



**FireScan™**

**D141 READERS**

**QUICK REFERENCE**

**GUIDA RAPIDA**

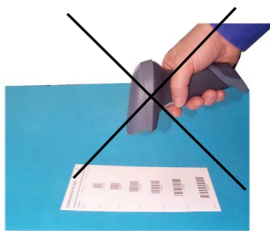
**GUIDE RAPIDE**

**KURZANLEITUNG**

**GUÍA RÁPIDA**



## USING FIRESCAN™ SERIES READERS



### UK

FireScan™ guns automatically scan barcodes **at a distance**. Simply aim and pull the trigger. Code scanning is performed along the scan line emitted from the reading window. This line must cross the entire code.

Successful scanning is obtained by tilting the scanner with respect to the barcode to avoid direct reflections which impair the reading performance, see the figure.

### I

Con le pistole FireScan™ la lettura dei codici a barre avviene **a distanza**: è sufficiente mirare sul codice e premere il grilletto. La lettura avviene sulla linea laser che deve attraversare interamente il codice da leggere.

Le condizioni ottimali per la lettura si ottengono inclinando lo scanner rispetto al codice, così da evitare riflessioni dirette, che potrebbero compromettere le prestazioni di lettura (vedere la figura).

### F

Avec les pistolets FireScan™, la lecture des codes s'effectue automatiquement et **à distance**. Il suffit de viser le code et d'appuyer sur la gâchette. Le code est lit sur la ligne sortant de la fenêtre de lecture de l'appareil. Cette ligne doit traverser le code à barres à lire de part en part.

Pour des prestations optimales inclinez la douchette par rapport au code à lire, afin d'éviter des réflexions directes qui pourraient compromettre la performance de lecture (voir la figure).

## D

Die FireScan™ Lese pistolen lesen Strichcodes automatisch und **berührungslos**. Es genügt auf den Code zu zielen und die Taste zu drücken. Der Code wird mittels einer Lichtlinie gelesen, die das Gerät durch das Lesefenster verlässt und den gesamten Code durchqueren muß.

Eine optimale Lesung ist gewährleistet, wenn der Benutzer die Pistole bzgl. den Code etwas neigt, um eine direkte Reflexion zu vermeiden, wie im Bild oben gezeigt wird.

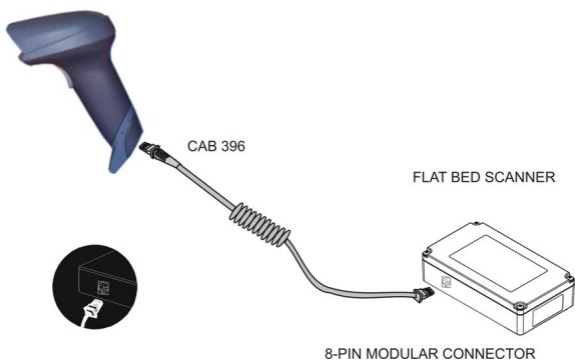
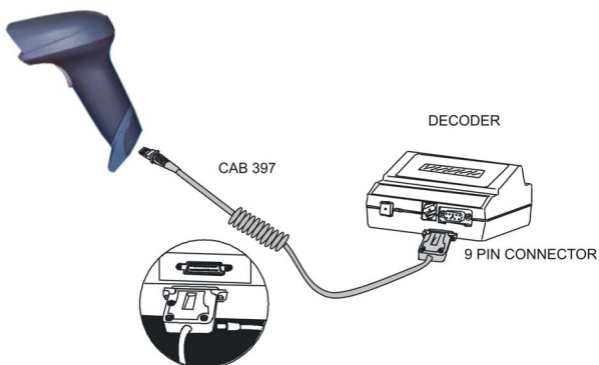
## E

Los lectores FireScan™ capturan automáticamente códigos de barras **a distancia**: sólo hay que encuadrar el código y apretar el gatillo. La lectura se realiza sobre el rayo láser emitido por la ventana de lectura que debe atravesar el código de parte a parte.

Las condiciones óptimas para la lectura se obtienen inclinando el escáner respecto al código de barras para evitar reflexiones directas de luz que podrían perjudicar el rendimiento de lectura (ver figura).

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## CONNECTIONS

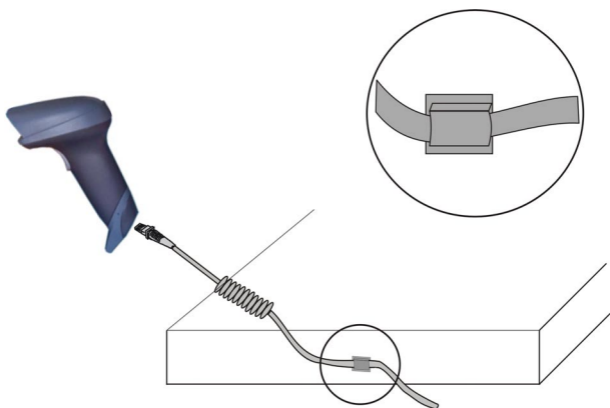


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## DISCONNECTING THE CABLE



## CABLE CLAMP



**UK** An adhesive cable clamp is provided to fix the cable to a surface.

**I** Il fermacavo adesivo fornito consente di fissare il cavo ad una superficie.

**F** Le serre-fil adhésive fourni permis de fixer le câble sur la surface voulue.

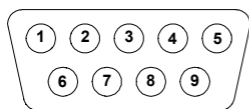
**D** Die klebende Kabelverschraubung erlaubt das Kabel auf die Tischoberfläche zu verschrauben.

**E** La brida adhesiva de pared permite fijar el cable en una superficie.

## ELECTRICAL CONNECTIONS

The FireScan™ D141 scanner can be used with CAB 397 (coiled cable and 9-pin male connector) for direct connection to the DATAPLUS and DLD series decoders.

### CAB 397

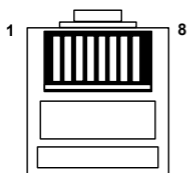


- |                   |                |
|-------------------|----------------|
| 1 - Not connected | 5 - TRIGGER    |
| 2 - SCAN          | 6 - BEEPER/LED |
| 3 - Not connected | 7 - VIDEO      |
| 4 - GND           | 8 - LASER ON   |
|                   | 9 - +VCC       |

### 9-pin male connector

The FireScan™ D141 scanner can be used with CAB 396 (coiled cable and 8-pin modular connector) for direct connection to PSC Inc. flat bed scanners.

### CAB 396



- |                   |                   |
|-------------------|-------------------|
| 1 - TRIGGER       | 5 - BEEPER/LED    |
| 2 - LASER ON      | 6 - Not connected |
| 3 - Not connected | 7 - +VCC          |
| 4 - VIDEO         | 8 - GND           |

### 8-pin modular connector

A definition of the terms used to identify the pins is as follows:

**SCAN** This scanner "open collector" output signal is used to synchronize the decoding logic with the scanner. Each transition of this signal from low-to-high or high-to-low corresponds to the start of a scan. The signal is a TTL level 57 ms period square wave (see the following figure Video and Scan signals).

**GND** Supply ground and signal reference.

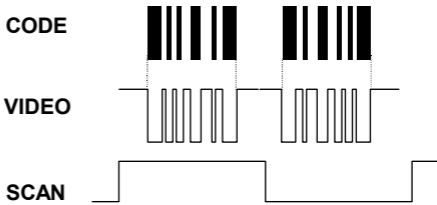
**TRIGGER** This output is connected to GND when the trigger is pressed and is left floating when the trigger is released.

**BEEPER/LED** This scanner input drives the green decoding LED, and the beeper in the scanner. The LED turns on when a positive current is applied to the pin. The beeper sound is obtained pulsating this current at a frequency of about 2 kHz. The maximum voltage that can be applied to this input is 5 Vdc.

**VIDEO** This "open collector" scanner output is electrically identical to the barcode. It supplies a series of pulses the length of which are proportional to the width of the elements within the barcode read. A low output level corresponds to a bar. The frequency of the pulses depends on the density of the code, the distance from code and the programmed output scan frequency (see the following figure Video and Scan signals).

**LASER ON** A positive voltage between 4.75 and 5 Vdc is applied to this input by the decoder when the decoding logic senses the trigger is pressed; this causes the laser to start scanning and the red LED to turn on.

**+VCC** This input must be connected to the positive pin of the supply voltage (4.75 - 14 Vdc). When the LASER ON pin is positive, all the current necessary to power the scanner flows through +VCC.



**Video and Scan Signals**

## TECHNICAL FEATURES

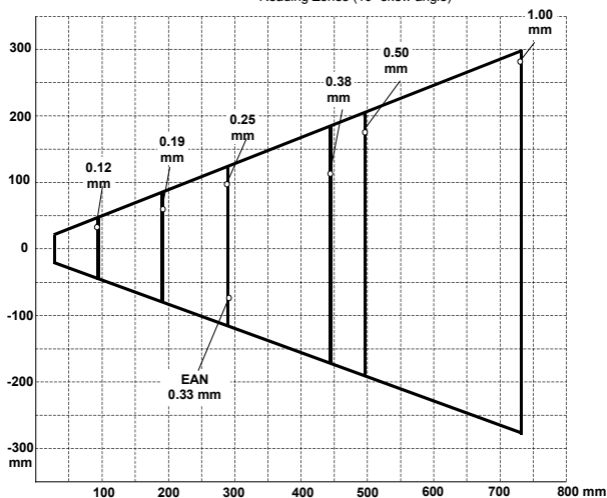
### FireScan™ D141

<b>Electrical Features</b>	
Power supply	4.75 - 14 Vdc
Consumption Operating Stand by	180 mA @ 5 Vdc 5 mA @ 5 Vdc
Scan Rate	35 ± 5 scans/sec
Reading Indicators	Laser On (red) LED / Good Read (green LED), Beeper (available for suitable decoders)
<b>Optical Features</b>	
Light Source	VLD 630 ~ 680 nm
Power (peak)	0.9 mW
Scan Angle	42° ± 2°
Laser Safety Class EN 60825-1 / CDRH	2
Reading Field	see reading diagram
Max. Resolution	0.12 mm (5 mils)
PCS	min. 15% (Datalogic Test Chart)
<b>Environmental Features</b>	
Working Temperature	0 °C to + 50 °C
Storage Temperature	-20 °C to + 70 °C
Humidity	90% non condensing
Drop resistance (on concrete)	IEC 68-2-32 Test ED 1.5 m
ESD Protection	16 KV
Protection Class	IP30
<b>Mechanical Features</b>	
Weight (without cable)	about 210 g (7.4 oz.)
Cable length (CAB 397 – fully extended) (CAB 396 – fully extended)	2.60 m (8 ft. 5 in.) 3.00 m (9 ft. 9 in.)



## READING DIAGRAM

Reading Zones (10° skew angle)



## FCC COMPLIANCE

**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.

## WARRANTY

- UK** Datalogic warranties this product against defects in workmanship and materials, for a period of 24 months from the date of shipment, provided that the product is operated under normal and proper conditions. Datalogic has the faculty to repair or replace the product, these provisions do not prolong the original warranty term. The warranty does not apply to any product that has been subject to misuse, accidental damage, unauthorized repair or tampering.
- I** Datalogic garantisce questo prodotto contro difetti di fabbricazione e di materiali per 24 mesi dalla data di consegna, a condizione che il prodotto sia utilizzato come previsto. Datalogic si riserva la facoltà di riparare o sostituire il prodotto. Quanto sopra non prolunga la garanzia originale. La garanzia non si applica a prodotti utilizzati in modo non corretto, danneggiati accidentalmente, sottoposti a riparazioni non autorizzate o manomessi.
- F** Datalogic garantit ce produit de tout défaut de fabrication ou des matériaux pendant 24 mois à compter de la date de livraison, à condition que le produit soit utilisé correctement. Datalogic a la faculté de réparer ou de remplacer ce produit. Ces mesures ne prolongeront pas l'échéance de la garantie. La garantie ne s'applique pas aux produits qui ont été utilisés de façon incorrecte, accidentellement endommagés, soumis à des réparations non autorisées ou bien altérés.
- D** Datalogic gibt für dieses Produkt eine Garantie von 2 Jahren auf Herstellungs- und Materialfehler ab Versandsdatum, falls das Produkt unter normalen und angemessenen Bedingungen verwendet wurde. Datalogic behält sich vor, das Produkt entweder zu reparieren oder zu ersetzen, was aber den originalen Garantetermin nicht verlängert. Die Garantie erlischt bei unsachgemäßer Verwendung und unberechtigter Veränderungen am Produkt.
- E** Datalogic garantiza este producto contra todos los defectos de fabricación y materiales por un periodo de 24 meses desde la fecha de envío, a condición de que el producto sea utilizado en condiciones normales y correctas. Datalogic tiene el derecho de reparar o reemplazar el producto sin que esto suponga una prolongación de la garantía original. La garantía no será válida si el producto ha sufrido abusos, daños accidentales, reparaciones no autorizadas o ha sido falsificado.

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## SERVICES AND SUPPORT

**UK** Datalogic provides several services as well as technical support through its website. Log on to **[www.datalogic.com/services](http://www.datalogic.com/services)** and click on the links indicated for further information including:

**I** Datalogic fornisce servizi e supporto tecnico tramite il suo sito web. Connettersi al sito **[www.datalogic.com/services](http://www.datalogic.com/services)** e cliccare sui link indicati per avere ulteriori informazioni, come elencato di seguito:

**F** Datalogic fournit différents services et une aide technique en ligne. Connectez-vous sur **[www.datalogic.com/services](http://www.datalogic.com/services)** et cliquez sur le lien indiqué pour obtenir des informations complémentaires sur:

**D** Datalogic bietet unterschiedliche Service-Leistungen, wie auch technische Unterstützung über Internetseiten. Gehen Sie auf die Seite **[www.datalogic.com/services](http://www.datalogic.com/services)** und klicken Sie auf die Links die Sie über folgende Punkte informieren::

**E** Datalogic proporciona servicios y soporte técnico a través su página web. Para ello Usted debe conectarse a **[www.datalogic.com/services](http://www.datalogic.com/services)** y hacer clic en los enlaces indicados a continuación para recibir más información:

- **[Datalogic Services – Warranty Extensions and Maintenance Agreements](#)**
- **[Downloads](#) – Software Downloads, Manuals and Catalogues**
- **[Contact Us](#) – Listing of Datalogic Subsidiaries and Quality Partners**
- **[Authorised Repair Centres](#)**
- **[Products >Hand-Held Readers >Software Tools](#) – DL Sm@rtSet™**

DL Sm@rtSet™ is a Windows-based utility program which allows device configuration using a PC. It provides RS232 interface configuration as well as configuration barcode printing.



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**FireScan D1XX**

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and all its models  
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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:  
den nachstehenden 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>	e	<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 la siguientes normas:

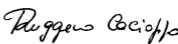
**EN 55022, August 1994:**

LIMITS AND METHODS OF MEASUREMENTS OF  
RADIO DISTURBANCE OF INFORMATION  
TECHNOLOGY EQUIPMENT (ITE)

**EN 55024, September 1998:**

INFORMATION TECHNOLOGY EQUIPMENT.  
IMMUNITY CHARACTERISTICS. LIMITS AND  
METHODS OF MEASUREMENTS

Lippo di Calderara, 23/02/2004

  
Ruggero Cacioppo  
Quality Assurance Laboratory Manager