DX8200A

Industrial Bar Code Scanners

Configuration SW Tool

ACR4™ technology

PackTrack™

ASTRA™ technology

APPLICATIONS

• Postal/Courier parcel sorting and tracking
• Automated warehousing identification systems
• Airport baggage sorting systems
• Cargo applications
• Loading/unloading systems

ADVANTAGES

• Improved connectivity thanks to the introduction of built-in Ethernet with implemented TCP-IP, Ethernet/IP and Modbus TCP protocols
• DIGITECH™ Digitech technology permits full SW control over signal processing parameters Scanner setup can therefore be optimized quite simply by loading the right SW recipe, thus enabling excellent performance in all reading conditions
• Ease of use is increased due to a practical display with keyboard, offering a simple and complete human machine interface without PC
• Fully compatible with the DS8100A, the 6000 series (DS6300, DS6400) and the SC6000 industrial controller

HIGHLIGHTS

• Omnidirectional reading
• ACR4™ code reconstruction algorithm
• ASTRA™ technology for the electronic
  focusing system
• DIGITECH™ signal processing
  technology
• PACKTRACK™ to minimize the gap
  between
  objects and increase system productivity
• GENIUS™ multilanguage SW for easy
  scanner
  configuration/setup
• Display and keyboard
• Display and keyboard
• Built-in Ethernet TCP/IP connectivity

GENERAL DESCRIPTION

DX8200A is based on an 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 and in any position, since as the DX8200A focuses on the bar code and not on the object profile. The PackTrack™ function reduces minimum object gap and increases system throughput. The SW platform of DX8200A, based on GENIUS™ configuration program, permits 100% control of scanner functionality via SW. Moreover, DIGITECH™ technology enables excellent reading performance along the entire depth of field.
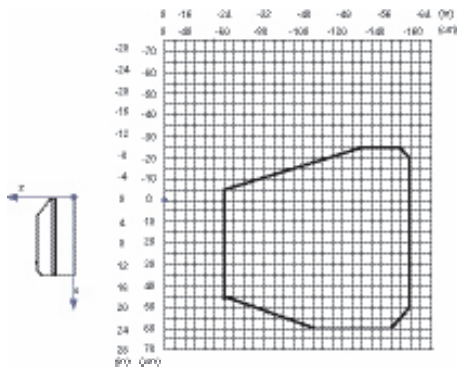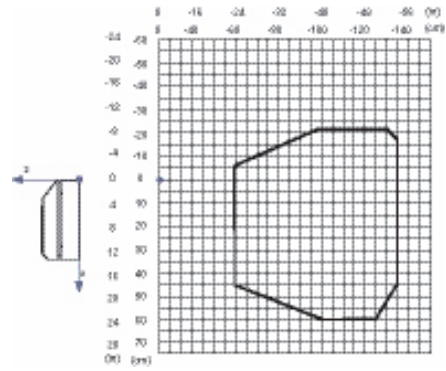
DX8200A

(0.25 mm/10 mils)
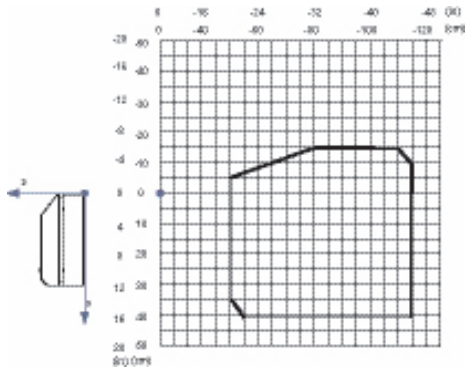
CONDITIONS
Code = Interleaved 2/5 or Code 39
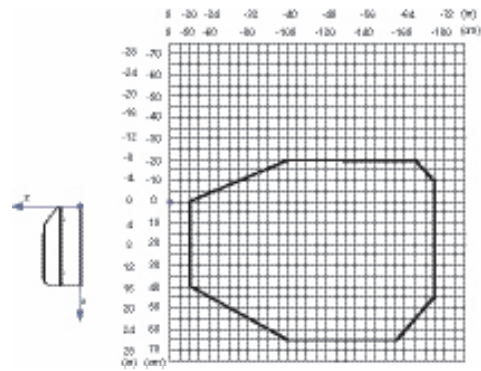PCS = 0.90

DX8200A-3X1X
(0.38 mm/15 mils)

CONDITIONS
Code = Interleaved 2/5 or Code 39
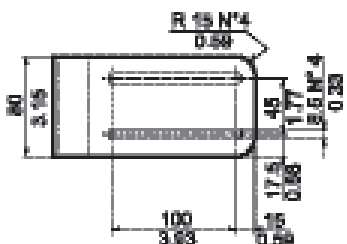PCS = 0.90

DX8200A-3X2X
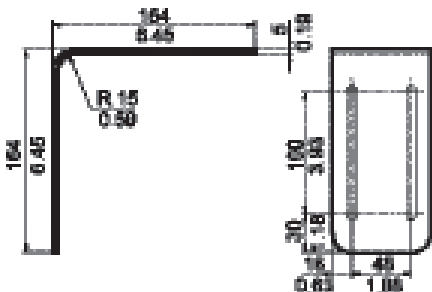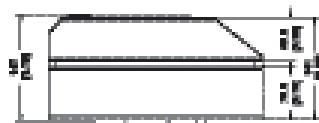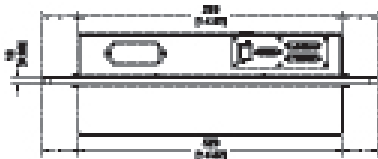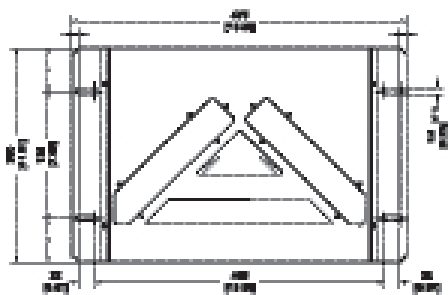(0.30 mm/12 mils)

CONDITIONS
Code = Interleaved 2/5 or Code 39
PCS = 0.90

DX8200A-3X1X
(0.50 mm/20 mils)

CONDITIONS
Code = Interleaved 2/5 or Code 39
PCS = 0.90

DIMENSIONS

mm / inch

ELECTRICAL CONNECTIONS

All the connectors available for each DX8200A model are the following:

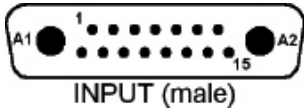| SCANNER MODEL	CONNECTORS
Standard	26-pin male serial interface and I/O connector 17-pin male Lonworks connector* 17-pin female Lonworks connector*
Ethernet	26-pin male serial interface and I/O connector 17-pin male Lonworks connector* 17-pin female Lonworks connector* RJ45 Industrial modular connector

The DX8200A Standard and Fieldbus models are equipped with a 26-pin male D-sub connector for connection to the host computer, power supply and input/output signals.
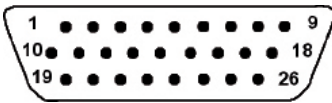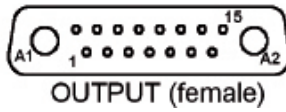
26-pin Connector

26-PIN D-SUB CONNECTOR PINOUT			
Pin	**Name**	**Function**	
1	CHASSIS	Chassis - internally connected to GND	
		Cable shield connected to chassis	
20	RXAUX	Receive data of auxiliary RS232 (referred to GND)	
21	TXAUX	Transmit data of auxiliary RS232 (referred to GND)	
8	OUT 1+	Configurable digital output 1 - positive pin	
22	OUT 1-	Configurable digital output 1 - negative pin	
11	OUT 2+	Configurable digital output 2 - positive pin	
12	OUT 2-	Configurable digital output 2 - negative pin	
16	OUT 3A	Configurable digital output 3 - polarity insensitive	
17	OUT 3B	Configurable digital output 3 - polarity insensitive	
18	EXT_TRIG/PS A	External trigger (polarity insensitive) for PS	
19	EXT_TRIG/PS B	External trigger (polarity insensitive) for PS	
6	IN 2/ENC A	Input signal 2 (polarity insensitive) for Encoder	
10	IN 2/ENC B	Input signal 2 (polarity insensitive) for Encoder	
14	IN 3A	Input signal 3 (polarity insensitive)	
15	IN 4A	Input signal 4 (polarity insensitive)	
24	IN_REF	Common reference of IN3 and IN4 (polarity insensitive)	
9,13	VS	Supply voltage - positive pin	
23,25,26	GND	Supply voltage - negative pin	
Pin	**RS232**	**RS232**	**RS485 Full-Duplex**	**RS485 Half-Duplex**
2		TX	TX485 +	RTX485 +
3	Main Interface Signals (SW Selectable)	RX	RX485 +	
4		RTS	TX485 -	RTX485 -
5		CTS	RX485 -	
7		GND_ISO	GND_ISO	GND_ISO

DX8200A

ELECTRICAL CONNECTIONS

scanner side external view

Lonworks INPUT/OUTPUT Connectors

LONWORKS INPUT/OUTPUT 17-PIN CONNECTOR PINOUT		
Pin	Name	Function
A1	GND	supply voltage (negative pin)
A2	VS	supply voltage 20 to 30 VDC (positive pin)
1	CHASSIS	Cable shield A – internally connected by capacitor to chassis
3	CHASSIS	Cable shield B – internally connected by capacitor to chassis
7	VS_I/O	Supply voltage of I/O circuit
8	LON A+	Lonworks a line (positive pin)
9	LON A-	Lonworks a line (negative pin)
10	LON B+	Lonworks b line (positive pin)
11	LON B-	Lonworks b line (negative pin)
12	SYS_I/O	System signal
13	SYS_ENC_I/O	System signal
14	RES	Internally connected
15	REF_I/O	Reference voltage of I/O circuit
2,4,5,6	NC	Not Connected

In DS8100A Ethernet models a RJ45 Modular Jack is provided for Ethernet connection. This interface and the connector pinout are IEEE 802.3 10 BaseT and IEEE 802.3u 100 BaseTX compliant.

RJ45 Modular Jack

RJ45 MODULAR JACK PINOUT		
Pin	Name	Function
1	TX +	Transmitted data (+)
2	TX -	Transmitted data (-)
3	RX +	Received data (+)
6	RX -	Received data (-)
4,5,7,8	NC	Not connected

TECHNICAL DATA

DIMENSIONS	319.5 x 248.7 x 99.7 mm (12.58 x 9.79 x 3.93 in)
WEIGHT	3.3 Kg (7.26 lbs)
CASE MATERIAL	Steel
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 1.5mm; 10 to 55 Hz; 2 hours on each axis
SHOCK RESISTANCE	IEC 68-2-27 test EA 30 G 11 ms; OM: 15 G 11 ms; 3 shocks on each axis
PROTECTION CLASS	IP64 for standard models; IP65 on request
LIGHT SOURCE	Visible laser diode (630 to 680 nm)
SCANNING SPEED	1000 scans/s (500 scans per line)
READING PATTERN	Single-cross
RESOLUTION	See diagrams
READABLE SYMBOLOGIES	22 symbologies including 2/5 family, Code39, Code93, Code128, EAN/UPC, EAN128, ISBN128
MULTILABEL READING	Up to 10 different symbologies during the same reading phase
COMMUNICATION INTERFACES	Main Port: RS232/RS485 up to 115.2 Kbit/s
	Auxiliary Port: RS232 up to 115.2 Kbit/s
OTHER AVAILABLE INTERFACES	Lonworks (Master/Slave), Ethernet, Profibus, DeviceNet (optional)
DIGITAL INPUTS	3 programmable and 1 Encoder (optocoupled);
	Auxiliary Input, NPN/PNP transistor (optocoupled)
DIGITAL OUTPUTS	Three SW programmable, optocoupled, event driven
DISPLAY & KEYPAD	LCD 16 x 2 characters & 3 keys
LED INDICATORS	6 LED status indicators
DEVICE PROGRAMMING	Windows™ based SW (Genius™) via serial or Ethernet link
	Serial Host Mode Programming sequences
OPERATING MODES	'On-line', 'Serial On-line', 'Automatic', 'Continuous', 'PackTrack™', 'Test'
LASER CLASSIFICATION	Class 2 - EN60825-1; Class II - CDRH
LASER CONTROL	Safety system to turn laser off in cases of motor slowdown or failure
POWER SUPPLY:	10 to 30 VDC
POWER CONSUMPTION:	< 10 W