8000 Family

DS8100, DX8200 and SC8000

Solutions for omni-
directional reading

DATALOGIC

Products

> DS8100 top performance single line laser scanner;
> DX8200 OMNI-directional laser scanner;
> SC8000 flexible and powerful OMNI-station controller.

Multi-sided omni-directional bar code reading on high speed conveyors is the most demanding application in the automatic identification and data capture industry.

The automatic identification solution must be able to read bar codes whatever their orientation and position on several sides of objects (ranging from 1 to 6 sides), on conveyors that easily overcome speeds of 2 m/s (400 f/m).

With these demanding conditions, only solutions based on the most updated Auto-ID technologies can provide customers with a reading performance that makes the difference between profitable use of Auto-ID systems or not.

The 8000 series of laser scanners has been specially designed to match the demanding conditions of current multi-side omni-directional Auto-ID applications and also to cope with future application needs.

Featuring many patented technologies, the bar code readers of the 8000 series provide the best reading performance in the Auto-ID market for laser devices, with all the typical benefits of laser solutions: minimum support for installation and set up, high flexibility for particular application needs and maximum reliability of a well-proven technology.

The 8000 series has been also designed to provide great scalability, so that the ideal solution with the best price / performance ratio can be always offered (where the solution design depends on an application's specifications in terms of required reading area, bar code types and resolutions to be read and conveyor speed).
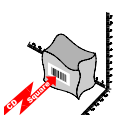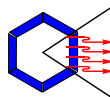
Technologies

Technology makes the difference in applications where a minimum gap in reading performance provides a great benefit for the Auto-ID end user. The 8000 series of scanners are equipped with various patented technologies that make the difference.
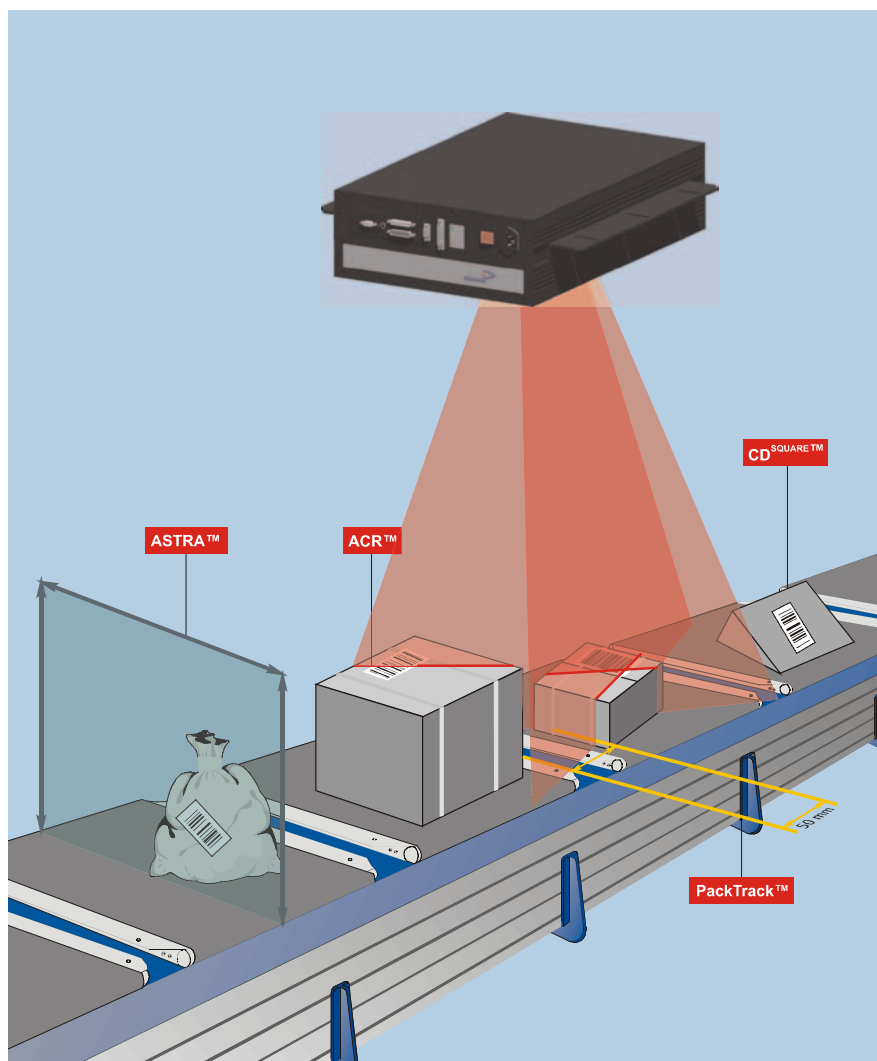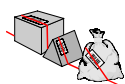
Third generation **ACR™** technology allows high performance omni-directional reading of low aspect ratio, poorly printed and damaged codes.

ASTRA™ multi-laser technology allows a large depth of field with no mechanical autofocus and no external sensors.
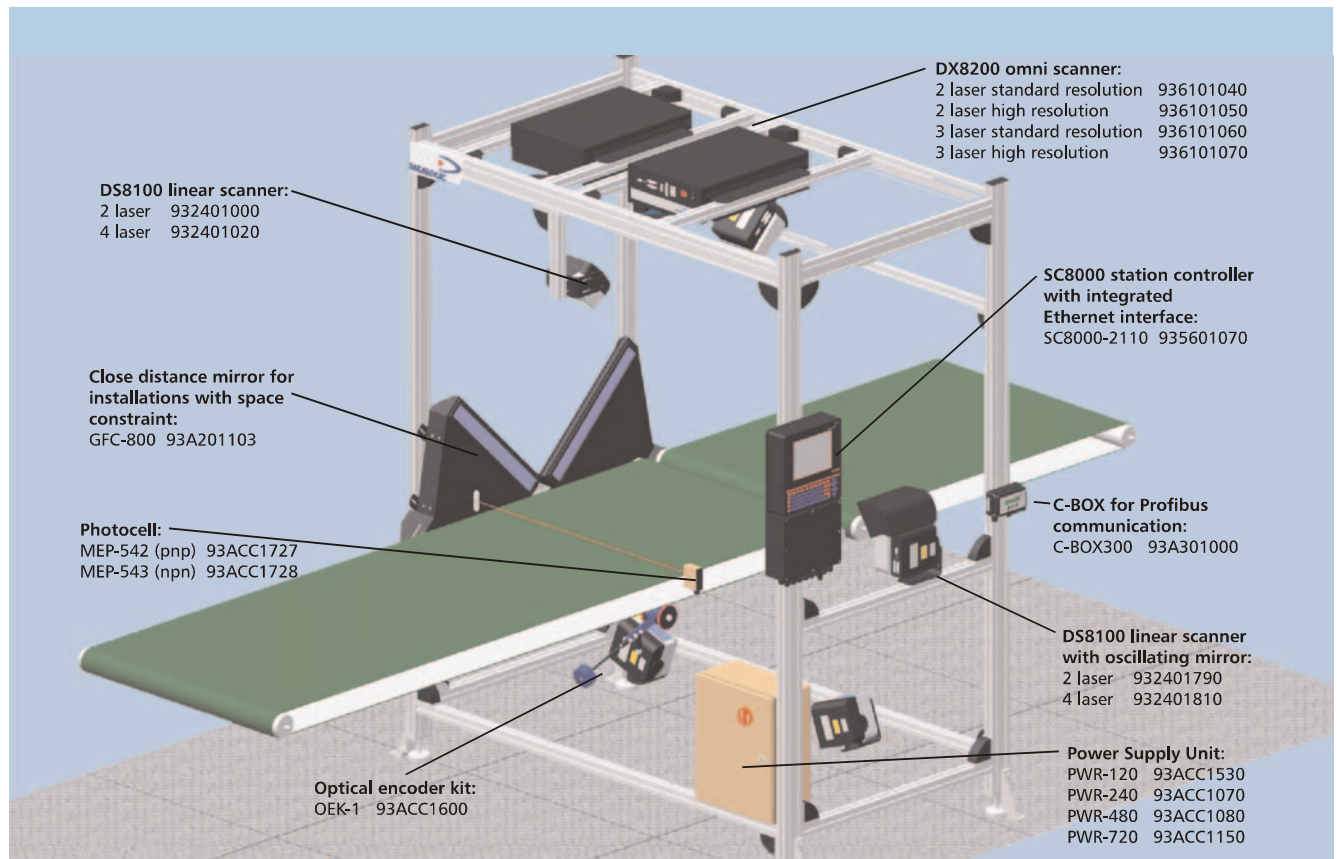
CDSQUARE™ technology allows automatic detection of bar code label position in real time on the object being scanned.

PackTrack™ exploits **CDSQUARE™** to track objects and labels along the reading area, with results of 100% accuracy on parcel tracking with a 50 mm minimum gap between objects.

The exclusive features described here are the result of Datalogic's long and successful experience in the automatic identification business.

Omni-Solution

DX8200 omni scanner:
2 laser standard resolution   936101040
2 laser high resolution   936101050
3 laser standard resolution   936101060
3 laser high resolution   936101070

DS8100 linear scanner:
2 laser   932401000
4 laser   932401020

SC8000 station controller with integrated Ethernet interface:
SC8000-2110 935601070

Close distance mirror for installations with space constraint:
GFC-800 93A201103

Photocell:
MEP-542 (pnp) 93ACC1727
MEP-543 (npn) 93ACC1728

C-BOX for Profibus communication:
C-BOX300   93A301000

DS8100 linear scanner with oscillating mirror:
2 laser   932401790
4 laser   932401810

Optical encoder kit:
OEK-1   93ACC1600

Power Supply Unit:
PWR-120   93ACC1530
PWR-240   93ACC1070
PWR-480   93ACC1080
PWR-720   93ACC1150

The omni-directional reading station's design includes some standard and particular use accessories. The standard accessories are usually installed and are designed to improve the solution's performance.
These accessories include:
> The fast bracket, used to attach the DS8100 to the mounting frame (in case of scanner replacement, the new scanner is placed exactly in the same position as the one replaced thanks to this accessory);
> The air cleaning system, recommended for scanners reading from the under the conveyor;
> The encoder and photocell, when these signals are not provided via software.
The particular use accessories are installed when mounting space restrictions or a special communication protocol is needed.
They include:
> Dust-proof mirrors for close distance reading (GFC-800, GFC-80);
> Connecting boxes for Profibus or Devicenet connectivity.

Features

> Consolidated and well-proven data capture technology
> Low cost of ownership
> Long life solutions with minimum required maintenance
> Complete real time diagnostics
> Preventive maintenance information
> Modular layout and compact dimensions
> Never any need of an expert maintenance technician
> MTTR (of each device in the solution) is less than 10 minutes
> Scalable investment
> Serial, Ethernet, Profibus, Devicenet communication

Applications

> Postal and courier automatic parcel sorting and tracking
> Goods sorting and tracking in distribution centers
> Automatic baggage handling
> Baggage identification in hold baggage screening systems
> Parcel identification in DWS systems
> Cargo applications
> Loading/unloading systems

Connectivity

> Serial and Ethernet built-in connectivity
> Profibus and Devicenet connectivity through C-BOX
> Remote monitoring via TCP-IP with Sentinel Supervisor Software
> Scanners and controller communication via high speed Lonworks bus
> Remote access via modem
> Built in display and keyboard for local monitoring and configuring

Maintenance

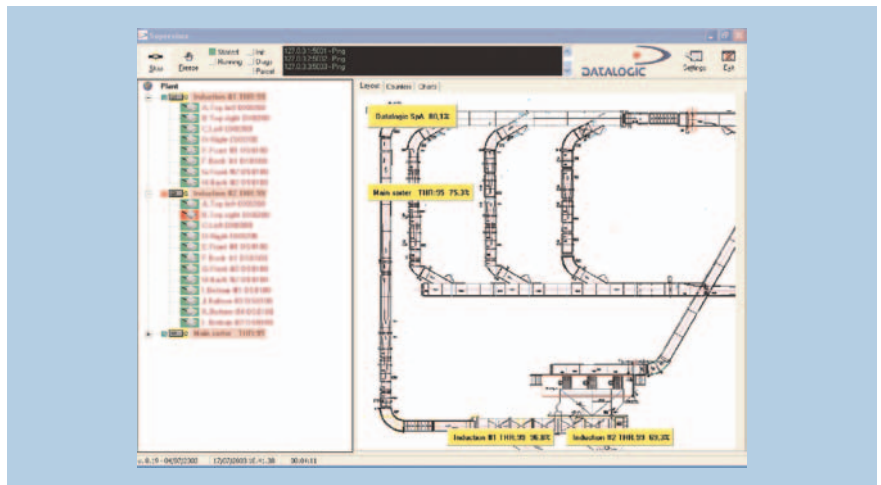8000 series products have been designed for maintainability.

Each preventive or post-failure maintenance operation is, in fact, fast and easy without requiring the presence of a scanner expert technician. The system controller features a removable Compact Flash card for storage memory allowing quick replacement of the unit with no need of any type of software and no loss of data. The scanner configuration is saved in the controller Compact Flash card so that it is automatically uploaded on a spare part in case one scanner fails. Hence, no adjustments or settings are necessary in the case of hardware replacement, and when local spares are available, the operation won't take longer than 10 minutes.

Preventive maintenance is enabled by the use of the Sentinel Supervisor monitoring software. When the suggested preventive maintenance operations are performed, the probability of failure is reduced considerably.

A hardware redundant solution is available when a fault tolerant system is requested.

SENTINEL Features

> Statistical data computed in real-time and reported in a graphic format

> Full diagnosis of readers, controllers and external signals

> User-defined system performance low threshold, with related alert signal

> Easy-to-catch visual alert signals and user customizable e-mail or HTTP alert messages in case of failure or poor performance

> Preventive maintenance alert messages

Service

The 8000 series offer is completed by a full set of service agreements, that provide added value to Datalogic's omni-directional solutions.

By means of these service agreements, the constant update of the Auto-ID solution and consequently, its continuous top performance, is guaranteed by the experience and professionalism of Datalogic's technicians.

Agreements such as the 'PREMIUM preventive maintenance' and the 'TOTAL COVER on site support,' represent a distinctive feature of Datalogic's omni-directional reading solutions offer, providing a real value for the system end user and plant maintenance provider.

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