The new DS8100A is a top performing fixed position laser bar code reader, purposely designed to satisfy the needs of Sorting applications for the Transportation & Logistics market. The DS8100A represents the evolution of a winning concept started in 1998 with the DS8100: the use of state-of-the-art technology to design the best performing fixed position scanner on the market. The new DS8100A is based on an innovative 3-diode structure, that offers an unbeatable real time depth of field. As a result of improved ASTRA™ technology that increases its already impressive performance, 3 laser diodes can switch electronically from one to the other depending on the bar code distance from the scanner. This means that the scanner is able to capture the bar code on an object of any possible shape in any position, as the DS8100A focuses on the bar code and not on the object profile. Translating this into a benefit for the customer, the new ASTRA™ offers unbeatable reading performance over a fast moving conveyor system, since two different objects present under the DS8100A laser line can be identified simultaneously without any problem. Advanced ASTRA™ technology, moreover, permits the PackTrack™ function, reducing the min. object gap and increasing system throughput, to be fully exploited.

The SW platform of the DS8100A, based on the GENIUS™ program, permits 100% control of scanner behavior via SW: the new DIGITECH™ signal processing technology permits all the scanner parameters to be configured via GENIUS™. As a result, scanner customization is made by simply downloading the right SW recipe into the scanner. The DS8100A is completely compatible with the DX8200A, the 6000 scanner family (DS6300, DS6400, DS6500) and the SC6000 industrial controller, making Datalogic’s offer more flexible and scalable, with numerous possibilities and solutions. Connectivity has been improved with the introduction of built-in Ethernet connectivity with implemented TCP-IP, Ethernet/IP, Modbus TCP and Profinet protocols.

A practical display with keyboard increases the DS8100A’s ease of use by offering a simple and complete human interface without the need of a PC. The new ASR™ function permits completely automatic slave scanner replacement.

The new DS8100A inherits the mechanical design of the DS8100, with exactly the same dimensions and footprint.

**Features**

- Reading performance benchmark
- ACR™-4 code reconstruction algorithm
- ASTRA™ technology for the electronic focusing system
- Digitech™ signal processing technology
- PACKTRACK™ to minimize the gap between objects and increase system productivity
- GENIUS™ multi-language SW for easy scanner configuration/setup
- Display and keyboard
- Built-in Ethernet TCP/IP connectivity on some versions

**Applications**

- Parcel sorting system
- Postal applications
- Automatic baggage handling
- Cargo applications
- Loading/unloading systems
Unattended Scanning Systems

DS8100A Top Performance Laser Scanner

Specifications

**ELECTRICAL CHARACTERISTICS**
- **POWER SUPPLY:** 20 to 30 Vdc
- **POWER CONSUMPTION:** 20W - 30W max

**MECHANICAL CHARACTERISTICS**
- **DIMENSIONS:** 215.5 x 170.5 x 126.5 mm (8.48 x 6.71 x 4.98 in); OM: 280 x 254 x 195 mm (11.03 x 10 x 7.68 in)
- **WEIGHT:** 5.0 Kg (176.3 oz); OM: 6.4 Kg (225.7 oz)
- **CASE MATERIAL:** Aluminium

**PERFORMANCE**
- **LIGHT SOURCE:** Visible Laser Diode (630 - 680 nm)
- **LIGHT RECEIVER:** Avalanche photodiode
- **MAX. RESOLUTION CODE:** See diagrams
- **SCAN RATE:** 1,000 scans per second
- **MAX. DEPTH OF FIELD:** See diagrams
- **MAX. READING FIELD:** See diagrams
- **MAX. READING DISTANCE:** See diagrams
- **READABLE CODES:** 22 symbologies incl. 2/5 family, Code 39, Code 93, Code 128, EAN/UPC, Codabar, EAN128
- **CODE AUTODISCRIMINATION:** Up to 10 different codes
- **INTERFACE CARD:** Main interface RS232/RS485 Half Duplex and Full Duplex Baud rate 115,200 bauds Aux. interface RS232
- **INPUT SIGNALS:** 3 programmable and 1 Encoder (optocoupled); Auxiliary Input (optocoupled) (NPN/PNP transistor)
- **OUTPUT SIGNALS:** 3 programmable (NPN/PNP transistor)
- **SETUP:** Via serial port commands and Windows™ based software program Genius™
- **DISPLAY:** 2 line by 20 character LCD
- **KEYPAD:** 3 keys
- **LED INDICATORS:** 3 LED status indicators: 1) Power on (red) Good Read (red); 2) Ext.Trigg. (yellow) TX Data (green); 3) Encoder (yellow) Network (red)
- **LASER CLASSIFICATION:** IEC 825 Class 2
- **LASER CONTROL:** Security system to turn laser Off in case of motor slow down or failure

**ENVIRONMENT**
- **OPERATING TEMPERATURE:** 0 to 50 °C (32 to 122 °F)
- **STORAGE TEMPERATURE:** -20 to 70 °C (-4 to 158 °F)
- **HUMIDITY:** 90% non condensing
- **VIBRATION RESISTANCE:** IEC 68-2-6 test FC 1.5 mm, 10 to 55 Hz; 2 hours on each axis; OM:1.5 mm @5 to 9.1Hz ,0.5 mm @9.1 to 150 Hz
- **SHOCK RESISTANCE:** IEC 68-2-27 test EA 30 G 11 ms; OM: 15 G 11 ms; 3 shocks on each axis
- **PROTECTION CLASS:** IP64 (IP65 optional)

Dimensions

**POWER SUPPLY**
- 20 to 30 Vdc

**POWER CONSUMPTION**
- 20W - 30W max

**DIMENSIONS**
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**INTERFACE CARD**

**INPUT SIGNALS**
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**OUTPUT SIGNALS**
- 3 programmable (NPN/PNP transistor)

**SETUP**
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**OPERATING MODES**

**DISPLAY**
- 2 line by 20 character LCD

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