BLADE™

QUICK REFERENCE GUIDE

Image Based Industrial Reader

Datalogic S.r.l.
Via San Vitalino 13
40012 Calderara di Reno (BO)
Italy
Tel. +39 051 3147011
Fax +39 051 3147205

www.datalogic.com

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NOTE: This Quick Reference Guide does not replace the Product Reference Guide. Download the Product Reference Guide by reading the QR code here or at www.datalogic.com.

NOTE: Scan this QR code to download the multilingual quick guide.

NOTA: Scansionare questo QR Code per scaricare la guida rapida multilingue.

HINWEIS: Scannen Sie diesen QR-Code, um die mehrsprachige Kurzanleitung herunterzuladen.

NOTA: Escanee este código QR para descargar la guía rápida multilingüe.

REMARQUE: Scannez le code QR suivant pour télécharger le guide rapide multilingue.

OPMERKING: Scan deze QR-code om de meertalige snelgids te downloaden.

ANMÄRKNING: Skanna denna QR-kod för att ladda ner den flerspråkiga snabbguiden.

注释：扫描此二维码下载多语种快速指南。

INSTALLATION PROCEDURE

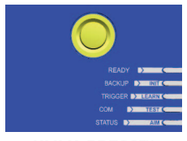
1. Physically mount the Blade reader.
2. Make the necessary electrical connections.
3. Configure the reader using the X-PRESS interface (simple configuration) or the DL.CODE software configuration program (complete configuration).

HMI X-PRESS™ INTERFACE

In normal operating mode the colors and meaning of the five LEDs are illustrated in the following table:

READY (green)	indicates the device is ready to operate.
BACKUP (green)	indicates that a valid Backup is present on the SD card.
TRIGGER (yellow)	indicates the status of the reading phase.
COM (yellow)	indicates active communication.
STATUS (red)	blinks toghether with Ready led to indicate an active diagnostic message.

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



HMI X-PRESS™

The single push button gives immediate access to the following relevant functions:

- Aim sets the device in continuous reading mode, with all code symbologies enabled, in order to easily check out were the reading area is, and correctly aim the reader.
- Test Mode with bar graph visualization to check static reading performance.
- Learn to self-detect and auto-configure for reading an unknown barcode (by type and length). Only one symbology type can be saved using this method. Performing Autolearn on a second symbology will overwrite the first one.
- Init to forcibly formatting the SD Card possibly inserted, and execute a backup on it.

PRODUCT OVERVIEW

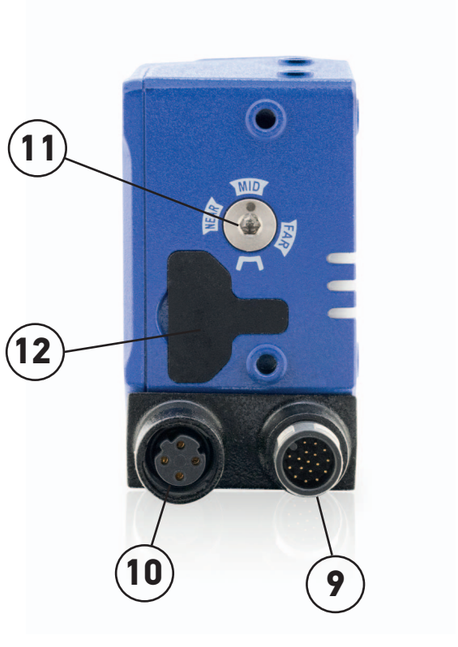
Front models

1	Reading Window
2	HMI X-PRESS™ Interface
3	360° Feedback
4	90° Rotating Connector Block

Side models

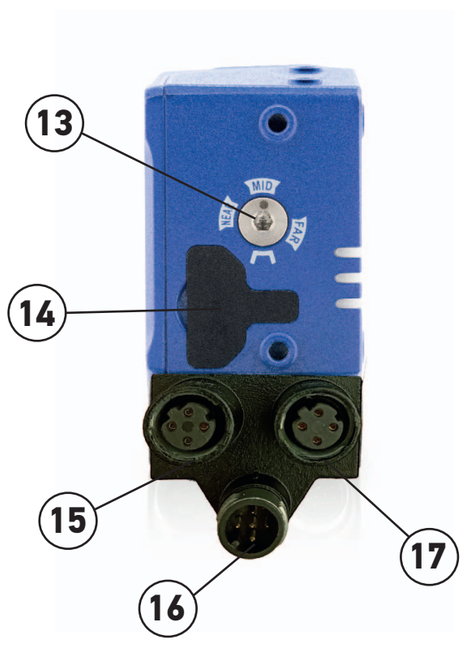
5	Reading Window
6	HMI X-PRESS™ Interface
7	360° Feedback
8	90° Rotating Connector Block

Ethernet models



9	Power - COM - I/O Connector (17 pin)
10	Ethernet Connector (4 pin)
11	Focus adjustment (Blade 200 models only)
12	SD Card slot

Fieldbus models



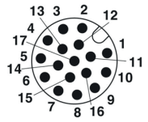
13	Focus adjustment (Blade 200 models only)
14	SD Card slot
15	Ethernet Connector 1 (4 pin)
16	Power - I/O Connector (5 pin)
17	Ethernet Connector 2 (4 pin)

CONNECTIONS

Ethernet models

POWER, COM and I/O connector

M12 male 17 pin



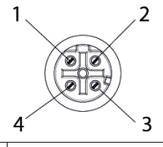
PIN	NAME	FUNCTION	
1	Vdc	Power supply input voltage +	
2	GND	Power supply input voltage -	
Connector Case	CHASSIS	Connector case provides electrical connection to the chassis	
6	I1A	External Trigger A (polarity insensitive)	
5	I1B	External Trigger B (polarity insensitive)	
13	I2A	Input 2 A (polarity insensitive)	
3	I2B	Input 2 B (polarity insensitive)	
9	O1	Output 1	(NPN or PNP short circuit protected and software programmable)
8	O2	Output 2	
16	-	-	
14	RX	Auxiliary RS232 RX	
4	TX	Auxiliary RS232 TX	
7	ID+	ID-NET™ network +	
15	ID-	ID-NET™ network -	

PIN	NAME	RS232	RS422 Full Duplex (*)
17	Main Serial Port (sw selectable) (*)	TX	TX+
11		RX	RX+ (**)
12		-	TX-
10		-	RX- (**)

* Blade 200 models only
** DO NOT leave floating. See Reference Manual for connection details.

Ethernet connector

M12 D-Coded female 4 pin

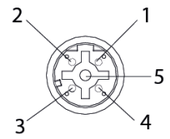


PIN	NAME	FUNCTION
1	TX+	Transmit data (positive pin)
2	TX-	Transmit data (negative pin)
3	RX+	Receive data (positive pin)
4	RX-	Receive data (negative pin)

Fieldbus models

POWER and I/O connector

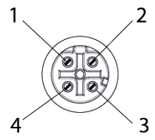
M12 A-Coded male 5 pin



PIN	NAME	FUNCTION
1	Vdc	Power supply input voltage +
2	IA	Input A (polarity insensitive)
3	GND	Power supply input voltage -
4	IB	Input B (polarity insensitive)
5	-	-

Ethernet connector 1

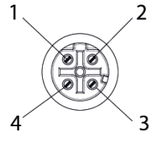
M12 D-Coded female 4 pin



PIN	NAME	FUNCTION
1	TX+	Transmit data (positive pin)
2	TX-	Transmit data (negative pin)
3	RX+	Receive data (positive pin)
4	RX-	Receive data (negative pin)

Ethernet connector 2

M12 D-Coded female 4 pin



PIN	NAME	FUNCTION
1	TX+	Transmit data (positive pin)
2	TX-	Transmit data (negative pin)
3	RX+	Receive data (positive pin)
4	RX-	Receive data (negative pin)

TECHNICAL FEATURES

	BLADE 100	BLADE 200
ELECTRICAL FEATURES		
Power		
Supply Voltage (Vdc)	10 to 30 Vdc	
Max Consumption (A)	0.45	0.50
Communication Interfaces		
RS232	2400 to 115200 bit/s	2400 to 115200 bit/s
RS422 Full Duplex	-	2400 to 115200 bit/s
ID-NET ™	Up to 1Mbaud	
Ethernet	10/100 Mbit/s	
Inputs	Opto-coupled and polarity insensitive (see Product Reference Guide for details)	
Max Voltage	30 Vdc	
Max Input Current	10 mA	
Outputs	NPN or PNP short circuit protected (see Product Reference Guide for details)	
V_{OUT} (I_{LOAD} = 0 mA) Max.	30 Vdc	
V_{OUT} (I_{LOAD} = 100 mA) Max.	3 Vdc	
I_{LOAD} Max	100 mA	
OPTICAL FEATURES		
see Product Reference Guide for details		
PHYSICAL FEATURES		
Dimensions	H x W x L	
x1xx Models (connector at 0°)	83 x 68 x 38 mm (3.27 x 2.68 x 1.5 in)	
x2xx, x3xx Models (connector at 0°)	104 x 86 x 35.8 mm (4.1 x 3.38 x 1.41 in)	
Weight	310 g. (10.93 oz.)	
Material	Aluminium	
ENVIRONMENTAL FEATURES		
Operating Temperature	0 to 50 °C (32 to 122 °F)	
Storage Temperature	-20 to 70 °C (-4 to 158 °F)	
Max Humidity	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 500 Hz; 2 hours on each axis	
Shock Resistance EN 60068-2-27	30g; 11 ms; 3 shocks on each axis	
Protection Class EN 60529	IP65	
USER INTERFACE		
LED Indicators	Power; Ready, Backup, Trigger, Com, Status; Ethernet Network; (see Product Reference Guide for other LEDs)	
Other	X-PRESS™ Keypad button	

SOFTWARE FEATURES

READABLE CODE SYMBOLOGIES	
1-D and stacked	
•PDF417 Standard and Micro PDF417 •Code 128 (GS1-128) •Code 39 (Standard and Full ASCII) •Code 32 •MSI •Standard 2 of 5 •Matrix 2 of 5 •Interleaved 2 of 5	•Codabar •Code 93 •Pharmacode • EAN-8/13 - UPC-A/E (including Addon 2 and Addon 5) •GS1 DataBar Family •Composite Symbologies
Operating Mode	
CONTINUOUS, PHASE MODE	
Configuration Methods	
X-PRESS™ Human Machine Interface Windows-based SW (DL.CODE™) via Ethernet Host Mode Programming sequences sent over Serial or Ethernet TCP interfaces	
Parameter Storage	
Permanent memory (Flash)	

COMPLIANCE

Power Supply

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

This product is intended to be connected to a UL Listed Direct Plug-in Power Unit marked LPS or "Class 2".

LED Safety

LED illuminators integrated are classified as "EXEMPT RISK GROUP" according to IEC62471.

EUROPEAN DECLARATION OF CONFORMITY

Hereby, Datalogic S.r.l. declares that the full text of the European Declaration of Conformity is available at: www.datalogic.com. Select the Support & Service > Downloads > Product Certifications link where you can search for your specific product certification.

UKCA DECLARATION OF CONFORMITY

Hereby, Datalogic S.r.l. declares that the full text of the UKCA Declaration of Conformity is available at: www.datalogic.com. Select the Support & Service >Downloads > Product Certifications link where you can search for your specific product certification.

PATENTS

See www.patents.datalogic.com for patent list.
This product is covered by one or more of the following patents:
Design patents: EM002486514, EM015009660, GB9002486514 0001/0003, USD743397, USD800120, ZL201430537609.3
Utility patents: DE202015004175, EP2517148B1, EP2616988B1, EP2649555B1, EP2795534B1, EP3016028B1, EP3092597B1, IT0282308, US10133895, US10796117, US7433590, US8245926, US8888003, US8915443, US9122939, US9355292, US9361503, US9430689, US9798948, ZL200980163411.X, ZL201080071124.9, ZL201180044793.1, ZL201280010789.8, ZL201480072926.X

WEEE STATEMENT

Waste Electrical and Electronic Equipment (WEEE) Statement

English

For information about the disposal of Waste Electrical and Electronic Equipment (WEEE), please refer to the website at www.datalogic.com

Italian

Per informazioni sullo smaltimento delle apparecchiature elettriche ed elettroniche consultare il sito Web www.datalogic.com

French

Pour toute information relative à l'élimination des déchets électroniques (WEEE), veuillez consulter le site internet www.datalogic.com

German

Informationen zur Entsorgung von Elektro- und Elektronik- Altgeräten (WEEE) erhalten Sie auf der Webseite www.datalogic.com

Spanish

Si desea información acerca de los procedimientos para el desecho de los residuos del equipo eléctrico y electrónico (WEEE), visite la página Web www.datalogic.com

Portuguese

Para informações sobre a disposição de Sucatagem de Equipamentos Elétricos e Eletrônicos (WEEE -Waste Electrical and Electronic Equipment), consultar o site web www.datalogic.com

Chinese

有关处理废弃电气电子设备 (WEEE)的信息， 请参考Datalogic公司的网站www.datalogic.com。

Japanese

廃電気電子機器(WEEE)の処理についての関連事項はDatalogicのサイト www.datalogic.com をご参照下さい。