

DS2100N

Compact High Performance
Laser Scanner

DATALOGIC
Your Life. Our Enthusiasm™



Unattended Scanning Systems

General Description

The new DS2100N laser reader takes advantage of Datalogic's successful experience in 1D bar code reading, satisfying the demanding application needs of the largest manufacturers worldwide. DS2100N provides greater profitability and productivity in the most common warehousing, shop floor and OEM applications.

Enhanced Reading Performance

DS2100N grants high reliability when reading difficult bar codes thanks to its high performance optics and using ACB™ reconstruction technology. DS2100N offers high immunity to ambient light through laser modulation in a very compact and robust housing with IP65 protection.

New Embedded ID-NET™ High Speed Interface

DS2100N is equipped with the built-in ID-NET™ interface, used for high-speed scanner interconnection. ID-NET™ allows faster and more efficient data collection without the need for an external multiplexer device. This translates into overall cost reduction and easier system wiring.

Innovative X-PRESS™ Human Machine Interface

X-PRESS™ is the intuitive Human Machine Interface designed with the precise goal of improving ease of installation and maintenance. Status and diagnostic information are clearly presented by means of a five LED bar-graph, whereas the single multi-function key gives immediate access to relevant functions such as Test Mode (for bar code verification), AutoLearn (for bar code self-detection) and AutoSetup (for scanner self-adjusting). This makes working easier for any user.

Multi-language Genius™ SW Configuration Tool

The DS2100N scanner can be easily programmed through the intuitive and multi-language Genius™ SW tool. Thanks to the wizard approach and graphic add-ons, the scanner configuration will be accomplished rapidly.

Features

- > Increased read rate on low contrast and dirty bar codes
- > Embedded ID-NET™ high speed connectivity to simplify data collection and cluster wiring
- > Intuitive X-PRESS™ interface for quick scanner installation and troubleshooting
- > Easy setup through multi-language Genius™ SW tool
- > ACB™ advanced code builder technology improves the read rate on damaged bar codes
- > Motor on/off and motor speed SW programmable for higher reliability
- > IP65 rugged industrial housing

Applications

- > Automated warehousing
 - Conveyor sorting
 - Picking systems
- > Automated shopfloor
 - Items and parts tracking
 - Process control and Packaging
- > OEM
 - Document Handling
 - Print & Apply
 - Automatic chemical and biomedical analysis machines

PRELIMINARY

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Specifications

ELECTRICAL CHARACTERISTICS

POWER SUPPLY 10 to 30 VDC
POWER CONSUMPTION 3 W (xxx0 models); 4 W (xxx4 models)

MECHANICAL CHARACTERISTICS

DIMENSIONS 84 x 68 x 34 mm (3.31 x 2.68 x 1.34 in)
WEIGHT 330 g (11.6 oz)
CASE MATERIAL Aluminum

PERFORMANCE

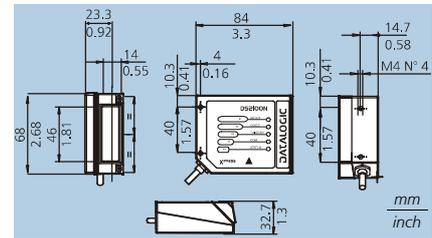
LIGHT SOURCE Visible laser diode (630 to 680 nm)
SCANNING SPEED 500 to 1000 scans/sec (SW programmable)
MAX. RESOLUTION Up to 0.12 mm (5 mils)
MAX. READING DISTANCE Up to 310 mm (12.2 in) on 0.50 mm (20 mils) bar codes
MAX. DEPTH OF FIELD Up to 260 mm (10.2 in) on 0.50 mm (20 mils) bar codes
APERTURE ANGLE 60 degrees
RASTER APERTURE 24 mm (0.95 in) at 500 mm (20 in)
READABLE CODES Code 2/5, Code 39, Code 93, Code 128, EAN/UPC, EAN 128, Codabar, Pharmacode, ISBN128
MULTILABEL READING Up to 10 different symbologies during the same reading phase
COMM. INTERFACES Main port RS232/RS485 SW selectable up to 115.2 kbps
Aux. port RS232 up to 115.2 kbps
ID-NET™ port up to 1 Mbps
DEVICE PROGRAMMING Genius™ SW configuration tool
X-PRESS™ human machine interface
Serial host mode programming sequences
OPERATING MODES 'On line', 'Serial On-line', 'Automatic', 'Continuous', 'Test', 'Verifier'
INPUT SIGNAL External Trigger (optocoupled, NPN/PNP, IN2 (not optocoupled, NPN only)
OUTPUT SIGNALS OUT1, OUT2 SW programmable event driven (optocoupled, NPN/PNP)
LASER CLASSIFICATION IEC 825-1 Class 2; CDRH Class II
LASER CONTROL Security system to turn laser off in case of motor slow down or failure
MOTOR CONTROL Motor ON/OFF command string and motor speed SW programmable

ENVIRONMENT

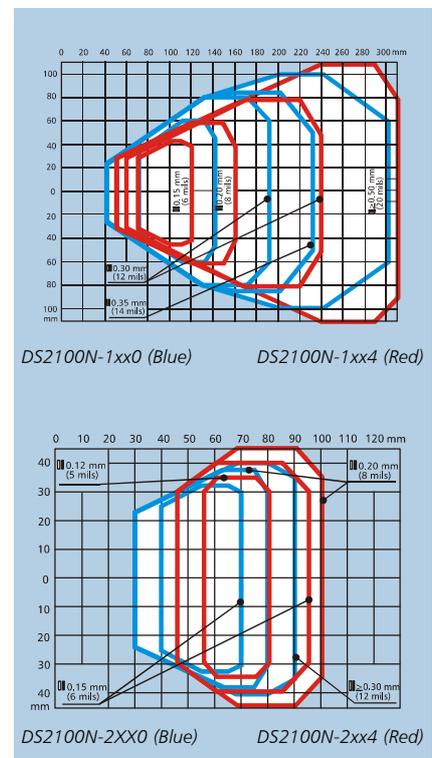
OPERATING TEMP. 0 to 45 °C (32 to 113 °F)
STORAGE TEMP. -20 to 70 °C (-4 to 158 °F)
HUMIDITY 90% non condensing
VIBRATION RESISTANCE IEC 68-2-6 test FC 1.5 mm; 10 to 55 Hz; 2 hours on each axis
SHOCK RESISTANCE IEC 68-2-27 test EA 30 G; 11 ms; 3 shocks on each axis
PROTECTION CLASS IP65



Dimensions

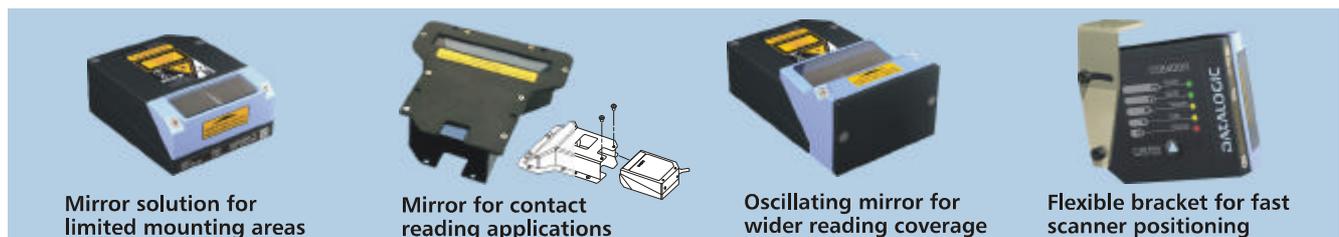


Reading Diagrams



Note: DS2100N-xxx0 models@500 scans/s;
DS2100N-xxx4 models @1000 scans/s

Accessories



Mirror solution for limited mounting areas

Mirror for contact reading applications

Oscillating mirror for wider reading coverage

Flexible bracket for fast scanner positioning



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