



# RS409

## RING SCANNER

### **NEXT-GENERATION WEARABLE SCANNER DELIVERS MAXIMUM FUNCTIONALITY IN A MINIMAL FOOTPRINT**

The tiny RS409 Ring Scanner from Motorola offers the ideal blend of form and function, allowing unparalleled freedom of movement in scanning, picking, and sorting applications. Part of the WT4000 Series Wearable System, this lightweight device delivers hands-free ergonomic comfort, the latest in scanning technology, and the rugged design to endure everyday use indoors and outdoors. The RS409 can scan near or far, can be worn directly on the finger or over a gloved hand, and is ideal for a wide range of applications — from workers picking product in a warehouse or processing deliveries in a postal facility, to hospitality workers scanning lift tickets on a ski slope.

### **SUPERIOR SCANNING PERFORMANCE**

When it comes to scanning, the lightweight RS409 offers performance and reliability you can count on. The device delivers accurate reading of even poorly printed and damaged bar codes on the first scan. Its highly advanced retro-collective optical design provides an extremely wide working range — from one inch to over four feet — with rapid reading regardless of lighting conditions or bar code symbology. And the scanner's low power consumption ensures more-than-ample battery power for a full shift.

### **RUGGED DESIGN FOR RELIABLE EVERY DAY USE**

The rugged design offers improved impact protection for reliable operation in the roughest environments. The scan engine is better isolated and protected from the routine impacts and shocks associated with everyday drops and bumps. Fragile silicon mirrors have been replaced with a frictionless Liquid Polymer scan element that won't wear out. The trigger is built to last, rated for over one million actuations. And the new housing offers improved abrasion resistance in the most vulnerable spots.

### **STATE-OF-THE-ART ERGONOMICS FOR EASE OF USE AND MAINTENANCE**

The ergonomic design makes data capture a breeze in any environment. The RS409 is designed to provide maximum user comfort, regardless of hand size or preferred hand position. The new swivel feature allows users to easily switch from right to left hand use in seconds, eliminating time previously spent removing and re-threading the strap. And the removable finger strap is completely isolated from the scanner — each operator can now be issued a personal finger strap for improved hygiene.

### **FEATURES**

#### **Hands-free scanning**

Ring scanner design frees operator's hands to move packages, products or materials, helping to improve efficiency and productivity

#### **SE955 scan engine**

Provides superior scanning performance; ability to read even damaged or poorly printed bar codes

#### **Retro-collective optical design**

Provides extremely wide working range for increased productivity

#### **Bright scan line and aim mode**

Provides intuitive ease-of-use across the entire working range

#### **New housing design**

Improved abrasion resistance in areas most likely to wear

#### **Die cast zinc scan engine chassis, single board construction, scan engine isolation**

Improves impact protection for scan engine to ensure maximum reliability

#### **Supports Reduced Space Symbology (RSS)**

Broadens the range of your scanning capabilities and increases investment protection

#### **New swivel feature**

Enables easy switching from right to left hand use

**PRODUCT SPEC SHEET**  
RS409 RING SCANNER

**MAXIMUM VALUE**

Whether your workers need both hands to pick fragile or other goods or need the comfort of hands-free scanning for scan-intensive applications, the RS409 provides the features and functionality to streamline processes, help improve worker productivity — and deliver a rapid return on investment. With built-in

durability, you can count on maximum device uptime for a remarkably low total cost of ownership. And since even the most intelligent products require a maintenance plan and a support strategy, Motorola provides a full complement of service offerings to maximize uptime and maintain peak performance.

For more information on how the RS409 can benefit your business, please visit us on the web at [www.motorola.com/RS409](http://www.motorola.com/RS409) or access our global contact directory at [www.motorola.com/enterprisemobility/contactus](http://www.motorola.com/enterprisemobility/contactus)

**Separate finger strap assembly**  
Improves hygiene and personalization; easy to replace

**Better trigger ergonomics**  
Accommodates wide range of hand sizes; adapts to different hand positions

**Uses improved connectors to attach to WT4000 Series system host**  
Maximizes device flexibility and host uptime

**Oversize LED light pipe**  
Enables users to quickly and easily confirm completion of a scan

**RoHS compliant**  
Meets RoHS requirements

**RS409 SERIES SPECIFICATIONS**

**PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS**

Dimensions:	1.9 in. H x 1.4 in. W x 1.9 in. D 4.8 cm H x 3.6 cm W x 4.8 cm D
Weight:	2.0 oz./56.7 gm
Current:	92 mA typical/121 mA max (one LED on)
Standby Current:	12 µA typical/60 µA max
Voltage:	3.1 VDC to 3.6 VDC
Vcc Noise Level:	100 mV peak to peak max.

**PERFORMANCE CHARACTERISTICS**

Light Source:	650nm LASER 1.55mW
Scan Rate:	92 min., 104 typical, 116 max. scans/sec (bidirectional)

**NOMINAL WORKING DISTANCE:**

Density:	5 mil	7.5 mil	10 mil	13 mil	20 mil	40 mil	55 mil
Code Type:	39	39	39	UPC	39	30	39
Far (Guaranteed):	4.75"	8.75"	13.25"	17.25"	21.5"	22.25"	27"
Far (Typical):	8.75"	14.25"	N/A	24.25"	35.75"	N/A	50.5"
Yaw <sup>1</sup> :	± 50° from normal						
Roll <sup>2</sup> :	± 35° from vertical						
Pitch <sup>3</sup> :	± 65° from normal						

1 - Roll (Tilt): Controlled by rotating the wrist clockwise or counterclockwise  
2 - Pitch: Controlled by dropping or raising the wrist  
3 - Skew (Yaw): Controlled by rotating the wrist from left to right or vice versa

**USER ENVIRONMENT**

Operating Temp.:	-4° to 122° F/-20° to 50° C
Storage Temp.:	-25° to 160° F/-40° to 70° C
Humidity:	5% to 95% non-condensing
Ambient Light	Tolerant to typical artificial indoor and natural outdoor (direct sunlight) lighting conditions. Fluorescent, Incandescent, Mercury Vapor, Sodium Vapor, LED: 450 Ft Candles (4,844 Lux) Sunlight: 8000 Ft Candles (86,111 Lux) <b>Note:</b> LED lighting with high AC ripple content can impact scanning performance.
Drop Spec.:	Multiple drops to concrete: 4 ft./1.2 m across the operating temperature range
Sealing:	IP54

**REGULATORY**

Electrical Safety:	Certified to CSA C22.2 No. 60950-1, EN60950-1, IEC 60950-1
EMI/RFI:	FCC Part 15 Class B, ICES-003 Class B, European Union EMC and R&TT Directives, Australian AS/NZS 4268
Laser Safety:	CDRH Class II, IEC 60825-1 Class 2

