DS2400A

Applications

Unattended Scanning Systems

General Description

Datalogic’s DS2400A grants improved productivity, greater profitability and more efficient processing in the most common warehousing, shop floor and OEM applications, providing a competitive advantage to any company.

The DS2400A combines long distance reading, high scanning speed and very compact dimensions with the new ACB™ Advanced Code Builder, the new Datalogic proprietary software able to decode partially damaged or normally unreadable bar codes due to high tilt angles.

The user can select the most suitable scanning speed (600 to 1000 scans) according to the bar code density (standard/high) and real reading conditions (standard/difficult) of the particular application. This capability of creating a “tailor made” configuration enhances system performance, lowers the need and cost of manual bar code reading, improves the speed and quality of collected data and makes the information scanned extremely reliable.

In addition, the scanner motor can be switched OFF and ON via software commands when the scanner is not in use, drastically increasing the product life.

The DS2400A is characterized by its extreme depth of field. Three different optics (short-medium-long range) are available to select the required reading distance. Thanks to its unique characteristics, including wide reading range, high scanning and communication speed, as well as compactness in both direct or 90° reading, the DS2400A represents the best solution for improved business performance.

Features

> **ACB™ Advanced Code Builder**
> **Software programmable scanning speed up to 1000 scans/s**
> **Reading distance up to 600 mm**
> **Software motor ON/OFF command**
> **Short, Medium and Long range models**
> **Selectable RS232/RS485 main serial port, RS232 auxiliary port**
> **Easy set-up through WINHOST™**
> **Same compact dimensions for direct or 90° reading**
> **IP65 rugged industrial housing**

Applications

> Automated warehousing
  - Conveyor sorting
  - Label verification
  - Picking systems
> Automated shopfloor
  - Items and parts tracking
  - Packaging and compliance
> OEM
  - Automatic chemical and biomedical analysis machines

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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**
  - Short range: 0.20 mm (8 mils)
  - Medium range: 0.25 mm (10 mils)
  - Long range: 0.35 mm (14 mils)
- **MAX. READING DISTANCE**
  - On 0.50 mm (20 mils) code resolution:
    - Short range: 360 mm (14.2 in)
    - Medium range: 440 mm (17.3 in)
    - Long range: 600 mm (23.6 in)
- **MAX. DEPTH OF FIELD**
  - On 0.50 mm (20 mils) code resolution:
    - Short range: 300 mm (11.8 in)
    - Medium range: 340 mm (13.4 in)
    - Long range: 400 mm (15.7 in)
- **APERTURE ANGLE**: 50 degrees
- **RASTER APERTURE**: 24 mm (0.95 in) at 500 mm (20 in)
- **MULTILABEL READING**: Up to 6 different codes in the same reading phase
- **COMM. INTERFACES**
  - Main port: Selectable RS232 or RS485
  - Auxiliary port: RS232
- **BAUD RATE**: Up to 115,200 baud (both interfaces)
- **INPUT SIGNAL**: External Trigger digital input (optocoupled NPN/PNP transistor)
- **OUTPUT SIGNALS**: Two programmable digital outputs (optocoupled NPN transistors)
- **PROGRAMMING METHOD**: Via serial port (WINHOST™)
- **OPERATING MODES**: 'On line', 'Serial On-line', 'Automatic', 'Test', 'Verifier'
- **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 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 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**
- DS2400 Short Range Model
- DS2400 Medium Range Model
- DS2400 Long Range Model