DX8200A

Top Performance
Omni-directional Laser Scanner

DATALOGIC

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ASTRA™
Technology

Genius

PackTrack™
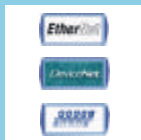
Unattended **S**canning **S**ystems

General Description

The new DX8200A is a top performance omni-directional laser bar code scanner, purposely designed to satisfy the needs of sorting applications for the Transportation & Logistics market. Datalogic used its experience with the DX8200 to develop the DX8200A, making it a more compact, increased performance omni-directional scanner.

It is based on the innovative 3-diode structure, that offers an unbeatable real time Depth Of Field. As a result of improved ASTRA™ technology that increases its already impressive performance, 3 laser diodes are electronically switched from one to the other, depending on the bar code distance from the scanner. This means that the scanner is able to capture the bar code on an object of any possible shape, in any position, as the DX8200A focuses on the bar code and not on the object profile. Advanced ASTRA™ technology, moreover, permits the PackTrack™ function, that reduces the min. object gap and increases the system throughput, to be fully exploited. The SW platform of the new DX8200A, based on the GENIUS™ program, permits 100% control of scanner behavior via SW: the new DIGITECH™ signal processing technology permits all the scanner parameters to be configured via GENIUS™. As a result, scanner customization is made by simply downloading the right SW recipe into the scanner.

The new DX8200A is completely compatible with the DS8100A, the 6000 scanner family (DS6300, DS6400, DS6500) and the SC6000 industrial controller making Datalogic's offer more flexible and scalable, with numerous possibilities and solutions. Connectivity has been improved with the introduction of built-in Ethernet connectivity with implemented TCP-IP, Ethernet/IP, Modbus TCP and Profinet protocols. Moreover, the new DX8200A offers built-in connectivity to Profibus and Devicenet.

A practical display with keyboard increases the DX8200A's ease of use by offering a simple and complete human interface without the need of a PC. The new ASR™ function permits completely automatic slave scanner replacement.

Features

> Omni-directional reading
> ACR™-4 code reconstruction algorythm
> ASTRA™ technology for the electronic focusing system
> Digitech™ signal processing technology
> PACKTRACK™ to minimize the gap between objects and increase system productivity
> GENIUS™ multi-language SW for easy scanner configuration/setup
> Display and keyboard
> Built-in Ethernet TCP/IP connectivity on some versions

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, or 85 to 264 Vac, 50 to 60 Hz, 30 VA depending on model used
POWER CONSUMPTION	30 W

MECHANICAL CHARACTERISTICS
|	
DIMENSIONS	470 x 300 x 147 mm (18.5 x 11.8 x 5.78 in)
WEIGHT	11 Kg (24.5 lbs)
CASE MATERIAL	Steel

PERFORMANCE
LIGHT SOURCE	Visible Laser Diode (650 nm)
LIGHT RECEIVER	Avalanche photodiode
SCAN RATE	1000 scans/sec (500 scans per line)
READING PATTERN	Single-cross
READABLE CODES	The most common symbologies incl. 2/5 family, Code 39, Code 128, EAN/UPC, EAN 128
CODE AUTODISCRIMINATION	Up to 10 different codes
AVAILABLE INTERFACE	Main interface RS232/RS485/Half Duplex and Full Duplex;
	Baud rate 115,200 bauds;
	Aux. interface RS232
	LONWORKS Net with Master/Slave (Baud rate: 1,250 Mbauds)
INPUT SIGNALS	3 programmable and 1 'Encoder' (NPN/PNP transistor)
OUTPUT SIGNALS	3 programmable (NPN/PNP transistor)
SETUP	Via serial port commands and Windows based software program Genius™
OPERATING MODES (Serial)	'On line', 'Serial on line', 'Automatic', 'Continuous', 'PackTrack', 'Test'
DISPLAY	2 line by 20 character LCD
KEYPAD	3 keys
LED INDICATORS	6 LED status indicators
LASER CLASSIFICATION	IEC 825 Class 2
LASER CONTROL	Security system to turn laser Off in case of motor slow down or failure

ENVIRONMENT
OPERATING TEMPERATURE	0 to 50 °C (32 to 122 °F)
STORAGE TEMPERATURE	-20 to 70 °C (-4 to 158 °F)
HUMIDITY	90% 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	IP64 (IP65 optional)

mm
inch
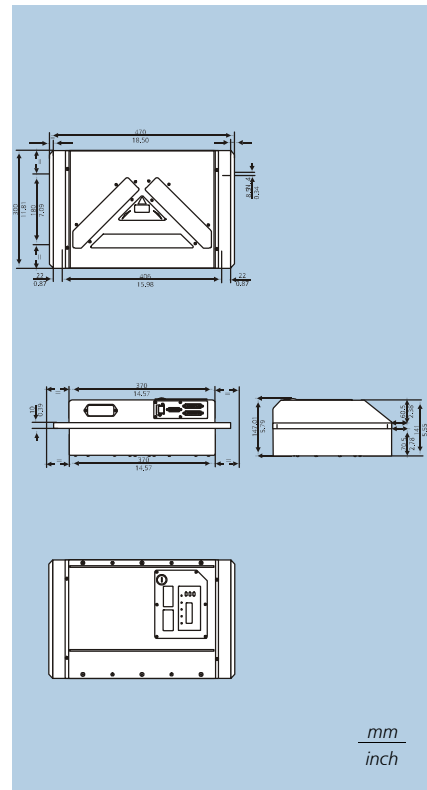
Standard Reading Conditions

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	8	10	12	14	16	18
CODE 128	0.30	9	11	13	15	17	19
CODE RESOLUTION (mm)	0.33	9	11	13	15	18	20
	0.38	10	12	14	16	18	20
	0.50	12	14	16	18	20	22
	0.72	16	18	19	21	24	26
	1.00	22	23	24	26	28	30

For operating parameters outside the reference conditions and to fully exploit the DX8200A 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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