

DS2100A

High performance compact laser scanner

ACB™

Advanced Code Builder

Ambient Light Immunity**Skew Angle Up to 45°****1000 scans/s**

General Description

Innovation and speed. These simple but powerful ingredients combined ensure that the DS2100A laser scanner satisfies the most advanced needs of a wide range of users, from OEMs to industrial and materials handling operators.

The DS2100A has been developed focusing on the realistic requirements of its target markets and the outstanding result is a compact, cost-effective and easy to use industrial scanner.

The excellent reading capabilities provided by the DS2100A are enhanced by the adoption of ACB™ Advanced Code Builder, a new Datalogic proprietary software able to decode partially damaged or normally unreadable codes due to a high tilt angle.

Installation is extremely easy and versatile thanks to its compact size, and to the choice of different reading window positions, direct and 90°. Furthermore, the new electronic design allows the scanner to read in the presence of an excessive skew angles. It guarantees a complete reading range even when skewed at 45°.

The DS2100A is available in a wide range of models with a scalable offer which satisfies every requirement with a tailored solution. The DS2100A Standard version reads at a variable scan speed between 500 and 800 scans/s, while the DS2100A Testarossa™ version reads at a variable scan speed between 800 and 1000 scans/s and offers the unique characteristic of ambient light immunity. In addition, the scanner motor can be switched OFF and ON via software command, when the scanner is not in use, drastically increasing product life.

All models are equipped with a RS232 auxiliary port and a main port that can be selected via software commands as RS232 or RS485. The adoption of a selectable RS232/RS485 main port drastically reduces the number of models needed to fit all possible applications.

Features

- > **ACB™ Advanced Code Builder**
- > Up to 1000 scans per second
- > Ambient light immunity by high frequency laser light modulation
- > Software motor ON/OFF command Selectable
- > Selectable RS232/RS485 main serial port, RS232 auxiliary port
- > Easy set-up through WINHOST™ configuration software
- > Direct or 90° reading window position
- > IP65 rugged industrial housing

Applications

- > Small conveyor sorting
- > Automatic picking systems
- > Process control
- > Document handling
- > Labelling machines
- > Packaging machines

Specifications

ELECTRICAL CHARACTERISTICS

POWER SUPPLY 10 to 30 VDC (5 VDC optional)
 POWER CONSUMPTION 3 W (XXX0 models); 4 W (XXX4 models)

MECHANICAL CHARACTERISTICS

WEIGHT 300 g (10.3 oz)
 CASE MATERIAL Aluminium

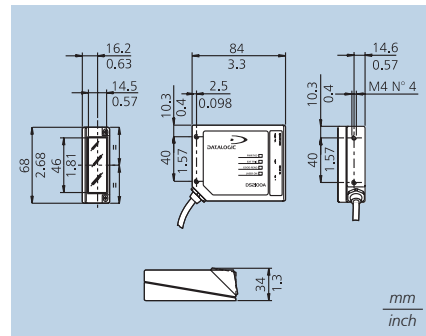
PERFORMANCE

LIGHT SOURCE Visible laser diode (630 to 680 nm)
 SCANNING SPEED 500 to 800 scan/s (XXX0 models);
 800 to 1000 scan/s (XXX4)
 MAX. RESOLUTION 0.20 mm (8 mils) (1XXX models);
 0.15 mm (6 mils) (2XX0); 0.12 mm (5 mils) (2XX4)
 MAX. READING DISTANCE 300 mm (11.8 in) (1XX0 models); 310 mm (12.2 in) (1XX4 models)
 90 mm (3.5 in) (2XX0); 100 mm (3.94 in) (2XX4)
 MAX. DEPTH OF FIELD 260 mm (10.0 in) (1XX0); 60 mm (2.4 in) (2XX0);
 250 mm (10 in) (1XX4); 55 mm (2.2 in) (2XX4)
 COMMUNICATION Main port: selectable RS232 or RS485
 INTERFACES Auxiliary port: RS232
 CONNECTOR 25 pin D-Sub female connector
 APERTURE ANGLE 60°
 READABLE CODES Most popular types including 2/5 family, Code 39, Code 93,
 Code 128, EAN/UPC, Codabar, EAN 128, Pharmacoce
 MULTILABEL READING Up to 6 different codes in the same presence sensor phase
 BAUD RATE Up to 115.2 Kbaud on both serial ports
 INPUT SIGNAL 'External trigger' (Optocoupled NPN/PNP transistor)
 OUTPUT SIGNALS 2 SW programmable optocoupled NPN transistors
 PROGRAMMING METHOD Via serial port (WINHOST™)
 OPERATING MODES 'On line', 'Serial on line', 'Automatic', 'Test', 'Verifier'
 LED INDICATORS 'Power/TX', 'Laser On', 'Good Read', 'External Trigger'
 LASER CLASSIFICATION IEC 825 Class 2
 LASER CONTROL Security system to turn laser off in case of motor slow down or failure
 MOTOR CONTROL Motor on/off SW command

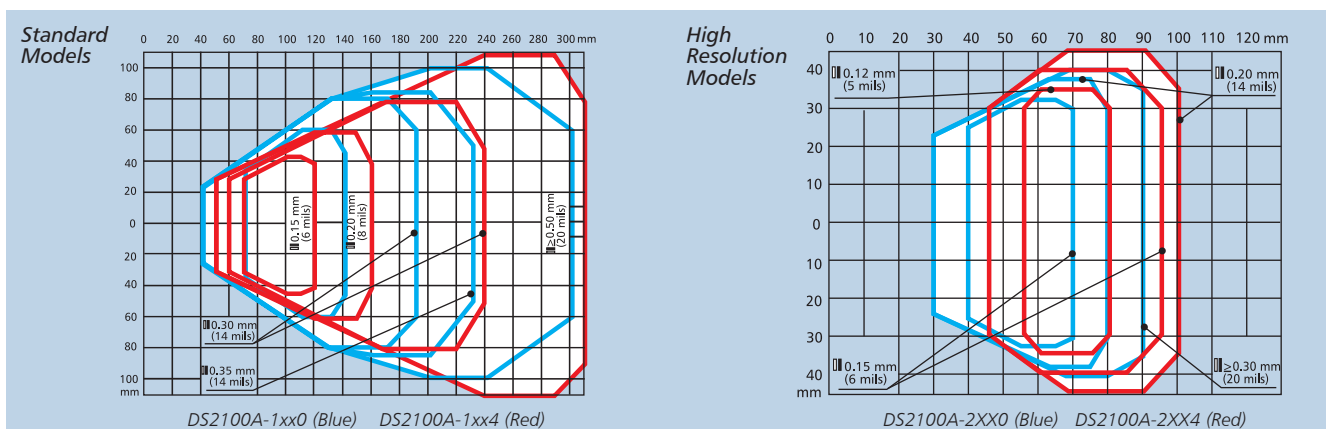
ENVIRONMENT

OPERATING TEMP. 0 to 40 °C (32 to 104 °F)
 STORAGE TEMP. -20 to 70 °C (-4 to 158 °F)
 HUMIDITY 90% non condensing
 VIBRATION IEC 68-2-6 test FC
 RESISTANCE 1.5 mm; 10 to 55 Hz;
 2 hours on each axis
 SHOCK IEC 68-2-27 test EA
 RESISTANCE 30 G; 11 ms; 3 shocks
 on each axis
 PROTECTION CLASS IP65

Dimensions



Reading Diagrams



*Note: DS2100A-xxx0 models @ 500 scans/s; DS2100A-xxx4 models @ 1000 scans/s



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