

# POWERSCAN™ 9500 SERIES



## 2D area imagers with omnidirectional reading thrive in rugged and indestructible environments



### RUGGED INDUSTRIAL AREA IMAGERS

The PowerScan 9500 product series is Datalogic's premium line of rugged industrial handheld area imagers including a corded model (PD9500) and 2 cordless models with either Bluetooth® wireless technology (PBT9500) or Datalogic's STAR Cordless System™ 2.0 (PM9500), a proprietary narrow band radio.

### NEW TECHNOLOGY

The PowerScan 9500 imagers introduce a new technology with the 'Liquid Lens' feature which increases the depth of field and allows the reading of standard, wide and high density bar codes. Datalogic's Motionix™ motion-sensing technology detects the natural actions of the operator to automatically switch the scanner into the desired scanning mode (handheld or presentation scanning). Additionally, the PowerScan 9500 family uses a soft-pulsed white illumination light resulting in reduced flashes, which is very gentle on the eyes and less troublesome to the operator during scan-intensive applications.

### GOOD-READ FEEDBACK AND SUPERIOR READING PERFORMANCE

The PowerScan 9500 imagers feature Datalogic's exclusive 3 Green Lights (3GL™) for superior good-read feedback. The patented 'Green Spot' directly on the code and dual good-read LEDs on the top and back of the cap add increased visibility at any angle.

All models have multi-interface capabilities built in featuring the most popular interfaces: RS-232, RS-485, Keyboard Wedge and USB. The Datalogic Aladdin™ configuration program provides user-friendly features that simplify the start-up procedure, even for inexperienced users.

### CORDLESS MODELS ARE SIMPLE TO USE AND DEPLOY

The PowerScan PBT9500 cordless model is based on Bluetooth 3.0 standard wireless technology, Class 1 Range (in open air); up to 100 m / 328 ft and is available in a Standard Range (SR) model.

The PowerScan PM9500 cordless model uses narrow band radio communications with Datalogic's STAR Cordless System™ 2.0 and provides increased productivity and flexibility in the workplace. The PM9501 model also offers two display options: 4 configurable keys and a full 16-key keyboard. This increases interaction between the host and the user allowing a two-way exchange of information for more reliable and effective communications.

### FEATURES

- High-performance Liquid Lens allows one model to read standard, wide and high density codes
- Snappy omnidirectional reading
- Intuitive aiming system
- Soft white light illumination
- Bluetooth 3.0 compliant: Class 1; Piconet with up to 7 scanners connected to the same base station
- Multiple interfaces available
- Ethernet Connectivity (Standard and Industrial)
- Lithium-Ion battery replaces in 3 seconds!
- Datalogic's Motionix™ motion-sensing technology
- Ergonomic shape provides hours of tireless data collection for the user
- Image capture
- Datalogic's 3GL™ (3 Green Lights) technology and loud beeper for good-read feedback
- Water and Particulate Sealing Rating: IP65
- In-field replaceable window and cradle contacts
- EASEOFCARE Service Plans offer a wide range of service options to protect your investment, ensuring maximum productivity and ROI

### INDUSTRIES - APPLICATIONS

- Entertainment
  - Access Control
  - Mobile Coupons
  - Ticket Validation
  - Security / Age Verification
  - Lottery
- Manufacturing Shop Floor:
  - Work-in-Progress
  - Sub-Assembly
  - Component Tracking
  - Quality Control
  - Time and Cost Analysis
  - Machine Replenishment / Configuration
  - Line Inventory Control
- Warehouse and Logistic Centers
  - Shipping / Receiving
  - Parcel Preparation
  - Picking / Put Away
  - Automatic Sorting Back-Up
  - End of Line Sorting



## POWERSCAN 9500 SERIES

# TECHNICAL SPECIFICATIONS

### WIRELESS COMMUNICATIONS

<b>PBT9500</b>	<b>Bluetooth Wireless Technology:</b> Piconet: Max. 7 readers per radio receiver (cradle and commercial dongle); Profiles: HID (Human Interface Device); SPP (Serial Port Profile); Protocol: Bluetooth 3.0 Certified Class 1 Radio Frequency: 2.40 to 2.48 GHz; Radio Range (Open Air): Class 1; Exceeds 100 m / 328 ft; Range distances are measured using the base station. Range with connection to other Bluetooth peripherals may show different results. Security: Data Encryption; Scanner Authentication
<b>PM9500</b>	<b>Effective Radiated Power:</b> 433 MHz: <10 mW; 910 MHz: <50 mW; Point-to-Point Configuration; Multi-Point Configuration: Max. Readers per Radio Receiver: 16; Radio Frequency: 433 MHz; 910 MHz; Radio Range (Open Air): 433 MHz: 120 m / 393 ft low speed; 50 m / 164 ft high speed; 910 MHz: 220 m / 721 ft low speed; Frequency hopping 170 m / 558 ft high speed; Seamless Roaming; Two Way Communications

### DECODING CAPABILITY

<b>1D / Linear Codes</b>	Autodiscriminates all standard 1D codes including GS1 DataBar™ linear codes.
<b>2D Codes</b>	Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code
<b>Postal Codes</b>	Australian Post; China Post; IMB; Japanese Post; KIX Post; Planet Code; Portuguese Post; Postnet; Royal Mail Code (RM4SCC); Swedish Post
<b>Stacked Codes</b>	EAN/JAN Composites; GS1 DataBar Composites; GS1 DataBar Expanded Stacked; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; MacroPDF; MicroPDF417; PDF417; UPC A/E Composites

### ELECTRICAL

<b>Battery</b>	Lithium-Ion 3350 mAh; Charge Time: External Power: 4.5 Hours; Host Power: 10 Hours
<b>Reads Per Charge</b>	Continuous Reading: 60,000+ (typical @ 25 °C)
<b>Cradle Indicator LEDs</b>	Battery Charging (Red); Charge Completed (Green); Power/Data (Yellow)
<b>Cradle Consumption and DC Input Supply Range</b>	Volt 10-30 VDC; Power <8W*; Max 500mA when in host/bus powered mode* *Typical input current measured under factory default configuration. Operating (Typical): 150 mA @ 10 VDC
<b>Input Voltage (PM9500/PBT9500)</b>	External Power: 10-30 VDC; POT: 5 VDC +/- 10%
<b>Current (PD9500)</b>	Operating (Typical): PD9531/PD9531-HP: 335 mA PD9531-HPE: 220 mA @ 10 VDC Standby/Idle (Typical): PD95301/PD9531-HP: 120 mA PD9531-HPE: 60 mA @ 10 VDC
<b>Input Voltage (PD9500)</b>	PD9531/PD9531-HP: 5 VDC +/- 10% PD9531-HPE: 10-30 VDC

### ENVIRONMENTAL

<b>Ambient Light</b>	0 - 100,000 lux
<b>Drop Resistance</b>	Cradle: Withstands 50 drops from 1.2 m / 3.9 ft onto a concrete surface All models: Withstands 50 drops from 2.0 m / 6.6 ft onto a concrete surface
<b>ESD Protection (Air Discharge)</b>	20 kV
<b>Humidity (Non-condensing)</b>	0 to 95%
<b>Particulate and Water Sealing</b>	IP65
<b>Temperature</b>	Operating: -20 to 50 °C / -4 to 122 °F Battery Charging: 0 to 40 °C / 32 to 104 °F Storage/Transport: -40 to 70 °C / -40 to 158 °F

### INTERFACES

<b>Interfaces</b>	Keyboard Wedge RS-232; USB: OEM USB; USB COM; USB HID Keyboard; Optional Ethernet (Standard, Industrial)
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## ACCESSORIES

### Base Stations/Chargers

BC9030-433 / BC9030-910  
Base/Charger, Multi-Interface  
BC9130-433 / BC9130-910  
Base/Dual Charger, Multi-Interface  
BC9160-433 / BC9160-910 Base/  
Dual Charger, Multi-Interface/RS-485  
BC9180-433 / BC9180-910 Base/Dual  
Charger/Ethernet (Standard, Industrial)



### Batteries/Battery Chargers

FBP-PM91 Fixed Battery Pack  
MC-P090 Multiple Battery Charger, 4-Slots  
RBP-PM91 Removable Battery Pack



### Cases/Holsters

HLS-P080 Universal Holster  
(HLS-8000)



### Mounts/Stand

7-0404 Industrial Take-Up Reel  
HLD-P080 Desk/Wall Holder (HLD-8000)  
STD-P090 Hands Free Stand (STD-9000)



### Miscellaneous

SD9030 STAR System  
USB Industrial Dongle  
(433 or 910 MHz available)



### PHYSICAL CHARACTERISTICS

<b>Colors Available</b>	Yellow/Black
<b>Dimensions</b>	Cradle: 24 x 10.8 x 9.5 cm / 9.4 x 4.3 x 3.8 in Scanner: 21.2 x 11 x 7.4 cm / 8.3 x 4.3 x 2.9 in
<b>Display (PM9500)</b>	PM9501-D, PM9501-DK: Display Type: Graphic with White Backlight; Font Dimensions: User selectable (6 lines x 21 columns default); Screen Dimensions: 48 x 132 pixels
<b>Keyboard (PM9500)</b>	PM9501-D: 4 Configurable Keys PM9501-DK: 16 Configurable Keys
<b>Weight</b>	PBT9501 and PM9501 models: 400 g / 14.1 oz PM9501-DKXX, PM9501-DKHPXX: 445 g / 15.7 oz PD9501: 330.0 g / 11.6 oz

### READING PERFORMANCE

<b>Image Capture</b>	Graphic Formats: BMP, JPEG, TIFF Greyscale: 256, 16, 2; JPEG, TIFF
<b>Imager Sensor</b>	9501: 864 x 544; 9501-HP: 1280 x 1024
<b>Light Source</b>	Aiming: 630 - 680 nm VLD; Illumination: White LEDs
<b>Print Contrast Ratio (Min)</b>	15%
<b>Reading Angle</b>	Pitch: +/- 40°; Roll (Tilt): 360°; Skew (Yaw): +/- 40°
<b>Reading Indicators</b>	Beeper (Adjustable Tone and Volume); Datalogic's 3GL™ (Three Green Lights) technology and loud beeper for good-read feedback; Datalogic 'Green Spot' on the Code, Dual Good Read LEDs
<b>Resolution (Maximum)</b>	9501: 1D Codes: 4 mil; 2D Codes: 7.5 mil 9501-HP: 1D Codes: 2.5 mil; 2D Codes: 4 mil

### READING RANGES

<b>Typical Depth of Field</b>	Minimum distance determined by symbol length and scan angle. Printing resolution, contrast and ambient light dependent.
<b>9501</b>	4 mils 6 to 17 cm / 2.3 to 6.7 in 7.5 mils Data Matrix 9 to 12 cm / 3.5 to 4.7 in 10 mils Data Matrix 4 to 18 cm / 1.5 to 7 in 10 mils PDF417 2 to 25 cm / 0.8 to 9.8 in 13 mils 4 to 45 cm / 1.5 to 17.7 in 20 mils 4 to 55 cm / 1.5 to 21.6 in 40 mils 4 to 85 cm / 1.5 to 33.4 in
<b>9501-HP</b>	2.5 mils 2 to 6 cm / 0.8 to 2.3 in 4 mils Data Matrix 2 to 6 cm / 0.8 to 2.3 in 10 mils Data Matrix 2 to 20 cm / 0.8 to 7.8 in 10 mils PDF417 2 to 30 cm / 0.8 to 11.8 in 13 mils 3 to 60 cm / 1.1 to 23.6 in 20 mils 3 to 70 cm / 1.1 to 27.5 in 40 mils 3 to 110 cm / 1.1 to 43.3 in

### SAFETY & REGULATORY

<b>Agency Approvals</b>	The product meets necessary safety and regulatory approvals for its intended use. The Quick Reference Guide for this product can be referred to for a complete list of certifications.
<b>Environmental Compliance</b>	Complies to China RoHS; Complies to EU RoHS; Complies to R.E.A.C.H.
<b>Laser Classification</b>	Caution Laser Radiation - Do not stare into beam CDRH Class II; IEC 60825 Class 2
<b>LED Classification</b>	IEC 62471 Class 1 LED

### UTILITIES

<b>Datalogic Aladdin™</b>	Datalogic Aladdin configuration program is available for download at no charge.
<b>OPOS / JavaPOS</b>	OPOS and JavaPOS utilities are available for download at no charge.
<b>Remote Host Download</b>	Available on request

### WARRANTY

<b>Warranty</b>	3-Year Factory Warranty
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