



# Symbol LS3408-ER

Extended range rugged scanner



## FEATURES

**Flexible working range:**  
0.25" / 0.64 cm to  
45 ft. / 13.7 m

Improves user productivity

**Ergonomic, rugged industrial design withstands multiple 6.5-ft./2 m drops to concrete; 2,500 3-ft./1 m tumbles (5,000 hits)**

Ensures maximum reliability with less down time due to accidental drops

**IP65 sealing rating (electronic enclosure)**

Protects against water and dust to ensure reliable performance in rough conditions

**Bright 650nm laser aiming dot**

Delivers clearly visible line for more accurate scanning

**Dual-scan angle switches from standard to wide under software control**

Offers fast, accurate bar code reading on menus and pick lists

## Redefining performance for maximum industrial mobility

The rugged Symbol LS3408-ER handheld scanner from Motorola delivers superior performance and versatility for your scan-intensive industrial applications. In the yard, warehouse, distribution center, manufacturing plant or retail store, the Symbol LS3408-ER handheld scanner offers best-in-class performance, excellent reliability and user-friendly ergonomics to create a more productive mobile environment. Multiple on-board interfaces ensure flexible plug and play host connectivity.

## Advanced data capture features for industrial-grade applications

The Symbol LS3408-ER offers an outstanding reading range, providing the flexibility to enable a wide range of industrial applications. Industry-leading impact tests ensure reliable performance in spite of the inevitable accidental drops. The device is impervious to dust and water, and its exit window is scratch-resistant and recessed for the highest level of durability. As a result, you avoid unnecessary equipment downtime or expensive equipment replacement costs.

For applications requiring quick access and convenient storage, the Symbol LS3408-ER features a built-in metal hook for attachment to a pulley. Two large LED-enhancing windows and an extra loud 80 decibel (db) beeper are strategically placed on the scanner for clear and audible feedback to users.

## The smartest way to capture mission-critical information

The extended range Symbol LS3408-ER is designed specifically for industrial applications. When you choose the Symbol LS3408-ER, you receive the added assurance of purchasing from Motorola — a company with proven advanced data capture capabilities and millions of scanner installations worldwide.

For more information on the Symbol LS3408-ER and its full line of accessories, access our global contact directory at [www.motorola.com/enterprisemobility/contactus](http://www.motorola.com/enterprisemobility/contactus) or visit us on the web at [www.motorola.com/l3408er](http://www.motorola.com/l3408er)

## SPECIFICATION SHEET

SYMBOL LS3408-ER  
Extended range rugged scanner

### Multiple on-board interfaces

Ensures flexible connectivity, allowing for host “future proofing”

### Advanced data formatting (ADF)

Eliminates costly modifications to the host software

### Flash memory

Facilitates updates and customization of product in the field

### Universal cable set

Allows for easy replacement and/or upgrades

### Supports GS1DataBar Symbologies (formerly RSS)

Compatible with emerging symbology to leverage your hardware investment

# Symbol LS3408-ER Specifications

## Physical Characteristics

Dimensions: 7.34 in. H x 4.82 in. W x 2.93 in. D  
18.65 cm H x 12.25 cm W x 7.43 cm D

Weight (w/o cable): 12.56 oz./356 g

Power Requirements: 4.5 - 14 VDC

Stand-by Current: 50 mA

Power Sources: Depending on host:  
• Host power  
• External power supply

Color: Twilight Black/Yellow

## Performance Characteristics

Scanner Type: Retrocollective

Light Source: 650 nm visible laser diode

Scan Repetition: 36 scans per second typical

Min. Element Width: 7.5 mil/0.191 mm

Working Distance: See Decode Zone

Print Contrast: 25% minimum reflective difference

Roll (Tilt):<sup>1</sup> ± 10° from normal

Pitch:<sup>2</sup> ± 65° from normal

Skew (Yaw):<sup>3</sup> ± 60° from normal

Decode Capability: UPC/EAN, UPC/EAN with Supplementals, GS1-128 (formerly UCC/EAN 128), JAN 8 & 13, Code 39, Code 39 Full ASCII, Code 39 Trioptic, Code 128, Code 128 Full ASCII, Codabar (NW7), Interleaved 2 of 5, Discrete 2 of 5, Code 93, MSI, Code 11, Code 32, Bookland EAN, IATA, GS1DataBar (formerly RSS)

Interfaces Supported: RS232, Keyboard Wedge, Wand Emulation, Scanner Emulation, IBM 468X/469X, USB and Synapse

## User Environment

Operating Temp.: -22° to 122° F/-30° to 50° C

Storage Temp.: -40° to 158° F/-40° to 70° C

Humidity: 5% to 95% relative humidity, non-condensing

Sealing: Sealed to IP65 specifications

Drop Specifications: Unit functions normally after repeated 6.5 ft./2 m drops to concrete

Ambient Light Immunity: Immune to direct exposure of normal office and factory lighting conditions, as well as direct exposure to sunlight;  
Indoor: 450 ft. candles/4,84 LUX;  
Outdoor: 4,000 ft. candles/43,040 LUX

Electrostatic Discharge (ESD): Conforms to 20 kV air discharge and 8 kV of contact discharge

## Regulatory

Input Transient Protection: IEC 1000-4-(2,3,4,5,6,11)

EMI/RFI: FCC Part 15 Class B, ICES-003 Class B, European Union EMC Directive, Japan VCCI/MITI/Dentori

Laser Safety: IEC825-1 Class 2

## Warranty

The Symbol LS3408-ER is warranted against defects in workmanship and materials for a period of 3 years (36 months) from date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions. See full warranty for details.

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

Depth of Field		
Label Density	LS3408-ER	
Paper Label	English	Metric
Code 39 - 7.5 mil	0.25" - 20.00"	0.64 - 50.80 cm
Code 39 - 10 mil	2.00" - 32.00"	5.08 - 81.28 cm
Code 39 - 15 mil	3.00" - 69.00"	7.62 - 175.26 cm
Code 39 - 20 mil	3.00" - 94.00"	7.62 - 238.76 cm
Code 39 - 55 mil	15.00" - 180.00"	38.10 - 457.20 cm
Reflective Label		
Code 39 - 70 mil	Up to 30 ft.	Up to 9.27 m
Code 39 - 100 mil	Up to 45 ft.	Up to 13.72 m

For more detailed information, please see the Product Reference Guide in the Resource tab at [www.motorola.com/ls3408er](http://www.motorola.com/ls3408er).

EN410 CE



**MOTOROLA**

[motorola.com](http://motorola.com)

Part number SS-LS3408-ER. Printed in USA 08/08. MOTOROLA and the Stylized M Logo and Symbol and the Symbol Logo are registered in the US Patent & Trademark Office. All other product or service names are the property of their respective owners. ©2007 Motorola, Inc. All rights reserved. For system, product or services availability and specific information within your country, please contact your local Motorola office or Business Partner. Specifications are subject to change without notice.



# Symbol LS3408-FZ

Rugged handheld scanner



## FEATURES

### High-performance scanner with fuzzy logic decode capability

Premium scanning for all 1D codes including poorly printed, damaged or low contrast bar codes

### Ergonomic, rugged industrial design withstands up to 50 drops to concrete from 6.5 ft. (2m) and 2,500 3 ft. (1m) tumbles (5,000 hits)

Reduces user fatigue and ensures less down time due to accidental drops

### IP65 sealing rating (electronic enclosure)

Protects against water and dust to ensure reliable performance in harsh industrial conditions

### Bright LED and beeper with adjustable volume

Multiple modes of confirmation ensure positive user feedback in noisy environments

### Reads damaged 1D bar codes for maximum industrial productivity

The rugged Symbol LS3408-FZ handheld scanner from Motorola features fuzzy logic technology for fast and accurate reading of damaged, dirty and poorly printed one-dimensional (1D) bar codes typically found in industrial environments. In the yard, warehouse, distribution center, manufacturing plant or retail store, the Symbol LS3408-FZ handheld scanner offers superior performance, reliability and user-friendly ergonomics to improve productivity. Multiple on-board interfaces ensure flexible plug-and-play host connectivity.

### Advanced data capture technology for tough environments

As innovative as it is rugged, the Symbol LS3408-FZ delivers the ergonomic and operational features for scan intensive industrial applications. Industry-leading impact tests ensure reliable performance in spite of the inevitable accidental drops. The device is impervious to dust and water, and its exit window is scratch-resistant and recessed for the highest level of durability. As a result, you avoid unnecessary equipment downtime

or expensive equipment replacement costs. For applications requiring quick access and convenient storage, the Symbol LS3408-FZ features a built-in metal hook for attachment to a pulley. Two large LED-enhancing windows and extra loud 80 decibel (db) beeper are strategically placed on the scanner to ensure that decode feedback is clearly visible and audible to users.

### Capturing mission-critical information the smart way

The standard range Symbol LS3408-FZ is designed specifically for industrial applications. When you choose the Symbol LS3408-FZ, you receive the added assurance of purchasing from Motorola — a company with proven advanced data capture capabilities and millions of scanner installations worldwide.

For more information on the rugged Symbol LS3408-FZ handheld scanner and the full line of accessories, access our global contact directory at [www.motorolasolutions.com/enterprisemobility/contactus](http://www.motorolasolutions.com/enterprisemobility/contactus) or visit us on the web at [www.motorolasolutions.com/LS3408FZ](http://www.motorolasolutions.com/LS3408FZ)

## SPECIFICATION SHEET

SYMBOL LS3408-FZ  
Rugged handheld scanner

### Bright 650nm laser aiming dot

Delivers clearly visible line for precise, accurate bar code data capture

### Supports GS1DataBar Symbolologies (formerly RSS)

Compatibility with emerging symbolologies helps you to leverage your hardware investment

### Global Trade Item Number™ (GTIN™) compliant

Decodes and transmits 14-digit GTINs where appropriate

### Advanced data formatting

Eliminates costly modifications to the host software

### Flash memory

Facilitates updates/customization of product in the field

### Universal cable set

Allows for easy replacement and/or upgrades

### Multiple onboard interfaces

Ensures flexible connectivity, allowing for host “future proofing”

### Hands-free Intellistand™ (optional)

Enables presentation scanning and easy switching between hands-free and handheld modes

# Symbol LS3408-FZ Specifications

## Physical Characteristics

Dimensions:	7.34 in. H x 4.82 in. W x 2.93 in. D 18.65 cm H x 12.25 cm W x 7.43 cm D
Weight (w/o cable):	12.35 oz./350 g
Power Requirements:	4.5 - 14 VDC
Stand-by Current:	50 mA
Power Sources:	Depending on host: <ul style="list-style-type: none"><li>• Host power</li><li>• External power supply</li></ul>
Color:	Twilight Black/Yellow

## Performance Characteristics

Scanner Type:	Retrocollective
Light Source:	650 nm visible laser diode
Scan Repetition:	36 scans per second typical
Min. Element Width:	5 mil/0.127 mm
Print Contrast:	25% minimum reflective difference
Roll (Tilt): <sup>1</sup>	± 20° from normal
Pitch: <sup>2</sup>	± 65° from normal
Skew (Yaw): <sup>3</sup>	± 50° from normal
Decode Capability:	UPC/EAN, UPC/EAN with Supplementals, GS1-128 (formerly UCC/EAN 128), JAN 8 & 13, Code 39, Code 39 Full ASCII, Code 39 Trioptic, Code 128, Code 128 Full ASCII, Codabar (NW7), Interleaved 2 of 5, Discrete 2 of 5, Code 93, MSI, Code 11, Code 32, Bookland EAN, IATA, GS1DataBar (formerly RSS)
Interfaces Supported:	RS232, Keyboard Wedge, Wand Emulation, Scanner Emulation, IBM 468X/469X, USB and Synapse

## User Environment

Operating Temp.:	-22° to 122° F/-30° to 50° C
Storage Temp.:	-40° to 158° F/-40° to 70° C
Humidity:	5% to 95% relative humidity, non-condensing
Sealing:	Sealed to IP65 specifications
Drop Specifications:	Unit functions normally after 50 drops to concrete from 6.5 ft. (2m)

\* Minimum distance determined by symbol length and scan angle

Ambient Lighting Tolerance:	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)
Electrostatic Discharge:	Conforms to 20 kV air discharge and 8 kV of contact discharge

## Regulatory

Input Transient Protection:	IEC 1000-4-(2,3,4,5,6,11)
EMI/RFI:	FCC Part 15 Class B, ICES-003 Class B, European Union EMC Directive, Japan VCCI/MITI/Dentori
Laser Safety:	IEC825-1 CLASS 2

## Warranty

The Symbol LS3408-FZ is warranted against defects in workmanship and materials for a period of 3 years (36 months) from date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions. See full warranty for details.

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

4 - LED lighting with high AC ripple content can impact scanning performance

Depth of Field		
Label Density	LS3408-FZ	
Paper Label	English	Metric
Code 39 – 5 mil	2.50" – 7.25"	6.35 – 18.42 cm
Code 39 – 7.5 mil	2.00" – 15.75"	5.08 – 40.00 cm
100% UPC – 13 mil	1.00" – 24.00"	2.54 – 60.96 cm
Code 39 – 20 mil	0 – 39.50"	0 – 100.33 cm
Code 39 – 40 mil	2.00" – 67.00"	5.08 – 170.18 cm
Code 39 – 55 mil	4.00" – 84.00"	10.16 – 213.36 cm

For more detailed information, please see the Product Reference Guide in the Resource tab at [www.motorolasolutions.com/LS3408FZ](http://www.motorolasolutions.com/LS3408FZ)



**MOTOROLA**

[motorola.com](http://motorola.com)

Part number SS-LS3408-FZ-A. Printed in USA 10/12. MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. © Motorola Solutions, Inc. 2012. All rights reserved. Specifications are subject to change without notice.