DATALOGIC™

DS2400N

QUICK REFERENCE GUIDE
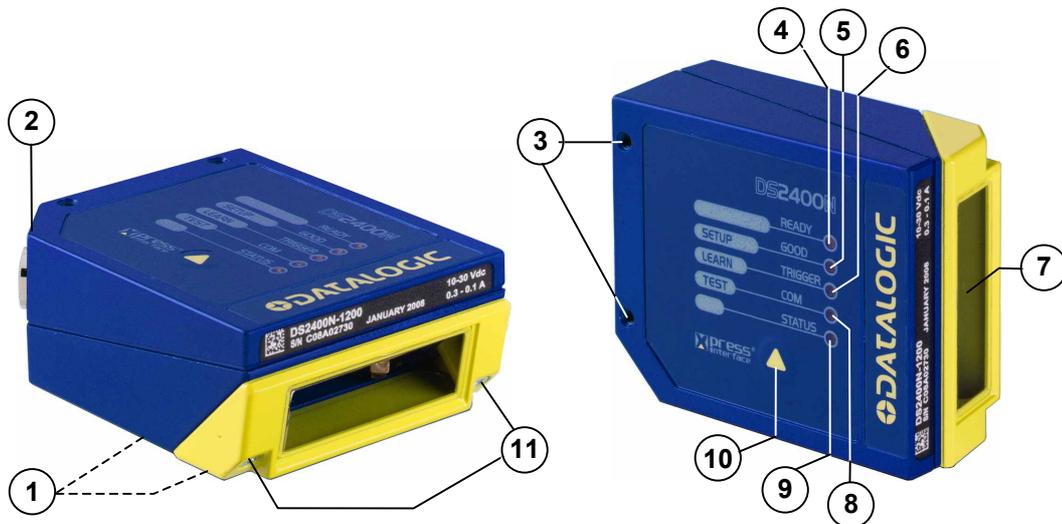
Figure A

1	Warning and Device Class Labels	7	Laser Beam Output Window
2	"POWER ON" LED	8	"COM" LED
3	Mounting Holes	9	"STATUS" LED
4	"READY" LED	10	Push Button
5	"GOOD" LED	11	Accessory Mounting Holes
6	"TRIGGER" LED		

NOTE

*This manual illustrates a Stand Alone application. For other types of installations, such as ID-NET™, Pass-Through, Multiplexer Layout, etc. and for a complete scanner configuration using Genius™ configuration program, refer to the DS2400N Reference Manual available on the CD. This manual is also downloadable from the Web at **www.automation.datalogic.com/ds2400n**.*

UPDATES AND LANGUAGE AVAILABILITY

UK/US

The latest drivers and documentation updates for this product are available on Internet.
Log on to: www.automation.datalogic.com

I

Su Internet sono disponibili le versioni aggiornate di driver e documentazione di questo prodotto. Questo manuale
è disponibile anche nella versione italiana.
Collegarsi a: www.automation.datalogic.com

F

Les versions mises à jour de drivers et documentation de ce produit sont disponibles sur Internet. Ce manuel est
aussi disponible en version française.
Cliquez sur : www.automation.datalogic.com

D

Im Internet finden Sie die aktuellsten Versionen der Treiber und Dokumentation von diesem Produkt. Die
deutschsprachige Version dieses Handbuches ist auch verfügbar.
Adresse : www.automation.datalogic.com

E

En Internet están disponibles las versiones actualizadas de los drivers y documentación de este producto.
También está disponible la versión en español de este manual.
Dirección Internet : www.automation.datalogic.com

SERVICES AND SUPPORT

Datalogic provides several services as well as technical support through its website. Log on to
www.automation.datalogic.com and click on the links indicated for further information including:

- **PRODUCTS**

  Search through the links to arrive at your product page where you can download specific **Manuals** and
  Software & Utilities including:
  - **Genius™** a utility program, which allows device configuration using a PC. It provides RS232 interface
    configuration.

- **SERVICES & SUPPORT**
  - **Datalogic Services -** Warranty Extensions and Maintenance Agreements
  - **Authorised Repair Centres**

- **CONTACT US**

  E-mail form and listing of Datalogic Subsidiaries

STEP 1 – CONNECT THE SYSTEM

To connect the system in a Stand Alone configuration, you need the hardware indicated in Figure 1. In this layout the data is transmitted to the Host on the main serial interface. In Local Echo communication mode, the RS232 auxiliary interface can be used to transmit data independently from the main interface selection. When On-Line Operating mode is used, the scanner is activated by an External Trigger (photoelectric sensor) when the object enters its reading zone.
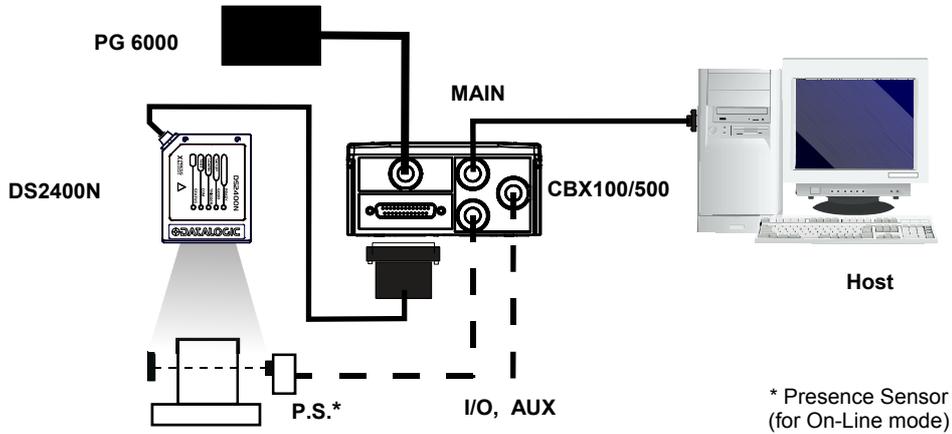
Figure 1 – DS2400N in Stand Alone Layout

CBX100/500 Pinout for DS2400N

The table below gives the pinout of the CBX100/500 terminal block connectors. Use this pinout when the DS2400N reader is connected by means of the CBX100/500:

CBX100/500 Terminal Block Connectors				
Power		**Outputs**		
Vdc	Power Supply Input Voltage +	+V	Power Source - Outputs	
GND	Power Supply Input Voltage -	-V	Power Reference - Outputs	
Earth	Protection Earth Ground	O1+	Output 1 +	
		O1-	Output 1 -	
Inputs		O2+	Output 2 +	
+V	Power Source – External Trigger	O2-	Output 2 -	
I1A	External Trigger A (polarity insensitive)	**Auxiliary Interface**		
I1B	External Trigger B (polarity insensitive)	TX	Auxiliary Interface TX	
-V	Power Reference – External Trigger	RX	Auxiliary Interface RX	
+V	Power Source – Inputs	SGND	Auxiliary Interface Reference	
I2A	Input 2 A (polarity insensitive)	**ID-NET™**		
I2B	Input 2 B (polarity insensitive)	REF	Network Reference	
-V	Power Reference – Inputs	ID+	ID-NET™ network +	
Shield		ID-	ID-NET™ network -	
Shield	Network Cable Shield			
Main Interface				
	RS232	**RS485 Full-Duplex**	**RS485 Half-Duplex**	
	TX	TX+	RTX+	
	RTS	TX-	RTX-	
	RX	*RX+		
	CTS	*RX-		
	SGND	SGND	SGND	

* Do not leave floating, see Reference Manual for connection details.

> ⚠️ **CAUTION**
>
> *Do not connect GND, SGND and REF to different (external) ground references. GND, SGND and REF are internally connected through filtering circuitry which can be permanently damaged if subjected to voltage drops over 0.8 Vdc.*

25-pin Connector Pinout for DS2400N

The table below gives the pinout of the 25-pin male D-sub connector for connection to the power supply and input/output signals. Use this pinout when the DS2400N reader is connected by means of the 25-pin connector:
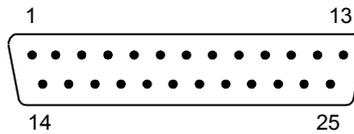
Figure 2 - 25-pin Male D-sub Connector

25-pin D-sub male connector pinout		
Pin	**Name**	**Function**
13, 9	Vdc	Power supply input voltage +
25, 7	GND	Power supply input voltage -
1	CHASSIS	Cable shield connected to chassis
18	I1A	External Trigger A (polarity insensitive)
19	I1B	External Trigger B (polarity insensitive)
6	I2A	Input 2 A (polarity insensitive)
10	I2B	Input 2 B (polarity insensitive)
8	O1+	Output 1 +
22	O1-	Output 1 -
11	O2+	Output 2 +
12	O2-	Output 2 -
20	RX	Auxiliary RS232 RX
21	TX	Auxiliary RS232 TX
23	ID+	ID-NET™ network +
24	ID-	ID-NET™ network -
14, 15, 16, 17	NC	Not Connected

Pin	Name	RS232	RS485 Full-Duplex	RS485 Half-Duplex
2		TX	TX+	RTX+
3	MAIN INTERFACE	RX	*RX+	
4	(SW SELECTABLE)	RTS	TX-	RTX-
5		CTS	*RX-	

* Do not leave floating, see Reference Manual for connection details.

STEP 2 – MOUNT AND POSITION THE SCANNER

1. To mount the DS2400N, use the mounting bracket to obtain the most suitable position for the reader as shown in the figures below.
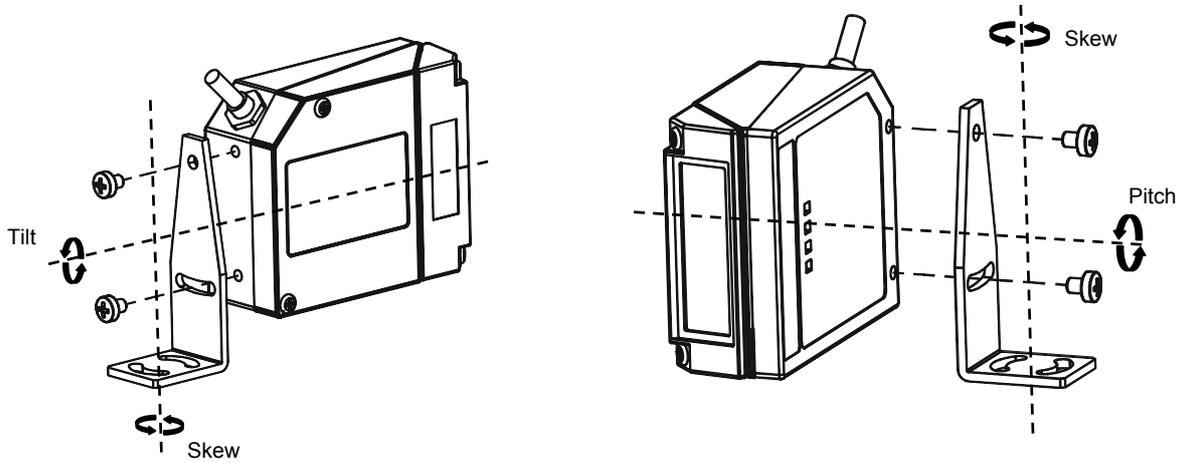
Figure 3 - Positioning with Mounting Bracket

2. When mounting the DS2400N take into consideration these three ideal label position angles:, **Skew 10° to 30°, Tilt 0° and Pitch 0°**.

Assure at least 10°   **Minimize**   **Minimize**
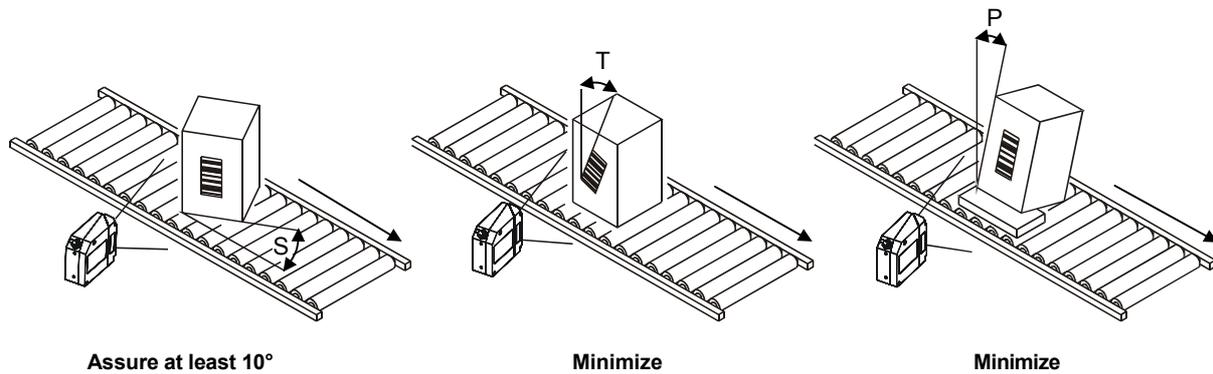
Figure 4 –, Skew, Tilt and Pitch Angles

3. Refer to the Reading Diagrams in the Appendix of this Quick Reference Guide to decide the distance your scanner should be positioned at.

STEP 3 – X-PRESS™ CONFIGURATION

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 the five colored LEDs, whereas the single push button gives immediate access to the following relevant functions:

- *Test Mode* with bar graph visualization to check static reading performance

- *AutoLearn* to self-detect and auto-configure for reading unknown barcodes (by type and length)

- *AutoSetup* to self-optimize and auto-configure reading performance in demanding applications
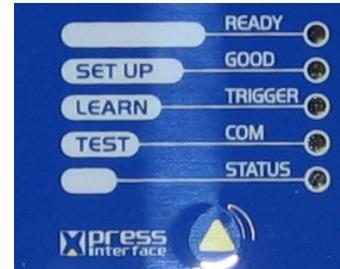
NOTE	*If using the OM2000N accessory, when entering the X-PRESS™ interface, the Oscillating Mirror remains in the default fixed position (-15°) in order to make barcode reading easier while performing the X-PRESS™ functions.*

The colors and meaning of the five LEDs are illustrated in the following table:

READY (green)	This LED indicates the device is ready to operate.
GOOD (green)	This LED confirms successful reading.
TRIGGER (yellow)	This LED indicates the status of the reading phase.
COM (yellow)	This LED indicates active communication on main serial port.
STATUS (red)	This LED indicates a NO READ result.

During the reader startup (reset or restart phase), all the LEDs blink for one second.

On the back of the reader near the cable, the "POWER ON" LED indicates the laser scanner is correctly powered.

AUTO LEARN

If you are configuring your scanner using X-PRESS™, you must start with the *Auto Learn* procedure.

1. Enter the *Auto Learn* function by holding the X-PRESS™ push button pressed until the LEARN LED is on.

2. Release the button to enter the *Auto Learn* function.
Once entered, the reader starts a procedure to automatically detect and recognize barcodes (by type and length), which are presented to it (*). The laser turns on and the LEARN LED blinks to indicate the ongoing process.
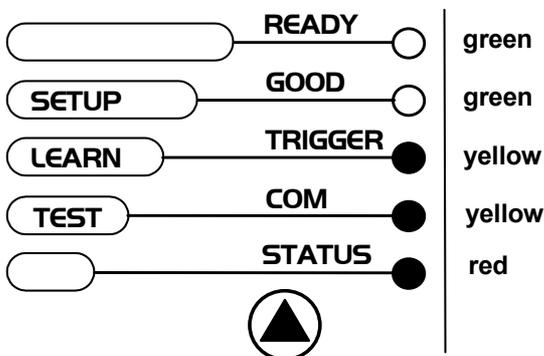
Figure 5 – X-PRESS™ Interface: Auto Learn Function

The procedure is as follows:

A) **place** the desired barcode on the scanline.

B) **wait** until the LEARN LED stays steady on (indicating the reader has detected the barcode).

C) **repeat**, if needed, the above two steps to program up to 10 different barcodes (the LEARN LED returns to the blinking state for the next code). If more than one barcode is detected, the Multi Label mode is enabled (refer to the "2K/4K Family Software Configuration Parameter Guide" Help file).

* In case of Programming Barcodes, refer to the "ID-NET™ Programming Barcodes And Setup Procedure" document in the product CD.

3. **Exit** the process by pressing the X-PRESS™ push button once. The scanner will restart at the end of the process, and then the detected barcodes are automatically configured in scanner memory.

> **NOTE**
> *If the barcode cannot be read because of low contrast or excessive ambient light, you can perform the AutoSetup function to optimize the optical parameters. Then you can perform AutoLearn to recognize the barcode symbology.*

AUTO SETUP (OPTIONAL)

At the end of the *Auto Learn* procedure, you have the possibility to follow the *Auto Setup* procedure to set up the reading parameters.

1. Enter the *Auto Setup* function by holding the X-PRESS™ push button pressed until the SETUP LED is on.

2. Release the button to enter the *Auto Setup* function.
   Once entered, if a barcode label is positioned in front of the scanline, the scanner automatically performs the optimal setup of the reading parameters for that specific barcode.

	READY	○	green
SETUP	GOOD	●	green
LEARN	TRIGGER	●	yellow
TEST	COM	●	yellow
	STATUS	●	red
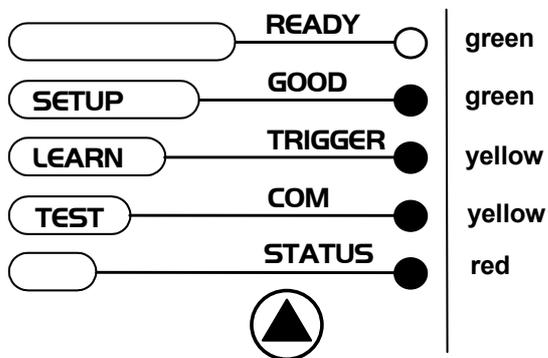
The procedure is as follows:

A) **place** the desired barcode on the scanline.

B) **enter** the AutoSetup function (the laser turns on and the SETUP LED blinks to indicate the ongoing process)

C) **wait** until the SETUP LED stays steady on (indicating the reader has detected the barcode)

Figure 6 – X-PRESS™ Interface: Auto Setup Function

This procedure ends either when the barcode is successfully decoded or after a timeout of about 7 (seven) seconds. The scanner will restart at the end of the process, and then the optimized reading parameters for that barcode are automatically configured in scanner memory.

> **NOTE**
> *If your application has been configured using X-PRESS™, go to STEP 5.*

RESET SCANNER TO FACTORY DEFAULT (OPTIONAL)

If it ever becomes necessary to reset the scanner to the factory default values, you can perform this procedure by holding the X-PRESS™ push button pressed while powering up the scanner. At the end of the procedure (about 5-6 seconds), the Configuration and Environmental parameters are reset and all LEDs blink simultaneously 3 times. If connected through a CBX500 with display module, the message "Default Set" is shown on the display.

STEP 4 – INSTALL GENIUS™ CONFIGURATION PROGRAM

Genius™ is a Datalogic scanner configuration tool providing several important advantages:

- Wizard approach for new users;

- Multi-language version;

- Defined configuration directly stored in the reader;

- Communication protocol independent from the physical interface allowing to consider the reader as a remote object to be configured and monitored.

To install Genius™, turn on the PC that will be used for the configuration, running Windows 98, 2000/NT, XP or Vista, then insert the Genius™ CD-ROM, wait for the CD to autorun and follow the installation procedure.

This configuration procedure assumes scanner connection to a CBX100/500. Genius™, running on a laptop computer, is connected to the scanner auxiliary port through the CBX100/500 9-pin connector. To communicate with the scanner, Genius™ performs an auto baudrate detection starting from its default parameters which are 115200, 8, N, 1. These parameters can also be set in the Genius™ Tools>Options>Communications window.

WIZARD FOR QUICK READER SETUP

After installing the Genius™ software program the following window appears asking the user to choose the desired configuration level.

Figure 7 - Genius™ Wizard Opening Window

The Wizard option is advised for rapid configuration or for new users, since it shows a step-by-step scanner configuration.

1. Select the *Create a new configuration* button.
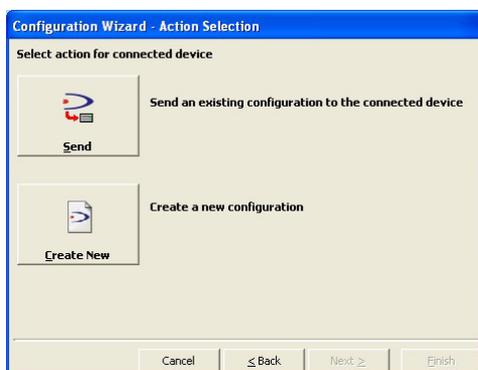
You will be guided through the configuration being asked to define the following parameters:

a. Barcode selection and definition
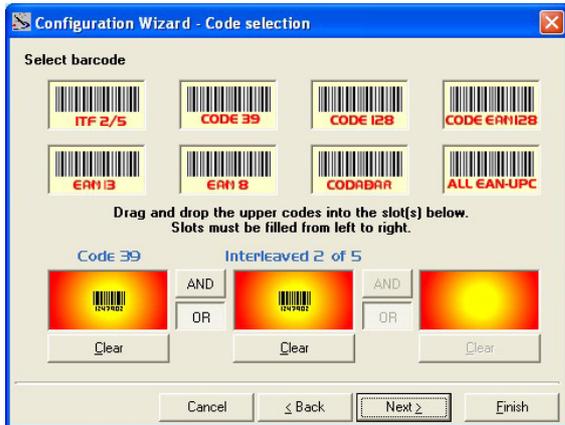
b. Operating mode selection and definition
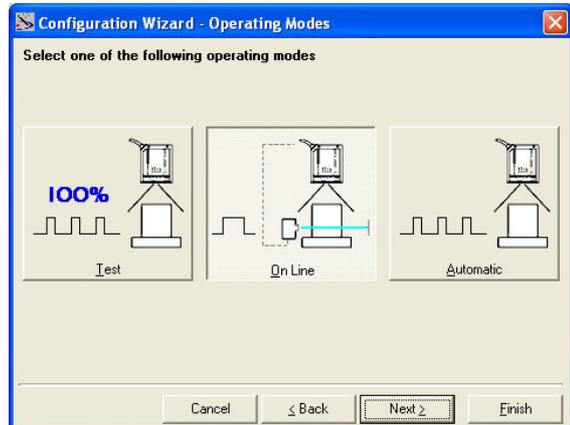
c. Digital Outputs configuration
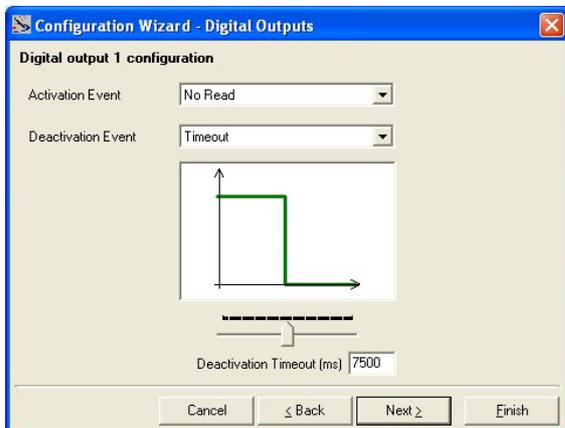
d. Hardware interface selection

e. Output data format configuration
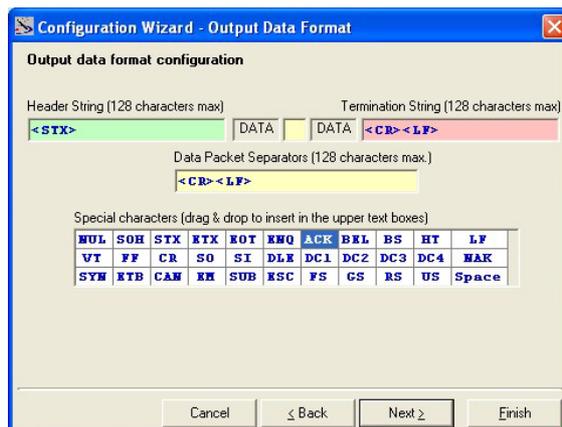
The **On Line** operating Mode requires the reader to be connected to an External Trigger/Presence Sensor using I1A and I1B inputs.

The **Automatic** operating mode does not require connection to an external Presence Sensor. When working in this mode the reader is continuously scanning, while the reading phase is activated each time a barcode enters the reader reading zone. The reader stops reading after an N number of scans without a code. Barcode characters are transmitted on the serial interface. In case of a failed reading phase no message is sent to the host computer.

2. After defining the parameter values the following window appears allowing to complete the reader configuration as follows:

- Saving the configuration to disk;

- Switching to Advanced mode;

- Sending the configuration to the scanner.

3. After sending the configuration to the scanner you have completed the configuration process.
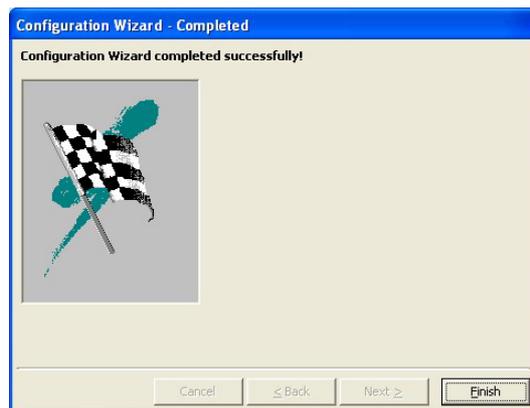
4. By clicking Finish, the System Information window will be displayed with specific information concerning the scanner.
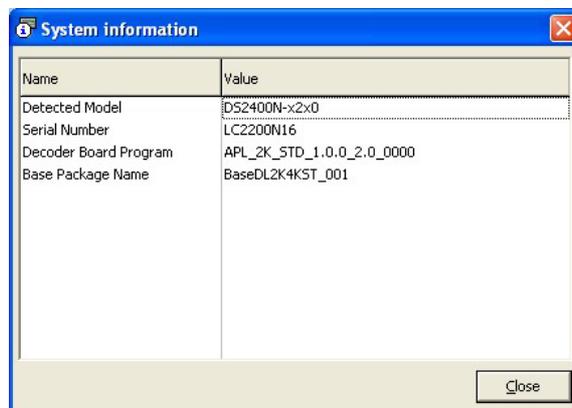
STEP 5 – TEST MODE

Use a code suitable to your application to test the system. Alternatively, you can use the Datalogic Test Chart (Code 39, Code Interleaved 2/5).

1. Enter the *Test mode* function by holding the X-PRESS™ push button pressed until the TEST LED is on.

2. Release the button to enter the *Test mode* function.
    Once entered, the Bar-Graph on the five LEDs is activated and if the scanner starts reading barcodes the Bar-Graph shows the Good Read Rate. In case of no read condition, only the STATUS LED is on and blinks.

READY	○	**green**
SETUP GOOD	○	**green**
LEARN TRIGGER	○	**yellow**
TEST COM	●	**yellow**
STATUS	●	**red**
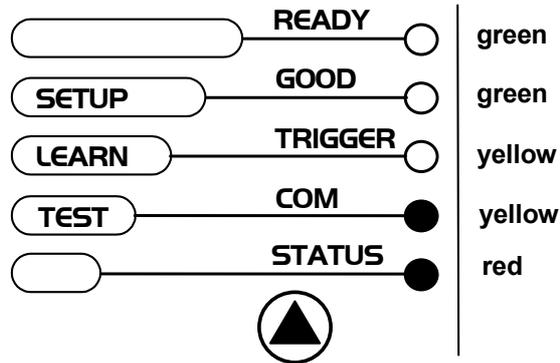
Figure 8 – X-PRESS™ Interface: Test Mode Function

3. To exit the Test Mode, press the X-PRESS™ push button once.

> **NOTE**
> *By default, the Test Mode exits automatically after two minutes.*

ADVANCED SCANNER CONFIGURATION

For further details on advanced product configuration, refer to the complete Reference Manual on the installation CD-ROM or downloadable from the web site through this link: **www.automation.datalogic.com/ds2400n**.

The following are alternative or advanced scanner configuration methods:

HOST MODE PROGRAMMING

The scanner can also be configured from a host computer using the Host Mode programming procedure, by commands via the serial interface. See the Host Mode Programming file on the CD-ROM.

ADVANCED GENIUS™ CONFIGURATION

The ADVANCED selection available when starting the Genius™ program is addressed to expert users being able to complete a detailed scanner configuration. By choosing this option it is possible either to start a new scanner configuration or to open and modify an old one. The desired parameters can be defined in the following window, similar to the MS Explorer:
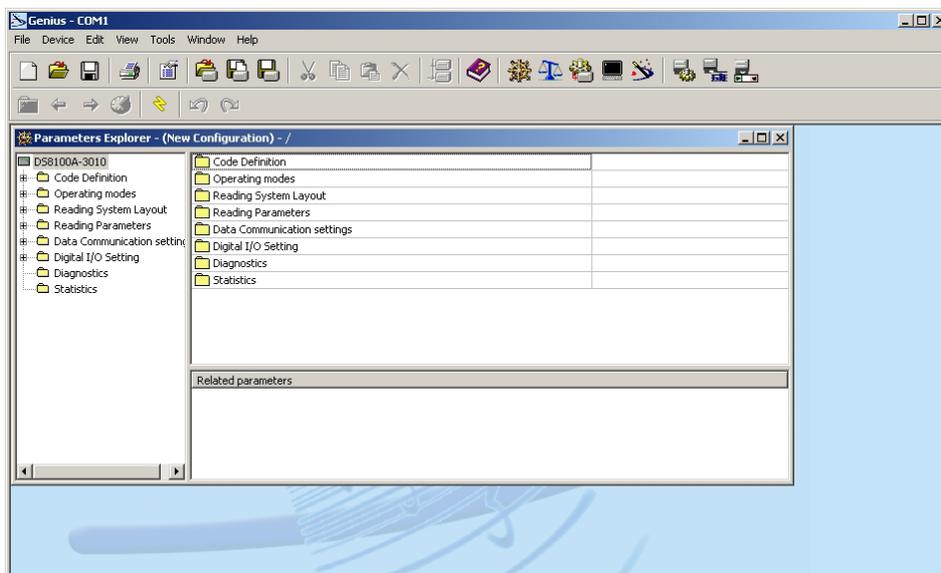
Figure 9 - Genius™ Parameter Explorer Window

ALTERNATIVE LAYOUTS

• The ID-NET™ network is a built-in high-speed interface dedicated for high-speed scanner interconnection. ID-NET™ is in addition to the Main and Auxiliary serial interfaces. If you need to install an ID-NET™ network refer to the DS2400N Reference Manual.

  The scanner can also be configured by reading programming barcodes. See the ID-NET™ Setup Procedure Using Programming Barcodes printable from the CD-ROM.

• If you need to install a Pass-Through network refer to the DS2400N Reference Manual.

• If you need to install a Multiplexer network refer to the DS2400N Reference Manual.

• If you need to install an RS232 Master/Slave (for backward compatibility) refer to the DS2400N Reference Manual.

APPENDIX

READING DIAGRAMS

DS2400N-0200 (Short Reading Range)

CONDITIONS

Optic Version = Linear
Code = Interleaved 2/5 or Code 39
PCS = 0.90
Pitch angle = 0°
Skew angle = 10°
Tilt angle = 0°
* Code Resolution = High
* Reading Conditions = Standard
* Scan Speed = 800 scans/s

*   Parameter selectable in Genius™

(0,0) corresponds to the scanner output window
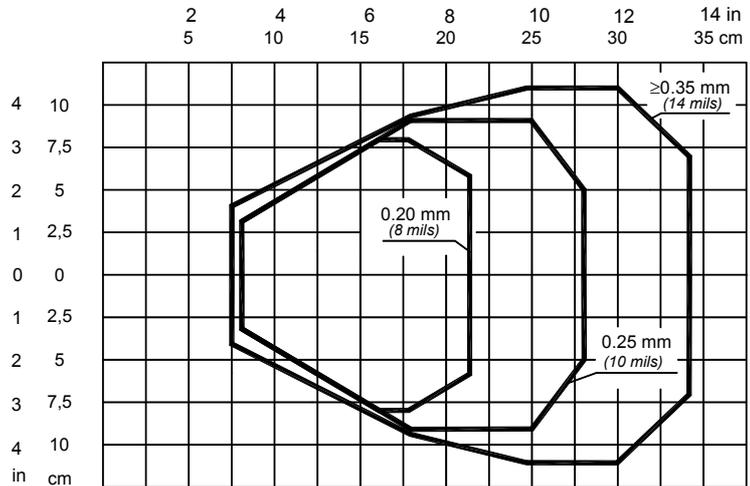
DS2400N-1200 (Medium Reading Range)

CONDITIONS

Optic Version = Linear
Code = Interleaved 2/5 or Code 39
PCS = 0.90
Pitch angle = 0°
Skew angle = 10°
Tilt angle = 0°
* Code Resolution:
  High – for 0.25 mm (10 mils) codes
  Std – for 0.35 mm (14 mils) codes and
      greater
* Reading Conditions = Standard
* Scan Speed = 800 scans/s

*   Parameters selectable in Genius™

(0,0) corresponds to the scanner output window
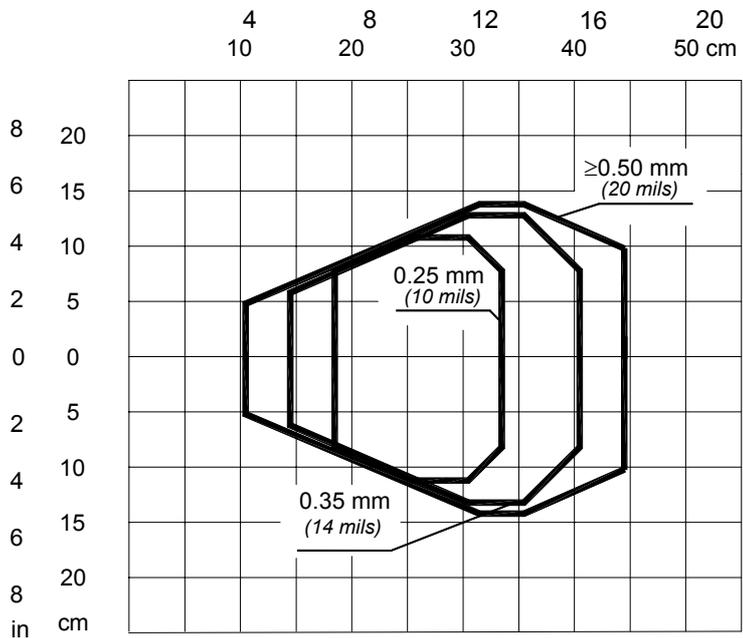
DS2400N-2200 (Long Reading Range)

CONDITIONS

Optic Version = Linear
Code = Interleaved 2/5 or Code 39
PCS = 0.90
Pitch angle = 0°
Skew angle = 10°
Tilt angle = 0°
* Code Resolution:
  High – for 0.35 mm (14 mils) codes
  Std – for 0.50 mm (20 mils) codes and
    greater
* Reading Conditions = Standard
* Scan Speed = 800 scans/s

• Parameters selectable in Genius™

(0,0) corresponds to the scanner output
window
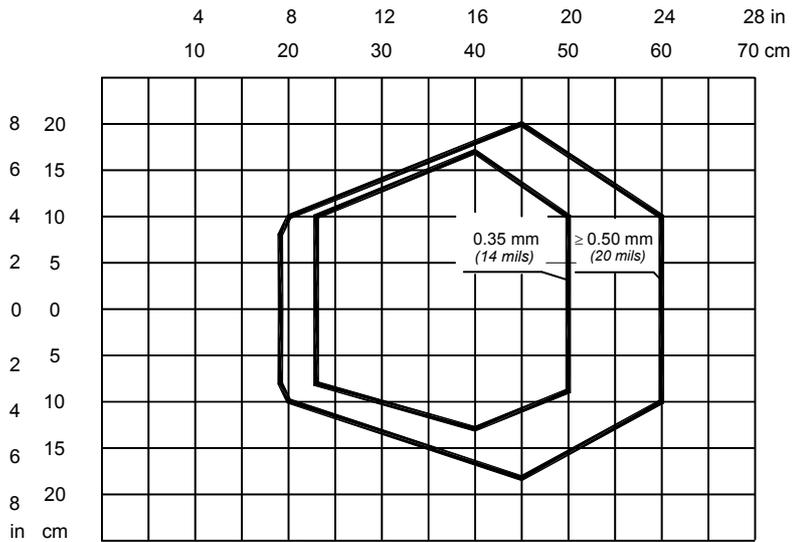
READING PERFORMANCE

Version	Reading Distance	Max Code Resolution mm (mils)	Speed scans/s
0XX0	75 mm (3 in) - 340 mm (13.4 in) on 0.35 mm (14 mils) codes	0.20 (8)	600 to 1000
1XX0	100 mm (3.9 in) - 440 mm (17.3 in) on 0.50 mm (20 mils) codes	0.25 (10)	600 to 1000
2XX0	190 mm (7.5 in) - 600 mm (23.6 in) on 0.50 mm (20 mils) codes	0.35 (14)	600 to 1000

TECHNICAL FEATURES

ELECTRICAL FEATURES	
Power Supply	10 to 30 Vdc
Consumption	0.5 to 0.17 A; 5 W
Main Serial Interfaces Baud Rate	Programmable: RS232, RS485 FD and HD 1200 to 115200
Auxiliary Interface Baud Rate	RS232 1200 to 115200
ID-NET™ Interface Baud Rate	RS485 Half Duplex Up to 1 Mbaud
Inputs Input 1 (External Trigger), Input 2 Voltage Current Consumption Minimum Pulse Duration	Optocoupled, polarity insensitive 10 to 30 Vdc 12 mA max. 5 ms
Outputs Output 1, Output 2 V_{CE} Collector Current $V_{CE\ Saturation}$ Power Dissipation	Optocoupled 30 Vdc max. 40 mA continuous max.; 130 mA pulsed max. 1V max. at 10 mA 80 mW max. at 45 °C (ambient temperature)
READING FEATURES	
Scan Rate (software programmable)	600 to 1000 scans/sec
Aperture Angle	50°
Maximum Reading Distance	See reading diagrams
Maximum Resolution	
ENVIRONMENTAL FEATURES	
Operating Temperature ①	0° to +45 °C (+32° to +113 °F)
Storage Temperature	-20° to +70 °C (-4° to +158 °F)
Humidity max.	90% non condensing
Vibration Resistance EN 60068-2-6	14 mm @ 2 to 10 Hz; 1.5 mm @ 13 to 55 Hz; 2 g @ 70 to 200 Hz; 2 hours on each axis
Bump Resistance EN 60068-2-29	30 g; 6 ms; 5000 shocks on each axis
Shock Resistance EN 60068-2-27	30 g; 11 ms; 3 shocks on each axis
Protection Class EN 60529	IP65
PHYSICAL FEATURES	
Dimensions	68 x 84 x 34 mm (2.68 x 3.31 x 1.34 in)
Weight	330 g (11.6 oz)
USER INTERFACE	
LED Indicators	Ready, Good, Trigger, Com, Status, Power On
Multi-function Key	X-PRESS™ button

① If the reader is used in high temperature environments (over 40 °C), use of the Beam Shutter is advised (see the Genius™ configuration program) and/or a thermally conductive support (such as the metal bracket provided).

MECHANICAL DIMENSIONS
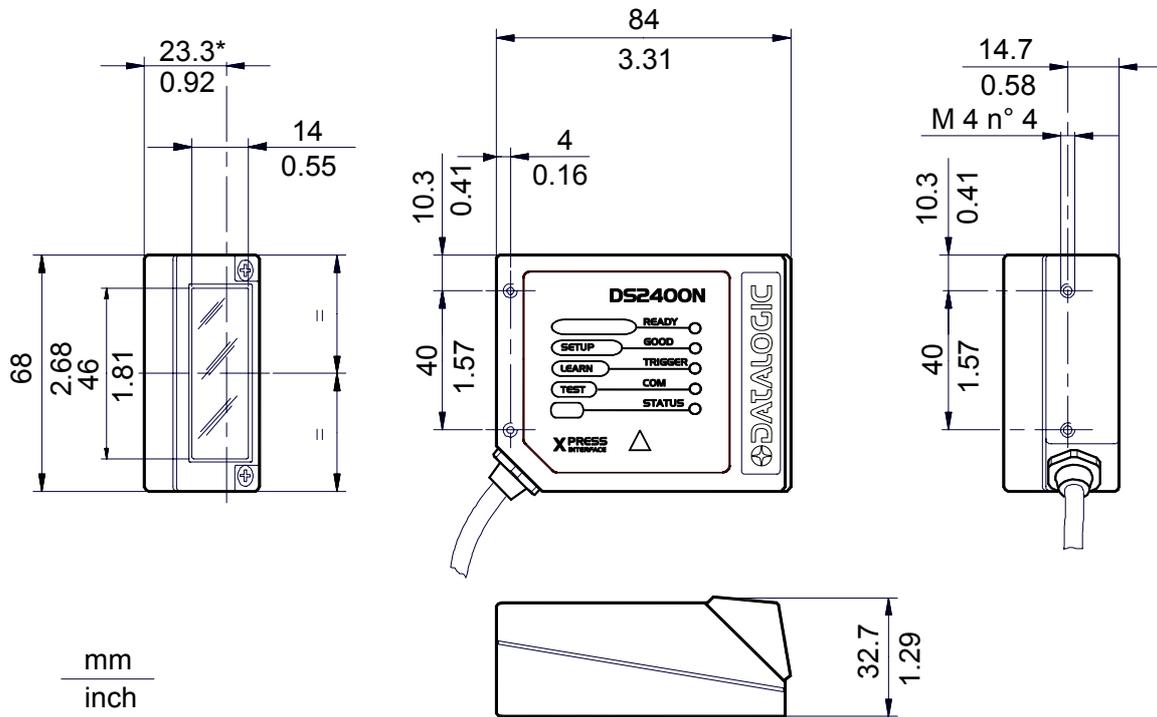
* The quote refers to the scan line

Figure 10 – DS2400N Overall Dimensions
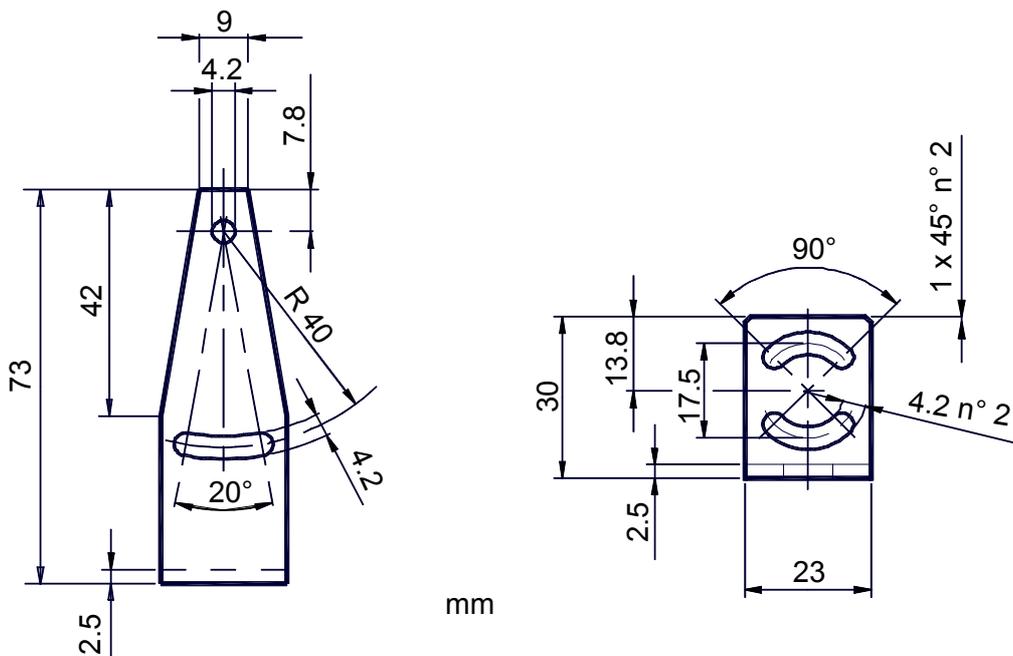
Figure 11 – Mounting Bracket Overall Dimensions

COMPLIANCE

LASER SAFETY

This product conforms to the applicable requirements of IEC 60825-1 and complies with 21 CFR 1040.10 except for deviations pursuant to Laser Notice N° 50, date June 24, 2007. The scanner is classified as a Class 2 laser product according to IEC 60825-1 regulations.

Disconnect the power supply when opening the device during maintenance or installation to avoid exposure to hazardous laser light.

There is a safety device, which allows the laser to be switched on only if the motor is rotating above the threshold for its correct scanning speed.

The laser beam can be switched off through a software command (see also the Genius Help On Line).

The laser diode used in this device is classified as a class 3B laser product according to EN 60825-1 regulations and as a Class IIIb laser product according to CDRH regulations.

Any violation of the optic parts in particular can cause radiation up to the maximum level of the laser diode (35 mW at 630 to 680 nm).

Complies with 21 CFR 1040.10 except for deviations pursuant to Laser Notice N°50, date June 24, 2007

CSA
C US
218441
CE
N2468

LASER LIGHT
DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT
MAX. OUTPUT RADIATION 1 mW
EMITTED WAVE LENGTH   630~680 nm
TO IEC 60825-1:1993+A1:1997+A2:2001

CAUTION-CLASS 3B LASER LIGHT
WHEN OPEN AVOID EXPOSURE TO BEAM

Pat. US5992740, EP0789315B1
DATALOGIC AUTOMATION S.r.l.
Via S. Vitalino, 13 – 40012 Calderara di Reno
MADE IN ITALY-**www.datalogic.com**

AVOID EXPOSURE LASER LIGHT
IS EMITTED FROM THIS APERTURE

Figure 12 - Warning and Device Class Labels

FCC COMPLIANCE

Modifications or changes to this equipment without the expressed written approval of Datalogic could void the authority to use the equipment.

This device complies with PART 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference which may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

POWER SUPPLY

This product is intended to be installed by Qualified Personnel only.

This accessory device is intended to be supplied by a UL Listed or CSA Certified Power Unit with «Class 2» or LPS power source, which supplies power directly to the scanner via the 25-pin connector.

CE COMPLIANCE

Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

PATENTS

This product is covered by one or more of the following patents:

U.S. patent: 5,992,740
European patent: 789,315 B1

⊕DATALOGIC™ **DECLARATION OF CONFORMITY** **CE** 08

Datalogic Automation S.r.l.
Via S. Vitalino 13
40012 - Lippo di Calderara
Bologna - Italy

dichiara che
declares that the
déclare que le
bescheinigt, daß das Gerät
declare que el

DS2400N Laser Scanner;	e tutti i suoi modelli
	and all its models
	et tous ses modèles
	und seine Modelle
	y todos sus modelos

sono conformi alle Direttive del Consiglio Europeo sottoelencate:
are in conformity with the requirements of the European Council Directives listed below:
sont conformes aux spécifications des Directives de l'Union Européenne ci-dessous:
der nachstehend angeführten Direktiven des Europäischen Rats:
cumple con los requisitos de las Directivas del Consejo Europeo, según la lista siguiente:

89/336/EEC EMC Directive	e	**92/31/EEC, 93/68/EEC**	emendamenti successivi
	and		further amendments
	et		ses successifs amendements
	und		späteren Abänderungen
	y		succesivas enmiendas

Basate sulle legislazioni degli Stati membri in relazione alla compatibilità elettromagnetica ed alla sicurezza dei prodotti.
On the approximation of the laws of Member States relating to electromagnetic compatibility and product safety.
Basée sur la législation des Etats membres relative à la compatibilité électromagnétique et à la sécurité des produits.
Über die Annäherung der Gesetze der Mitgliedsstaaten in bezug auf elektromagnetische Verträglichkeit und Produktsicherheit entsprechen.
Basado en la aproximación de las leyes de los Países Miembros respecto a la compatibilidad electromagnética y las Medidas de seguridad relativas al producto.

Questa dichiarazione è basata sulla conformità dei prodotti alle norme seguenti:
This declaration is based upon compliance of the products to the following standards:
Cette déclaration repose sur la conformité des produits aux normes suivantes:
Diese Erklärung basiert darauf, daß das Produkt den folgenden Normen entspricht:
Esta declaración se basa en el cumplimiento de los productos con las siguientes normas:

EN 55022 (Class A ITE), September 1998:	INFORMATION TECHNOLOGY EQUIPMENT
	RADIO DISTURBANCE CHARACTERISTICS
	LIMITS AND METHODS OF MEASUREMENTS

EN 61000-6-2, September 2005:	ELECTROMAGNETIC COMPATIBILITY (EMC)
	PART 6-2: GENERIC STANDARDS - IMMUNITY FOR INDUSTRIAL ENVIRONMENTS

Lippo di Calderara, January 29th, 2008

Lorenzo Girotti
Product & Process Quality Manager

821001324 (Rev. D)