic Warehousing
- Factory Automation (work in progress Tracking, Traceability)

HIGHLIGHTS

- Full integration within Websentinel Plus platform
- No Read Root Cause Automated aggregation in classes
- Printing Quality Trend evaluation
- Reporting trends by day/hour
- Analysis Result at Parcel Level
- Quick drill down to Image level



SMART VISION SUITE FOR LOGISTICS

Extract valuable information from images and 3D data to help the optimization of parcel sorting processes.



OCR

Parcel identification systems are ready to provide info to OCR software.



HAZMAT

Datalogic provides software to recognize standard hazardous materials label.



SHAPE DETECTION

Classification of various parcel shape (carton boxes, plastic bags, irregular items, flat/envelopes, tires...).

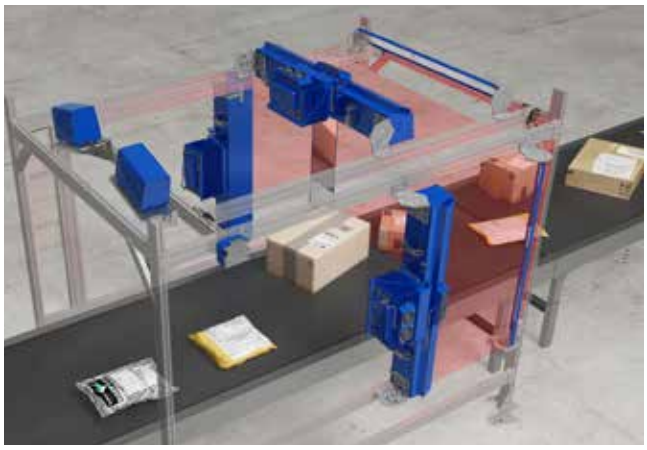
PARCEL IDENTIFICATION

INBOUND (DWS: DIMENSION WEIGH AND SCAN)



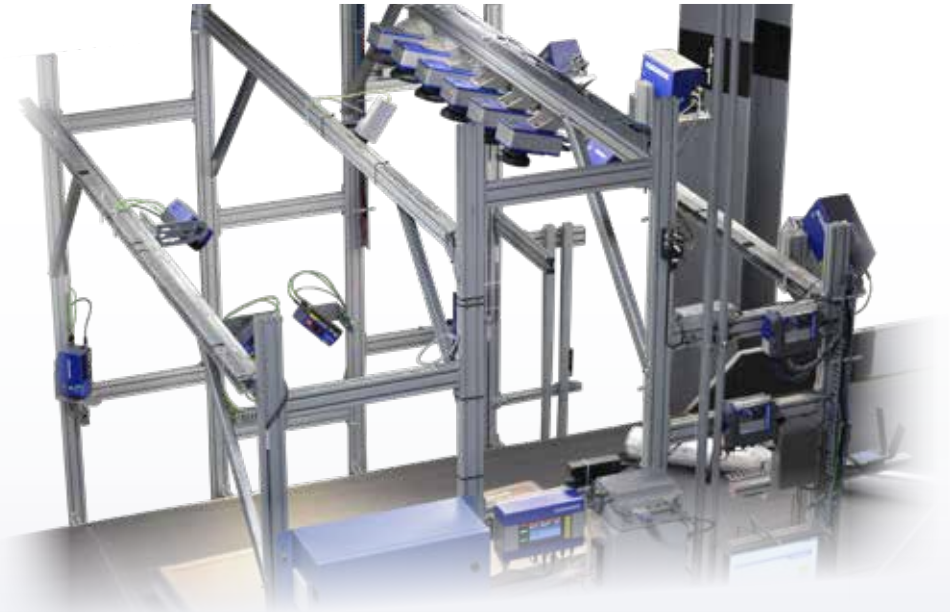
Unloaded parcels are dimensioned and weighted; thousands of parcels are automatically handled and classified based on dimensions and weight. The captured data can be used for quality checks or storage optimization. The DM3610 in combination with the Matrix 930 is the perfect solution. Inbound areas are also dedicated to returned items that are traced and positioned into the warehouse, once accepted by the quality check process.

HIGH-SPEED SORTING



High-speed sorting is the core application in a logistic hub, where several thousands of items are sorted hourly, on a 24/7 basis. A multi-side reading station, based on the AV7000 is the state-of-the-art solution for this type of applications. The AV7000, in combination with the DM3610, offers high-speed parcels reading and dimensioning.

PARCEL NON-CONVEYABLE (MFDS: MASS FLOW DETECTION SYSTEM)



Detect

items when touching or running side by side on large conveyor belts (up to 1.5 m)

Dimension

items, regular or irregular shaped, LFT certified measurements

- **Items are DETECTED and DIMENSIONED with the recognized DM3610 LFT measurement system enhanced with advanced 3D analysis to separate irregular shaped objects that are touching**
- **MFDS makes it possible by automating the measurement of a Non-Singulated, Large Items flow and providing LFT data which can be legally used for the invoice.**

Decode

barcode information on labels and merge it to the respective item

- **mixed technology (SIS area imaging and laser) to capture barcode information (both 1D and 2D codes).**
- **Identification via barcode essential to allow revenue recovery**

Depict

items by capturing and saving respective images

MFDS can generate two images for each parcel:

- **High-resolution greyscale images from the AV900 are used to create a single top view of each item.**
- **A low-resolution color image enriched with bonding box (created using 3D measured data).**

BHS (BAGGAGE HANDLING SYSTEM)

Datalogic is one of the leaders when it comes to **Baggage Handling System** (BHS) solutions.
There is a complete range of readers, scanners, and **RFID-based solutions** to cover every technological need. The modular design of Datalogic products allows for easy customization, for both software and hardware. For instance, in scenarios where reduced clearance is required, Datalogic provides specific accessories to ensure short-distance reading is handled with ease.
This is just one of many examples of **airport**-specific solutions provided by Datalogic. Others include check-in counters, baggage arrival tracking, and baggage reconciliation.



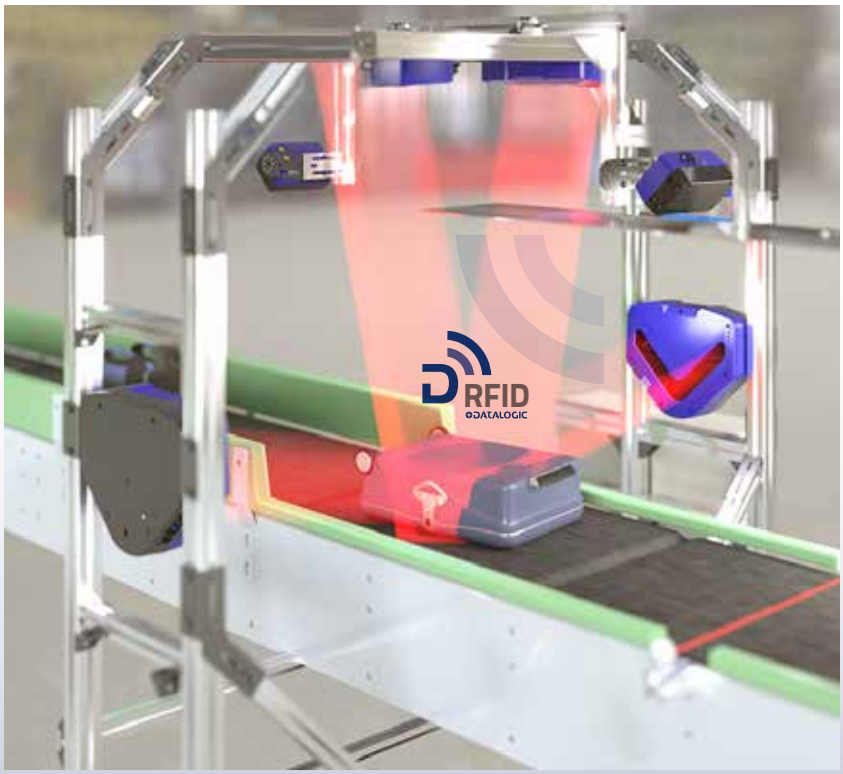
AUTOMATIC BAGGAGE IDENTIFICATION: *IMAGING TECHNOLOGY*

Bringing the highest achievable performance on barcode IATA tag, increase productivity and reduce the no-reads to almost zero.

A *OCR IATA label recognition*

Datalogic offers the option to integrate OCR software into its imager-based systems. If a barcode—and its associated BSM (Baggage Source Message)—cannot define the correct sortation path, the OCR IATA label recognition software retrieves the essential flight data printed on the tag (e.g., Destination, Flight Number).





AUTOMATIC BAGGAGE IDENTIFICATION: *LASER TECHNOLOGY*

Cost effective, represents a good price/ performance ratio with satisfactory reading rate level especially for baggage after check-in.
Compliant to IATA 1740A recommended practice.

AUTOMATIC BAGGAGE IDENTIFICATION: *RFID TECHNOLOGY*

The highest possible reading rate even when label is not optically visible. RFID is handled as a subsystem that can be added to any of our Laser or Imaging Based Solutions.
Compliant to IATA 1740C recommended practice.

TRACEABILITY





LASER MARKING SYSTEMS

A Comprehensive Product Range combined with Excellent Laser Marking Manufacturing Expertise

Over 20 years of experience in the production of industrial laser sources has enabled Datalogic Laser Marking to create the most comprehensive product portfolio in the marketplace by offering solutions throughout a wide range of applications.
Laser Marking products provide value-added marking solutions for the Automotive, Aerospace, Industrial Electronics, Metal Tooling, Precision Mechanics and Medical & Surgical devices.
Laser Marking products are offered in the three main laser technologies: Fiber Laser, Solid State Laser and CO2 Laser and cover a wide range of applications on almost any material, fulfilling every customer need for permanent marking.

Powerful, best-in-class control software operates with any model configurations and laser technologies: a unique control platform, easy to use and install, with enhanced customization capabilities and industrial-grade interfaces.

Several accessories are available to add functionalities, to simplify integration and to allow quick maintenance and troubleshooting.

Datalogic laser marking systems product range



SOLID STATE LASER MARKER



CO_2 LASER MARKER



FIBER LASER MARKER



SOFTWARE AND TOOLS

LASER MARKING PRODUCTS & SOLUTIONS

SOLID STATE LASER MARKER VLASE SERIES

The long history of market-leading Solid State technologies has enabled Datalogic to create the most comprehensive product portfolio in the marketplace by offering solutions with a wide variety of applications in multiple wavelengths.

DL product portfolio offers industrial grade solutions for Infrared and UV in a wide power range.

Solid State key features:

- Best-in-class laser peak power
- Two different wavelengths for best results even on highly reflective or high-stability materials
- Excellent beam quality and marking accuracy
- Low thermal footprint to ensure high contrast on thermoplastic materials and low impact on thermal sensitive components

FIBER LASER MARKER UNIQ & AREX400 AF SERIES

Innovative design and performances combined with state-of-art technology, for the most demanding applications and industries. Datalogic's AREX400 AF and UniQ product lines are robust reliable and cost effective. Fiber laser technology is the solution of choice for high-end applications where speed, quality and efficiency are critical.

Fixed pulse width models (100 ns) ensure great thermal effect on metal marking materials, for high efficiency metal annealing and engraving.

Adjustable pulse width model (1.5 - 350 ns) based on MOPA technology offers the highest level of flexibility on heat-sensitive materials, and ensure the highest contrast on thermoplastic materials.

Fiber Laser key features:

- Ultra-compact, rugged IP64 scanhead fully protected against dust, water and oil droplets
- Low noise level
- Fast turn-on time, zero warmup
- High stability, reliable process
- Excellent on metal and plastic surfaces

CO_2 LASER MARKER EOX SERIES

CO_2 laser technology is still the best solution to provide permanent laser marking for industrial traceability and coding on paper, carton, organic materials, coated/painted materials and plastic.

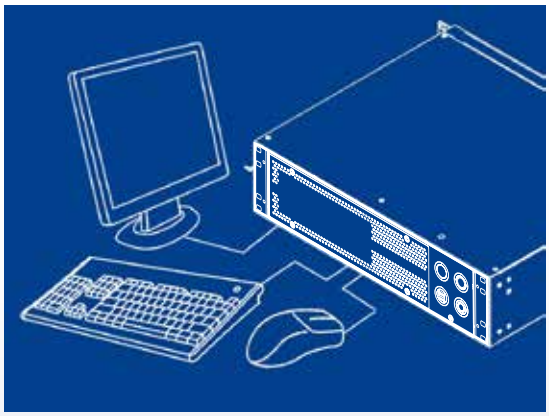
Long wavelength (10.6 µm)ensure good results even on glass, rubber, food, wood and many other materials.

CO2 Laser key features:

- Excellent on paper, cardboard, wood and plastics
- Marking on the fly compatible with variable speed
- Suitable for coding from medium to high throughput production lines

ONE-RACK marking controller

System setup and commissioning are made easy with Datalogic's Embedded Marker Controller (EMC) powered by LIGHTER Software Suite.
The unified 19-inch controller with standardized controls and I/O connections allow integrators to easily switch between Datalogic's laser technologies (Solid State , Fiber, CO2) without any connection or wiring complications.
Everything required for your marking application is now included: a 100-240 VAC power supply, a Windows 10 IoT embedded PC, an iMark Embedded Laser controller with four independent axis controls (X, Y, Z, rotating axis), dedicated connectors for Marking On Fly (MOF), Datalogic's MATRIX code reader, and much more. All units come equipped with a built-in, pre-configured Teamviewer host to provide complete remote support from Datalogic.



LASER MARKING SOFTWARE

Lighter, the laser marking software for all laser marking products



LIGHTER is a versatile laser marking Software Suite dedicated to OEMs and Machine builders to develop a complete and cost-effective Laser Marking Station, based on embedded hardware and software resources.
With its innovative software functions, LIGHTER Suite represents an important step ahead in marking software arena by setting new standards for quick integration and ease of use.
LIGHTER Suite combines advanced graphical and editing features, laser controls configuration and diagnostic with a production-oriented interface for easy and safe daily marking operations.

Lighter Suite is composed by a **Laser Editor**, a powerful and intuitive software to create, import or edit vectorial graphics, logos or serialization codes, and **Laser Engine** a robust and reliable marking process manager to execute stored layouts and programs.

Available with the LIGHTER software suite the new **MARVIS (Mark Read Validate Integrated Solution)(*)** is Datalogic's solution for laser marking parts traceability.

LIGHTER MARVIS™ represents an important step ahead in the MARK & VALIDATE application setting a new standard in term of ease integration and ease of use.
Thanks to innovative approach, LIGHTER MARVIS merges the capability to control both the full family of DATALOGIC Laser Markers and many MATRIX code readers, in a user-friendly, simplified, fully graphical interface.

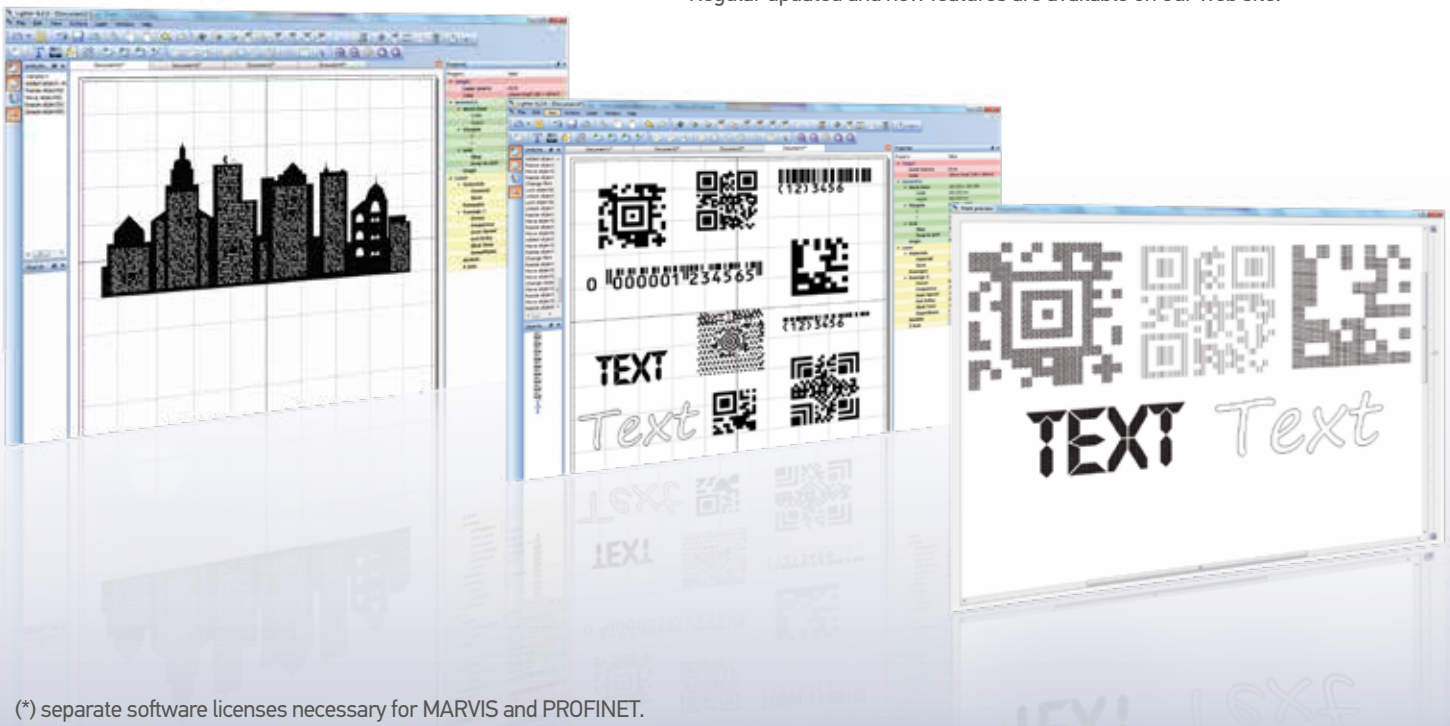
Advanced Editing and Formatting Functions
- Wide coding library with 100+ different 1D and 2D code symbologies and sub-types
- Import bitmap and vector formats DXF, DWG, PLT, PDF, AI, SVG, BMP, JPG, GIF, TIFF, PNG and many more
- Windows® True Type import tools
- Contextual Property Browser for quick and easy settings of graphics and laser parameters
- Advanced editing tools and Node Editor
- Filling and hatching of objects and pattern structures with various styles
- Date, time, shifts, workpiece serialization
- Array Marking
- Extended layer in combination with Axis controller
- Grey Tone marking



Automation Capability
- 4 independent Mechanical axis control (X,Y,Z,R)
- User controlled general purpose I/O
- Built-in-marking on the fly
- Sequential programming
- ID code reader integration with LIGHTER MARVIS option

Programmable Interface and Protocols
- Built-in IDE (Integrated Development Environment) based on JavaScript provides users a full set of tools to be used for extremely flexible customization.
- ActiveX support to create customized applications and user interfaces via Ethernet.
- RS232, TCP/IP, EthernetIP and Profinet(*) embedded support.

Software Upgrades
Datalogic is committed to preserve the value of your laser investment keeping your system updated.
Regular updated and new features are available on our web site.



(*) separate software licenses necessary for MARVIS and PROFINET.

AREX400 AF SERIES

The AREX400 AF is a new fiber laser marker that defines a significant advancement in Industrial Marking applications in such sectors as Automotive, Industrial Electronics, Machine Tools and Home Appliances.

The AREX400 AF is equipped with an Adjustable Focus (AF) module to allow dynamic focus distance adjustment through an internal optical Z-shifter. The AF module adds an extra z-axis field, enabling the laser to mark Z surfaces within a specified volume (several f-theta options available) with consistent quality and precision.

The AF functionality allows to effortlessly mark multi-tiered components, seamlessly adapt to format changes and easily compensate installation errors and tolerances.



CUSTOMER BENEFITS

- **Software-controlled focus adjustment**: The new AF feature dramatically simplifies installation and commissioning, compensating for tolerances and possible installation errors of the scanhead. The Smart Focusing function helps triangulate the focus position in the entire adjustment range.
- **Marking on steps, easily:** The new AREX400 AF enables marking on multi-tiered components. The Z-shifter controls precisely a real Z-axis, allowing the laser to mark multiple surfaces within a pre-defined volume.
- **Format change in a flash:** In Lean Manufacturing scenarios, the new AREX400 AF streamlines format changes in lines that process several types of workpieces, ensuring precise Z-position control with minimized changeover times and costs.
- **Autofocus with Distance Sensor:** The AREX400 AF, when paired with an (optional) micrometric Distance Sensor, provides a real autofocus function that compensates positioning errors or deviations in workpieces' height.





APPLICATION

- Direct Part Marking traceability (1D/2D codes)
- Branding
- Logo marking
- Functional marking

TECHNICAL DATA

PARAMETER		AREX 42M-xAF	AREX410-xAF	AREX420-xAF	AREX430-xAF	AREX450-xAF	AREX40C-xAF
Nominal average power	W	20	10	20	30	50	100
Source type		MOPA	Pulsed fiber				
Wavelength	nm	1055-1075					
Pulse Enegy (max.)	mJ	1					
Peak Power (max.)	kW	10					
PulseWidth (typ.)	ns	1.5 ÷ 350	100				
Pulse Repetition rate	kHz	2 ÷ 950	2 ÷ 500				
Aiming & Focusing Beam		2x 655 nm (class II)					
Scanning head		XY galvanometer + Z focus shifter					
F-theta available		160mm M; 254mm M; 420mm L					
Working distance	mm	Depending on f-theta: 158 ± 20; 261 ± 40; 492.5 ± 60					
Marking Area	mm^3	Depending on f-theta: 90 × 90 × 40; 140 × 140 × 80; 285 × 285 × 120					

VLASE SERIES

VLASE combines the long production experience of high-performance and quality Diode Pumped Solid State (DPSS) laser sources with the flexibility and performances of EMC controller.

VLASE laser markers use the **state-of-the-art End Pumped Coupling Technology**, the most efficient and reliable solution for diode pumped solid state laser sources to provide **excellent beam quality, high peak power and short pulse-width.**

Solid State laser technology is recognized as the best solution to ensure high marking quality results even in difficult application such as high reflectivity or heat-sensitive materials, un-doped or high-stability plastic and hard-to-mark components.

Designed for demanding 24H7 processes, VLASE Series offers unparalleled performance and represents the ideal solution for direct part marking in any market segment including automotive, electronics, as well as in medical surgical tools marking and other applications.



VLASE IR

The VLASE IR is a DPSS air-cooled laser marking source at 1064nm, available in 10 and 20W power classes..
Excellent beam quality, necessary for marking a broad range of materials, is one of the leading characteristics of the VLASE IR laser sources.

VLASE UV

The VLASE UV source exploits the extensive experience and success of the DPSS family and is based on the optomechanical architecture of Third Harmonic Generation (THG).
The VLASE UV wavelength produces reduced heat affected zones (HAZ) in comparison with longer laser wavelengths.
The superior performance of this laser source makes it ideal for the demanding marking and material process applications, such as glass and nondoped plastics in automotive, healthcare, aeronautic, solar & electronics among many other applications.

APPLICATIONS

- Metal marking: stainless steel, iron, titanium, carbide, (bare, coated, anodized)
- High-reflectivity metals: brass, gold, silver
- Thermoplastics (ABS, PC, PA)
- Color-enhanced plastics

APPLICATIONS

- High stability, “non-doped” plastic marking
- Medical & surgical plastic marking
- Silicon scribing
- Ceramic & glass marking
- Luxury goods

TECHNICAL DATA

		VLASE IR 10	VLASE IR 20	VLASE UV 3
Wavelength	[nm]	1064	1064	355
Nominal power	[W]	10	20	3
Repetition rate range	[KHz]	10 ÷ 200	20 ÷ 200	20 ÷80
Standard marking area	mm^2	50x50, 100x100, 110x110, 140x140, 180x180	50x50, 100x100, 110x110, 140x140, 180x180, 220x220, 285x285	60x60, 110x110
Communication		Ethernet TCP/IP, Profinet IO, EtherNet/IP, RS-232		

UNIQ™ SERIES

UniQ™ - Compact, Powerful, integrated: unique!
UniQ laser marker is a revolutionary and innovative approach to fiber laser marking: For the first time on the market, **no external controller or power supply** is needed, **no fiber delivery constrains**, no fiber length or bending radius limitations.
A mechanical design and high-quality components provide an **IP54 degree of protection** for harsh environment and industrial application.

UniQ laser marker works seamlessly with Datalogic's Lighter Suite, providing a user-friendly, powerful interface and complete software tools, and is fully compatible with other Datalogic's laser control interface.

UniQ laser marker provides an extremely compact and flexible solution for manufacturing industries where the ease of use, dimensions and price/power ratio are the most important buying criteria.

Built in SLO (Safe Laser Off) system to quick and easy integration in EN13849-1 compliant installation, ease of maintenance and improved safety features keep overall operating and installation costs lower than any other laser marking system.



APPLICATIONS

- DPM (Direct part marking) on plastic and metal materials in automotive, electronics and healthcare industries
- Laser Annealing on high precision metal components

TECHNICAL DATA

		UNIQ
Technology		Fiber
Wavelength	[nm]	1060-1070nm
Nominal power	[W]	15
Standard marking area	mm^2	50x50, 100x100, 140x140, 180x180
Communication		Ethernet TCP/IP, Profinet IO, EtherNet/IP, RS-232



EOX SERIES

EOX is the **CO2 Laser** family for **laser coding and marking** applications. The EOX family offers high-quality permanent marking on a wide range of materials including paper, cardboard, wood, plastics and painted metal. Combining excellent laser beam quality and advanced control unit, the EOX family is suitable for accurate industrial traceability as well as high productivity coding applications.

CO2 laser family is available in two power levels, **10W and 30W**, with the same marking platform but with different mechanical configurations. 10W versions are offered in an **all-in-one enclosure** with very compact dimensions. 30W versions combine of a **marking head** with a **control rack** equipped with power supply and control unit.

Both 10W and 30W versions provide **and encoder and photocell ports, which are typically required in Marking On the Fly (MOF)** mode for coding applications on moving pieces. Advanced MOF features offer complete synchronization between beam deflection and object movement even in accelerated or start-stop movement conditions. **MOF works in continuous production lines with linear speeds up to 75 m/min and up to 4 pcs/s (depending on size/number of digits), with or without an encoder.** A CO2 marking system is characterized by low cost of operation coding applications, due to low maintenance and no requirement for expensive consumables.

EOX meets flexibility requirements with marking areas of 70x70 mm^2 or 140x140 mm^2 (focal lens dependent). Reliable and safe, EOX family provides a clean technology with short return of investment and minimal maintenance.

EOX 30



EOX10



APPLICATIONS

- 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

TECHNICAL DATA

		EOX 10	EOX 30
Wavelength	[µm]	10.6	
Nominal power	[W]	10	30
Communication		Ethernet TCP/IP, Profinet IO, EtherNet/IP, RS-232	
Head dimensions & weight (LxWxH)		598x180x180 mm - 17 kg	598x180x180 mm - 17 kg
Controller dimensions & weight (LxWxH)		-	335x430x88.5 mm - 9kg

TRACEABILITY





HANDHELD & WEARABLE SCANNERS AND MOBILE COMPUTERS

Datalogic's **Handheld Scanner** product line offers products and solutions for automatic data capture and factory automation throughout the customer's entire value chain in the Retail, Manufacturing, Transportation & Logistics and Healthcare industries. The wide range of general purpose handheld readers offer a variety of choices for most data collection activities. Product sets propose corded and cordless options together with best in class reading technologies, ready to solve current and future needs and applications.

Datalogic's PowerScan industrial handheld readers are data collection's definitive example of ruggedness and durability, coupled with outstanding performance and unyielding reliability.



DATALOGIC CONNECT

Built around three key pillars — device visibility, configuration, and analytics — this IoT platform delivers powerful remote management capabilities that simplify device setup, integration, firmware updates, and ongoing optimization through real-time insights, all seamlessly performed online.

Datalogic handheld scanners and Mobile Computers product range



INDUSTRIAL HANDHELD SCANNERS



WEARABLE SCANNERS



MOBILE COMPUTERS

INDUSTRIAL HANDHELD READERS

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

POWERSCAN 9600 Standard Series

Manufacturing Shop Floor
- Work-in-Progress
- Sub-Assembly
- Component Tracking
- Quality Control
- Machine Replenishment / Configuration
- Line Inventory Control

Warehouse and Logistic Centers
- Shipping / Receiving
- Parcel Preparation
- Picking / Put Away



- Standard Range (SR), High Performance (HP) for standard / high resolution codes, Document Capture (DC) for scanning and color image capture
- Wireless Charging reducing total cost of ownership
- Modular cradle design for multiple connectivity, comprising Ethernet and industrial fieldbus
- Bluetooth and proprietary Datalogic STAR bidirectional Radio system
- High visibility OLED Display with 4-Keys / 16-Keys keypad options
- Smart batteries and diagnostics

- Imager sensor: 1280 x 800 (single camera for SR, double camera for HP and DC)
- Illumination: white LED (adjustable)
- Print Contrast Ratio (Minimum): 15%
- Scanning Resolution (Min): SR 3 mil - HP 2.5 mil
- Interfaces: RS-232 / USB / Ethernet and Industrial Protocols
- Extended Input Voltage: 5 - 30 VDC ± 5%;
- Water and Particulate Sealing Rating: IP67 and IP65; cradle IP65
- 10 million hits trigger
- Operating temp.: -20 to 50 °C / -4 to 122 °F
- Datalogic's 3GLTM (3 Green Lights) technology and loud beeper for good-read feedback

POWERSCAN 9600 DPX Series

Manufacturing Shop Floor
- Work-in-Progress
- Sub-Assembly
- Component Tracking
- Quality Control
- Line Inventory Control



- Excellent DPM reading capabilities for different marking technologies (laser etching, dot peening, inkjet printing, electrochemical etching)
- Omnidirectional reading on 1D and 2D DPM codes
- Wireless Charging reducing total cost of ownership
- Modular cradle design for multiple connectivity, comprising Ethernet and industrial fieldbus
- Bluetooth and proprietary Datalogic STAR bidirectional Radio system
- High visibility OLED Display with 4-Keys keypad option
- Smart batteries and diagnostics

- Imager sensor: 1280 x 800
- Illumination: white, red, and blue LED
- Scanning Resolution (Min): 1D codes 2 mil; 2D codes 4 mil
- Interfaces: RS-232 / USB / Ethernet and Industrial Protocols
- Extended input Voltage: 5 - 30 VDC ± 5%
- Water and Particulate Sealing Rating: IP67 and IP65; cradle IP65
- 10 million hits trigger
- Operating temp.: -20 to 50 °C / -4 to 122 °F
- Datalogic's 3GLTM (3 Green Lights) technology and loud beeper for good-read feedback

POWERSCAN 9600 RFID Series

Manufacturing Shop Floor
- Work-in-Progress
- Sub-Assembly
- Component Tracking
- Quality Control
- Machine Replenishment / Configuration
- Line Inventory Control

Warehouse and Logistic Centers
- Shipping / Receiving
- Parcel Preparation
- Picking / Put Away



- Hybrid scanner combining UHF RFID tags and barcodes reading
- Cordless device with Bluetooth connectivity
- Dual camera with color sensor option for color image capture
- High visibility OLED Display with 16-Keys keypad option
- Wireless Charging reducing total cost of ownership
- Modular cradle design for multiple connectivity, comprising Ethernet and industrial fieldbus
- Smart batteries and diagnostics

- UHF RFID reading and writing
- RFID range: up to 1m / 3.2 ft (linear)
- RFID power: up to 20dBm (configurable)
- Imager sensor: 1280 x 800 (single camera for SR, double camera with color sensor for DC)
- Scanning Resolution (Min): 3 mil
- Interfaces. RS-232 / USB / Ethernet and Industrial Protocols
- Extended Input Voltage: 5 – 30 VDC ± 5%
- Water and Particulate Sealing Rating: IP67 and IP65; cradle IP65
- Special good-read feedback based on type of item read

POWERSCAN 9600 AR Series

Warehouse and Logistic Centers
- Shipping / Receiving
- Inbound / Outbound
- Parcel Preparation
- Order Fulfillment
- Picking / Put Away

Manufacturing Shop Floor
- Intralogistics
- Work in Progress (WIP)
- Traceability
- Inventory
- Material handling



- Auto Range optics from contact up to 20+ m / 65+ ft with fast autofocus scan engine
- Sharp aiming system for indoor and outdoor applications
- Scanning capabilities even in challenging conditions (e.g. damaged barcodes or through shrink wrap)
- Bluetooth (direct pairing with host) and proprietary Datalogic STAR bidirectional Radio system
- Wireless Charging reducing total cost of ownership
- Modular cradle design for multiple connectivity, comprising Ethernet and industrial fieldbus
- High visibility OLED Display with 16-Key keypad option
- Smart batteries and diagnostics

- Imager sensor: 1280 x 800
- Aiming: 650 nm VLD
- Illumination: red LED reading light
- Scanning Resolution (Min): 1D codes 2.5 mil; 2D codes 5 mil
- Interfaces: RS-232 / USB / Ethernet and Industrial Protocols
- Extended input Voltage: 5 - 30 VDC ± 5%
- Water and Particulate Sealing Rating: IP67 and IP65; cradle IP65
- 10 million hits trigger
- Operating temperature: Corded models -30 to 50 °C / -22 to 122 °F; Cordless models -20 to 50 °C / -4 to 122 °F
- Datalogic's 3GLTM (3 Green Lights) technology and loud beeper for good-read feedback

POWERSCAN 9500 DPM

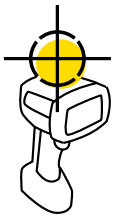
Manufacturing Shop Floor
- Work-in-Progress
- Sub-Assembly
- Component Tracking
- Quality Control
- Time and Cost Analysis
- Line Inventory Control



- Ideal for DPM Lite applications
- Omnidirectional reading on 1D and 2D DPM codes
- Bluetooth and proprietary Datalogic STAR bidirectional Radio system
- Multiple connectivity including Ethernet and Industrial Ethernet
- Superior Good Read feedbacks with 3GL technology and Green Spot
- Real time feedbacks with 4-Keys keypad option

- Imager sensor: 864 x 544
- Illumination: white LED
- Scanning Resolution (Min): 1D Codes 2.5 mil - 2D Codes 4 mil
- Interfaces: RS-232 / USB / Keyboard Wedge Multi-Interface
- Input Voltage: Corded models 5 VDC +/- 10%; Cordless models 5 - 30 VDC ± 5%
- Water and Particulate Sealing Rating: IP65
- Operating temp.: -20 to 50 °C / -4 to 122 °F

POWERSCAN 9600 DPX SERIES HIGHLIGHTS



Centre of Gravity Design

The new scanner has a well-balanced weight reducing fatigue on the operator's wrist

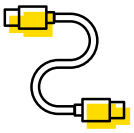
Ultra-robust Design



New ultra-robust design and top-class IP ratings. Designed to resist more than 50 drops at 2.5 m / 8.2 ft and is sealed to IP67 and IP65

Designed for Mobility

The Datalogic STAR radio is a narrow band two-way radio that allows no interference with existing systems like Wi-Fi or Bluetooth®



Connectivity

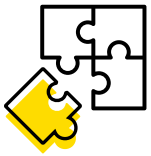
USB and RS-232 Multi-interface, Ethernet and Industrial Ethernet embedded. Easy system integration





OLED Display

New OLED display with selectable dark on white or white on dark backgrounds for better visibility



Modularity

Modular design allows interface expansion to both cordless and corded devices



Radio range high/low Speed to optimize tx speed/range

The new antenna design allows the user to reach twice the radio range with respect to the existing PowerScan 9500 series



Inductive, contactless charging technology

Battery contacts and pins often get dirty, bent, or broken. Wireless charging technology removes a key point of failure in Industrial and Retail functions

POWERSCAN 9600 DPX SERIES

PowerScan 9600 DPX Series is the industrial handheld solution for traceability of DPM and label-based codes, targeting mainly traceability applications in Automotive, Aerospace, Tires and Electronics but used also in Healthcare for medical device tracking in hospitals.

The Datalogic 4D autolearning system automatically sets up the best acquisition parameters and decoding algorithms, without the need to configure the scanner for every application.

POWERSCAN 9600 RFID SERIES HIGHLIGHTS

Adjustable power and reading mode

Choose between reading barcodes and RFID tags or read both with customizable RFID power depending on the application

Connectivity

USB and RS-232, Multi-interface, Ethernet and Industrial Ethernet embedded

Cordless device with Bluetooth connectivity

The two models are equipped with Bluetooth 5.0 connectivity for fast data and image transmission, up to 100m from the base station



Display and keypad

Display for immediate feedback of scanned items, host messages, battery level. Keypad for manual inputs

RFID and barcode reading

It reads and writes UHF RFID tags up to 1 m/3.2 ft, as well as reads barcodes with superior performance

Inductive, contactless charging technology

Wireless charging eliminates device failures rooted in charging contacts. This technology keeps workers productive and drastically reduces the Total Cost of Ownership

Modular connectivity

Exchangeable interface in the base station, with possibility to expand the system to maximize flexibility and future-proof the investment

Ultra-robust design

Designed to resist more than 50 drops at 2.5 m / 8.2 ft, sealed to IP67 and IP65, 10M-hits trigger

POWERSCAN 9600 RFID SERIES

Enables workers to capture both RFID tags and barcode data with a single trigger pull. Key benefits include enhanced productivity, reduced errors, and future-proof technology. In retail, it excels in loss prevention and simplifies the returns process; in T&L, it ensures accurate tracking; in manufacturing, it enhances durability and readability; and in healthcare, it streamlines surgical tool traceability and managing medical inventory. The series includes two cordless models with Bluetooth connectivity. One model captures RFID tags and/or barcodes, while the other adds color image capture with a dual camera system, a 16-key keypad, and a display—ideal for T&L applications requiring proof of condition.

WEARABLE SCANNERS

APPLICATIONS

CODISCAN

- **Transportation & Logistics** ~ Warehouse management: Picking, packing, sorting, put away, shipping/receiving
- **Retail** ~ Click and collect, order fulfillment, receiving, back of store warehouse management
- **Manufacturing** ~ Parts and assembly's traceability, finished goods verification, inventory management





HIGHLIGHTS

- **Productivity & accuracy:** saving 4 seconds per scan avoiding useless motions with up to 33% less errors
- **Ergonomics:** compact design & multiple mounting options for better usability
- **Easy to use:** adjustable hand trigger, mutifunctionla key, Aladdin mobile app
- **Streamline connectivity:** bluetooth 5.2 reliability, BLE + BT Classic, gateway for up to 7 device connection and wi-fi capabilities
- **Proven reliability, lower TCO and sustainability:** enterprise rugged device, washable & separable hand trigger, EOC on battery

TECHNICAL DATA

- Minimal footprint, 44 grams
- 16 hours, 12.000 scans operating time with 2 hours single charge
- Smart aiming system, green spot, high visible LEDs
- Bluetooth 5.2: autoconnection, BLE, BT classic, batch mode
- Multiple mounting options: hand, neck/belt/pocket
- Adjustable hand trigger with separable electronics from fabric
- 1000 tumbles, 1,8 mt multiple drops, IP54, 5M hits trigger
- Multiple charging options: 1-slot, 2-6 slots, 12-slots
- Modular upgradable charger: from 2 to 6-slot
- Aladdin android mobile app: easy pairing, firmware updt
- Sustainability: hand trigger disposal, recycled packaging

CODISCAN HIGHLIGHTS

SLIM, light, portable: unfold massive productivity

With a minimal footprint and a lightweight feel, the new CODiScan enables a comfortable and non-intrusive hands-free solution that allows workers to be faster improving the quality of their work.

Cutting-edge innovation to assist your worker

A complete set of good-read feedback helps the worker speed up operations:

- High visible LEDs on the device
- Datalogic's Green Spot to see the feedback directly on the scanned item
- Vibration and audio complete an advanced set of feedback notices







No downtimes to reach your targets

CODiScan runs up to 16 hours and 12,000 scans with a single 2 hour charge using different charger options.
A multi-functional key allows workers to use the same device in different mounting options and easily check the battery status, connectivity, and other custom functions.

Easy to use, easy to config, easy to dispose

CODiScan come with the Datalogic Aladdin™ software suite and can be paired to any Android™ mobile computer through the Aladdin App, allowing easy pairing, firmware updates, main parameters and symbology settings.

MOBILE COMPUTERS

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

MEMOR 12-17

- **Healthcare:** Patient admittance, patient bed care, electronic Medical Records, Laboratory management
- **Retail:** In-store operations, POS&Queue-Busting, Price checks, Assisted sales, Product Information, Gift registry, Loyalty Lookup, Shelf replenishment.
- **T&L:** Access Control Ticketing, Last mile delivery, Proof of delivery, Baggage reconciliation, Postal services



- Fast and efficient scanning for any environment with the Datalogic Halogen™ DE2121-DL scan engine + Green Spot
- Integrated wireless charging system for easier cleaning and lower maintenance costs (reduced TCO)
- Reliable, long-lasting swappable battery with SafeSwap™ and Smart Battery Management
- Strong performance and connectivity: Wi-Fi 6/6E, Bluetooth 5.3, 5G, Qualcomm 4490 platform
- Durable 6-inch FHD+ multi-touch display with Gorilla Glass 7
- Long device lifespan: Android 13–15 (upgradeable up to Android 19)
- High durability and protection: IP65/IP68 rating, resistant to drops, water, and tough conditions

- Android v13 & v15 GMS options (upgradeable to Android 19)
- Qualcomm QCx4490 Octa-core 2.4 GHz
- RAM: 6GB (on-chip) or 8GB (6GB on chip plus optional 2GB Swap Memory using flash storage as extra RAM, activated through a setting; 8GB on chip optional)
  UFS Flash Storage: 64 GB or 128 GB
- WiFi 6E Certified
- Physical Keys: 2 side scan keys; PTT; Power On/Off; Volume Up/ Down; 3 Android soft keys
- Rear Camera:13 MP / Front Camera: 8 MP
- 1.5/6ft drops (with rubber boot), 1m/3.2 ft tumbles at room temperature (with rubber boot)
- Operating Temperature: -10 to 50 °C / 14 to 122 °F ; Storage/Transport: -40 to 70 °C / -40 to 158 °F

MEMOR 30-35

- **Retail:** Assisted sales, Inventory Management, Markdowns / Markups, Shelf Replenishment, Access control / Ticketing, Hospitality: Order taking
- **Warehouse & Manufacturing:** Inbound / Outbound Logistics, Sort, Pick, and Pack, Shipping / Receiving, Production & Quality Control, Inventory Management, Track & Trace, Intralogistics
- **Transportation and Logistics:** Field Service / Maintenance, Deliveries / DSD, Route accounting / Order processing, Proof of Delivery / Damage, Workforce management



- Excellent DPM reading capabilities for different marking technologies (laser etching, dot peening, inkjet printing, electrochemical etching)
- Omnidirectional reading on 1D and 2D DPM codes
- Wireless Charging reducing total cost of ownership
- Modular cradle design for multiple connectivity, comprising Ethernet and industrial fieldbus
- Bluetooth and proprietary Datalogic STAR bidirectional Radio system
- High visibility OLED Display with 4-Keys keypad option
- Smart batteries and diagnostics

- Android v13 & v15 GMS options (upgradeable to Android 19)
- Qualcomm QCx4490 Octa-core 2.4 GHz
- RAM: 6GB or 8GB on chip, plus 2GB Swap Memory using; Flash 128GB
- WiFi 6E Certified
- Physical Keys: 2 side scan keys; PTT; Power On/Off; Volume Up/ Down; 3 Android soft keys
- Rear Camera:13 MP / Front Camera: 8 MP
- 1.8m/6.0ft drops (with rubber boot)
- Operating Temperature: -20 to 50 °C / 4 to 122 °F ; Storage/Transport: -30 to 70 °C / -22 to 158 °F

FALCON X60/X65

NEW

Retail
- Store Inventory & Replenishment
- Online Order Fulfillment
- Workforce Management

Manufacturing:
- Receiving, Inventory
- Picking and Shipping
- Quality Control & Traceability

Transportation and Logistics:
- Receiving, Putaway, Replenishment
- Forklift operations
- Truck loading/unloading
- Inventory, Returns and Baggage Management

Healthcare:
- Receiving and quality check
- Warehousing, Inventory Management



- Designed for demanding environments with high durability requirements
- Resistant to dust, dirt, moisture, and rain
- Long-range scanning with powerful XLR imager (ideal for pallets and distant labels)
- TrueAim™ Technology two-stage trigger for chirurgical precision before capture
- High performance with QC4490 platform WiFi 6/6E and 5G connectivity
- Premium solution for rugged, high-intensity warehouse and logistics operations

- Scanning capability: Standard, long, and extra-long range with Green Spot feedback
- Display: 4.3" high-visibility screen with Corning™ Gorilla™ Glass 7
- Processor: Qualcomm® 4490 octa-core, 2.4 GHz
- Memory: Up to 8 GB RAM / 128 GB Flash
- Form factors: Handheld and pistol grip, with 3 keyboard layouts
- Ruggedness: 2.4 m drop resistance, IP65/ IP68 protection rating
- Charging options: Wireless charging or contact-based (Skorpio X5 docks)
- Trigger: Dual-level trigger for enhanced barcode aiming
- Operating system: Android 15 with AER and GMS, upgradeable to Android 19

SKORPIO X40/X45

NEW

Manufacturing:
- Inventory and Quality Control
- Shipping & Receiving
- Tracking and Tracing

Retail:
- Store Inventory & Replenishment
- Online Order Fulfillment
- Price Check and Update
- Receiving Goods in Store

Transportation and Logistics:
- Receiving, Putaway, Replenishment
- Picking / Order Fulfillment and inventory

Healthcare:
- Receiving and quality check
- Warehousing, Inventory Management



- Compact and lightweight design for easy handling
- Optimized for continuous use in standard warehouse operations
- Physical keyboard with strong tactile feedback for fast, accurate data entry (even with gloves)
- Powerful performance with QC4490 platform 5G connectivity for seamless indoor and outdoor workflows
- Ergonomic design for maximum maneuverability and operator comfort

- Superior scanning performance (standard and long range) with Green Spot feedback
- Qualcomm® 4490 octa-core 2.4 GHz processor with up to 6 GB RAM / 128 GB Flash
- Fully rugged design: 1.8 m drop resistance, IP65–IP67 rating
- 5G connectivity with full outdoor capability and backward compatibility with Skorpio X5 docks
- Flexible charging options: wireless or contact-based with Skorpio X5 docks
- Handheld and pistol-grip form factors with multiple keyboard layouts
- Attach/detach handle for improved operational efficiency

FALCON X60/X65 HIGHLIGHTS

Extra-long range scanning performance

With XLR imager and Green Spot feedback for maximum accuracy in warehouse and logistics operations

Premium rugged design

Engineered for harsh industrial environments, the ultra-rugged Falcon X60/X65 is resistant to dust, water, and extreme conditions (IP65–IP68, 2.4 m drop resistance)



Advanced ergonomics and usability

Including dual form factors (handheld and pistol grip) with multi-keyboard configurations and TrueAim™ Technology precision trigger

High-performance connected platform

Powered by the Qualcomm® 4490 platform, with Wi-Fi 6/6E and 5G for high-speed connectivity. Latest Android OS (upgradeable to A19), ensuring long-term enterprise scalability

SKORPIO X40/X45 HIGHLIGHTS

Compact and ergonomic design

Optimized for agility and continuous handling in standard warehouse operations

Superior data capture and usability

Combining fast and accurate scanning performance with a highly responsive physical keyboard designed for excellent tactile feedback-even when used with gloves-ensuring efficient and error-free data entry in intensive warehouse operations



High-performance platform with 5G connectivity

Powered by Qualcomm® 4490 for seamless indoor and outdoor workflows

Flexible and rugged enterprise device

With 1.8 m drop resistance, IP65–IP67 protection, and modular handle plus charging options for operational efficiency

INSPECTION



MACHINE VISION

Machine Vision offers the widest range of smart devices for in-line automated inspection and factory automation

Smart cameras and industrial vision processors offer multiple solutions covering a wide range of performance and price point requirements.

Machine vision solutions can be used to identify parts through barcode, by reading characters (OCR), or recognizing patterns; detecting defects and locating parts; guiding robot arms; and helping control the processes of the manufacturing line.

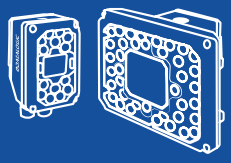
Smart cameras provide the flexibility of a full-blown vision system packed into a compact housing, thus simplifying the device integration on the machine.

Industrial vision processors and cameras offer cutting edge image processing **capabilities,** vision processors enable high-end multi camera machine vision solutions.

The easy and intuitive IMPACT configuration software is common to all smart cameras and industrial vision processors. It features over 120 inspection tools and controls to create unique inspection programs and develop user interfaces quickly and easily.

Available as standalone software or embedded in GPU-based industrial controllers, PEKAT VISION's deep learning enables highly advanced quality control that can be configured in minutes.

Datasensing machine vision product range



SMART CAMERA



INDUSTRIAL VISION PROCESSOR



INDUSTRIAL CAMERA



ACCESSORIES



DEEP-LEARNING SOFTWARE

SMART CAMERAS

APPLICATIONS

P2X

- Packaging machinery
- Robot guidance
- Electronics
- Automotive



HIGHLIGHTS

Industrial smart camera providing exceptional inspection performance in a compact housing. State-of-the-art CMOS imagers with resolutions up to 2MP deliver maximum image quality.

TECHNICAL DATA

- Imagers: WVGA and 2MP, CMOS mono or color
- Lens options: Micro-video (6, 8, 12.5 and 17.5mm) or C-Mount
- Illuminators: Red, Blue, Infrared, White (polarized versions available)
- Digital I/Os: 2 IN / 3 OUT
- Connectivity: PROFINET, EtherNet/IP, ModBus, RS232, Ethernet TCP/IP
- Rotating connectors for straight vs 90° mounting
- IP67 rated housing
- Configuration through IMPACT Software including advanced algorithms

P3X

- Electronics
- Robot guidance
- Automotive



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.

- Imagers: WVGA, 2MP and 5MP, CMOS mono or color
- Lens options: Micro-video (6, 8, 12.5 and 17.5 mm) or C-Mount
- Illuminators: Red, Blue, Infrared, White (polarized versions available)
- Digital I/Os: 2 IN / 3 OUT
- Connectivity: PROFINET, EtherNet/IP, ModBus, RS232, Ethernet TCP/IP
- Rotating connectors for straight vs 90° mounting
- IP67 rated housing
- Configuration through IMPACT Software including advanced algorithms

P3X HIGHLIGHTS

Excellent performance

- **State-of-the-art** embedded computing platform delivering high inspection rates
- **qHD (960x540), 2MP (1920x1080) and 5MP (2560x1936)** resolution models available in monochrome and color
- **Powerful integrated illuminators** to cover wide Field-Of-View even in case of long operating distances

Ease of setup and use

- **Powered by IMPACT software**, offering more than 100 different inspection tools
- **Easy-to-use** drag&drop graphical user interface not requiring any programming skill
- **Integrated 360°** configurable visual feedback
- **Embedded accelerometer** for bump or device misplacement detection
- **Built-in web server** offering Web HMI to monitor smart camera results

Industrial connectivity

- **PROFINET, Ethernet/IP and ModBus Embedded Industrial Fieldbus** protocols to avoid the need of external switches or converters
- **Ethernet TCP/IP, HTTP and serial communications**
- **Image saving on remote** host through sFTP protocol

Highest flexibility

- **Interchangeable field-replaceable illuminators** available in different sizes and colors (e.g. red, white, blue, IR)
- **Micro-video** (6, 8, 12.5 and 17.5mm) or C-Mount lens options
- **Interchangeable optical filters and front covers** to optimize image quality



Industrial strength

- **IP65/IP67** industrial grade design for harsh environments
- **Operating temperature:** -10° C to 50°C / 14° F to 122° F

INDUSTRIAL VISION PROCESSORS

APPLICATIONS

MX-E

- Electronics
- Robot Guidance
- Packaging machinery



HIGHLIGHTS

Industrial Machine Vision Processors providing the highest performance in image processing with unmatched flexibility through GigE multi-camera connectivity support.

TECHNICAL DATA

- 3 different computing power models: MX-E25 (entry level), MX-E45 (midrange), MX-E90 (high-end)
- Support from 2 to 8 independent GigE cameras simultaneously connected
- Digital I/Os: 16 IN / 16 OUT (NPN or PNP)
- Connectivity: PROFINET, EtherNet/IP,
- ModBus, RS232, Ethernet TCP/IP
- Configuration through IMPACT Software including advanced algorithms
- State-of-the-art Windows 10 IoT operating system

MX-G2000

- Automotive
- Electronics
- Pharmaceutical
- Food & Beverage



Industrial vision processor with PEKAT VISION deep learning that enables advanced machine vision applications for factory automation.
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.

- Rugged, industrial, GPU-powered vision processor
- Running both PEKAT VISION (deep learning) and IMPACT (rule-based) machine vision software
- Training and inference on the edge, no need of additional PC, Server or Cloud computing
- Compatible with a wide range of cameras from VGA up to very high resolution
- Supporting up to four Power over Ethernet (PoE) camera ports – PoE compliant cameras
- Integrated Profinet and Ethernet/IP industrial fieldbus
- 16 IN + 16 OUT software configurable digital I/Os that can work either PNP or NPN mode

MX-G2000 HIGHLIGHTS

Ultimate processing power

- **Integrated NVIDIA GPU and INTEL** 12th gen CPU
- Running both **PEKAT VISION deep learning and IMPACT** rule-based algorithms
- **Powering** up to 4 fully indipendent GigE cameras
- **16 + 16** digital configurable input and outputs
- **Large SSD** to store training images

Deep learning and rule-based combined together

- **Anomaly detection and surface inspection modules** to detect even the smallest quality defects
- **Object detection** and classification modules to identify parts
- **OCR and 1D/2D** barcode readers
- **Robust pattern** matching for robot guidance applications
- Wide set of **pre-processing algorithms** to enhance image quality and product features
- **Color tools** to analyse color information
- **Logical tools** to combine input/output data



Ready out of the box

- **All-in-one** machine vision industrial controller
- **Possibility to train deep learning on board** with no need of connection to external servers or cloud
- **Lifetime licenses** not requiring any additional subscription or recurring fee

Industrial connectivity

- **PROFINET, Ethernet/IP and ModBus Embedded Industrial Fieldbus protocols** to avoid the need of external switches or converters
- **Ethernet TCP/IP, HTTP and serial communications**
- **Image saving** on remote host through sFTP protocol

INDUSTRIAL CAMERAS

AREA SCAN CAMERAS

APPLICATIONS

- Automotive
- Electronics
- Pharmaceutical
- Food & Beverage
- Robot Guidance
- Packaging



HIGHLIGHTS

Compact GigE Vision cameras with high resolution and speed, ideal for tight spaces and advanced machine vision at a great price/ performance ratio.

TECHNICAL DATA

- VGA to 24.4MP resolution, in both grayscale and color
- CMOS image sensors for high speed performance
- Power over Ethernet (PoE) guarantees minimum wiring and easy installation
- Compact housing (as small as 29 x 29 x 60 mm) enables mounting in space-constrained locations
- High Frame rates to keep up with high speed inspections
- Trigger and strobe I/O provide outstanding integration flexibility

LINEAR-SCAN CAMERAS

- Automotive
- Electronics
- Pharmaceutical
- Food & Beverage
- Robot Guidance
- Packaging



GigE Vision line-scan cameras deliver high-resolution imaging for inspecting long objects or continuous materials. Ideal for printing machines, they ensure precise inspection of printed images on continuous webs or circular objects.

- 2K to 8K resolution in grayscale
- High quality images sensors for speed performance
- Compact housing enables mounting in space-constrained locations
- High line rate ensures images capture at rates for high speed applications

ACCESSORIES

ACCESSORIES



Wide range of illuminators, lenses, filters, mounting unit and cables for vision sensors and cameras to fit any application.

- Spot, ring, linear, backlight, dome, co-axial illuminators available with different color wavelengths
- Micro-video, C-Mount, F-Mount and telecentric lenses
- Selections of optical filters to be mounted on camera lenses

PEKAT VISION – AI SOFTWARE

PEKAT VISION – AI SOFTWARE

- Automotive
- Packaging
- Electronics

www.pekatvision.com

PEKAT VISION
BRAIN BEHIND THE EYE



A state of the art software solution for industrial visual inspection and quality assurance based on proprietary advanced deep-learning algorithms and neural networks.

- Ease of use and wide hardware compatibility
- Universal application
- Fast integration
- Anomaly detection
- Surface quality inspection
- Object detection & classification
- Text reading & verification


DATASENSING
PEKAT VISION

DETECTION


IO-Link
Nutrition
Serving Size oz.
Amount Per Serving
Calories
Total Fat
Saturated Fat
Trans Fat
Cholesterol
Sodium
Total Carbohydrate
Dietary Fiber
Sugars
Protein
250ml

SENSORS

Sensors are essential in industrial automation for detecting objects, verifying integrity and assembly, and measuring dimensions, distance, and position

Photoelectric sensors are available in various sizes and versions, enabling detection of small or fast-moving objects, transparent or reflective surfaces, colors, and fluorescent marks, as well as distance measurement

Inductive proximity sensors are designed for short-range metal detection, even in harsh environments with dust, liquids, oil, or grease

Capacitive sensors are ideal for detecting liquids and powders, including inside non-metal and opaque containers

Ultrasonic sensors are suitable for transparent objects such as plastic film, glass, and labels, with integrated distance measurement capabilities

Accessories include brackets, cables, IO-Link masters, fiber optics, and reflectors for photoelectric sensors

Applications span multiple industries, including automotive, electronics, food & beverage, pharmaceuticals, and various processing and packaging sectors

Logistics applications include automated material handling, conveyors, storage and retrieval systems, automated warehouses, and distribution centers

Datasensing sensor product range


AREA

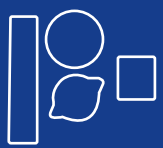

PHOTOELECTRIC


SPECIALITIES


INDUCTIVE


CAPACITIVE


ULTRASONIC


ACCESSORIES

AREA SENSORS

AREA SENSORS

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

AS1/DS1

- Processing and Packaging
- Food, Cosmetic and Pharma industries
- Electronics and mechanical assembly
- Conveyor lines and sorting systems



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

- AS1 Area Sensor for small object detection
- DS1 Light Array for small object measurement
- Minimum object detection Ø 6 mm or flat 0.2 x 75 mm
- Minimum measurement resolution 7 mm or 4 mm
- Heights ranging from 100 mm (16 beams) to 300 mm (48 beams)
- Standard distance 2 m and Long distance up to 4 m
- PNP switching output and 0-10 V analog output

BX10/BX80

- Processing and Packaging machinery
- Conveyor lines and Intralogistic
- Metal working



Compact Area Sensors. Detection of small object in the controlled area, crossed beams.

- Control heights up to 90mm
- Standard distance 2 m, models with maximum distance up to 6 m
- PNP and NPN switching outputs
- Models with syncronization by Cable
- Models with IP69K protection degree
- Models with aluminium enclose and air cooling inlet
- ATEX models 3GD

CX0/CX2

- Processing and Packaging machinery
- Automation Assembly
- General manufactoring



Slim Area Sensors, detection and measurement with crossed and parallel beams.

- Control heights from 160 mm to 960 mm
- Sensing distance up to 6 m
- Pitch 5 mm, 10 mm, 20 mm
- PNP and NPN outputs, 0-10 V and 4-20 mA analogue outputs and PNP and 0-10 V outputs
- Adjustment by teach-in via cable
- Blanking function

CR0/CR1/CR2

- Conveyour and logistic lines
- Food, cosmetic and Pharma industries
- Wood and glass industries
- Automatic machines



Retroreflective Polarized Area Sensors.

- Control heights from 69 mm to 310 mm
- Sensing distance up to 4.5 m
- Adjustment with Teach-in button
- Optical pitch 10 mm
- PNP and NPN outputs
- Blanking function

DS4

- Processing and Packaging machinery
- Food, Cosmetic, Pharmaceutical
- Wood and Glass industries
- Conveyor line and sorting systems
- Material handling and logistic automation



High resolution detection and measurement Area Sensor with Serial or Ethernet interface, configurable via IO-Link or WiFi with GUI.

- 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

THE POWER OF DS4

High-Speed Performance for Dynamic Applications

With fast response times and advanced detection capabilities, DS4 is built to handle high-speed processes with maximum accuracy and consistency.

Detect Anything, even Transparent Objects

DS4 ensures reliable detection and measurement of both opaque and transparent items, including glass and plastic.



Flexible Configuration, Seamless Integration

Thanks to IO-Link and wireless app-based programming, DS4 adapts easily to any system, offering advanced flexibility and smooth integration into existing setups.

Rugged Design for Industrial Environments

Engineered for durability, DS4 delivers reliable performance even in harsh manufacturing and intralogistics environments, ensuring long-term stability and reduced downtime.

One Sensor for Every Application

With control heights up to 3000 mm and beam pitches of 5, 10, and 25 mm, DS4 covers a wide range of applications with precision and reliability.

Fast Setup, Effortless Operation

Intuitive Wi-Fi configuration via GUI app, combined with LED-guided alignment, makes installation and setup quick, simple, and error-free.

PHOTOELECTRIC SENSORS

SMART SENSORS

APPLICATIONS

SMART-VS

- Processing and packaging
- Transport and handling lines
- Assembly lines
- Food & Beverage
- Bottling lines
- Machines for the Cosmetic and Pharmaceutical sector



HIGHLIGHTS

The smart vision sensor series enabled with A.I. and empowered by machine learning assisted setting algorithms.
Smart-VS is available as Standard and Plus models with extended features.
Simply clever solution for all your presence and orientation object detection applications.

TECHNICAL DATA

- No vision tools or special skills required
- Easy WEB server GUI for setting e monitoring
- Determinstc response time up to 20ms (Plus version)
- 50...150 mm detection distance
- 50...400 mm detection distance (Plus /Evo version)
- Easy TEACH-IN Set-up
- Automatic focus control during teach
- Anomaly detection for precise inspections (Evo version)
- Heat map to highlight the defects
- I/O method to change receipts
- Internal illuminator handling
- HTTPS and user Login

SMART-VS HIGHLIGHTS

Advanced detection performance

- **High sensitivity** CMOS sensor
- **High Immunity** to ambient light
- **No variation of response time** with changes in surrounding application conditions
- **Fast response time**
- **Sizable ROI** for precise detection
- **Multiple recipe handling**
- **Auto focus and auto exposure** features
- **High tolerance for object positioning**

Advanced features

- **Powerful** white polarized illuminator
- **RED led pointer** to help object alignment
- **Green/Red Spot** to improve detection monitoring
- **Customized Machine** Learning Algorithm
- **Three class detection**
- **Trigger assisted by machinery**

Ease of setup and use

- **First vision sensor on the market with photocell-like TEACH-IN push button**
- **No need of special vision** tool skills
- **Easy and comprehensive WEB server GUI** for a simple setting and accurate monitoring



Industrial connectivity

- **Embedded Ethernet TCP-IP** interface
- **Ethernet protocol** for remote setting, monitoring and maintenance
- **Configurable I/O interface** through WEB server GUI
- 3 configurable **PNP,NPN,PP** output types
- **2 opto-isolated input** for sensor trigger and remote teach (Plus Version)
- **2 inputs, 4 output (Evo Version)**
- **M12-8pin** connector (Evo Version)

Industrial strength

- **IP65** industrial grade design for harsh environments
- **Operating temperature:** 0 °C to 50 °C / 32 °F to 122 °F

PHOTOELECTRIC SENSOR

CYLINDRICAL SENSORS

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

S5N/S5

- Processing and Packaging
- Conveyors, material handling
- Ceramics intralogistics
- Automated warehousing



The first tubular sensor line with all optic functions and IO-Link V1.1 smart sensor profile on the market, a reference point for the Industry 4.0. Stainless steel AISI 316 L IP69K ECOLAB and Diversey models (S5N... NA...) are also available.

- Diffuse proximity up to 700 mm
- Background suppression up to 150 mm
- Contrast sensor 10 mm ±2 mm
- All the optic functions are available
- Robust EMI immunity
- Improved ambient light immunity
- M18 flat plastic with universal mounting
- Available in M18 metal housing
- Axial or radial optics, cable or connector
- Standard 4-wire NO-NC NPN or PNP output
- Complete configuration of the NPN/PNP output and L/D models (S5)
- IO-Link V1.1 COM 2 Smart sensor profile
- INOX AISI 316 L models are available
- S5N...NA compliant with Ecolab and Diversy

DM

- Packaging line
- Assembly machine



M12 Photoelectric Sensors with different models with Teach-in button for easy adjustment.

- Infrared emission
- Diffuse up to 300 mm
- Polarized 2.5 m
- Through-beam 4m
- PNP or NPN output with remote Teach-in
- Cable 2 m or M12 plug connection
- 4 wires selectable NO/NC output
- M12 metallic housing

SS/FA/FAL/FF

- Ceramic intralogistic
- Processing and Packaging
- Wood and glass industries
- Assembly machine
- Conveyor line



Wide range of models of M18, photoelectric Sensors: general porpouse, laser emission for harsh enviroments and food and beverage, ECOLAB and DIVERSY tested.

- Red, infrared and laser emission
- Models with and without adjustment
- Adjustment trimmer, teach in button and Innovative inductive Teach-in function through sensors's housing (FF)
- Diffuse up to 1.5 m
- Polarized up 4,5m and 30m (Laser)
- Through-beam up 20m and 50m (laser)
- For transparent objects up 1,5m
- Background Suppression up to 300 mm (laser emissinon 150 mm)
- Available with plastic and metal housing
- AISI316L Stainless steel housing (FF)
- IP67- IP68, IP69K (FF)
- Axial or right angle opticals
- Ecolab and Diversey certification
- M18 or smooth housing

CUBIC SENSORS | *Sub-miniature*

SM-ALL

- Processing and Packaging
- Electronics assembling
- Small appliance and vending machines



The subminiature photo-electric sensor with all universal optic functions. Precise and effective de-tection even in challenging applications for compact machineries with narrow spaces.

- Fixed focus proximity 15, 20, 30, 50 cm
- 1.5 m retroflective and 1 m polarized retroflective
- 2 m through beam models
- NPN or PNP output with NO-NC output
- 4 wires connection with 2 m Cable
- IP67 Plastic subminiature case

PHOTOELECTRIC SENSORS

CUBIC SENSORS | *Miniature*

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

S100

- Processing and Packaging
- Conveyor lines, material handling
- Automated warehousing



Universal miniature photoelectric sensor with best price on the market, standard miniature dimension and universal mounting feature for quick and easy mechanical and electrical installation.

- Through beam 12 m
- Retroreflective 7 m
- Polarized retroreflective 3 m and 5.5 m
- Diffuse proximity 30 and 50 cm
- Fixed focus 70 mm
- Background suppression 100 mm and 200 mm
- NPN or PNP output with L/D input
- 2 m cable or M8 connector version
- IP67 plastic miniature case
- M3 x 2 slotted holes on the back side
- M3 threaded holes on the front side

S3N

- Conveyor and logistic lines
- Food, cosmetic and Pharma industries
- Wood and glass industries
- General purpose
- Processing and Packaging
- Electronics assembling
- Small machinery and access control



S3N series delivers top performances in a very rugged and miniaturized standard housing. Complete solution for any detection application in any automation industry, including the fastest and most precise miniaturized contrast sensor on the market.
The series is available with trimmer adjustment and Teach-in models with complete connection output including M8 and M12 pigtail models. The S3N offers high connectivity features thanks to extended state of the art IO-Link communication.

- Bright red LED emission models
- Infrared LED emission models
- Safe red Laser class 1 emission models
- Smart BGS and clear detection functions
- Single, Double trimmer & Push Button models
- Long distance detection models
- Very fast and very precise RGB Contrast sensor up to 60kHz with 4us jitter
- Cable, M8 connector, M8 and M12 pigtail connection
- Rugged IP67 Plastic miniature case
- IO-Link with extended Smart Tasks

S3N W03

- Food, cosmetic and Pharma industries
- Processing and Packaging
- Electronics assembling



S3N-W03 is the undisputed fastest and accurate miniaturized contrast sensor on the market thanks to the 60kHZ switching frequency and the 4us very low jitter.
The shaped and bright RGB emission combines high detection accuracy with high spot visibility.
The S3N-W03 is available with a simple and easy TEACH-IN adjustment, M8-4pins connector, pigtails M12 and M8 models and dual channel IO-Link connectivity.

- 60kHz Fastest operating frequency
- 4us high detection precision lowest jitter
- Easy and comprehensive TEACH-IN setting
- 12mm Op.Distance +/-3mm depth of field
- High sensitivity dual lens optic
- Shaped and Bright RGB Emission
- 1x3mm Rectangular spot
- Very complete IO-Link parametrization
- Recipes handling through IO-Link
- Dual channel IO-Link V1.1.3 COM 2

QM

- Conveyor and logistic lines
- Food, cosmetic and Pharma industries
- Wood and glass industries
- General purpose
- Automatic machines



Wide range of models of cubic miniaturized sensors.

- Red and infrared emission
- Background Suppression up 400 mm
- Diffuse up to 1.5 m
- For transparent objects up to 4 m
- Through-beams up to 30 m
- PNP and NPN -NO/NC output
- 2 m cable, M8 4 poles connectors and pig-tails M12 and M8

PHOTOELECTRIC SENSOR

CUBIC SENSORS | *Miniature*

APPLICATIONS

QF

- Food industries
- Chemical industries
- Process application



HIGHLIGHTS

Cubic miniaturized IP68/ IP69K photoelectric sensors for harsh enviroments and food and beverage applications.

TECHNICAL DATA

- Red and infrared emission
- Diffuse up to 1 m
- Background Suppression up to 200 mm
- AISI316L Stainless steel housing
- IP67, IP68, IP69K degree
- 4 wires PNP or NPN NO + NC outputs

CUBIC SENSORS | *Compact*

S8

- Processing and Packaging
- Food and Beverage Industry
- Cosmetic and Pharmaceutical industry
- Electronics assembling



The Compact sensor format to solve difficult detection applications (i.e. target objects that are too small, too fast, too clear, too shiny).
Performance oriented family available also with AISI 316L housing models.

- Background suppression 50-300 mm, Laser 20-200 mm
- Background suppression for transparent objects with reflective background
- Polarized retroreflective 5 m, Laser 10 m, Coaxial for transparent objects 2 m
- RGB Contrast sensor 6-12 mm, 25 kHz switch. freq.
- UV Luminescence sensor 10-30 mm, 2 kHz switch. freq.
- NO-NC outputs with 2 m Cable or M8 connector
- IP 67 Plastic case and IP69K stainless steel version (ECOLAB and DIVERSEY)
- Compact dimensions (14 x 42 x 25 mm)
- Stainless Steeel AISI 316 L models ATEX 3DG

S62

- Processing and packaging
- Conveyor lines, material handling
- Automotive assembly, intra-logistic



50 x 50 Standard universal sensor with improved performance and pricing.
Wide range of optic functions in a compact industry format with stadard 50 x 50 mm housing, mounting holes, installation and wiring.

- Diffuse proximity 90 or 200 cm, Laser 90 cm
- Background suppression 30, 60, 120, 200 cm, Laser 15, 35 cm
- Retroreflex 13 m, Polarized 8 m, Laser 20 m
- Through beam 25 m
- 10-30 Vdc version with NO-NC, NPN or PNP output
- Multivoltage 24-240 Vac/24-60 Vdc with Relay output
- 2 m cable or M12 rotatable connector

CUBIC SENSORS | *Maxi*

S300-PA/PR

- End-of-line packaging, palletizers
- Outdoor or indoor gates control
- Manufacturing plants



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

- Diffuse proximity 2 m (-PA), 5 m (-PR)
- Background suppression 2 m (-PA), 2.5 m (-PR)
- Polarized retroreflex 7 m (-PA), 22 m (-PR)
- Through beam 50 m (-PA), 60 m (-PR)
- 10-30 Vdc version with NPN or PNP outputs
- Multi-voltage with Relay output and terminal block
- Configurable timing function for turnON/OFF delay
- IP67 plastic case, fiber glass reinforced
- I/O link connection
- M3 x 4 slotted holes on the back side
- M3 threaded holes on the front side

PHOTOELECTRIC SENSORS

FORK SENSORS

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

SR21/SR23

- Packaging and labeling machinery
- Print and apply systems



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

- Slot width 2 mm or 5 mm and depth 50 mm for normal label or booklet label detection
- Up to 20 µs response time and 25 kHz switching frequency
- IR LED emission for label detection on translucid reel
- Red/Green LED emission for color mark detection
- Auto-Set for Teach-in or dynamic threshold setting
- NPN and PNP outputs with M8 4-pole connector
- Compact and robust metal case with IP65 protection
- Ecolab and Diversey certification

SRF/FC5/FC6/FC7

- Packaging and labels lines
- Beverege and glass industries
- Electronic industries
- Edge detection



Optical slot sensors with high precision, for detection of objects, labels and trasparent film.

- Red, infrared and laser emission
- Wide range of models, width 2 mm up 180 mm and depth up 120 mm
- Minimum object detection up 0.05 mm (laser)
- Dynamic and static Teach-in via cable or by buttons
- NPN or PNP output with M8-4 poles
- NPN or PNP Lo/Do output with M8 3 poles

COLOR, CONTRAST & LUMINESCENCE

TL46

- Packaging and labeling
- Food & Bev., Cosmetic, Pharma industry
- Printing machinery



Very high resolution, with White, Red or RGB emissions. Extremely fast response time thanks to new low jitter model ideal for packaging machinery and mark detection synchronization-based equipment.

- Operating distance 6-12 mm (80 mm with acc. lens)
- Bright light emission with Red, White, or RGB LED
- Mark/Background automatic, manual and dynamic setting
- Contrast / Color detection mode
- Trimmer or Teach-in setting with 4 digit display version
- Very fast switching frequency 15, 20, 25, 30 or 50 kHz
- Very high precision model with less than 7 us jitter
- Extended Smart functions and diagnostic with accelerometer models
- Configurable NPN/PNP and 0-5 V analogue output
- Standard metal case with IP67 protection and IP69K

LD46

- Packaging and labeling
- Food & Bev., Cosmetic, Pharma industry
- Printing machinery



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

- High power UV light emission at 375 nm wavelength
- Operating distance 10-20, 20-40, or 30-50 mm
- Teach-in setting and manual threshold adjustment
- 5 segments bar graph for sensitivity level indication
- Fast response time 250 µs and switching freq. 2 kHz
- NPN and PNP outputs and and 0-5 V analogue output
- Standard metal case with IP67 protection
- Soiling indicator and Alarm Output.
- Sturdy metal Die-cast zinc IP67 housing

PHOTOELECTRIC SENSORS

DISTANCE MEASUREMENT

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

S67-Y

- Metal working
- Assembly lines
- Automotive industries



Class 2 laser distance sensor based on triangulation with a resolution of 10 um. S67-Y is available as long range (Y13) or Short range (Y03) with analog output.

- Operating distance 50...300 mm (Y03)
- Operating distance 100...600 mm (Y13)
- Resolution of 10 um @ 50mm. distance on white 90% remission. (Y03)
- Response time less than 0.9 ms (Y03)
- Linearity error of +/-0.03 mm @ 50 mm range. (Y03)
- Analog Voltage models with 0V-10V protected output
- Analog Current models with 4-20 mA protected output
- IP67 compact metal housing

S65-M

- Presence of all medium and large sized objects on conveyors
- Critical object detection in front of problematic background



Cost effective Long Range Background Suppressor with Time Of Flight (TOF) technology and Infrared emission in a compact and standard 50 x 50 sturdy housing. Equipped with a powerful green pointer for easy target alignment.

- Long Range background suppression detection up to 5 m
- Cost effective solution for precise and reliable detection
- Risk-free Infrared LED emission and embedded green LED pointer
- Glossy and clear object surface detection model available
- Two independent fully programmable outputs
- NPN/PNP or IO-Link connection models
- Rugged plastic housing in compact 50 x 50 x 24 mm format
- Standard M12 8-poles connector

S85

- Packaging end of line
- Paper reel unwinding control
- Automated warehousing
- Trans-elevator and crane
- Automotive assembling lines
- Non-LFT measurement in logistic



Long range distance sensor with Time Of Flight technology in diffuse mode. High resolution and accuracy available in two models up 10 m. and up to 20 m. Graphic display model available with Push button TEACH IN Adjustment in a compact sturdy metal housing.

- Time Of Flight (TOF) sensor with Red Laser emission
- Detection and measurement range up to 10 or 20 m
- 1 mm resolution/repeatability and 7 mm accuracy
- 4-20 mA or 0-10 V scalable analog output and 2 push-pull digital outputs
- RS485 serial interface
- Built-in graphic display and push buttons
- PNP switching output and 0-10 V analog output

FIBER OPTICS

S70/S7/FY

- Processing and Packaging
- Electronics assembly
- Pharmaceutical industry

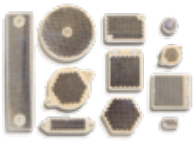


The compact and advanced fiber optic amplifier sensors with competitive price and features, double display, high speed and contrast sensitivity models are also available including IO-Link connectivity.

- Diffuse fiber optics up to 500 mm (S70)
- Through beam fiber optics up to 1800 mm (S70)
- Red or White LED emission for contrast detection
- Double 4-digit display (S70)
- 4-digit display and Teach-in or trimmer setting (S7)
- 10 bits (1024 points) or 12 bits (4096 points) resolution
- Switching Freq. 1kHz, Fast 5 kHz, Ultra-fast 10 kHz and 50 kHz
- NPN or PNP output with 2 m cable or M8 connector
- Configurable timing function for turn-ON/OFF delay
- IP67 plastic case, fiber glass reinforced
- Wide range of optical fibers

PHOTOELECTRIC SENSORS

ACCESSORIES FOR PHOTOELECTRIC SENSORS

APPLICATIONS	HIGHLIGHTS	TECHNICAL DATA
OPTIC FIBER • Beverage & Bottling • Packaging lines • Electronics 	Complete range of universal plastic and glass optic fibers for coaxial, diffuse, through-beam and area detection.	• Glass and plastic fibres • Extra-flexible versions • High-temperature versions (up to 250°C) • High-efficiency versions • Focusing, collimating and deviating lenses
REFLECTOR 	Prismatic and microcube reflectors for photoelectric sensors available in many different shapes, dimensions and efficiency.	• Self adhesive paper for polarised sensors • Plastic reflectors • Plastic reflectors with micro prism for laser sensors

SPECIALITIES

INC • Sluice gates position for water control • Automotive • Solar panel position for green energy production		M18 inclinometer sensor with AISI316L full metal stainless steel housing.	• MEMS inside • Single axis • 0...360° • Resolution: 0,025° • RS485 + analogue output
VBR • Industrial air conditioning • Escalators • Optical sorting machines • Shaft rotation • Paper & cardboard industry		M18 vibration sensor with AISI316L full metal stainless steel housing.	• MEMS inside • 3-axes • Working frequency: 0...400 Hz (VBR1) or 0...1250 Hz (VBR2) • RS485 + analogue output
FL • Washdown environment (carwash) • Logistics		Compact cylindrical photoelectric sensor through-beam high power and wide angle use in washdown environment.	• Compact cylindrical body with M18 for fixed • Through-beam: 2 models • Standard and high distance, up 30 m • Plug and play, not adjustment • Wide beam • Coded emission anti mutual interference system • IP69K on optical head

INDUCTIVE SENSORS

MINIATURE CYLINDRICAL AND CUBIC

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

AA/AB/AC/AD/AES/AHS

- Grippers.
- Electric spindle
- Rotary actuators

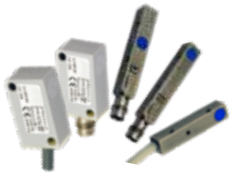


Miniaturized inductive sensors from diameter ø3 mm to M8. Where small spaces required small dimensions.

- Sensing distance from 0.6 mm (ø3) to 2 mm (M8)
- Shielded models.
- AISI303 housing.
- NPN or PNP, NO or NC
- IP67 protection degree

IL5/IL8/IL1

- Grippers
- Tobacco industry



Cubic inductive sensors: 5 x 5 mm, 8 x 8 mm (with top and centre detection head), 10 x 28 x 16 mm.

- 5 x 5 mm with sensing distance of 0.8 mm and 1.5 mm (IL5 series)
- 8 x 8 mm with sensing distance of 1.5 mm, 2 mm and 2.5 mm (IL8 series)
- 10 x 28 mm with sensing distance of 3 mm and 6 mm (IL1 series)
- NPN or PNP, NO or NC

CUBIC SENSORS

IS40

- Processing and Packaging machinery
- Assembling and conveyor lines
- Metal working and machine tools



40 x 40 mm. Versatile and flexible for various applications in the machinery thanks to the connector rotable in any direction.

- 40 x 40 x 118 mm: terminal block, 15 mm (shielded), 30 mm (unshielded).
- 40 x 40 x 66 mm: M12 plug, 15 mm (shielded)
- PNP or NPN, NO+NC.
- AC/DC, NO or NC
- Models with analogue outputs 0-20 mA: 7...20 mm (shielded)

STANDARD SENSORS

AH/AE/AM/AK/AT

- Processing and Packaging machinery
- Assembling and conveyor lines
- Metal working and machine tools



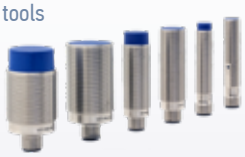
From diameter ø 6,5 mm to M30.
Reliable detection of any metal part.

- Diameters ø 6,5 mm, M8, M12, M18 and M30
- Single and double range
- Shielded or unshielded models
- NO, NC or NO+NC, NPN or PNP output and programmable versions

MULTIVOLTAGE SENSORS

V3/V*2

- Processing and Packaging machinery
- Assembling and conveyor lines
- Metal working and machine tools



AC sensors with M12, M18 and M30 housing (V*2 series). AC/DC sensors with M8, M12, M18 and M30 housing (V3 series).

- Shielded and unshielded models
- V*2 series available with standard distance
- V3 series available with enhanced distance
- V3 series models protected against short circuits in AC and DC

HIGH PERFORMANCE SENSORS

FM/PF

- Processing machines
- Metal working
- Washdown applications
- Application with increased temperature range requirements



From M8 to M30 housing. AISI316L housing full metal body (FM series). (M8-M30)
Designed for washdown applications (PF series). (M12-M18)

- Enhanced distance
- FM series: high resistance to impact on the sensors' head (up to IK10 for M30 models)
- PF series: working temperature range -40°C...+80°C and -25°C...+110°C
- ECOLAB and Diversy certifications (PF series) protection degree

CAPACITIVE SENSORS

CYLINDRICAL AND CUBIC SENSORS

APPLICATIONS		HIGHLIGHTS	TECHNICAL DATA
C12/C18/C30 • Level detection • Detection of composite materials		From M12 to M30. Detection of all types of materials: solids, liquids, powders.	• Plastic and metal housing • Sensitivity up to 25 mm • High immunity to EM noises
CQ50/CQ55 • Level detection • Detection of composite materials		CQ50: flat sensor with fixed working distance. CQ55: compact housing with sensitivity adjustment.	• CQ50: designed for civil application. NPN or PNP, NO or NC • CQ55: designed for industrial application. Enhanced immunity to EM noises

FOOD INDUSTRY

C18FT/C30FT • Liquid or powder level measurement • Bottle filling control • Bottle cap control • Detection of food presence inside package		M18 and M30 capacitive sensors suitable for applications in food and beverage and pharmaceutical industries.	• PTFE housing FDA compliant • IP69K and IP68 mechanical protection • ECOLAB certified sensors • IO-Link communication • High EMC immunity

ULTRASONIC SENSORS

CYLINDRICAL SENSORS

UK1/UK6 • Solar energy • Wood and glass • Agriculture • Zootechnics		M18 ultrasonic sensors, with both standard or short body (where application ask for a limited installation space).	• Sensing distance from 300 mm to 2200 mm • Plastic housing models and stainless steel models • PNP, NPN, Analogue (current or voltage), IO-Link outputs, double digital or mixed outputs (standard) • Adjustment via Teach-in button (standard body) or via cable (short body) • M12 plug and cable output • IP67 protection degree
UT1B/UT2F/UT5L • Level detection within tanks and silos • Agriculture		M30 ultrasonic sensors, from ø30 mm transducer to large front transducer for longer detection distances.	• Sensing distance from 3500 mm to 8000 mm • Plastic housing models and stainless steel models • PNP, NPN, Analogue (current or voltage), IO-Link outputs, double digital or mixed outputs • Models with remote Teach-in and models with the Teach-in button • M12 plug and cable output • IP67 protection degree
US18-PA/PR • Automatic machines • Assembly lines • Packaging machines		US18-PA/PR series guarantees a small blind zone providing a wide operating range, are available in two different barrel housings with discrete or analog output.	• Sensing distance 30...300 mm • Analog model resolution: 0.5 mm (SLOW mode), 1 mm (FAST mode) • M18 tubular plastic housing with axial and right angle sensing • Discrete bipolar output (1 NPN and 1 PNP) or with 4-20 mA or 0-10 V analog output • Models with remote teaching and models with the Teach-in button • M12 plug • IP67, NEMA 6-P
UFK/UFT • Food industry • Pharma industry • Chemical industry		M18 and M30 full metal ultrasonic sensors for extreme applications (food, pharma, chemical).	• Sensing distance: 400mm (UFK1A), 1000mm (UFK1B), 2500mm (UFT) • Full metal housing AISI316L stainless steel • IO-LINK or remote teach-in adjustment • PNP or Analogue (current and voltage) output • M12 plug output • IP69K protection degree • ECOLAB certification

ULTRASONIC SENSORS

CUBIC M18 SENSORS

APPLICATIONS

HIGHLIGHTS

TECHNICAL DATA

US18-PL

- Packaging machines
- Beverage & Bottling
- Automotive assembling line
- Pharma industry



US18-PL series provides a wide operating range and fast operating frequency, they are available in cubic style with M18 mounting and discrete outputs.

- Sensing distance 50...500 mm
- Repeatibility: 0.7 mm
- Cubic housing with M18 right angle mounting
- Discrete PNP or NPN output
- Models with remote teaching and models with the teach-in button
- M12 plug
- IP67, NEMA 6-P rated

UQ1

- Solar energy
- Wood and glass
- Agriculture
- Zootechnics



M18 thread + cubic housing ultrasonic sensor with both the advantages of a cylindrical and a cubic sensor for the mounting conditions.

- 300 mm to 1200 mm
- Plastic housing
- PNP, NPN, Analogue (current or voltage), IO-Link outputs, double digital or mixed outputs (standard body)
- Adjustment via Teach-in button
- M12 plug in
- IP67 protection degree

FORK SENSORS

FC8

- Packaging and labeling lines
- Detection transparent, opaque and metalic labels
- Double sheet detection



Ultrasonic slot sensors with high switching frequency to detect any type of labels opaque and transparent.

- High resolution up label 2 mm with gap 2 mm
- High swithing 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

ACCESSORIES FOR ALL TYPE OF SENSORS



MOUNTING

Mounting brackets with different shapes and materials. Optics adapters like shutters, slits, focal lenses and beam adapters.

- Brackets for cylindrical sensors
- Brackets for rectangular sensors
- Shutters, right angle beam adapters and focalizer for optical sensor



CONNECTION

M8 and M12 standard connectors and cables available with different lengths, materials, poles numbers and configuration.

- M8 and M12 with PVC or PUR cable
- M8 and M12 field attachable connectors
- IP67 and IP69K protection degree
- Models from -40°C to 105°C
- Sensor tester with digital and analogue output

PROTECTION



SAFETY AND GUIDANCE

Safety devices are mandatory for operator protection in potentially hazardous areas, plants or machinery

Safety optoelectronic devices are safety light curtains, grids, light beams and control units, used for the detection of finger, hand, arm, body, or presence detection in fixed applications.

Safety laser scanners are suitable for configurable area protection or even dynamic applications, in particular robotic cells and automated guided vehicles (AGV).

Safety accessories include cables, connection boxes brackets, IP69K protection tubes, lens shields, laser pointers, test pieces.

Manufacturing industry applications include automotive and electronics plants, especially robotic cells; food & beverage, pharmaceutical, chemical goods processing and packaging machines; any machinery used in woodworking, metalworking, textile, ceramic, glass, stones, paper, etc.

Logistics applications include automated material handling, conveyors, storage and retrieval, automated warehouses, and AGV.

Furthermore, logistics applications are integrated by Lidars for guidance and navigation, and encoders for vehicle speed measurement.

Datasensing safety and guidance product range



SAFETY LIGHT CURTAIN



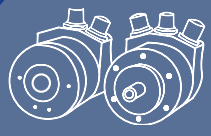
SAFETY LASER SCANNER



ACCESSORIES



LIDAR



ENCODER

SAFETY LIGHT CURTAINS

APPLICATIONS

SH4

- Automatic machinery
- Material handling
- Processing & packaging machines
- Automotive, metalworking, presses
- Palletizers
- Automatic assembly machines and lines



HIGHLIGHTS

A complete family of state-of-the-art safety light curtains, covering all resolutions and functionality levels. From basic to wireless programmable models, all needs covered.

TECHNICAL DATA

- Safety Type 4 (PI=e, SIL3)
- Resolution Finger 14 mm; Hand 30mm; Body 2, 3, 4 beams
- Zero dead zone on all finger/hand resolution models
- Controlled heights from 300 to 2250 mm (n x 150 mm)
- Operating distance: Finger 10 m; Hand 20 m; Body 70 m
- Basic models: Auto restart, alignment
- Standard models: Auto/Manual restart, EDM, 2 signals T/L muting, DIP-SW configurable
- Advanced models: Partial muting, 4-signals T muting fixed and floating Blanking, wireless diagnostic and programming

SH4 ACTIVE/PASSIVE

- Automatic machinery
- Material handling
- Processing & packaging machines
- Palletizers



Retroreflector version of SH4 series, with base, standard and advanced functionality, with only one side active, to reduce installation costs in body protection applications.

- Safety Type 4 (PI=e, SIL3)
- Resolution Body 2, 3, 4 beams
- Controlled heights: 500/800/900/1200 mm
- Operating distance: 6.5 or 8 m depending on models
- Basic models: Auto restart, alignment
- Standard models: Auto/Manual restart, EDM, 2 signals T/L muting, DIP-SW configurable
- Advanced models: Partial muting, wireless diagnostic and programming, 4-signals T muting

SH4 SAFETY LIGHT CURTAIN HIGHLIGHTS

Performant

- Improved **optical efficiency** and **alignment stability**
- **Extended operating range:** up to 10 m for 14 mm resolution, 20 m for 30 mm resolution and 70 m for 2, 3 and 4 beams models
- **Pigtail with standard M12 connectors**
- **Same profile and brackets** for **all models**
- **Standard cables**
- Entire pair in same package with brackets

Complete

- **Four different functionality levels** for any **application** and **customer preferences**
- **Finger, Hand and Body protection** all in the **same line**
- **Emitter and receiver** or **Active** and **Passive operating principle**
- **Detection zone height** up to 2250 mm
- **Zero** dead zone
- **Cascadability** up to three units

Easy to use

- **Multiple aids for alignment**: alignment mode, intensity level LEDs
- **Innovative integrated LED pointer** for **body models**
- Integrated laser pointer for **finger/hand models**

Resistant

- **Extended operating temperature range** (-30 to +55°C / -22 to 131 °F)
- **IP67** to sustain heavy cleaning
- **High resistance** to vibrations and shocks (class 3M7)

Flexible

- **Mono- and bi-directional muting** with two or four independent muting signals, for any muting application
- **Partial muting programmable** at beam level
- **New Dynamic partial muting,** for improved safety when material has different heights
- **Fixed or floating blanking,** also in combination with muting

Wireless

- **Advanced models monitor and program** without cables or interfaces
- **Smartphone, tablet or PC via Wi-Fi** for point-to-point connectivity
- **Free SH4 Designer App** available for Windows, iOS and Android



SAFETY LIGHT CURTAINS

SG2/SG4

- Automatic machinery
- Metalworking, Woodworking
- Manufacturing (textile, ceramics, etc)
- Material handling, assembly lines



HIGHLIGHTS

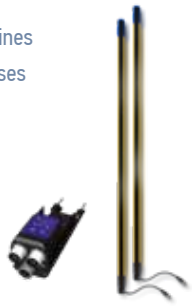
Finger and hand presence safety detection with basic functions
High reliability, easy installation and alignment, cost effective solution for simple protection needs.

TECHNICAL DATA

- Safety Type 2 (Pl=c, SIL1); Safety Type 4 (Pl=e, SIL3)
- Resolution Finger 14 mm; Hand 30mm; Pres. 50/90 mm
- Detection zone height: from 150 to 1800 mm (n x 150 mm)
- Operating distance: Finger 6 m; Hand 19 m; Pres. 9/19 m
- Auto/Manual restart; EDM; Anti-interference coding
- Easy and cost effective standard M12 5-pole connector

SG4 EXTENDED

- Processing and packaging machines
- Automotive, metalworking, presses
- Manufacturing assembly lines



Finger and hand safety detection with possibility of configuration of advanced functions through pushbuttons or Graphic User Interface. Extended flexibility that fits a diverse range of machine needs, combined with possibility of Ethernet connection for remote monitoring.

- Programmable Safety Light Curtain Type 4 (Pl=e, SIL3)
- Resolution: Finger 14 mm; Hand 30 mm
- Detection zone height: from 300 to 1800 mm (n x 150 mm)
- Operating distance: Finger 7 m; Hand 20 m
- Compact; No dead zone; up to 3 cascadable units
- Fully programmable: Auto/Man restart, EDM, coding, Muting (T/L, total/partial,
- with/without timeout, etc.)
- Fixed/floating blanking; reduced resolution function
- Ethernet Port, SG Dongle and Graphic User Interface

SG BODY REFLECTOR

- Palletizers/depalletizers
- Conveyor lines
- Automated warehousing
- Manufacturing lines



Body safety protection and perimeter access control
High reliability, easy installation and alignment, cost effectiveness.

- 35 x 40 mm standard compact profile
- 2, 3 or 4 beams for Body protection and access control
- Detection zone height: of 500, 800, 900, 1200 mm
- Long operating distance up to 50 m
- Dip-switch configuration of Auto/Man, EDM, Coding
- Muting version with L or T integrated arms and lamp
- Easy and cost effective standard M12 connectors

SLIM

- Automatic assembly machines & lines
- Primary packaging machinery
- Cutting machinery
- Automatic and semi-automatic quality inspection
- Material handling machinery



Ultra-compact safety light curtain with finger and hand resolution for applications where space saving and mechanical flexibility is a must.

- Safety Type 2 (Pl=c, SIL1); Safety Type 4 (Pl=e, SIL3)
- Resolution: 14/24/34 mm
- Detection zone height: 150, 210, 270 ... 1200 mm
- (with 30 mm steps)
- Operating distance: 0.2 ...6 m
- Outputs: 2 PNP; Output current: 0.3 A max / each output
- Mechanical protection: IP65
- Restart: Manual/Automatic
- Other functions: External Device Monitoring (EDM)

SG4-H

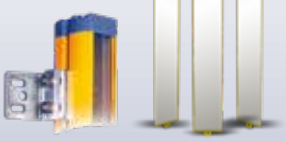
- Pharmaceutical industry
- Liquid filling machines
- Powder filling machines
- Closing and cap sealing machines



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

- Safety Type 4 (Pl=e, SIL3);
- Resolution: 14 mm
- Detection zone height:150/300/450 mm
- Operating distance: 0.2 ...6m
- Outputs: 2 PNP; Output current: 0.5 A max/each output
- Mechanical protection: IP69K
- Restart: Automatic

LIGHT CURTAINS ACCESSORIES



Wide range of interfaces and mechanical accessories for mounting and protecting light curtains. Dedicated accessories for quick installation of muting sensors.

- Relay interfaces
- Muting arms
- Floor supports and Protective stands
- Adjustable mirrors stands
- IP69K protections
- Laser pointers

SAFETY LASER SCANNERS

SLS10

APPLICATIONS

- Palletizing
- Woodworking machinery
- Laser cutting machine
- Long manufacturing lines
  Robotics cells
- High payload / fast AGV and AMR
- Forklift
- Goods stock access bay
- Car shuttle
- Long assembly lines
- Robotic cells
- Presses



HIGHLIGHTS

LASER SENTINEL SLS 10 is the innovative solution for safe area protection in a large variety of applications in automation and intralogistic industries.
It offers a complete and flexible solution for the safeguard of robotic cells, automated guided vehicles and general machinery that require a long safety range even for lower detection capabilities for body, leg, arm and hand protection.

TECHNICAL DATA

- Safety laser scanner based on Time Of Flight measurement
- Almost to 240 m2 safely monitored, with 10 m safety range over 275°
- High detection performances in compact size
- Advanced dust filtering
- Easy programming with new intuitive Graphic User Interface
- Dimensions (w,d,h): 102 , 112.5, 152 mm
- I/O connection with standard M12 cables
- Up to 3 simultaneous safety zones
- 2 Warning zones up to 40 m
- 30/40/50/60/70/150 mm selectable detection capability
- Up to 70 zone sets with 4 simultaneous detection areas each
- Partial muting
- Metal brackets allowing full orientation and fast replacement
- Advanced measurement data protocol
- Colour graphic display for monitoring and diagnostics
- Speed and positioning measurement with encoder inputs

SLS

- Processing machines
- Metal working
- Food and bevedage applications
- Automated Guided Vehicle (AGV)
- Autonomous Mobile Robot (AMR)
- Stand alone Robotic workstation



LASER SENTINEL is the innovative solution for safe area protection in a large variety of applications in automation and intralogistic industries. It offers a complete and flexible solution for the safeguard of robotic cells, automated guided vehicles and general machinery.

- Type 3 / PL d / SIL 2
- Max. distance: up to 5.5 m (safe) for 70 mm resolution
- Opening angle: 275°
- Minimum response time: 62 ms
- STANDALONE version: - pigtail with M12 connector - up to 6 switchable zone sets
- MASTER-SLAVE version: - M12 connector - rotating connectors for programming and connection to slaves- safe communication between up to 4 scanners - up to 70 switchable zone sets
- Programming, monitoring and measurement data: Ethernet
- Dimensions (w,d,h): 102 , 112.5 , 152 mm
- Auto/manual restart, EDM, partial dynamic muting, override, speed measurement, shut off
- Fast replacement

SLS PROFISAFE

- Processing machines
- Manufacturing processes protection
- Intralogistic lines protection
- Automated Guided Vehicles (AGV)
- Autonomous Mobile Robot (AMR)
- Highly integrated Robotic cells



LASER SENTINEL is the innovative solution for safe area protection in a large variety of applications in automation and intralogistic industries. It offers a complete and flexible solution for the safeguard of robotic cells, automated guided vehicles and general machinery with Profinet and Profisafe fieldbus integration

- Type 3 / PL d / SIL 2
- Max. distance: up to 5.5 m (safe) for 70 mm resolution
- Opening angle: 275°
- Minimum response time: up to 86 ms
- Switchable zone sets : up to 70
- Simultaneous safety/warning areas : Up to 8
- Programming, monitoring and measurement data: Ethernet
- Fieldbus integration :Profinet and Profisafe
- Dimensions (w,d,h): 112 x 120 x 160 mm
- Auto/manual restart, EDM, partial dynamic muting, override, shut off, dynamic reference points
- Fast replacement

LASER SCANNER ACCESSORIES



Mounting and protection brackets, together with peripheral modules and interfaces to expand the devices application range.

- Adjusting bracket
- Protective bracket
- Memory module
- Optic window
- Relay interfaces
- Window cleaning-kit

SLS10 HIGHLIGHTS

Fast Response Time

- Response time up to 84 ms for rapid system reactions
- Enables installation closer to hazardous zones
- Maintains high safety performance even in fast-changing environments
- Supports efficient machine operation

Extended Safety Coverage

- Protects up to 240 m² with a 10 m safety range and 275° scanning angle
- Wide coverage reduces the number of devices required
- Simplifies system design and installation
  Ensures maximum area protection



Smart & Intuitive Configuration

- New DL Sentinel GUI for simplified setup and monitoring
- Powered by Optimatune technology for application-specific tuning
- Real-time system visualization and control
- Reduces commissioning time and complexity

Extreme Precision

- Ultra-fine 0.059° angular resolution for outstanding detection accuracy
- High responsiveness for demanding applications
- Ideal for automatic guidance on AGV/AMR
- Ensures safe and reliable operation in high-efficiency systems

Ready for the Future

- Available in 6 models with
- Master/Remote configurations
- Encoder support for enhanced integration flexibility
- Designed for scalable system architectures
- Ready for upcoming Profinet and Profisafe integration

LIDARS AND ENCODERS

LGS-N50

APPLICATIONS

- Automated Guided Vehicles (AGV)
- Laser Guided Vehicles (LGV)
- Automated Guided Forklifts (AGF)
- Autonomous Mobile Robot (AMR)



HIGHLIGHTS

Lidar Guidance Scanner is a compact, rugged navigation Lidar based on time-of-flight (TOF) infrared laser technology for the market of Automated and Laser Guided Vehicles or Forklifts, used for intralogistics and manufacturing.

TECHNICAL DATA

- SoF technology on infrared laser
- 2D Measurement data for natural or marker navigation
- 360° measurement for all-round scanning
- Differentiation between natural objects and reflectors
- Scanning rate 10/15/20/25 Hz
- Measurement rate 60000 points/s
- Measurement range: 0.2 - 2 m with 1.8% reflectivity / 0.2 - 15 m with 10% reflectivity / 0.2 - 50 m with 80% reflectivity
- Dimensions (w,d,h): 95 x 97 x 116 mm
- Communication interface: IEEE 802.3u 100 Mbps Ethernet
- Configuration software: Any web browser (configuration through web server)

LGS-N25

- Automated Guided Vehicles (AGV)
- Automated Guided Forklifts (AGF)
- Autonomous Mobile Robot (AMR)
- Outdoor moving machine navigation access monitoring and object profiling



LGS-N25 is a miniaturized rugged navigation Lidar based on time-of-flight (TOF) infrared laser technology for the market of Automated and Laser Guided Vehicles or Forklifts, used for intralogistics, manufacturing, agriculture and work equipment

- ToF technology on infrared laser W
- 2D Measurement data for natural or marker navigation
- Available for outdoor
- 360° measurement for all-round scanning
- Scanning rate 10/15/25 Hz
- Angular resolution : up to 0,25°
- Scan Rate : up to 25 Hz
- Measurement range: 0.1 - 5 m with 2 % reflectivity / 0.1 - 10 m with 10% reflectivity / 0.1 - 25 m with 80% reflectivity
- Dimensions (w,d,h): 65 x 65 x 70 mm
- Communication interface: IEEE 802.3u 100 Mbps Ethernet
- Configuration software: Any web browser (configuration through web server)

LGS-A10

- Automated Guided Vehicles (AGV)
- Automated Guided Forklifts (AGF)
- Autonomous Mobile Robot (AMR)
- Outdoor area detection applications, access detection and object profiling detection



LGS-A10 is a miniaturized rugged collision avoidance Lidar based on time-of-flight (TOF) infrared laser technology used for the market of Automated and Laser Guided Vehicles or Forklifts, intralogistics, manufacturing, agriculture and work equipment and more.

- ToF technology on infrared laser
- 2D Measurement data for natural or marker navigation
- Available for outdoor
- 360° measurement for all-round scanning
- Scanning rate 10/15/25 Hz
- Angular resolution : up to 0,25°
- Response time: up to 40 ms
- Up to 3 simultaneous outputs
- Up to 15 different zone set
- Measurement range: 0.1 - 5 m with 2 % reflectivity / 0.1 - 10 m with > 10% reflectivity
- Dimensions (w,d,h): 65 x 65 x 70 mm
- Communication interface: IEEE 802.3u 100 Mbps Ethernet
- Configuration software: LGS-PRO User Interface

ENCODER

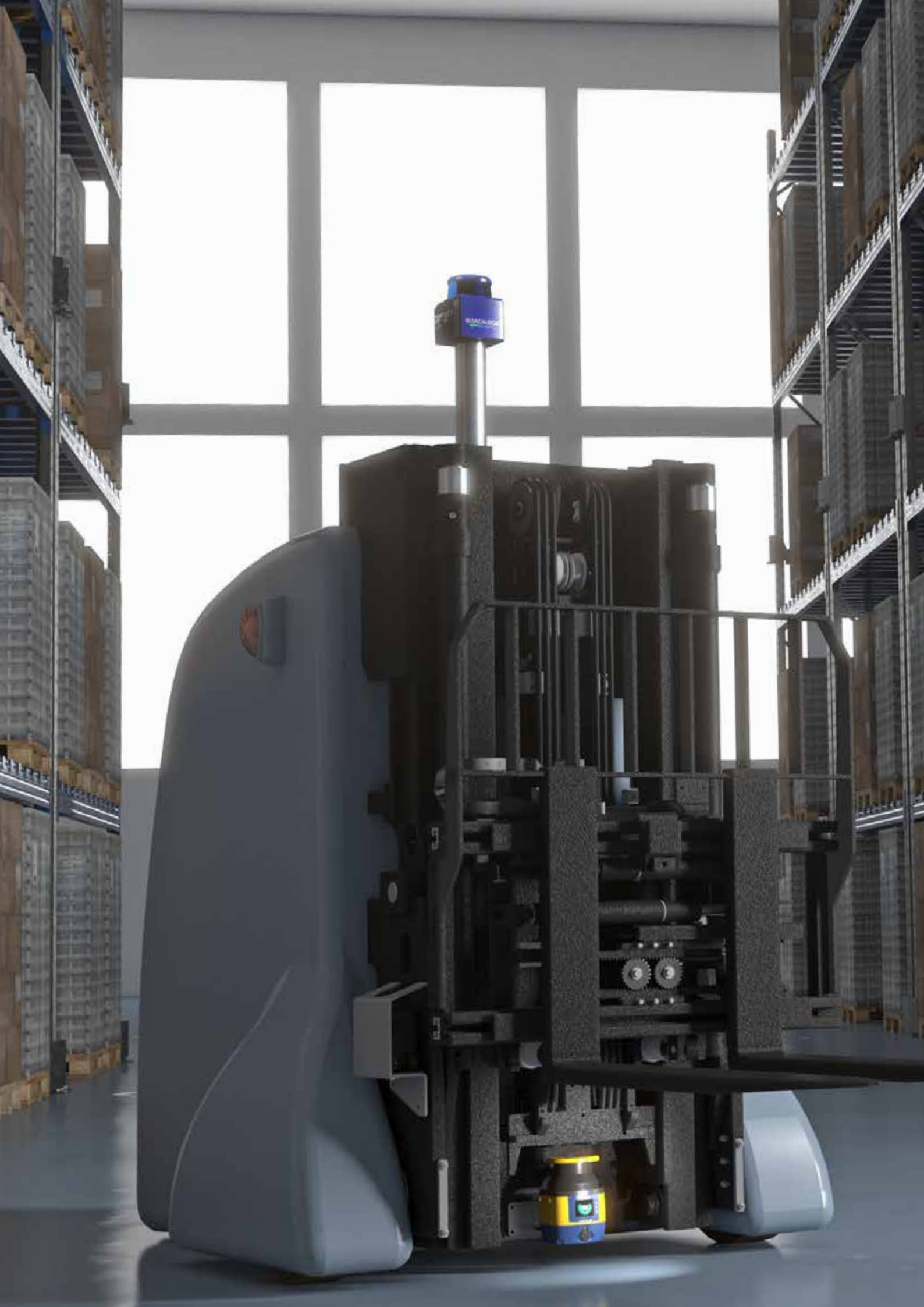
ENC

- Motion control
- Position and length measurement



Encoder standard industrial line, very effective about price/performance ratio, high resolution and accuracy. Available with integrated Fieldbus interfaces, offering the highest resolution and accuracy for precision motion control and length measurement.

- AMT multiturn absolute encoder series
- AMTX multiturn absolute integrated fieldbus encoder series
- AST absolute single turn encoder series
- ENC41 low cost and effective incremental encoder series
- ENC58 easy motion control incremental encoder series
- OEK-4 easy belt motion control
- IEP58 programmable encoder series
- MW metric wheels up to 500 mm / 10000 PPR = 0.05 mm per pulse



ROBEE







DATALOGIC & OVERSONIC

Datalogic owns a minority stake in Oversonic Robotics, the innovative software company that is a leader in cognitive computing systems for robotics. The investment is in line with the innovative and technological DNA that has always characterized the Datalogic Group. It is aimed at optimizing productivity and always ensuring worker safety.

Datalogic is committed to investing in cutting-edge industrial innovation, and supports Oversonic Robotics on R&D, Sales, and Marketing. Oversonic Robotics has developed RoBee, the first humanoid robot certified to support work in manufacturing facilities of companies with an Industry 5.0 perspective.

RoBee can easily perform tasks that could otherwise be detrimental to the health of human workers, both physically and mentally. In particular, the RoBee cognitive humanoid robot will provide added value to the manufacturing, intralogistics, and healthcare industries. It combines several technologies, including Datalogic's Safety Laser Scanner, Sensors and Machine Vision systems, to perform complex tasks.

RoBee can move and interact with operators in complete safety while monitoring the environment and ensuring that the assigned path is free of obstacles. While continuing our development in Artificial Intelligence, we are excited to support the growth of Oversonic Robotics software company, in line with our strategy of investing in Industrial Automation and offering cutting-edge solutions to our customers.

For any further information about Oversonic Robotics and RoBee you can contact Datalogic and Datasensing Sales.

ROBEE

Body

Weight: Up to 120 kg
Height: 135 – 200 cm
Footprint: 65 cm
Reach: 80 cm
Payload: 5 kg per arm
Transport: up to 50 kg with a cart
Total Degrees of Freedom: 39

Supported end effectors

Mechanical gripper
Vacuum gripper
Humanoid hand
Others

Manipulation

Accuracy: 2 mm (cognitive) | 1 mm (deterministic) | 0,5 mm (isola)
Repeatability: 0,5 mm

Navigation

Maximum speed: 1.2 m/s
Maximum slope: 8%
Differential Drive
Omnidirectional Drive
Sensors obstacle detection and safety (SIL 3)
Environment: indoor and outdoor

Opertating T range

5°C / 50°C

Remote guidance

Oculus Rift
Teach pendant

Connectivity

WiFi 6
5G ready

Self-Charging

Battery autonomy: up to 8 hours
Inductive: max 2 hours

Integrated sensors

Motor controls: power/force feedback
Navigation: 3 cameras
Vision & video streaming: 4 cameras

Audio

Speakers included
Cardioid microphone included

GDPR

Compliant

Predictive Maintenance & Data Analisys

Through OR console



Oversonic

Oversonic Robotics Srl Benefit Corporation is a software company that designs and builds cognitive computing systems, with a particular focus on robotics. The company was founded in 2020 in Besana Brianza (MB), where it has set up its technology and production center and has since expanded to two other locations: a representative office in Milan and an operational one in Rovereto (Trento), within the Polo Meccatronica of Trentino Sviluppo.

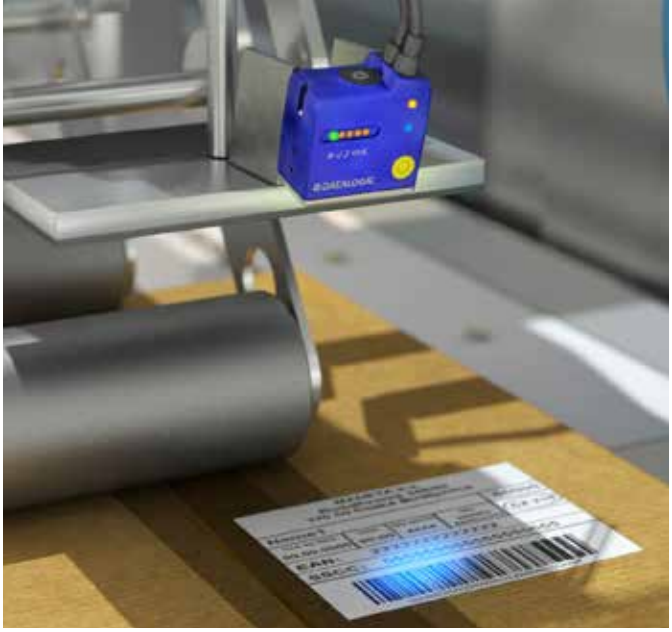
The company has a team of 65 employees, including approximately 50 computer, mechanical, and electronic engineers from different parts of the world. With an international presence, the company maintains a strong Italian identity and offers products that showcase the creativity and ingenious of Made in Italy entrepreneurship and technological know-how.

oversonicrobotics.com
info@oversonicrobotics.com

ISO 56002:2021 ISO 45001:2018 ISO 9001:2015 ISO 27001:2013 ISO 14001:2015

Direttiva macchine 2006/42/CE - D.LGS. 17/2010
EMC-EMI Compliancy
IPX4 Protection





OEM MACHINE

Clinical Lab, vials and biomedical machine

Matrix 120 is excellent for OEM machine integration and in healthcare applications like vials identification, chemical and biomedical analysis machine.

PRINT & APPLY

Label verification

Thanks to its reduced dimensions, Matrix 120 can be easily mounted directly onto label applicators and robotic arms, allowing it double check the applied label and detect errors immediately.

DATALOGIC SOLUTIONS

AUTOMOTIVE

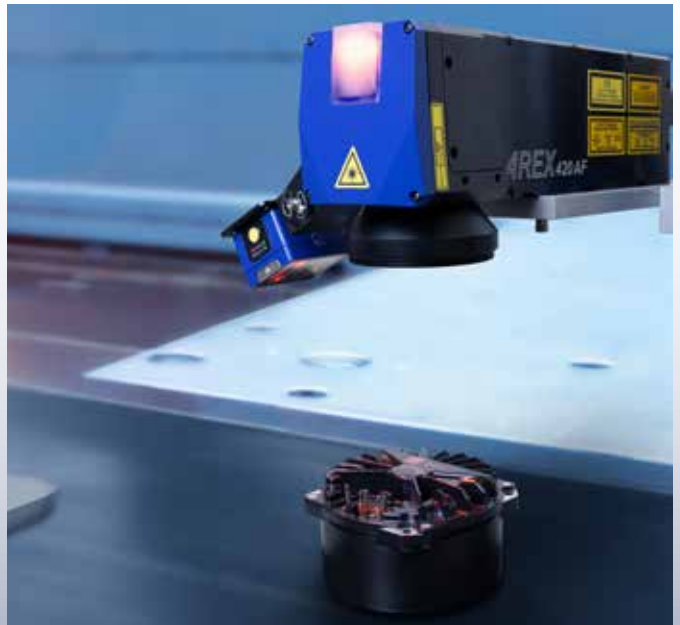
DPM code validation after marking, Parts and assembly traceability

Complete solutions for Direct Part Marking (DPM) reading, integration of laser marking systems that etch barcodes directly on parts with Matrix 220 or Matrix 320 used for DPM code/text identification and item traceability.

SHOPFLOOR AND FACTORY AUTOMATION

Work in progress control tracking and trace, high speed applications

PowerScan 9600, the most reliable range-topping handheld scanner for traceability in shop floor as well as warehouse applications, equipped with wireless charging technology drastically reducing TCO









FOOD & BEVERAGE - PHARMACEUTICAL

Primary packaging

Reading barcodes on round fastmoving objects with random orientation is a challenging task that can be solved using an array of Matrix 220 readers.

ELECTRONICS

PCB, components and parts traceability

Parts, subassembly and components are continuosly tracked by fixed readers like M220 or M320 throughout the production process

YOU DON'T HAVE TO RESTRICT YOUR POWER OF CHOICE.
WE HAVE ALL NEEDED TECHNOLOGIES.
THE BEST SOLUTIONS IS THE ONE TAILORED TO YOUR NEEDS.

TIRES

Sorting, test and inspection

STS320 the first-in-class out of the box solution for Tires Industry with outstanding reading performance > 99,9% read rates

AUTOMATED INTRALOGISTICS

End of line, tote reading, secondary packaging, automatic order fulfillment and verification

Blade is the next step beyond intralogistics traceability, to track items to guarantee integrity, user safety, and efficient management of recalls.









E-COMMERCE RETAIL LOGISTICS

Manual sorting, good to person, hands-free, manual order fullfillment

Perfect for reverse logistics, Hands-free solutions and order fulfillment, Matrix 320 series snappiness and 360 degree visual feedback make e-commerce retail logistic a profitable business.

DISTRIBUTION CENTER

Small item sortation, package traceability

Distribution centers keep products moving with high throughput and quick ROI by relying on top performant industrial barcode readers such as Matrix 930 series.

DATALOGIC SOLUTIONS

BAGGAGE IDENTIFICATION: IMAGING TECHNOLOGY

Baggage tracking & sortation application

ATR imager-based barcode readers with AV900 provide the highest level of performance even on damaged labels on luggage.

AUTOMATED SORTING

Inbound, outbound, cross docking

The core of the automated sorting process is a Datalogic Stationary Industrial Scanner like the Matrix 830-930, that can identify parcels on sorters running up to 3.2 m/s.









COMPONENT TRACKING

Component identification in manufacturing processes

In the PCB manufacturing process,component identification is crucial: a lot of barcodes need to be identified and have their data collected to ensure efficiency and product quality. PowerScan 9600 DPX is the perfect product for traceability in manufacturing environments.

PALLET PICKING

Forklift applications

The Matrix 320 on the approaching forklift efficiently reads labels containing multiple linear or 2D printed codes thanks to the extended depth of field.
The Matrix 320 inbuilt Time of Flight sensor is an invaluable new feature, enabling illumination to be activated only when the code is within reading distance.

YOU DON'T HAVE TO RESTRICT YOUR POWER OF CHOICE.
WE HAVE ALL NEEDED TECHNOLOGIES.
THE BEST SOLUTIONS IS THE ONE TAILORED TO YOUR NEEDS.

HIGH SPEED SORTING

Sorting, field mobility, outbound, parcel detection on belt

Single or multi-sided scanning tunnels with integrated Datalogic dimensioners, AV7000 linear cameras or laser scanners, identify and sort packages on high speed sorting systems.

PARCEL NON-CONVEYABLE

Mass flow detection, item tracking, imaging, dimensioning

MFDS (Mass Flow Detection System) is the all-in-one solution designed for parcel traceability of non conveyable items. Ideal for logistics hubs, the MFDS eliminates the need for manual spacing, accurately managing side-by-side or touching items. Complete tracking including barcode, dimension and image for each item runing under the tunnel. Dimensions are Legal for Trade and can be used for revenue recovery.









PACKAGING

Mark reading for packaging

Mark reading on colored and glossy films can be a complex task in packaging applications. Datasensing offers the highest performance in speed and accuracy with TL46 and the S3N-W, the most accurate and fastest miniaturized sensor on the market.

AUTOMOTIVE

Metal part position detection

Inductive sensors are used to detect the position of cams or gear wheel theeth. Thanks to their reliability and high switching frequency, AM series inductive sensors can monitor the various states and positions of a working machine.

DATALOGIC SOLUTIONS

AUTOMATED INTRALOGISTICS

Vehicle safety and autonomous navigation

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.

AUTOMATED SORTING

Object detection on conveyors

The wide variety of items that can be sorted on conveyors makes their detection extremely challenging. CR0 polarized area sensors can reliably detect any type of object, including transparent and irregular ones. With only one active unit, the CR0 can be quickly deployed in large installations.









FOOD & BEVERAGE - PHARMACEUTICAL

Level detection

UFT 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.

FOOD & BEVERAGE - PHARMACEUTICAL

Presence detection

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 any industry, such as packaging, bottling, pharmaceutical, food and beverage, and assembly lines.

YOU DON'T HAVE TO RESTRICT YOUR POWER OF CHOICE.
WE HAVE ALL NEEDED TECHNOLOGIES.
THE BEST SOLUTIONS IS THE ONE TAILORED TO YOUR NEEDS.

SHOPFLOOR AND FACTORY AUTOMATION

Machine vision for quality control and robot guidance

Machine Vision is increasingly adopted in factory automation to improve the quality, speed and flexibility of industrial machines. With its modular design, P3x is a powerful vision system packed in a compact, all-in-one smart camera housing.

PALLETIZING

Machinery safeguarding

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 adjust to the height of the material.





EASEOFCARE

Service Programs can be easily ordered at the time of product purchase guaranteeing that units are covered 'out-of-the-box', eliminating wasted time with product registration or subsequent order processing. Maintenance coverage provides you with access to Datalogic's Support Team for easy product returns. You can also use the convenient on-line RMA web service for processing and managing returns, or you can contact the Datalogic Support Desk directly. The EASEOFCARE EaseOfCare Service Programs provide you with the right choice to meet your service expectations. We have developed a portfolio of specific services per product family to meet different customer needs. If total cost of ownership is critical for expense management, you can purchase multiple years of Service Programs at very economical prices for both SIS and LM equipment. A variety of service programs are available to match your business requirements. The EaseOfCare EASEOFCARE Service Programs are managed by Datalogic, the same company that designed and manufactured your products, ensuring that you get the best service to protect your technology investment.

For Laser Marking family, the Overnight Replacement Comprehensive with Courtesy Unit program offers a replacement unit while the fault is being repaired so as to minimize business interruption and consequent loss of income. If serial number integrity is important for asset tracking, the 2-day If reduced productivity is not an issue, you have a back-up pool and can wait for a longer repair time but want immediate monetary savings, the "10-day Comprehensive programs that includes the accidental damages are the best option.
For SIS family. The Overnight Replacement Comprehensive program offers 'next business day product replacement' to minimize any downtime. If serial number integrity is important for asset tracking, the 5-day comprehensive program provides rapid repair turnaround time of the same unit and covers accidental breakage. While, the warranty extension programs, thus upgrading the embedded warranty, offer 3-Year or 5-Year coverage of factory warranty, with 5-day or 10-day turnaround time.



EASEOFBUILD: Personalized solution design and installation

We work with you to design an installation that works best for your workflow and timing. Datalogic-trained technicians carefully install, configure and commission your solution to ensure optimum performance. During and on completion of installation, we also train your staff in all aspects of system use.



EASEOFTRAIN: Maximized benefit through continued training

Ensure that your operators and onsite IT and maintenance staff are getting the most out of your Datalogic solutions with our customizable training programs. We offer a range of training opportunities: onsite, at our facilities, and at regional training events, or online.
Contact your Datalogic Authorized Reseller for details on upcoming training events and programs.



EASEOFPM: Keep equipment in top shape

Keep your equipment in top operating condition with our onsite preventative maintenance program. PM service not only increases equipment life but ensures that it always operates at peak efficiency and lowest cost. Our Datalogic-trained technicians thoroughly inspect all components, replace parts as needed, and ensure that the entire installation performs to standards.



EASEOFSUPPORT: Technical Support that fits your needs

Get help fast with our 24/7 phone support programs.
Datalogic can tailor a service-level agreement to your specific needs, with worldwide coverage, with add-ons to dispatch a technician should an issue require on-site assistance.



EASEOFCARE: Extended service plans that fit your budget

Your business is not one-size-fits-all, and neither are our equipment service plans. Our EASEOFCARE extended repair subscriptions are flexible, customizable and as responsive as your need. Four convenient offerings cover most every need; if yours are different, let's talk—we can help you with staged spares, wear-parts forwarding, and other solutions that keep your mission-critical operations working as hard as you do.



EASEOFDEV: Customized development and management

Make your Datalogic solution work its hardest for you by using our custom integration and development services. Our experienced developers and Application Engineers will customize your solution, to meet your specific needs, so your solution performs exactly the way you envision.
We work with you through your solution's lifetime to ensure continuing performance through your changing needs. When it's time to upgrade, together we evaluate how new technologies will help you get even better performance, and to ensure that new devices integrate seamlessly.



NOTES

DATALOGIC
EMPOWER YOUR VISION

DATASENSING
easing automation challenges

© 2026 Datalogic S.p.A. and/or its affiliates. • Global technology leader in the automatic data capture and factory automation markets since 1972, specialized in the designing and production of barcode readers, mobile computers, sensors for detection, measurement and safety, machine vision and laser marking systems.
Datalogic and the Datalogic logo are registered trademarks of Datalogic S.p.A. in many countries, including the U.S.A. and the E.U. Other trademarks belong to their respective owners. • 20260510 - Industrial Autom. Prd.G-ENG (01-24)-MKTG - 9C0000023

www.datalogic.com
www.datasensing.com