

# MiniScan MS 804FZY Series



## FIXED-MOUNT SCANNERS

### A Compact, Durable and High Performance Fixed-Mount Bar Code Scanner

The MS 804FZY from Symbol Technologies is a compact, durable, fixed-mount laser bar code scanner featuring fuzzy logic for premium linear scanning on all types of 1D bar codes, including poorly printed and low contrast symbols.

The MS 804FZY offers a configurable scan angle of 46.5° and 35° for OEM devices requiring a flexible, expanded working range. As one of the smallest, lightest and brightest scanners available today, the MS804FZY is also ideal for accurate automated data collection in OEM device designs with space constraints.

Markets	Applications
Fixed-mount or standalone	Manufacturing and warehousing Shipping and receiving Library and document tracking Assembly lines
OEM embedded	Clinical diagnostics Medical instruments Blood and chemical analysis Interactive kiosks and ATMs Vending and lottery machines Gaming equipment Turnstiles/access control

### Rich Feature Set for More Flexibility in Many Environments

The MS 804FZY features a configurable scan angle, fuzzy logic technology and a working range of over 40 inches/101.6 cm to ensure high first-time read rates for maximum productivity. The MS 804FZY is easy to program and configure, enabling you to cut your development time and bring your product to market faster—even if you don't have the in-house technical resources for scanner integration. With its durable housing and built-in RS-232 interface, the MS 804FZY enables your project teams to quickly and confidently integrate high-performance 1D bar code data capture into many applications.

### Proven Embedded Technology and Services

With millions of installations worldwide, Symbol Embedded Technology solutions are hard at work in a variety of industries and everyday applications. Proven technology from Symbol Technologies allows you to offer your customers superior products and services. In addition, comprehensive training and integration services are available to support your design, testing and approval needs.



Features	Benefits
High performance decoded scan engine with fuzzy logic technology	Premium scanning on poorly printed and low contrast 1D symbols for maximum accuracy and productivity
Reads all major 1D symbologies including Reduced Space Symbology® (RSS)	Versatile decode capability enables devices to realize a high first-time read rate for improved productivity
Working range from near contact to over 40 in./101.6 cm	Flexible decode range for maximum accuracy and efficiency
Configurable scan angle of 46.5° and 35°	Ability to control scan angle to meet demands of application
Compact durable housing, mounting holes, LEDs and RS-232 Interface	Plug-and-play installation reduces development time and speeds up time to market
Software controlled or manual triggering	Offers flexible control for unattended or hands-free applications
Bright 650 nm laser diode	Scan line is easy to see
Easy to program simple serial interface (SSI)	Provides fast, simple communications between scanner and host
Optional software developer's kit (SDK)	Enables the creation of applications using familiar Microsoft® Windows® 98, 2000 and XP platforms

For more information about Symbol Embedded Technology, contact us at +1.800.722.6234 or +1.631.738.2400, or visit us on the web at [www.symbol.com/ms804fzy](http://www.symbol.com/ms804fzy)

# MS 804FZY Specification Highlights

## Physical Characteristics

<b>Dimensions:</b>	1.0 in. H x 1.91 in. W x 2.28 in. D 2.54 cm H x 4.85 cm W x 5.79 cm D (nominal)
<b>Weight:</b>	1.67 oz./ 47.34 gm

## Performance Characteristics

<b>Light Source:</b>	Visible Laser Diode 650 nm
<b>Scan Rate:</b>	50 (± 6) scans per second (bi-directional)
<b>Scan Angle:</b>	Default: 46.5° default; Narrow: 35°
<b>Scan Pattern:</b>	Linear
<b>Skew Tolerance (Yaw):</b>	± 60° from normal
<b>Pitch Angle:</b>	± 65° from normal
<b>Roll:</b>	± 30° from vertical
<b>Minimum Print Contrast:</b>	Minimum 25% absolute dark/light reflectance measured at 650 nm.
<b>Symbologies:</b>	1D: UPC/EAN, Code 128, UCC.EAN128, Code 39, Code 93, I 2 of 5, Discrete 2 of 5, Codabar, MSI 2D: RSS and 1-D Composite codes
<b>Programmable Parameters:</b>	Laser on time, power mode, trigger mode, bidirectional redundancy, symbology types/ lengths, data formatting, serial parameters, beeper tone
<b>Interface:</b>	RS-232

## User Environment

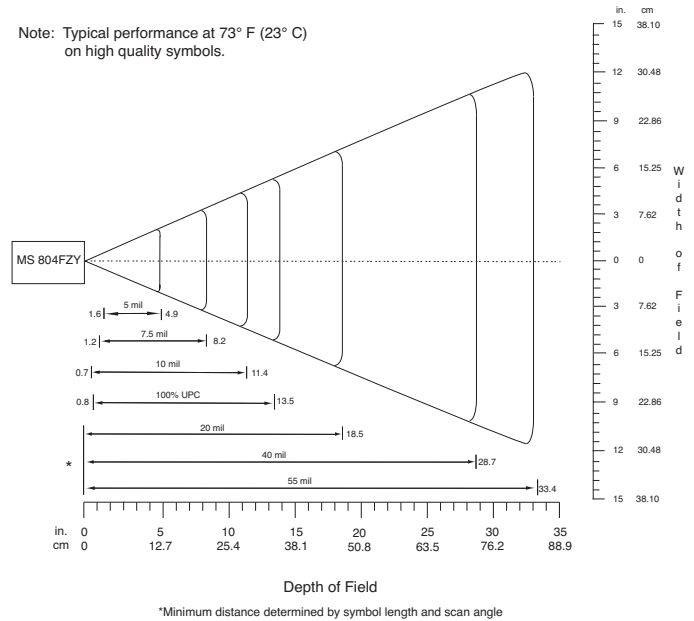
<b>Ambient Light:</b>	Artificial light: 450 ft. candles (4,844 Lux) Sunlight: 8,000 ft. candles (86,112 Lux)
<b>Operating Temperature:</b>	32° to 104°F (0° to 40°C)
<b>Storage Temperature:</b>	-40° to 158°F (-40° to 70°C)
<b>Humidity:</b>	5% to 95% noncondensing
<b>Power:</b>	
<b>Input Voltage:</b>	5.0 VDC ±10%
<b>Scanning Current:</b>	150 mA ±30 mA Typical
<b>Standby Current:</b>	20mA ±5mA Typical
<b>Vcc Noise Level:</b>	200mV peak-to-peak max
<b>Drop:</b>	Unit functions normally after multiple 30 in./76 cm drops to concrete

## Regulatory

<b>Laser Classification:</b>	CDRH Class II, IEC Class 2
<b>Electrical Safety:</b>	Certified to UL1950, CA C22-2 NO950 ENG60950/ IEC950
<b>EMI/RFI:</b>	FCC Part 15 Class B, ICES-003 Class B European Union EMC Directive, Australian SMA

## MS 804FZY Decode Zone

Note: Typical performance at 73° F (23° C) on high quality symbols.



EN410 CE



Specifications are subject to change without notice. Symbol® is a registered trademarks of Symbol Technologies, Inc. All other trademarks and service marks are proprietary to their respective owners.

For system, product or services availability and specific information within your country, please contact your local Symbol Technologies office or Business Partner.



**Corporate Headquarters**  
**Symbol Technologies, Inc.**  
 One Symbol Plaza  
 Holtsville, NY 11742-1300  
 TEL: +1.800.722.6234/+1.631.738.2400  
 FAX: +1.631.738.5990

**For North America, Latin America and Canada**  
**Symbol Technologies**  
 The Americas  
 One Symbol Plaza  
 Holtsville, NY 11742-1300  
 TEL: +1.800.722.6234/+1.631.738.2400  
 FAX: +1.631.738.5990

**For Asia Pacific Area**  
**Symbol Technologies Asia, Inc.**  
 (Singapore Branch)  
 Asia Pacific Division  
 230 Victoria Street #05-07/09  
 Bugis Junction Office Tower  
 Singapore 188024  
 TEL: +65.6796.9600  
 FAX: +65.6337.6488

**Symbol Website**  
 For a complete list of Symbol subsidiaries and business partners worldwide contact us at:  
[www.symbol.com](http://www.symbol.com)  
 Or contact our pre-sales team at:  
[www.symbol.com/sales](http://www.symbol.com/sales)

**For Europe, Middle East and Africa**  
**Symbol Technologies**  
 EMEA Division  
 Symbol Place, Winnersh Triangle  
 Berkshire, England RG41 5TP  
 TEL: +44.118.9457000  
 FAX: +44.118.9457500



MS804FZY 09/03

Part No. MS804FZY Printed in USA 09/03 © Copyright 2003 Symbol Technologies, Inc. All rights reserved. Symbol is an ISO 9001 and ISO 9002 UKAS, RVC, and RAB Registered company, as scope definitions apply.

