Unattended Scanning Systems

DX8200 Omni-directional Laser Scanner











General Description

The DX8200 omni-directional laser reader joins Datalogic's state of the art technologies for bar code scanning and a real plug and play approach for omni-directional reading at an unbeatable price/performance ratio. The same technologies featured by the DS8100 - performance leader in this application segment - are employed in the DX8200, making it a powerful solution for omni-directional bar code reading.

The DX8200 is Datalogic's answer to the growing need for affordable standard equipment requiring minimum support for installation and setting. The DX8200 omnidirectional reading capability is supported by ACR™ technology for maximum reading performance and reliability as well as patented ASTRA™ technology, which does not use external sensors or mechanical focusing systems to extend the system's depth of field with the maximum level of reliability. Packtrack™ also allows maximum conveyor throughput, assuring 100% tracking with a minimum gap between parcels of just 50 mm, and no need for external sensors or requirements for complex system calibration. A new version of the DX8200 is now available for applications on conveyors. This version, named DX8200 Controller, acts as a Master on a Lonworks bus, with the DS8100 and DX8200 (bus versions) acting as Slaves. There is no need for an external controller such as the SC8000, on the Lonworks bus, as it is embedded into the new DX8200 Controller. An automatic procedure gives the possibility to easily replace the slaves. This new version of the DX8200 offers built-in connectivity to Ethernet and is completely adjustable through the GENIUS™ program.

The industrial design and extensive use of proved technologies make the DX8200 an extremely reliable reader able to assure the best performance in the most demanding conditions and strengthen Datalogic's position as a world leader in the design and manufacturing of omni-directional bar code reading solutions.

Features

- Best price/performance ratio on the market
- > Easy to install, set and operate
- > 1000 scan/s (500 scan/s for each scan line)
- > Ambient light immunity
- > ASTRA™ multi laser technology for large DOF with no need for autofocus
- > ACR™ Advanced Code Reconstruction Decoder
- > PackTrack™ parcel tracking system
- > Optimal reading of plastic coated labels
- > Extended power supply range (85 to 264 Vac)

Applications

- > Postal/Courier parcel sorting and tracking
- Automated warehousing identification systems
- > Airport baggage sorting systems



Specifications

Dimensions

ELECTRICAL CHARACTERISTICS

POWER SUPPLY 20 to 30 Vdc, 30 W or 85 to 264 Vac, 50 to 60 Hz, 30 VA depending on the model used

MECHANICAL CHARACTERISTICS

DIMENSIONS 576 x 513 x 153 mm (22.7 x 20.2 x 6.0 in)

22 Kg (48.5 lbs) approx. WEIGHT

CASE MATERIAL Aluminium

PERFORMANCE

LIGHT SOURCE Visible Laser Diode (650 nm) LIGHT RECEIVER Avalanche photodiode

MAX. RESOLUTION CODE DX8200-XX0X (Standard) 0.30 mm (12 mils); DX8200-X1XX (High) 0.25 mm (10 mils)

READING PATTERN Single cross

SCAN RATE 1000 scan/s (500 scan/s for each scan line)

DEPTH OF FIELD See reading diagram in installation manual (application & barcode dependent) CONVEYOR COVERAGE See reading diagram in installation manual (application & barcode dependent) READABLE CODES The most common symbologies incl. 2/5 family, Code 39, Code 128, EAN/UPC, EAN 128

CODE AUTODISCRIMINATION Up to 5 different codes

SERIAL INTERFACE CARD Main interface RS232/RS485/20 mA C.L.; Baud rate 1,200 to 57,600 bauds;

Aux. interface RS232/RS485

BUS INTERFACE CARD Main interface LONWORK; Baud rate 1.250 Mbauds 2x 'Presence Sensor' and 1 'Encoder' (NPN/PNP transistor) INPUT SIGNALS **OUTPUT SIGNALS** 'No read', 'Right code' (NPN transistor open collector and emitter) Via serial port commands and Windows™ based software program OPERATING MODES (Serial) 'On line', 'Serial on line', 'Automatic', 'PackTrack', 'Test'

LED INDICATORS 6 LED status indicators

LASER CLASSIFICATION IEC 825 Class 2

Security system to turn laser Off in case of motor slow down or failure LASER CONTROL

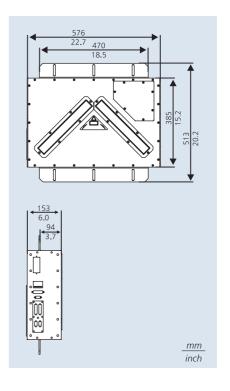
ENVIRONMENT

OPERATING TEMPERATURE 0 to 45 °C (32 to 113 °F) -20 to 70 °C (-4 to 158 °F) STORAGE TEMPERATURE HUMIDITY 99% non condensing

VIBRATION RESISTANCE IEC 68-2-6 test FC, 1.5 mm @ 5 to 8.9 Hz; 0.5 G @ 8.9 to 150 Hz; 2 hours on each axis

SHOCK RESISTANCE IEC 68-2-27 test EA 15 G, 11 ms; 3 shocks on each axis

PROTECTION CLASS



Standard Reading Conditions

The parameters shown in the following table must be taken into consideration to determine the reading conditions of an omni-directional application. The table shows the minimum allowable code height for given conditions of conveyor speed and code resolution. The data provided is for reference code symbologies (Code 128)

MINIMUM CODE HEIGHT FOR OMNI-DIRECTIONAL READING (mm)							
CONVEYOR SPEED (m/s)		0.5	1	1.5	2	2.5	3
	0.25	7	9	12	14	16	18
CODE 128	0.30	8	10	12	15	17	19
CODE RESOLUTION (mm)	0.33	9	11	13	15	17	19
	0.38	10	12	14	16	18	20
	0.50	12	13	16	18	20	22
	0.60	14	15	17	19	21	24
	1.00	22	23	24	26	28	30

For operating parameters outside the reference conditions and to fully exploit the DX8200 performance and capabilities, Datalogic recommends contacting the local technical support department for a complete evaluation of specific needs and reading conditions.



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