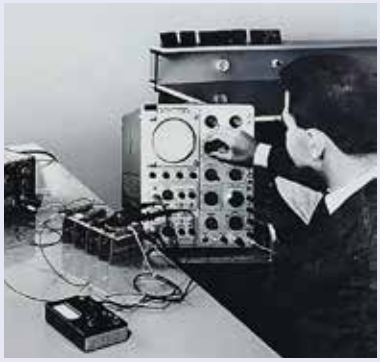
AIRPORTS

Solution Guide

DATALOGIC
EMPOWER YOUR VISION

DATALOGIC AT A GLANCE



Datalogic began its entrepreneurial adventure in 1972, when **Dr. Romano Volta** started developing and producing optical-electronic control appliances for the packaging, textile and ceramics sectors. Romano Volta sensed the revolutionary scope of the bar code and started developing a manual reader able to read it, combining electronics, mechanics, optics and information technology. In 1974 Datalogic brought this technology into the Retail world, in a supermarket in Troy, Ohio and then applied it to the whole industrial world, giving life to the only true Bar Code Company at a global level.

Today, Datalogic is a global leader in the automatic data capture and process automation markets, specialized in the design and production of bar code readers, mobile computers, sensors for detection, measurement and safety, RFID, vision and laser marking systems. Throughout the entire value chain, Datalogic solutions increase the efficiency and quality for processes in the Retail, Manufacturing, Transportation & Logistics and Healthcare industries.

45+ years
of experience

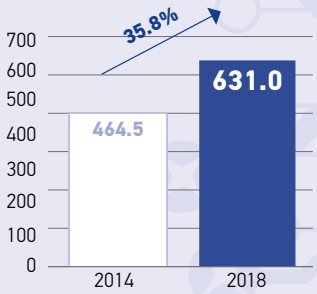
500 engineers
in 14 R&D centers in: Italy, USA, Vietnam, China, and Germany

1,200 patents
filed and more than 350 in approval

3,000+ Employees
in 27 countries:
21% Americas,
56% EMEA, 23% APAC

A constant growth

(total revenues mln Euros)



10% Revenues
invested in R&D

10 Manufacturing and Repair facilities
in US, Brazil, Hungary, Slovakia, Italy, China, Vietnam and Australia

WHY DATALOGIC

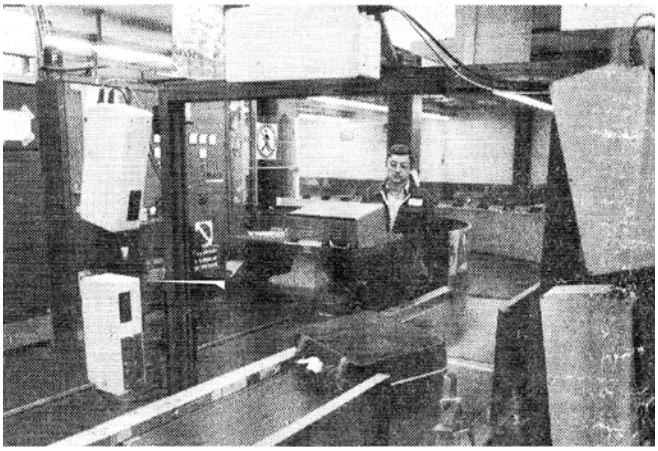
- **Unique Player** in both automatic data capture and industrial automation
- Recognized worldwide **leader**
- **Global player** expanding in different verticals
- Leading **innovator**
- Reliable products for **all needs**
- Wide range of **customizable service solutions** worldwide

PIONEERING BAGGAGE HANDLING SYSTEMS

Datalogic has been one of IATA's members, that defined the Standard Label used today in Airports (IATA Resolution 740) and has been chosen to define the Achievable Read Rate of a barcode reading system in real conditions (IATA report dated 23rd January1995).

Datalogic has always been a Baggage Handling System (BHS) pioneer: the company installed the first Automatic Reading Station for baggage handling in Europe (**Milan - Linate, 1984**). Since then, over 870 Datalogic reading systems have been installed in more than 200 airports across 5 continents (including Tokyo, Dubai, Hong Kong, Sidney, Paris, London, Kuala Lumpur, Chicago, and Atlanta), guaranteeing a fast, reliable and efficient service. Every day we work with our partners to minimize baggage loss, reduce delivery times, improve accuracy, and increase passenger satisfaction.

Datalogic remains a leader in the airport solutions market, offering breakthrough technologies from laser readers to vision systems.



PRODUCTS FOR AIRPORTS AT A GLANCE

MOBILE COMPUTERS

Smart, open, rugged palmtop or pistol-grip devices

We p
Custom
center
best

RFID

Easy to install RFID antennas without shielding

DATALOGIC SOLUTIONS FOR AIRPORTS

End-to-end traceability is one of the biggest challenge that airlines, airports and airground handlers are facing; offering a better service to their customers and increasing the passenger satisfaction.

The number of mishandled bags has been reduced year over year, but the related costs are still significant for airlines and airports. The new IATA 753 regulation requires airline members to track baggage from the bag check-in to the passenger pickup. This means airlines and airports need to upgrade their BHS systems by adding more tracking points along every step of the bag's journey.

Datalogic can help airlines and airports to cover the gaps in bag traceability by offering complete solutions meeting the new IATA standard. In addition to hand held readers for bag check-in and mobile computers for the bag reconcilization process, Datalogic offers baggage tracking solutions on automated belts using stationary industrial bar code reading technology . Not only are these solutions easy to implement, they are highly customizable to fit all material handling requirements.

ut our
er at the
offering
quality

HAND HELD SCANNERS

Industrial rate, durable build handheld barcode readers

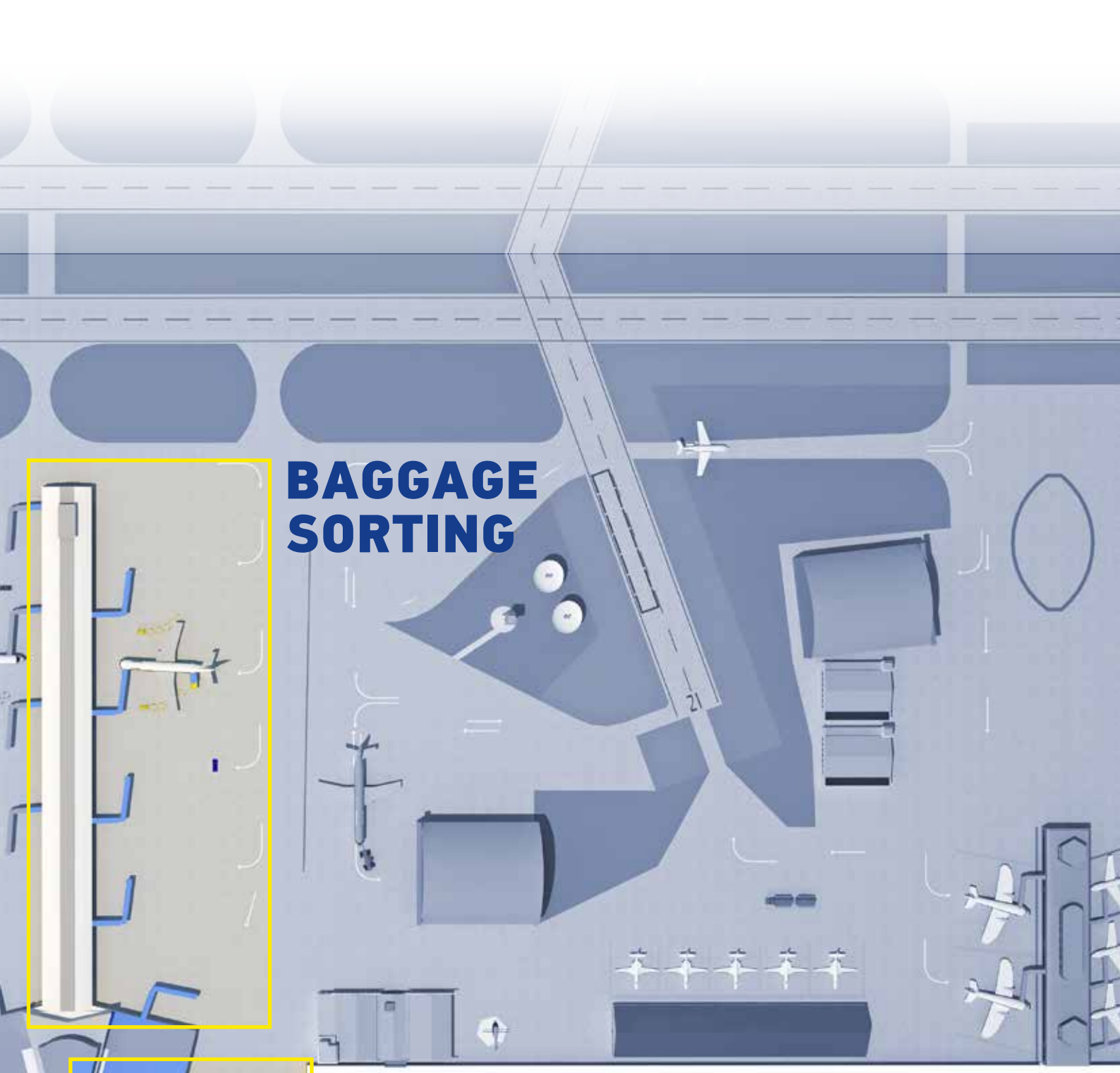
STATIONARY INDUSTRIAL SCANNERS

LASER: State-of-the-art digital laser scanner with highest depth of field

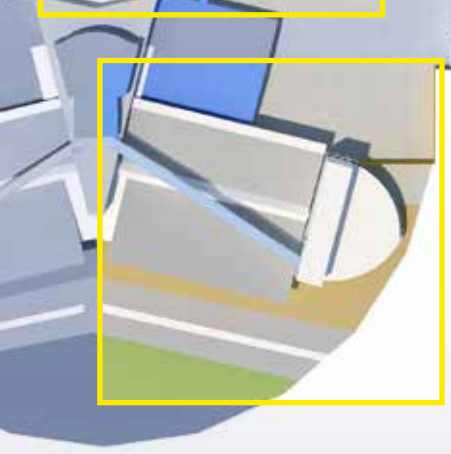
IMAGER: 5 MP camera readers, image output and highest performance on damaged codes

WHERE DATALOGIC IMPROVES AIRPORT OPERATIONS

BAGGAGE RECONCILIATION



BAGGAGE SORTING



CHECK-IN & SECURITY CONTROL

CHECK-IN & SECURITY CONTROL

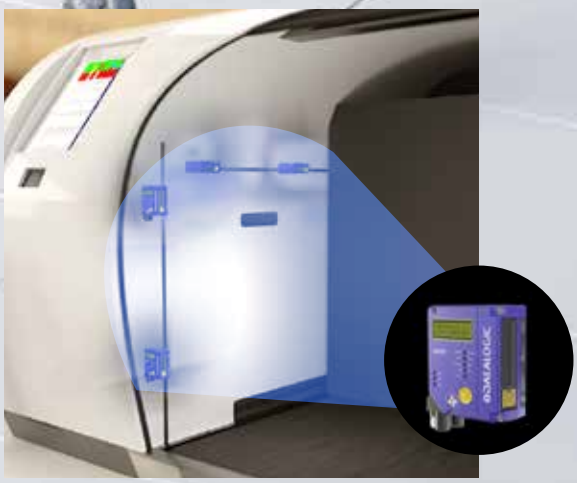
1

2

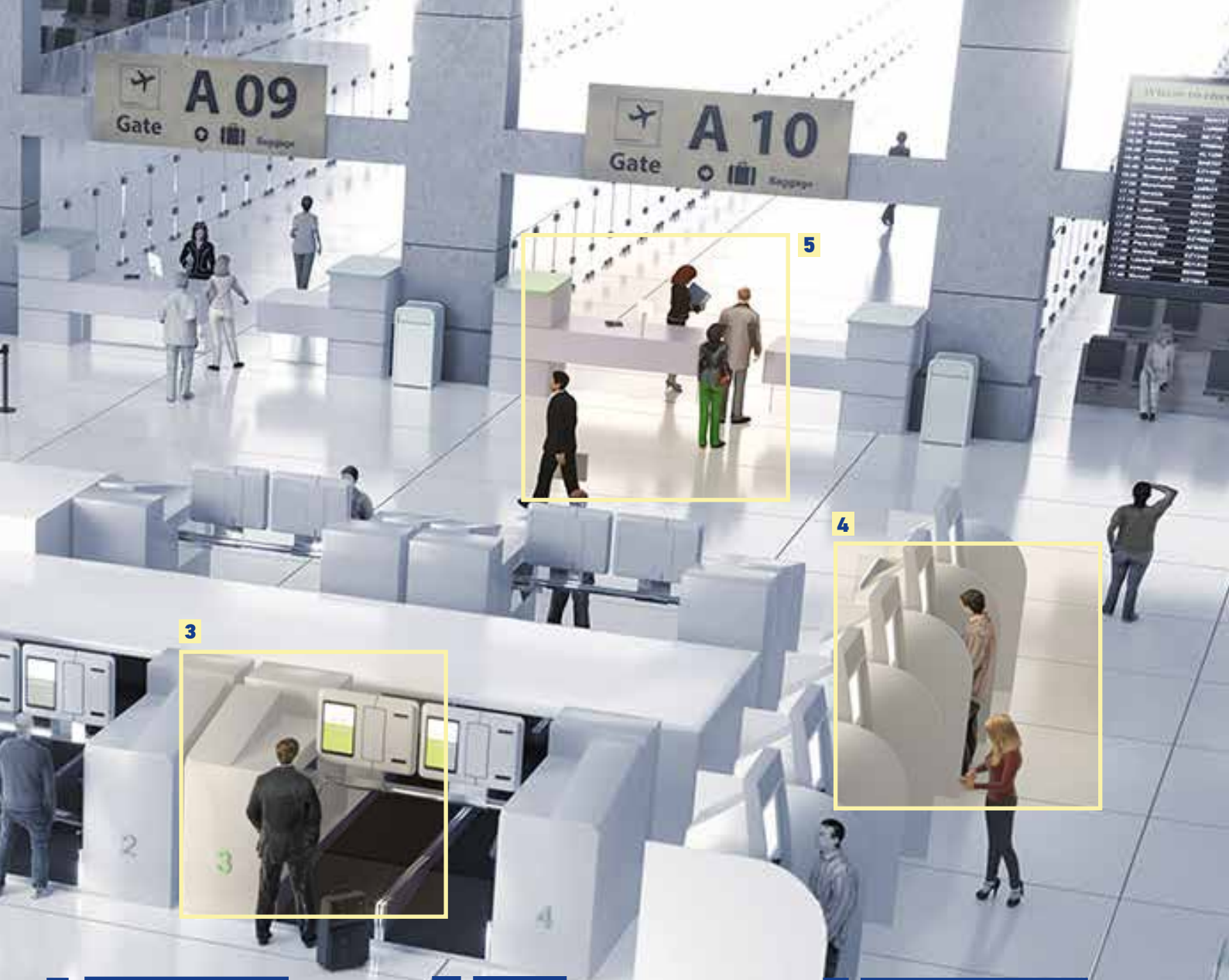
1. MANUAL CHECK-IN

Check-in is the first procedure for a passenger. At the check-in desks, the agent validates the flyers' passport, documents, tickets and then registers the luggage by applying a bar code label. Later he scans the bar code label using a Datalogic hand held reader easily integrated into the check-in desk, providing a quick and efficient scan of the luggage label. Several models with different reading technologies, connectivity, ergonomics and design be selected to meet specific needs.

2. AUTOMATIC BAG DROP



Passengers are guided to put their luggage onto a machine belt. The bar code tag on the luggage is automatically scanned by laser readers or imagers to allow acceptance into the baggage handling system.



3. SEMI AUTOMATIC SELF CHECK-IN

Several airlines have a self service kiosks to speed up the check-in and baggage drop-off process, reducing wait times.
A hand held reader is used by passengers during the self-check-in process to scan the bar code label attached to their luggage.

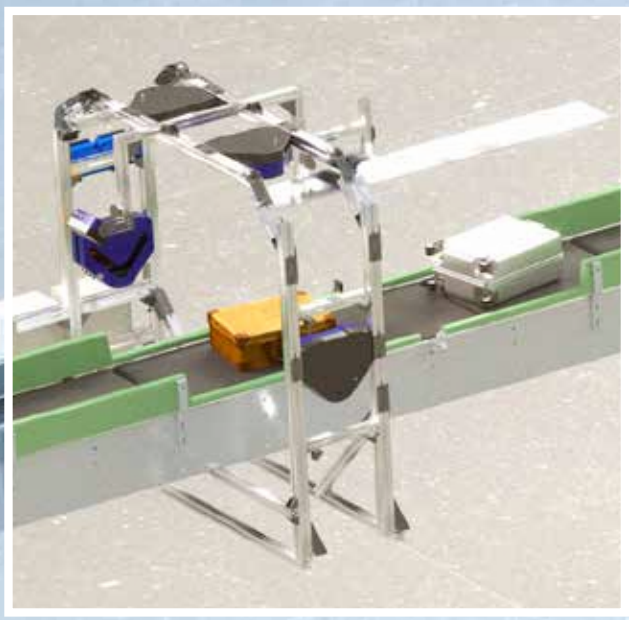
4. KIOSKS

With the use of a mobile phone, passengers can now check-in from almost anywhere. By showing the 2D code on the phone screen to the kiosk bar code reader, the boarding pass can be printed.

5. SECURITY CONTROL

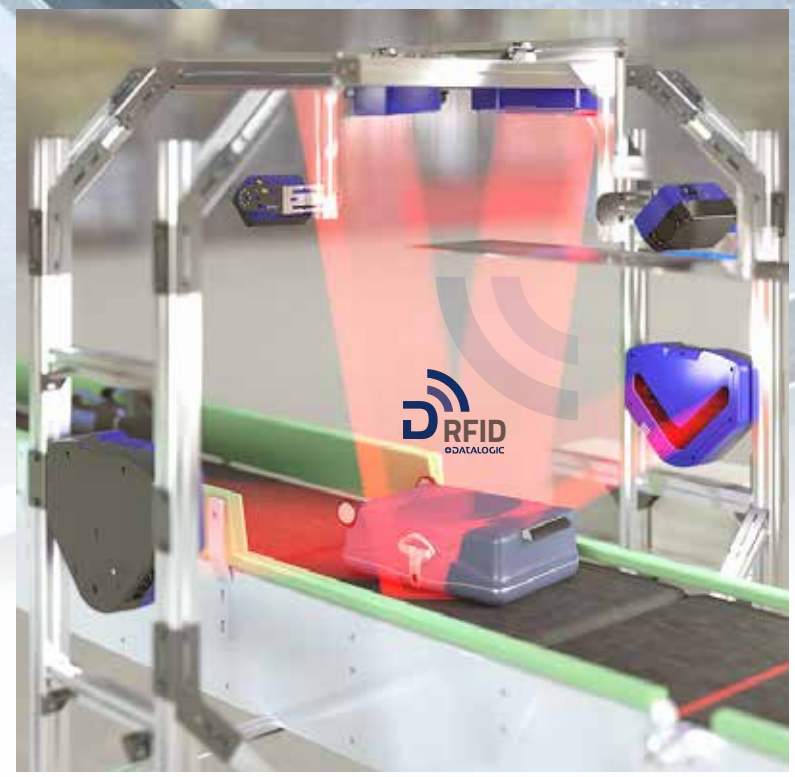
The boarding pass is manually checked using compact mobile computers during passenger transit from different airports areas.

BAGGAGE SORTING



1

1. AUTOMATIC BAGGAGE IDENTIFICATION

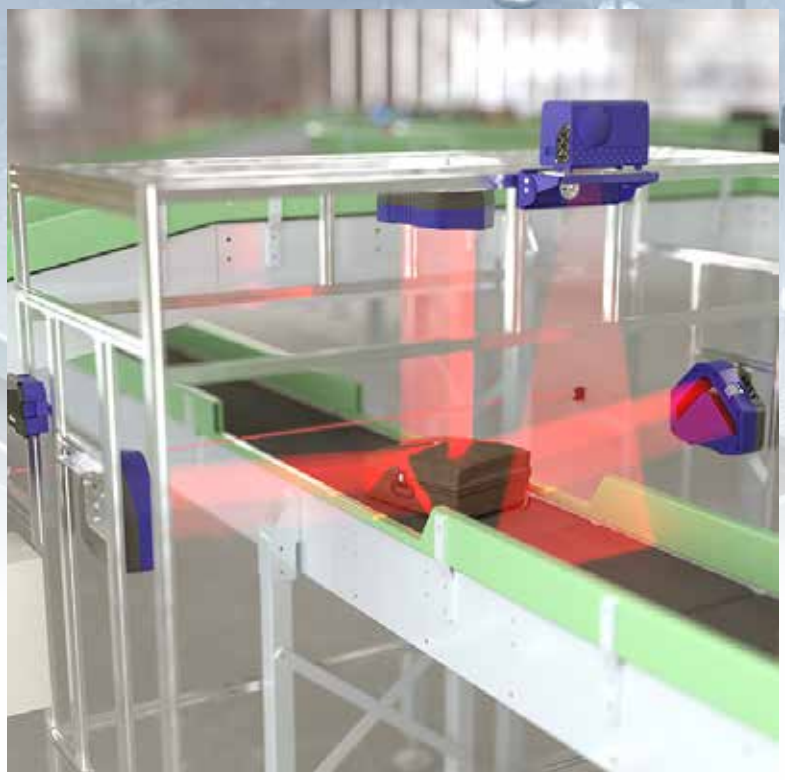


Automatic Tag Reading (ATR) systems are able to detect both Barcode label and RFID tag

- **Barcode Laser Technology**
  Barcode laser technology represents a cost-effective and reliable solution which is able to guarantee good performance especially on check-in labels.
  Reading performances are compliant with IATA 1740a recommended practice
- **RFID Technology**
  RFID technology provides highest read rate even when tag is not visible to laser view line. Optimized antenna and tracking software deliver unsurpassed performances with tag compliant to IATA1740c RFID recommended practice

2

2. BAGGAGE GAUGE



Volume Dimensioner is used to determine whether baggage should continue down the material handling system, be diverted for special handing, and to ensure the scanned baggage fits within the supported dimensions of the EDS system.

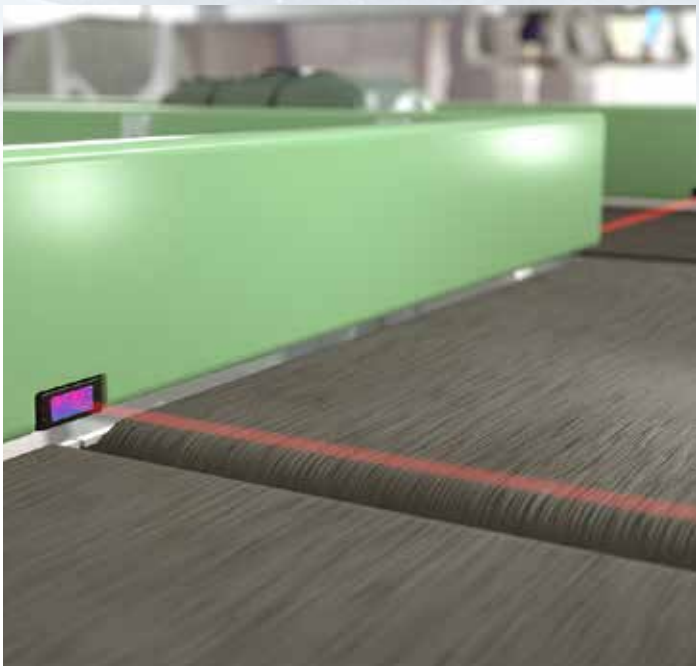
BAGGAGE SORTING

5

3. BAGGAGE IDENTIFICATION: IMAGING TECHNOLOGY

ATR imager-based barcode readers provide the highest level of performance even on damaged labels on luggage. Camera technology is capable of value added image based functionalities such as OCR and Videocoding.

4. TRACKING AND CONTROL

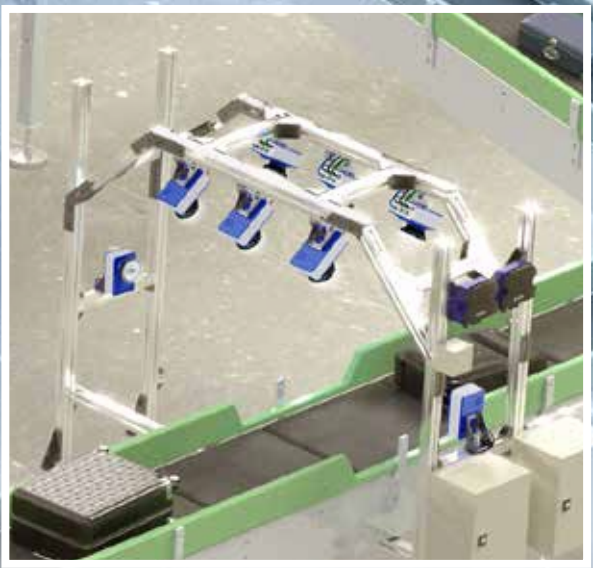


Different types of sensors such as photocells and light curtains are used in baggage handling systems for tracking, height control, and positioning. Encoders are used for conveyor speed measurement.

4

3

6



5. BAGGAGE CAPTURE

Baggage capture is an optional feature that can be added to any proposed solution. The camera will capture and save a color image into the airport's IT systems for every bag.

6. WEBSENTINEL™ PLUS

Websentinel Plus monitor and statistics package equip you control room with Datalogic's supervisor application. Systems and devices are controlled via a web interface providing performance statistics as well as warning and alerts to ensure your system is always running at its best.

BAGGAGE RECONCILIATION

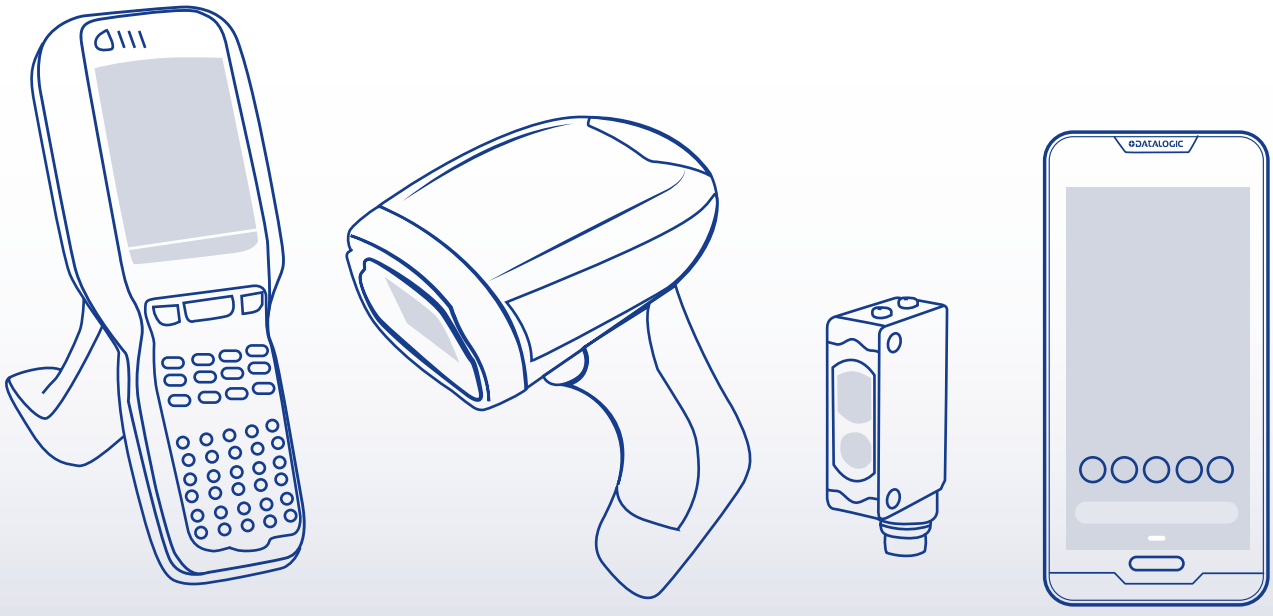
1. RECONCILIATION: HAND HELD SCANNERS

Baggage reconciliation, performed with industrial hand held readers as such as Datalogic's PowerScan imagers ensures that luggage is loaded onto the correct aircraft.

2. RECONCILIATION: MOBILE COMPUTERS

Baggage reconciliation can be executed at the baggage pick up sites using Datalogic Mobile Computers such as the Memor 10. It can also provide data on incoming and departing flights.

AIRPORTS PRODUCTS and SERVICES PORTFOLIO



MOBILE COMPUTERS

	MEMOR™ 10	MEMOR™ 20	FALCON™ X4
			
	• Wireless charging eliminates all contacts on the device and cradle • Dual band Wi-Fi including the latest 802.11ac standard and 802.11r/k for fast roaming • Full suite of cellular connectivity for voice and data, featuring LTE-Advanced/4G+	• Stunning 5.7" Full HD display in 18:9 ratio with Gorilla™ hardened glass • Superior Qualcomm Snapdragon SD660 Octa-core platform clocked at 2.2 GHz for top performance with Android™ 9 (Pie), GMS and AER • Most rugged PDA with an IP65 and IP67 sealing rating and 1.8 m / 6.0 ft repeated drops	• Choice of windows embedded or Android™ operating systems • Full-shift hot swappable battery • Choice of 1D or 2D imagers featuring Datalogic's patented 'Green Spot', plus new 2D Auto Range option
Operating System	Google Android 8.1 (Oreo) with Google Mobile Services (GMS)	Android v9.0 (Pie) GMS	Windows Embedded Compact 7 / Android v4.4
CPU, Processor	2 GHz Octa-core	Qualcomm SD660 Octa-core 2.2 GHz	TI OMAP4 @ 1 GHz
Memory: RAM / ROM	RAM: 3 GB; Flash: 32 GB	System RAM: 4 GB; eMMC Flash: 64 GB	RAM: 1 GB; Flash: 8 GB
Display	5.0 in IPS; 720 x 1280 px HD resolution	5.7" Full HD display in 18:9 ratio with Gorilla™ hardened glass Second display on top for enriched Android notifications: 0.7 inch POLED	Transflective TFT / LCD, QVGA 240 x 320 px; 3.5 in diagonal
1D/Linear Codes/2D Codes/ 2D Imager	YES		YES, including new Near/Far Auto Range capability
Wireless Charging	YES	WPC Qi EPP compliant; 15W fast charging	---
Local Wireless Radio (Wi-Fi, Bluetooth)	Bluetooth® v4.2 (Classic Bluetooth wireless technology and BLE)	Bluetooth wireless technology v5.0 (Classic Bluetooth wireless technology and BLE)	TI Wi-Link 8, IEEE 802.11 a/b/g/n; Bluetooth® v4 / BLE (Android models); Bluetooth® v2.1 + EDR (WEC7 models); MIMO
Wireless Wide Area Network (WWAN)	LTE-Advanced/4G+; Cat 6	LTE-Advanced / 4G+; CAT 9; Dual Nano SIM • EMEA and ROW Configuration: GSM: Quad band; WCDMA: B1/2/5/8; FDD_LTE: B1/3/5/7/8/20/28 • North America Configuration (AT&T and Verizon certified): GSM: Quad band; WCDMA: B1/2/4/5/8; FDD_LTE: B1/2/4/5/7/12/13/17/25/26/30; VoLTE enabled	---
Wired Communications	USB 2.0 Client	USB-C: High Speed USB 3.1 gen1 Host and Client; Gigabit Ethernet connectivity (via 3-slot dock)	RS-232; USB; Ethernet
Keypad / Keyboard Options	3 programmable keys	Physical Keys: 2 side scan keys; Power On/Off; Volume Up/ Down; 3 Android soft keys; Fingerprint sensor	29-Key (also in functional version); 52-Key
Camera	X13 MP color	Rear Camera: Resolution: 13 megapixel; Illumination: User controllable LED flash; Lens: Auto focus Front Camera: Resolution: 8 megapixel; Fixed focus	---
Voice Capability	VoiP	Advanced cellular connectivity for voice and data, featuring LTE and Dual SIM	---
IP Rating	IP65	IP65 and IP67	IP65
Drop to Concrete	1.5m / 5ft	1.8 m / 6.0 ft	1.8 m / 6.0 ft
Operating Temperature	-20 to 50 °C [-4 to 122 °F]		
Weight	285.0 g / 10.0 oz	With Battery: 295 g / 10.4 oz	Hand held: 602.0 g / 21.4 oz Pistol grip: 668.0 g / 23.6 oz

HAND HELD SCANNERS

	POWERSCAN™	GRYPHON™ 4500	RIDA
			
	• Different reading technologies to fit all applications • Example of ruggedness and durability • Datalogic's STAR Cordless System 2.0 proprietary narrow band radio • 3-second battery replacement	• Ultimate design and undisputed ergonomics • High-res megapixel sensor for outstanding results • Wireless charging (no need for contact cleaning or maintenance procedures) • Powerful long lasting battery easy replaceable	• Small, ergonomic, perfectly hand-fitted • Innovative, unique and compact design for a new and modern operator's experience • Compatible with Android, Apple iOS and Windows Mobile devices • Vibration and good read feedback
Reading technology	Linear Imager, Laser, Area imager	Area Imager	
Reading range	Instinctive / Distance Auto Range DPM Models: Contact / Instinctive	Distance	Instinctive
Aiming system	Laser line, 4-Dot/Center Cross Aimer, Frame Aimer/Center Cross	4-Dot/Center Cross Aimer	4-Dot Aimer
Wide scan angle	Yes (95XX model)	---	---
Bar codes	1D and 2D	1D, 2D and Dotcode	1D and 2D
Direct Part Marked (DPM) codes	DPM Model		---
Image capture	YES		
Reads from smartphone or screen displays	YES		
Datalogic's 'green spot' technology	YES		
IP rating	IP65	IP52	
Drop to concrete	2.0 m / 6.6 ft	1.8 m / 5.9 ft	1.5 m / 5.0 ft
Factory warranty	3 Years	GD4500: 5 Years; GBT4500, GM4500: 3 Years	3 Years
Wireless technology (Star / Bluetooth®)	Bluetooth® 3.0 STAR: 433 or 910 MHz	Bluetooth® 4.0 STAR: 433 or 910 MHz	Bluetooth® 4.0
Wireless range - travel distance from base	BT: Up to 100 m / 328 ft 433: Up to 100 m / 328 ft 910: Up to 400 m / 1,312 ft	BT: Up to 100 m / 328 ft STAR: Up to 50 m / 164 ft	25.0 m / 82.0 ft
Display / keypad for 2-way communication	PM9100, PM93XX AR, PM9500	---	
Batch mode capability	YES		
Battery type	Li-Ion 2150 mAh	Li-Ion 3250 mAh	Li-Ion 700 mAh
Battery life - Scans between charge	60,000 +	GBT: 80,000 + / GM: 60,000 +	---

DIMENSIONERS

	DM3610-1 Head System	DM3610 -2 Head System
		
	The DM3610 is an ultra-high performance, in-motion, overhead dimensioning unit that automatically measures the length, width, and height of packages as they are transported on a conveyor. The DM3610 is certified in legal-for-trade applications and performs highly accurate measurements, making it perfect solution for spatial management applications.	
Material flow	singulated, cuboidal, gap >=20 mm (.08")	singulated, irregular, gap >=25 mm (1")
Dimensioning accuracy (ntep, oiml)	± 0.2" for length and width and ± 0.1" for height ± 5 mm for length, width and height	± 0.2" for length and width and ± 0.1" for height ± 5 mm for length, width and height
Max conveyor speed	up to 3.1m/s	up to 3.1m/s
Case material	Aluminum	Aluminum
Max parcel dimensions	2500 x 1200 x 900 mm (98 x 48 x36 in)	2500 x 1600 x 1000 mm (98 x 63 x 40 in)
Weight	5.5 kg (12.13 lb)	5.5 kg (12.13 lb)
Overall dimensions (typical value)	259 x 152 x 175mm (11 x 6 x 6.9 in)	260 x 152 x 175mm (11 x 6 x 6.9 in)
Mounting dimensions (typical value)	340 x 182 x 281mm (13.39 x 7.15 x 11.07 in)	341 x 182 x 281mm (13.39 x 7.15 x 11.07 in)
Temperature range	-10°C - 50 °C (14 - 122 °F)	-10°C - 50 °C (14 - 122 °F)
Voltage supply/power consumption	24 VDC; 19 -75 W	25 VDC; 19 -75 W
Ip rating	IP65	IP65
Embedded communication interfaces	Ethernet (TCP/IP), RS232 / RS422	Ethernet (TCP/IP), RS232 / RS423
Digital inputs/outputs	(1) Tachometer, (1) Trigger, (2) SW programmable general purpose	(1) Tachometer, (1) Trigger, (2) SW programmable general purpose
Options	Side-by-side package detection, irregulars, out-of-gauge detection	Side-by-side package detection, irregulars, out-of-gauge detection
Compliances	UL, cUL, FCC (Class A) CE	UL, cUL, FCC (Class A) CE
Ethernet	X	X
Certification	NCWM/NTEP Certified, OIML/MID, Measurement Canada	NCWM/NTEP Certified, OIML/MID, Measurement Canada
Device programming	On board HTML web server interface	On board HTML web server interface

WEBSENTINEL PLUS

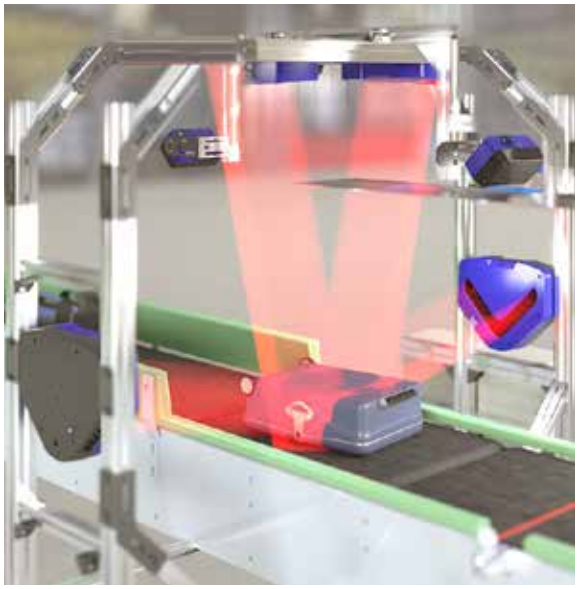
	WEBSENTINEL PLUS
	 • Very advanced monitor • Offers key features, benefits, and insights to end-users and System Integrators specializing in Factory Automation and Transportation and Logistics.
Retail	X
Transportation & Logistics	X
Operating System	Windows 7 - 10, Linux
Processor	Intel Core i3, 2.1 GHz or equivalent processor
Web Browsers	Internet Explorer 10 (or later), Chrome 36 (or later), Firefox 30 (or later)
Java	Version 7 (or later)
Memory: RAM	8 GB RAM
Software installation	USB 2.0 port

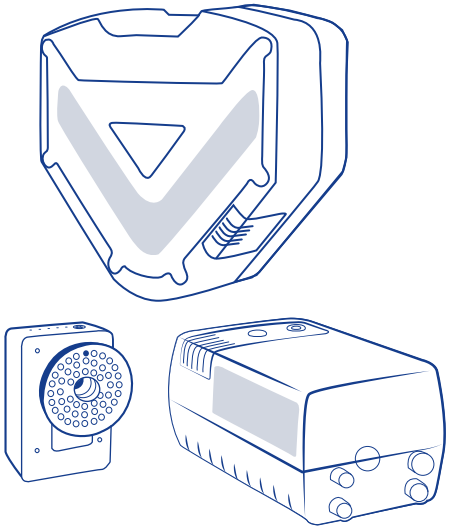
AUTOMATIC TAG READER SOLUTIONS

Datalogic s' Automatic Tag Reader (ATR) is the high performance solution in baggage tracking & sortation applications. It responds to the key needs of challenging airport applications asking for excellent throughput, reliability and simple maintenance.

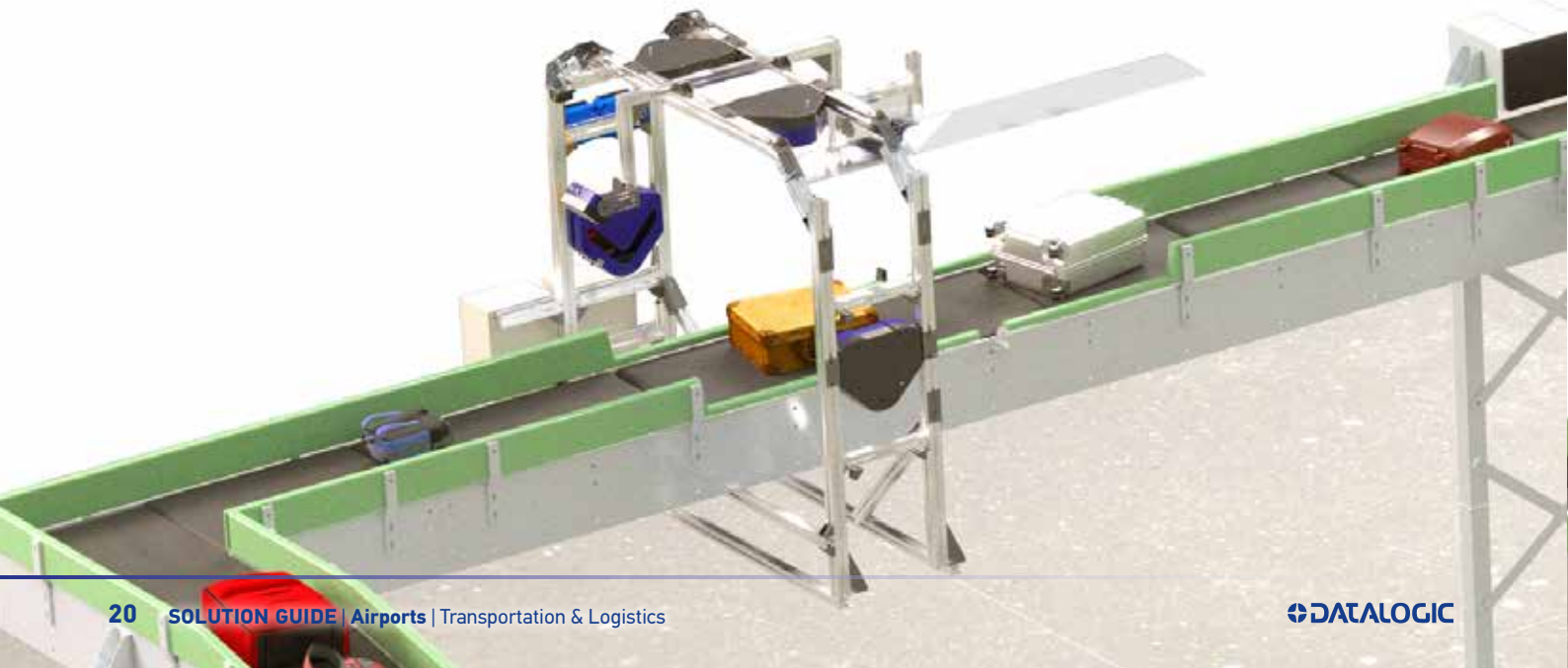
Datalogic ATR offers the simplicity of a standard solution in conjunction with very high performance thanks to the use of best in class barcode readers. Continuous uninterrupted operation is provided through the Datalogic Redundant System (REDS). REDS promptly reacts to any system failure, automatically enabling the backup hardware.

All the products are designed to minimize maintenance activities on site and to allow, in case of failure, a complete automatic backup, without any external interaction. Moreover, complete system remote surveillance and control is guaranteed by Datalogic WebSentinel™, a software application that continuously monitors the reading arrays and, upon the occurrence of faulty conditions, immediately notifies the event, even by e-mail.





- Highest barcode reading performance through multiple technologies
- Highest reliability
- Modular solution meeting different needs and conditions
- 100% redundant system, completely fault tollerant
- Auto-diagnosis, e-mail error notifications
- Designed for an easy and rapid installation
- Easy to maintain and upgrade
- Zero downtime solution
- Full remote control



Laser+Imaging+RFID: the best Identification toolset

Datalogic ATR Solution exploit three available Identification technologies, all in compliance with IATA recommended practices.

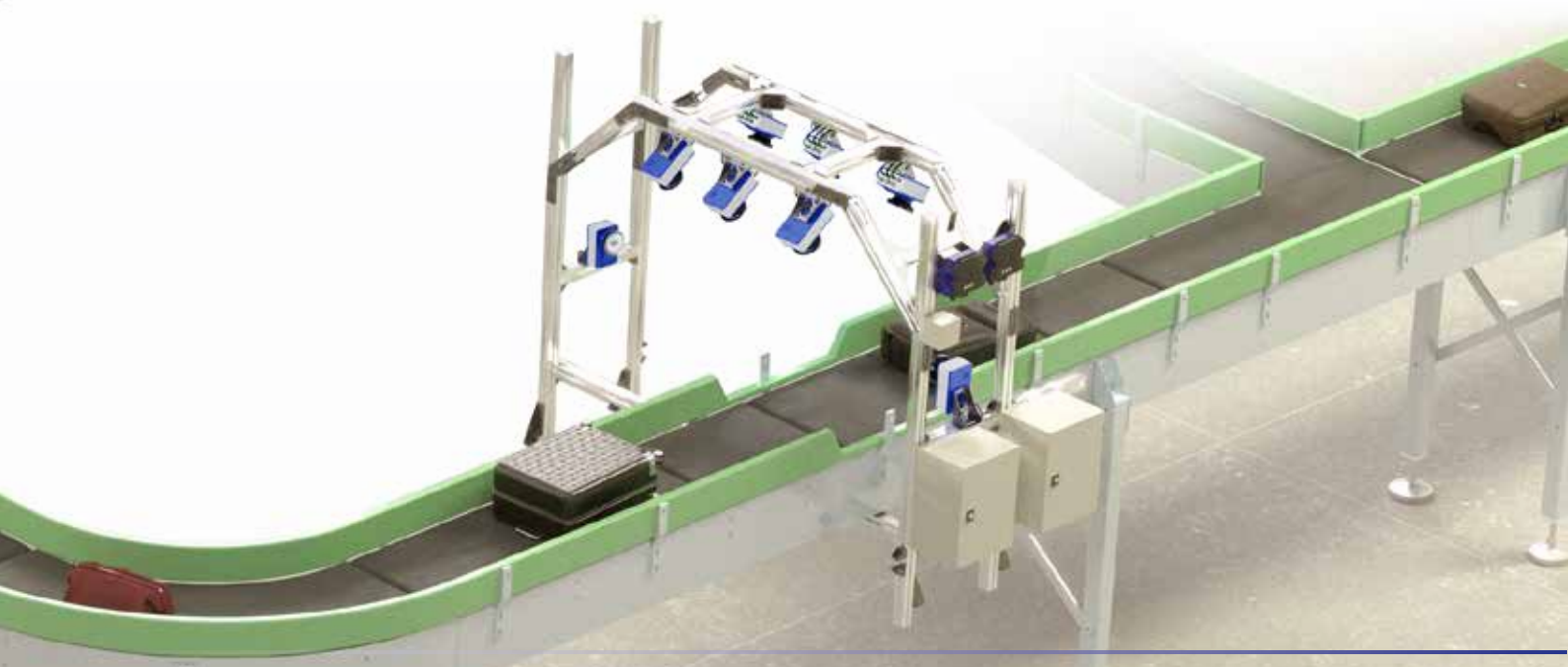
You can select among our BHS Solutions (Laser or Imaging or hybrid) the best match for your printed label reading application.

BHS RFID KIT can be optionally added on top of any BHS Solutions when RFID tag is present.

Part Number	Description	Barcode	RFID	Imaging
932402795	270° L-Label _BHS-4500 AIR LIN-CODE 5-SIDE TILT TRAY - Standard	X		
932402792	270° T-Label _BHS-3500 AIR T-CODE 5-SIDE TILT TRAY - Standard	X		
932402796	360° L-Label _BHS-4610 AIR LIN-CODE 6-SIDE BELT CONV - Standard	X		
932402797	360° L-Label _BHS-4611 AIR LIN-CODE 6-SIDE BELT CO.PBS - Profibus	X		
932402802	360° L-Label _BHS-4612 AIR LIN-CODE 6-SIDE BELT CO.PNT - Profinet	X		
932402793	360° T-Label _BHS-3610 AIR T-CODE 6-SIDE BELT CONV - Standard	X		
932402794	360° T-Label _BHS-3611 AIR T-CODE 6-SIDE BELT PROFIBUS - Profibus	X		
932400016	270° Full Imager BHS-5510 5-SIDE BELT - Standard	X		X
932400017	360° Full Imager BHS-5610 6-SIDE BELT - Standard	X		X
932400018	360° Hybrid BHS-6610 6-SIDE Laser-Bottom BELT - Standard	X		X
932400011	BHS RFID KIT (1000 mm Belt Width) 1		X	
932400012	BHS RFID KIT (1200 mm Belt Width) 1		X	
932400010	BHS RFID KIT (800 mm Belt Width) 1		X	
932400013	BHS RFID KIT TAG COLLECT 1,2		X	

1 - Optional Kits to be added to BHS solution to read RFID TAG

2 - This version is performing Tag readign without assigning it to exact Baggage (not for Sorting application)



ATR SOLUTIONS

	IMAGER STATION	LASER STATION	
	AV500	DS8110/DX8210	DS5100
			
	• High performance 5MPx camera with integrated image processing system • Image saving to external locations through the dedicated high speed Gigabit Ethernet port • Variable focus (Dynamic mode) • White and Red lighting options	• Ethernet Bus Connections (EBC) for high speed data transmission and real time synchronization • Excellent performance on low quality code and unpredictable reading conditions • Fully redundant configuration and no single point of failure	• Medium, Long Range, Linear and Oscillating Mirror models, selectable focus for high application flexibility • Selectable focus system • Display and multi-language messages
Reading range	300-3000 mm (11.81 - 118.11 in)	**DS8110:** 500-1900 mm (20-75 in) **DX8210:** 600-1850 mm (23-72 in)	Medium range: 200 - 1000 mm [7.87 - 39.3 in] Long Range: 300 - 1400 mm [11.8 - 55.11 in]
Focusing system	Adjustable Focus	2 laser with near and long DOF distance	Mechanically adjustable focus with locking
Sensor	CMOS sensor - 2448 x 2050 px	-	---
Frame rate/scan rate	32 frames/s	1000 scans/s/ Max	800 scan/s
Readable codes	1D and Stacked: IL 2/5, Code 128, Code 39, EAN/UPC, PDF417, Micro PDF417, Pharmacode, GS1 DataBar (RSS) family, and many more. 2D: Data Matrix, QR Code, Micro QR, Maxicode, Aztec, Microglyph Postal: Royal Mail, Japan Post, Planet, Postnet and many more	Code 128, GS1-128 (EAN 128), interleaved 2 of 5, Code 39, EAN-13, EAN-8, UPC-A, UPC-E, All EAN-UPC, Codabar, Code 93	Code 2/5, Code39, Code93, Code128, EAN/UPC, EAN128, Codabar, Pharmacode, Plessey, ISBT128
Code orientation	Omnidirectional on any code type		
Ip rating	IP65		
Temperature range	0 to +50 °C [32 to 122 °F]		0 to +50 °C [32 to 122 °F] Subzero version -35 to 50°C [-31 to 122 °F]*
Case material	Aluminum	Aluminum alloy	Aluminum
Dimensions (typical value)	126x130x200 mm (4.9x5.1x7.9 in)	**DS8110:** 216x96x127 mm (8.5x3.8x5 in) **DX8210:** 381x328x92.5 mm (15x13x3.6 in)	DS5100-X2XX LIN: 101 x 85 x 42 mm (3.98 x 3.35 x 1.65 in) OM: 116.7 x 123.6 x 48.4 mm (4.60 x 4.86 x 1.90 in) DS5100-X3XX LIN: 101 x 104.2 x 42 mm (3.98 x 4.1 x 1.65 in) OM: 116.7 x 142.9 x 48.4 mm (4.60 x 56.26 x 1.90 in) DS5100-X4XX LIN: 117.75 x 104.6 x 42 mm (3.98 x 4.12 x 1.65 in) OM: 125.8 x 143.3 x 48.4 mm (4.95 x 5,64 x 1.90 in)
Weight	2900 g (6.4 lbs.)	**DS8110:** 2.0 kg (4.4 lb) **DX8210:** 7.7 kg (17 lb)	DS5100-X2XX LIN: 580 g OM: 775 g DS5100-X3XX LIN: 520 g OM: 715 g DS5100-X4XX LIN: 550 g OM: 745 g
Embedded communication interfaces	- Ethernet 10/100 Mbit/s: TCP/IP, Ethernet IP and Modbus TCP - Serial: RS232 / RS422 FD, Serial Aux RS232	Main Port: RS232/RS422 up to 115.2 Kbit/s Auxiliary Port: RS232 up to 115.2 Kbit/s	- Ethernet 10/100 Mbit/s: Ethernet/IP, Ethernet TCP/IP, PROFINET-IO and Modbus TCP - Serial: Main port RS232/RS485 FD Serial Aux RS232
Xpress interface	X		
Device programming	e-Genius web browser configuration tool		

**Subzero models are not available for offer, sale or distribution in Germany.*

SENSORS

S60

- Complete range of optic functions, basic, advanced and laser class 1
- Models with coaxial optics for polarized retroreflective, contrast and luminescence sensors
- Trimmer or EASY touchTM setting with
- Remote, Keylock and Delay functions
- Standard cable or M12 connection with standard NPN or PNP configuration

Power supply	10...30 Vdc
Consumption (output current excluded)	≤ 40 mA max.
Light emission	red LED 660 nm (mod. S60...B01/B51/T51/C01) IR LED 880 nm (mod. S60...C11/G00) white LED 400-700 nm (mod. S60...W08) UV LED 370 nm (mod. S60...U08) red Laser 650 nm (mod. S60...G00/B01/C01/M08)
Setting	sensivity trimmer (mod. B01/B51/C01/C11/F01/T51)
Operating mode	LIGHT mode on N.O. output / DARK mode on N.C. output (mod.S60...C01/C11/M08/U08) DARK mode on N.O. output / LIGHT mode on N.C. output (mod.S60...B01/B51/F01/T51) LIGHT mode on N.O. output / remote input (mod.M08/W08/U08)
Indicators	yellow OUTPUT LED (S60 all models excluded G00) green STABILITY LED (mod. S60...F01/B01/B51/T51/C01/C11) POWER LED (mod. S60 LASER...F01/B01/C01) green/red READY/ERROR LED (mod. S60...M08/W08/U08)
Output	PNP or NPN; NO; NC (mod. S60)
Output current	100 mA max.
Response time	0,5 ms (mod. S60...A00/B01/T01/C10/C21/C01/D00/E01/U08) 2 ms (mod. S60...F01/G00) 1 ms (mod. S50...M08, A00/B01/C01/C10/G00) 4 ms (mod. S60) 100 µs (mod. S60...W08) 333 µs (Laser mod. S60)
Switching frequency	1 kHz (mod. S60...A00/B01/T01/C10/C21/C01/D00/E01/U08) 250 Hz (mod. S50...F01/G00) 500 Hz (mod. S60...M08, A00/B01/C01/C10/G00) 5 kHz (mod. S60...W08) 1,5 kHz (Laser mod. S60)
Connection	2 m Ø 4 mm cable / M12 4-pole connector
IP rating	IP67
Material	Housing material: ABS
Lens material	window in PMMA, lenses in glass and polycarbonate
Operating temperature	-10 ... 50 °C (Laser Models) -25 ... 55 °C (LED Models)
Storage temperature	-25 ... 70 °C
Weight	90 g. max. cable vers. / 40 g. max. connector vers.

SENSORS

OEK4

- Incremental Encoder 250 PPR
- Double Measuring Wheels
- Rotatable Support with Springs
- Standard M12 connector

Supply voltage		5-30 Vdc
Supply current		70 mA max. (no load)
Output voltage		High supply voltage – 2.5 Vdc / Low 1.5 Vdc max.
Output current		40 mA max.
Output circuit		NPN PNP Push-pull and Line Driver
Output signal		Single channel A
Output waveform		50/50 square wave with reduced jitter effect
Protection		ESD, reverse voltage and short circuit
Resolution	*Vdc*	250 pulses per revolution, 1.27mm (0.05") linear resolution
Rotation speed	*PNP*	6000 rpm max.
	Counting freq.	100 kHz max.
EMC rating	*Cable*	According to EN61000-4-2 and EN61000-4-4
	Light source	Ga-Al diodes (Life > 100000 hrs)
Connection		M12 4-poles
Kit weight		1 kg
Bearing load		100 N max.
Bearing type		109 min.
Bearing material		ABEC 5
Case material		Zamak die cast
Shaft material		Stainless steel non-magnetic UNI EN 4305
Support material		Aluminium anticorodal UNI EN AW-6082, anodized
Wheel material		Aluminium anticorodal UNI EN AW-6082 with rubber O-ring
Wheel dimension		Ø 101mm, circumference 317.34mm (O-ring included)
Encoder IP rating		IP64
Temperature		-25° to +85°C (operating/storage) 98% rH non condensing

DATALOGIC PROFESSIONAL SERVICES

DATALOGIC PROFESSIONAL SERVICE PROGRAMS THAT MEET YOUR EVERY NEED

Whatever your service need, Datalogic can help. Our technicians average over 13 years of experience spanning multiple device generations—and their knowledge stays fresh through continuous training. Explore all of our Service offerings with your Datalogic Authorized Reseller to find the programs that best meet your needs and keep your Datalogic solution working at peak efficiency throughout its lifecycle.

Personalized solutions and installations: EASEOFBUILD program

We work with you to design installations that fit your workflow and timing. Datalogic-trained technicians carefully install, configure and commission your solution to ensure optimum performance, backed up by a component onsite warranty covering any startup issues.

Continued training: EASEOFTRAIN program

Our customizable training programs help your operators and onsite IT and maintenance staff get the most out of your Datalogic solutions. We offer a range of training opportunities at our facilities, at regional training events, or online.

Preventative Maintenance: EASEOFPM program

Keep your equipment in top operating condition with onsite preventative maintenance.
PM service not only increases equipment life but ensures peak efficiency and lowest cost.

Technical support: EASEOFSUPPORT program

Get help fast with our 24/7, “follow-the-sun” phone support programs. Datalogic can tailor service-level agreements to your specific needs with worldwide coverage, and add-ons including technician dispatch should an issue require on-site assistance.

Extended service: EASEOFCARE program

Your business is not one-size-fits-all, and neither are our equipment service plans. EASEOFCARE extended repair is flexible, customizable and responsive. Four convenient subscriptions that cover needs from overnight replacement to five-day repair.

Customized application management: EASEOFDEV program

Make your Datalogic solution work its hardest with our custom integration and development services. Experienced engineers customize your solution, integrating components from different vendors to meet your specific needs, so your solution performs exactly the way you envision.

NOTES

NOTES

NOTES

DATALOGIC
EMPOWER YOUR VISION

**Subzero models are not available for offer, sale or distribution in Germany.*

SG-Airports-ENA4
Revision D 20200225

www.datalogic.com