DS2400N SUBZERO

DATALOGIC

The New **DS2400N Subzero** laser reader expands Datalogic's portfolio in 1D bar code reading for low temperature environments. DS2400N Subzero model does not comprise on the performance standard set by the DS2400N non-heated model offering greater profitability and productivity in the most challenging refrigerated warehousing and food packaging applications for product traceability.

- **PERFORMANCE**
  The DS2400N subzero with fully integrated self-heating technology operates in harsh environments to – 35°C (-31°F) without sacrificing reliability or accuracy for reading low quality bar codes. Using ACB reconstruction technology, the DS2400N Subzero optimizes reading performance for misaligned barcodes, increasing productivity for un-controlled barcode label placement applications. DS2400N Subzero offers powerful reading performance in a compact package with a wide field of view and large depth of field. Connectivity options are available with the CBX100LT, a low temperature version of the popular CBX100 connection box. Low temperature improvements to the BM100 backup and restore module make scanner installation and replacement as easy as a touch of a button. The new BM100 and CBX100LT operate to -35°C, matching the temperature range of the DS2400N Subzero reader.

- **ID-NET™**
  DS2400N Subzero is equipped with a 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 versus expensive alternative cabling options as well as simplifying system wiring.

- **X-PRESS™ HMI**
  X-PRESS™ is the intuitive Human Machine Interface designed to improve ease of installation and maintenance. Status and diagnostic information are clearly presented by means of a five LED bar-graph, while the single multi-function key gives immediate access to relevant functions such as Test Mode (for bar code verification), AutoLearn (for barcode self-detection) and Auto-Setup (for scanner self-adjusting). The X-PRESS interface simplifies setup, diagnostics, and replacement removing the need for an external PC.

- **GENIUS™**
  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 is simple and quick.

ID-NET™
Enhanced Connectivity

Ease of use

Configuration SW Tool

ACR-Lite

-35°C

IDENTIFICATION

HIGHLIGHTS

- Large temperature range -35°C to 45°C
- Low temperature connection and backup & restore modules
- IP65 rugged industrial housing
- 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

APPLICATIONS

Refrigerated Warehousing
- Conveyor sorting
- Picking systems
- Tote Reading
- Print & Apply Verification

Food Packaging & Processing
- Dimension, weigh, scan food packaging

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TECHNICAL DATA

Dimensions	84 x 68 x 34 mm (3.31 x 2.68 x 1.34 in)
Weight	340 g (12 oz)
Case Material	Aluminium
Maximum Warm Up Time	@ -35°C: 20 minutes
Operating Temperature[1]	-35°C to 45°C (-31°F to 113°F)
Storage Temperature	-35°C to 70°C (-31°F 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
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
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
Communication Interface	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 Signal	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
Power Supply	24 VDC+/-10%
Power Consumption	9.6W

[1]The operating temperature is guaranteed under the following conditions:
- No direct cold airflow on the scanner
- No rapid changes in ambient temperatures

MODELS

ORDER NO.	DESCRIPTION
930181415	DS2400N-0205 SHORT RANGE,LIN,NSC,SUBZERO
930181416	DS2400N-0215 SHORT RANGE,RAS,NSC,SUBZERO
930181417	DS2400N-1205 MEDIUM RANGE,LIN,NSC,SUBZER
930181418	DS2400N-1215 MEDIUM RANGE,RAS,NSC,SUBZER
930181419	DS2400N-2205 LONG RANGE,LIN,NSC,SUBZERO
930181420	DS2400N-2215 LONG RANGE,RAS, NSC,SUBZERO

ACCESSORIES

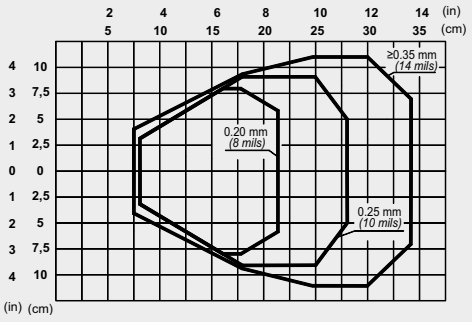
ORDER NO.	DESCRIPTION
93A301069	CBX100LT CONN. BOX COMPACT LOW TEMP.
93ACC1808	BM100 BACKUP MODULE

CBX100LT Connection Box

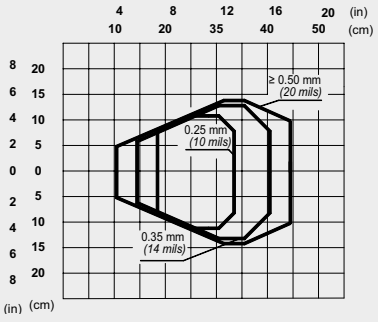
BM100 Backup Module

READING DIAGRAMS

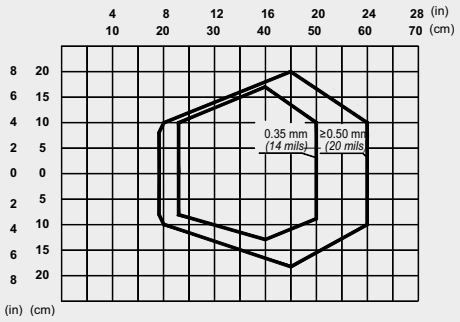
(Short Reading Range)



(Medium Reading Range)



(Long Reading Range)



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