

DS2400N

Compact Extended
Range Laser Scanner

DATALOGIC
Your Life. Our Enthusiasm™



Introducing the New
USS Family Feeling!

Unattended Scanning Systems

General Description

New DS2400N laser reader takes advantage of Datalogic's successful experience in 1D bar code reading, satisfying the demanding application needs of the largest manufacturers worldwide. DS2400N provides greater profitability and productivity in the most common warehousing, shop floor and OEM applications.

Enhanced Reading Performance

DS2400N grants high reliability when reading difficult bar codes thanks to its capability of self-optimizing reading performance in any condition and using ACB™ reconstruction technology. DS2400N offers an extremely wide depth of field and large reading area in a very compact and robust housing with IP65 protection.

New Embedded ID-NET™ High Speed Interface

DS2400N 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 DS2400N 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.

PRELIMINARY

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
 - Packaging and compliance
- > OEM
 - Document Handling
 - Print & Apply
 - Automatic chemical and biomedical analysis machines

Specifications

ELECTRICAL CHARACTERISTICS

POWER SUPPLY 10 to 30 VDC
POWER CONSUMPTION 5 W

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 600 to 1000 scans/sec (SW programmable)
MAX. RESOLUTION Up to 0.20 mm (8 mils)
MAX. READING DISTANCE Up to 600 mm (23.6 in) on 0.50 mm (20 mils) bar codes
MAX. DEPTH OF FIELD Up to 400 mm (15.7 in) on 0.50 mm (20 mils) bar codes
APERTURE ANGLE 50 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), IN1 (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

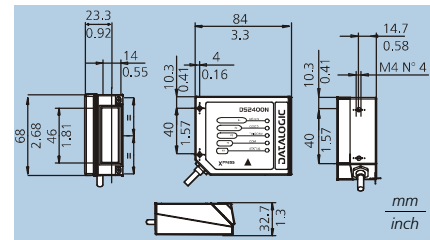
MOTOR CONTROL Motor ON/OFF command string and motor speed SW programmable

ENVIRONMENT

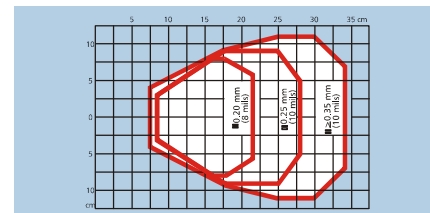
OPERATING TEMP. 0 to 45 °C (32 to 113 °F)
STORAGE TEMP. -20 to 70 °C (-4 to 158 °F)
HUMIDITY 90% non condensing
VIBRATION RESISTANCE IEC 68-2-6 test FC 1.5 mm; 10 to 55 Hz; 2 hours on each axis
SHOCK RESISTANCE IEC 68-2-27 test EA 30 G; 11 ms; 3 shocks on each axis
PROTECTION CLASS IP65



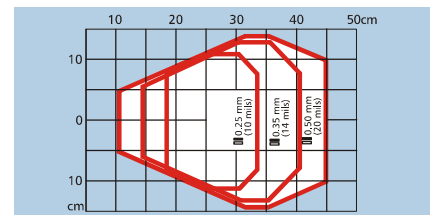
Dimensions



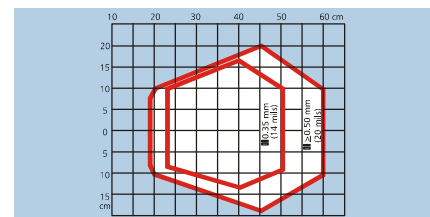
Reading Diagrams



DS2400N Short Range Model

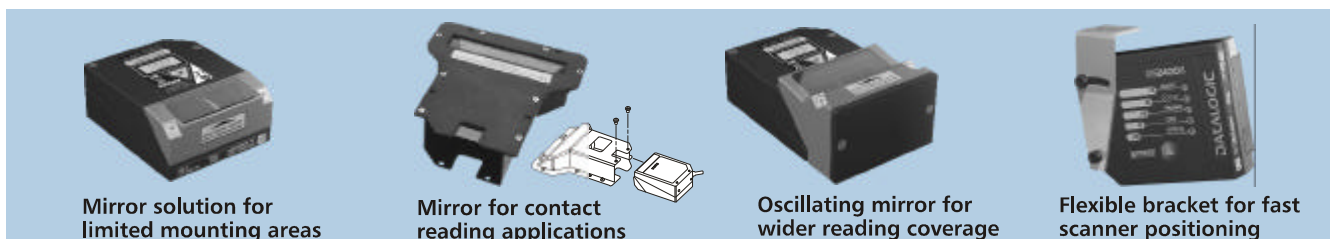


DS2400N Medium Range Model



DS2400N Long Range Model

Accessories



Mirror solution for limited mounting areas

Mirror for contact reading applications

Oscillating mirror for wider reading coverage

Flexible bracket for fast scanner positioning