



# LDS4600

Hand Held Etched 2D Image Reader



**LDS4600 - Interchangeable  
V2 Optic      M3 Optic**

## Description

The LDS4600 is a hand held input device, designed as a joint effort between engineering groups at InData Systems and HandHeld Products – a leader in imaging technologies, for reading and decoding small-scale etched or embossed two dimensional (2D) Matrix symbologies. The InData Systems Patented LDS-V2 (Light Delivery System) focuses the light from the scanner to the precise point the light is needed and at an angle at which specular reflection is reduced considerably. This provides an optimal contrast ratio on etched and embossed symbologies and relates to achieving quicker, more successful bar code decoding. The Patented LDS4600-M3 is designed to take etched marks on shiny surfaces and use the shininess to make a virtual white background with a black bar code.

Designed to optimally read and decode exceptionally small Datamatrix bar codes (the code selected as the ATA Spec2000<sup>2</sup> and EIA standard for small parts marking); the LDS4600 is the scanner of choice for a wide range of applications. Because it is both difficult and costly to place a label on small electrical, medical instruments or aircraft components, the small Datamatrix codes are many times applied directly to the surface of the part itself by laser etching, chemical etching or use of the ink jet applied paints. This many times leads to low contrast ratios, and bar codes on irregular surfaces. Both of these factors lead to bar codes that are not easily decoded. The LDS4600 optimizes the readability by concentrating the lighting on the target bar code at a sharp angle and magnifying the codes. The angle at which the light hits the object minimizes the “wash out” effect caused by irregular and shiny surfaces.

Lightweight, balanced and easy to use, the LDS4600 can be used in repetitive, high volume hand scanning operations in even the most demanding environments. The LDS4600 can be configured for keyboard wedge, USB Serial or USB Keyboard wedge emulation, TTL RS-232, or True RS-232. The LDS4600 connects to all popular PCs and portable data terminals. The LDS4600 can be integrated with all types of customer systems. Our optics are available on the Cordless 4620 and the self contained portable terminals (Dolphin 9500 series) as well.

## Features

**2D Image Reader**

**Supports All Popular 1D & 2D Symbologies**

**Handheld Reader**

**Omni-Directional 1D & 2D Scanning**

**Intuitive scanning**

## Benefits

Handheld image reader for reading and decoding etched 2D symbologies.

LDS4600 supports all DataMatrix, QR Code, Aztec and Micro-PDF417 barcodes. It is specially designed to read ultra small etched or embossed matrix bar codes and OCR fonts. Additional symbologies may be added as emerging codes are approved by AIM.

Opens up new 2D bar code and image capture possibilities in portable handheld and fixed scanning applications.

The imaging technology basis for the LDS4600 means it can offer omni-directional scanning which greatly simplifying operator training and increasing productivity.

The LDS4600 is a near contact scanner. Its design helps the user to immediately reason how to line up the bar code with the scanner between the two light pipes or in the guide.



The Electronics Industry Association (EIA) is an industry trade association of key US electronics manufacturers (for example, Intel, Motorola, Texas Instruments)  
<sup>2</sup> The Air Transport Association (ATA) is an industry trade association of many of the aircraft manufacturers setting standards for their industry – one being SPEC2000.

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# LDS4600 Technical Specifications

## Specifications

### Performance:

<b>LDS4600 Focal Point:</b>	Contact - .2 inches from end of Light Pipe
<b>LDS4600 Minimum bar:</b>	Barcodes with a minimum 4.75 mil narrow element (3mm DataMatrix, etc.)
<b>Rotational Sensitivity:</b>	360°
<b>Field of view:</b>	0.35-.8 inches/ 0.9 – 2.0 cm (depends on particular lens recommended for target)
<b>Ambient Light:</b>	Total darkness to 1,000 lux
<b>Aiming:</b>	Near Contact, between light pipes on V2, held at angle in Plastic guides on M3 series

### Symbologies:

<b>Matrix:</b>	DataMatrix (ECC 000, 050, 080,100,140, 200), QR Code, Micro-PDF417 and Aztec
<b>Linear:</b>	Code 39, Code 128, I-2 of 5, and most other linear codes. ** Note they MUST be VERY short in length to be viewed in our window**
<b>OCR Fonts:</b>	OCR-A, OCR-B, OCR-Semi
<b>Interfaces:</b>	RS232, Keyboard Wedge, and USB – Serial / USB Keyboard Wedge
<b>Programmable Options:</b>	Baud, Parity, Extensive Data Formatting, and Code Options

### Mechanical/Electrical:

<b>Dimensions:</b>	
<b>Length:</b>	5.6 in. (14.2 cm)
<b>Height:</b>	6.2 in. (15.7 cm)
<b>Width:</b>	3.2 in. (8.1 cm)
<b>Weight w/o cord:</b>	8.9 oz. (253 g)
<b>Power Requirements:</b>	4.5V - 12 volts
<b>Current Draw:</b>	300 mA or less depending on input voltage (when illumination LEDs are on)

### Environmental:

<b>Temperature:</b>	
<b>Operating:</b>	-0°C to 50°C
<b>Storage:</b>	-40°C to +60°C
<b>Humidity:</b>	95% RH, non-condensing at 50°C
<b>ESD:</b>	Functional after 15KV discharge – Optional ESD conductive Coating available.
<b>Agency:</b>	FCC Class B, CE



Due to InData Systems continuing product improvement programs, specifications and features herein are subject to change without notice



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