

PRODUCT SPEC SHEET
RS419 RING SCANNER



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PUT NEXT GENERATION HANDS-FREE SCANNING AT YOUR WORKERS FINGERTIPS

Improve productivity and task accuracy with hands-free scanning. Whether your workers spend their days moving products through your warehouse or retail store, or moving packages through distribution centers and onto trucks for delivery, every time they need to set an item down to check a paper work order or scan a bar code with a handheld device, their productivity decreases. But when you put the small and lightweight RS419 1-D ring scanner on the fingers of workers who are using Zebra WT4XXX wearable mobile computers, workers are free to keep their hands and eyes on the items they are handling. Worker productivity increases. And a split-second press of the RS419 trigger also verifies task accuracy and provides the real-time inventory information you need to maintain stocking levels and reduce out-of-stocks.

SUPERIOR SCANNING PERFORMANCE

Innovative scanning technology allows workers to get more done in a day. Our patented Adaptive Scanning technology automatically toggles between a wide and narrow scan angle until a bar code is detected, so users can zoom in on bar codes as far as 15 ft./4.5 m and zoom out to capture bar codes at near contact — the widest working range in this device class. Two scanning modes allow workers to either pull the trigger once to scan a single bar code, or keep the trigger depressed to continuously scan bar codes. Bar codes can be captured first time, every time, even if they are damaged or poorly printed — and regardless of whether workers are out in the bright sunlight on a loading dock or in a dimly lit corner of a warehouse.

BUILT FOR TOUGH ENVIRONMENTS

A long list of features deliver around-the-clock dependable operation. The patented Liquid Polymer scan element has a lifetime warranty — it is frictionless and won't wear out. The RS419 is built to survive everyday drops and bumps. Reinforced abrasion resistance in the most vulnerable areas helps keep it looking new, in spite of regular contact with boxes and more. Special reinforcing beads on both ends of the connecting cable prevent cable failure due to constant bending and pulling. The trigger can be pressed over a million times without wearing out. And with a sealing around sensitive electronics plus a broad temperature range, you can use the RS419 practically anywhere — in the freezer, on a loading dock on a hot summer day, in dusty areas and more.

FULL SHIFT POWER

The RS419 draws very little power from its host device, ensuring that the mobile computer it is connected to can still operate for a full shift on a single charge. Productivity is protected — users won't need to hunt for a spare battery during a shift. And you can add world class scanning to your mobile solution without spending more money on a larger battery pool — there is no need to purchase and manage additional batteries for the host device.

ALL DAY COMFORT FOR ANY SIZE HAND

Zebra's award winning industrial design team gave the RS419 the ergonomics needed for all day comfort — regardless of hand size, whether hands are bare or gloved and whether workers are right or left handed. The swivel feature allows users to switch between right and left hands in seconds — there is no need to remove and re-thread the strap to change hands. The finger strap is isolated from the scanner so it can be easily removed, allowing you to give each operator their own personal finger strap, improving hygiene and protecting worker health by minimizing the spread of germs.

SERVICE WITH A DIFFERENCE

Zebra offers Service from the Start with Comprehensive Coverage to protect your investment and your total cost of

FEATURES

Hands-free scanning

Ring scanner design leaves hands free to move packages and other materials, improving worker productivity and operational efficiency

Wide working range

Patented Adaptive Scanning technology enables scanning from near contact to 15 ft./4.5 m for increased worker productivity

Superior scanning performance

Fast and accurate capture of even damaged and poorly printed bar codes

Patented liquid polymer scan element with lifetime warranty

Eliminates friction and wear for superior durability and reliability

Bright scan line

Enables first-time capture of bar codes in different lighting conditions

Die cast zinc scan engine chassis, single board construction and scan engine isolation

Provides superior impact protection for the scan engine

Cable wear beads

ownership. This unique offering covers normal wear and tear as well as accidental damage — no matter what happens, you're covered. Unforeseen repair expenses are greatly reduced and uptime is maximized, maximizing the value of the RS419 in your business.

Put the RS419 on the fingers of your workers to improve productivity and accuracy. To find out how, visit www.zebra.com/rs419 or access our global contact directory at www.zebra.com/contact

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

PERFORMANCE CHARACTERISTICS

Light Source 650nm LASER 1.7mW peak power

Scan Rate 92 min., 104 typical, 116 max. scans/sec (bidirectional)

Yaw¹ ± 40° from normal

Roll² ± 35° from vertical

Pitch³ ± 65° from normal

USER ENVIRONMENT

Operating Temp. -22° to 140° F/-30° to 60° C

Storage Temp. -25° to 160° F/-40° to 70° C

Humidity 5% to 95% non-condensing

Ambient Light Immunity 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: 10000 Ft Candles (107,640 Lux)
Note: LED lighting with high AC ripple content can impact scanning performance.

Drop Spec Multiple 4 ft./1.2 m drops to concrete from -4° to 122° F/-20° to 50° C; multiple 3 ft./0.9 m drops to concrete at -22° F/-30° C

Environmental Sealing IP54

REGULATORY

Electrical Safety Certified to CSA C22.2 No. 60950-1, EN60950-1, IEC 60950-1

EMI FCC Part 15 Class B, ICES-003 Class B, EN 61000-3-2, EN 61000-3-3, CISPR 22 Class B, CISPR 24

Laser Safety IEC/Class 2/FDA II in accordance with IEC60825-1: (Ed 2.0)/EN 60825-1:2007

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

Nominal Working Distance

Density	5 mil	7.5 mil	10 mil	13 mil	15 mil	20 mil	55 mil	100 mil
Code Type	C128	C39	C128	UPC	C128	C39	C39	C39*
Far guaranteed	3.1"	16.8"	15.9"	23.7"	25.0"	43.0"	76.5"	180.0"
Far typical	7.7"	18.5"	19.0"	27.0"	29.5"	52.0"	100.0"	200.0"

*Reflective

Protects the areas of the cable most vulnerable to wear and tear

Supports Reduced Space Symbology (RSS)

Broad range of scanning capabilities increases investment protection

Swivel feature

Enables easy switching from right to left hand use

Separate finger strap assembly

Improves hygiene and personalization; easy to replace

Superior trigger ergonomics

Accommodates wide range of gloved or ungloved hand sizes; large accessible trigger makes it easier to use over long periods

Oversize LED light

Enables users to quickly and easily confirm completion of a scan



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