



# DP1200 Decoder Quick Reference Guide

DP1200 QUICK GUIDE

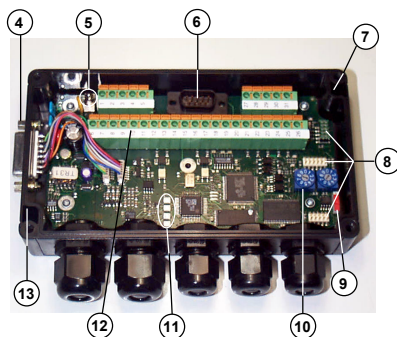


Figure A

- |                                 |                                 |
|---------------------------------|---------------------------------|
| ① 15-pin Reader Connector       | ⑧ Main Interface Selectors      |
| ② Cover Screws (4)              | ⑨ Termination Resistance Switch |
| ③ Compression Connector Panel   | ⑩ Multidrop Address Switch      |
| ④ Reader Connector              | ⑪ LEDs                          |
| ⑤ Power Switch                  | ⑫ Spring Clamp Terminal Blocks  |
| ⑥ Auxiliary Interface Connector | ⑬ Mounting Screw Hole           |
| ⑦ Mounting Screw Hole           |                                 |

For further details on product installation, see the complete Installation Manual available on the WinHost CD included with this product.

## POWER SUPPLY

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

This device is intended to be supplied by an NEC Class 2 power source, rated 10-30 V, minimum 0.50 A.

## Technical Features

ELECTRICAL FEATURES		ELECTRICAL FEATURES	
Power Supply *	10 –30 Vdc	Outputs	
Power Consumption	2 W maximum	OUT1, OUT2 and OUT3	(optocoupled open emitter, open collector)
Main Serial Interface	RS232; RS485 Full-Duplex/ Half-Duplex; 20 mA C.L.	V <sub>CE</sub> max.	40 Vdc
Auxiliary Interface	RS232	Collector Current max.	40 mA continuous; 130 mA pulsed
Baudrates	150 to 115200	V <sub>CE</sub> Saturation	1V at 10 mA max.
Inputs		Power Dissipation max.	90 mW at 40 °C (Ambient temp.)
External Trigger, IN1	(optocoupled NPN or PNP)	USER INTERFACE	
Voltage max.	30 Vdc	LED Indicators	Power On, Good Read
Current Consumption max.	25 mA		External Trigger, Data TX

\* If DP1200 is connected to the Datalogic LS6100 barcode reader, the minimum supply voltage is 12 Vdc.

SOFTWARE FEATURES		SOFTWARE FEATURES	
Readable Codes	EAN/UPC	Parameter Storage	Non-volatile internal EEPROM
	Interleaved 2/5	ENVIRONMENTAL FEATURES	
	Code 39	Operating Temperature	0° to +50 °C (+32° to +122 °F)
	Codabar	Storage Temperature	-20° to +70 °C (-4° to +158 °F)
	Code 93	Humidity max	90% non condensing
Code Selection	Code 128	Vibration	IEC 68-2-6 test FC 1.5 mm;
	EAN 128	Resistance	10 to 55 Hz; 2 hours on each axis
Decoding Safety	Pharmacode	Shock	IEC 68-2-27 test EA 30G;
	Can enable multiple good reads of the same code	Resistance	11 ms; 3 shocks on each axis
Headers & Terminators		PHYSICAL FEATURES	
Operating Modes	Up to 6 codes during one reading phase	Dimensions	167x115x40 mm (6.57x4.53x1.57 in)
	Can enable multiple good reads of the same code	Weight	About 310 g (10.93 oz.)
Configuration Modes	On Line, Automatic Serial On Line, Test		
	<ul style="list-style-type: none"> <li>Through menus using WinHost utility</li> <li>Host Mode (commands from one of the serial ports)</li> </ul>		

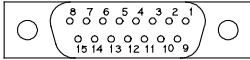
#### Accessories:

Name	Description	Part Number
CAB-518	LS50/LS6100 Connection Cable	91A001000
PG110/DVE-1212A	Power block 110 Vac	B9751057
PG220/DVE-1212A	Power block 220 Vac	B9751027
MEP-542/543	Photocell Kit NPN/PNP	93ACC1727, 93ACC1728

#### Electrical Connections:

The DP1200 can be connected to the following barcode readers: LS2200, LS4100, LS50 or LS6100 through the 15-pin connector (see Figure A, 4).

The details of the connector pins are indicated in the following table:

15-pin D-sub female connector pinout			
Pin	Name	Function	
1	GND	Ground	 <p>15-pin female connector</p>
2	VDC	Operating voltage	
3	-VIDEO	Complementary of video signal	
4	+VIDEO	Video signal representing code	
5	+SCAN	Scan start	
6	-SCAN	Complementary of scan start	
7	SPEED	Scanner speed	
8	SHIELD	Reader shield	
9	I.U	Internal use – do not connect	
10	I.U.	Internal use – do not connect	
11	RR	Right read signal	
12	N.C.	Not connected	
13	RESOL	Resolution signal	
14	BS	Laser off signal	
15	PWR OFF	Scanner power off	

The DP1200 spring clamp connector pinouts are indicated in the following table:

Pin	Name	Function
1	VS	Power supply input voltage +
2	GND	Power supply input voltage -
3	VS	Power supply input voltage +
4	GND	Power supply input voltage -
5	Shield	Reader shield
6	VS	Power supply input voltage +
7	GND	Power supply input voltage -
8	EXT TRIG+	External Trigger +
9	EXT TRIG-	External Trigger -
10	IN1+	Input +
11	IN1-	Input -
12	OUT1+	Output +
13	OUT1-	Output -
14	OUT2+	Output +
15	OUT2-	Output -
16	OUT3+	Output +
17	OUT3-	Output -
27	TXAUX	Auxiliary RS232
28	RTSAUX	Auxiliary handshake RS232
29	RXAUX	Auxiliary RS232
30	CTSAUX	Auxiliary handshake RS232
31	SGND	Signal Ground

Pin	RS232	RS485 Full-Duplex	RS485 Half-Duplex	20 mA C.L.
* 18, 21	TX232	TX485+	RTX485+	CLOUT+
* 19, 22	RTS232	TX485-	RTX485-	CLOUT-
* 20, 23		GNDRS485	GNDRS485	
24	RX232	RX485+		CLIN+
25	CTS232	RX485-		CLIN-
26	SGND			

\* The signals on pins 18, 19 and 20 are represented on pins 21, 22 and 23 to facilitate network connections (i.e. Multiplexer connections using the RS485 half-duplex Interface). In this way the network bus can enter and exit the DP1200 from different spring clamps but be physically connected together.



CAUTION

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

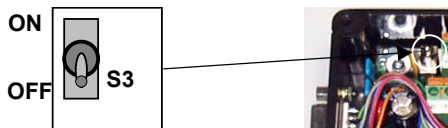


NOTE

*The reader shield signal is internally connected to pin 5 of the DP1200 spring clamp connector (the user should connect pin 5 to earth ground).*

### Power Supply:

Power can be supplied to the decoder through the pins provided on the spring clamp connector.  
The power switch switches ON and OFF the power supply for both the decoder and the connected reader.

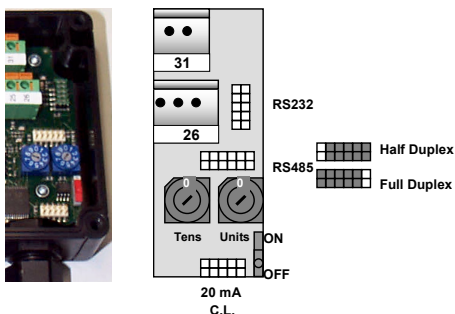


### Interface and Address Selection:

To select the interface type, position the jumper block as indicated in the following figure. The relative signals are available on the spring clamp connector.

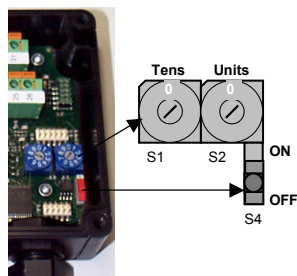
The RS232 interface type is factory set.

The relative parameters of the main serial interface (baud rate, data bits, etc.) are selected via software either using the WinHost utility program or Host Mode programming. For details refer to WinHost Help On-Line.



In Multiplexer applications this address is in the range 00-31; in RS485 Master/Slave applications the address is in the range 00-04. If assigning the address through WinHost, the rotary switches have no effect.

The switch S4 enables/disables the insertion of the bus termination resistor for RS485 Half-Duplex Multidrop applications.

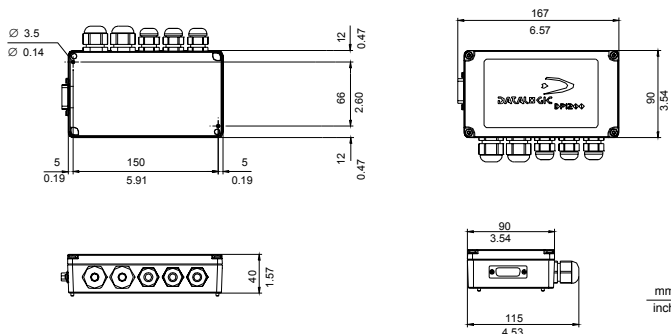


CAUTION

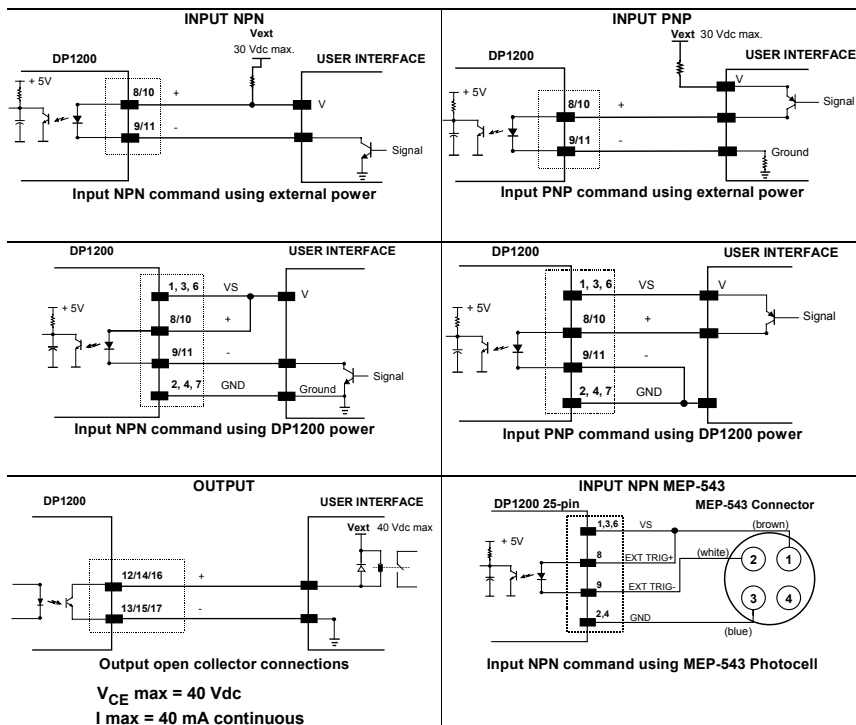
*In Multiplexer applications the termination resistor must be enabled ONLY on the last device of the chain, the farthest away from the Multiplexer (assuming the Multiplexer is the first device of the chain). On all the other devices this resistor MUST NOT be enabled (S4 = OFF).*

*Normally it is not necessary to enable the termination resistor (S4 = always OFF); it is suggested only in applications where the communication speed or the bus length are critical parameters.*

### Mechanical Installation:

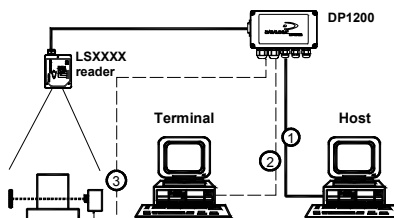


### Input/Output Connections:



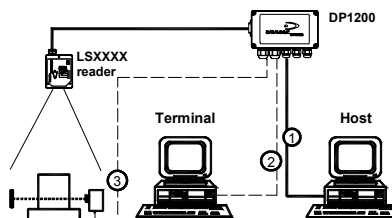
# Connectivity:

## RS232 Point-to-point layout



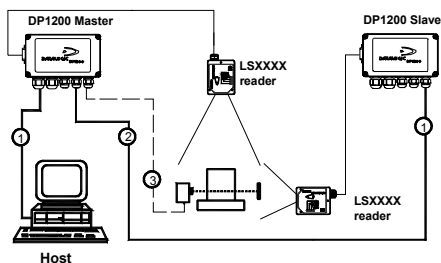
- ① Main Serial Interface (RS232)
- ② Auxiliary Serial Interface (Local Echo) (RS232)
- ③ External Trigger (for On-Line Mode)

## RS485 Point-to-Point Layout



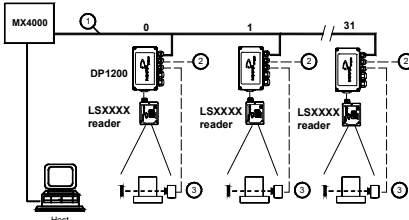
- ① Main Serial Interface (RS485 Full Duplex)
- ② Auxiliary Serial Interface (Local Echo) (RS232)
- ③ External Trigger (for On-Line Mode)

## RS232 Master/slave layout



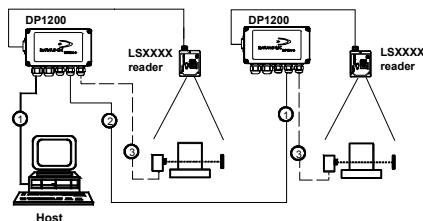
- ① Main Serial Interface (Slaves RS232 only)
- ② Auxiliary Serial Interface (Local Echo) (RS232)
- ③ External Trigger (for On-Line Mode)

## Multiplexer layout



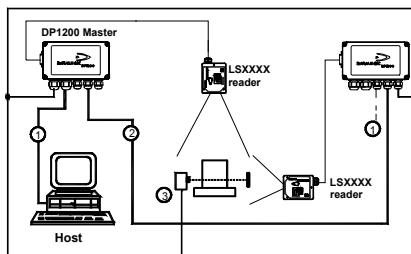
- ① Main Serial Interface (RS485 Half-Duplex)
- ② Auxiliary Serial Interface (Local Echo) (RS232)
- ③ External Trigger (for On-Line Mode)

## Pass-through layout



- ① Main Serial Interface (RS232)
- ② Auxiliary Serial Interface (Local Echo) (RS232)
- ③ External Trigger (for On-Line Mode)

## RS485 Master/slave layout



- ① Auxiliary Serial Interface (RS232)
- ② Main Serial Interface (RS485 Half-Duplex)
- ③ External Trigger



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**DP1200-XXXX, High Performance Decoder**

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:

<b>89/336/EEC EMC Directive</b>	<b>e</b>	<b>92/31/EEC, 93/68/EEC</b>	emendamenti successivi
	and		further amendments
	et		ses successifs amendements
	und		späteren Abänderungen
	y		sucesivas 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.

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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, August 1994:** LIMITS AND METHODS OF MEASUREMENTS OF RADIO DISTURBANCE CHARACTERISTICS OF INFORMATION TECHNOLOGY EQUIPMENT (ITE)

**EN 61000-6-2, April 1999:** ELECTROMAGNETIC COMPATIBILITY (EMC).  
PART 6-2: GENERIC STANDARDS - IMMUNITY FOR INDUSTRIAL ENVIRONMENTS

Lippo di Calderara, 21/03/2002

Ruggero Cacioppo  
  
Quality Assurance Supervisor