

The MS-3 Laser combines top performing software features and high scan speed packed into Microscan's smallest scanner.

At 1,000 decodes per second, the **MS-3 Laser** offers the fastest read performance in the class of embedded compact bar code scanners. The wide scan angle of 70 degrees coupled with ultra-compact size and flexible mounting make the MS-3 the optimal choice for high-speed reading in OEM instruments.

High performance and flexibility are designed into virtually every aspect of the MS-3 Laser. Optics are factory-adjustable and our feature-rich firmware can be customized to satisfy almost any application.

The **MS-3 Laser** scanner is the performance leader in Microscan's MS-3 trio that also includes the **MS-3 CCD** and the **MS-3 Engine**. All three are well suited for any embedded bar code application where size, performance and budget savings are core factors.

MS-3 LASER

ULTRA-COMPACT BAR CODE SCANNER

Compact Size

The 1.75" square by .85" tall scanner weighs only 3.5 ounces, for easy mounting onto robotic equipment or into tight spaces.

High Scan Speed

Adjustable scan speed from 350 up to 1,000 decodes per second and Microscan's robust decode algorithms ensure accurate reading every time.

Real-Time Controls

Includes three programmable relay outputs, new master, and trigger.

Test Button and Performance LEDs

Instantly check your read rate at the push of a button, with no PC or output device required. Illuminated LEDs on top of the scanner provide visual confirmation of the scanner performance.

Low Power Draw

The MS-3 comes standard as 5V for low power draw (350mA). 10-30V input also available with interface accessory.



ESP™ Easy Setup Program

Microscan's ESP™ software is a user friendly, windows-based setup program that gives the user a simplified configuration tool. It is compatible with Windows 95, 98, NT, and 2000.

Symbologies

Like all Microscan scanners, the MS-3 reads virtually all widely used bar code symbologies, including:

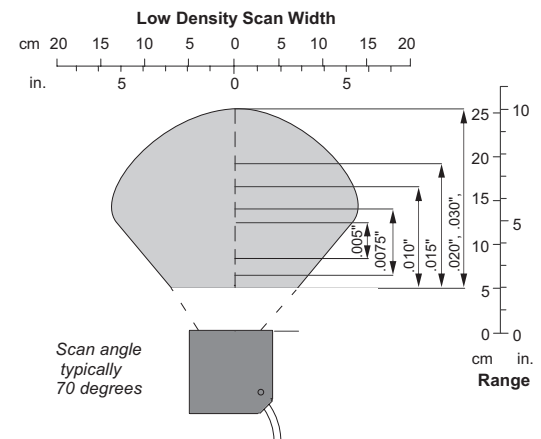
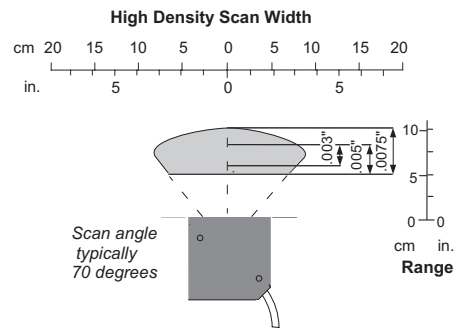
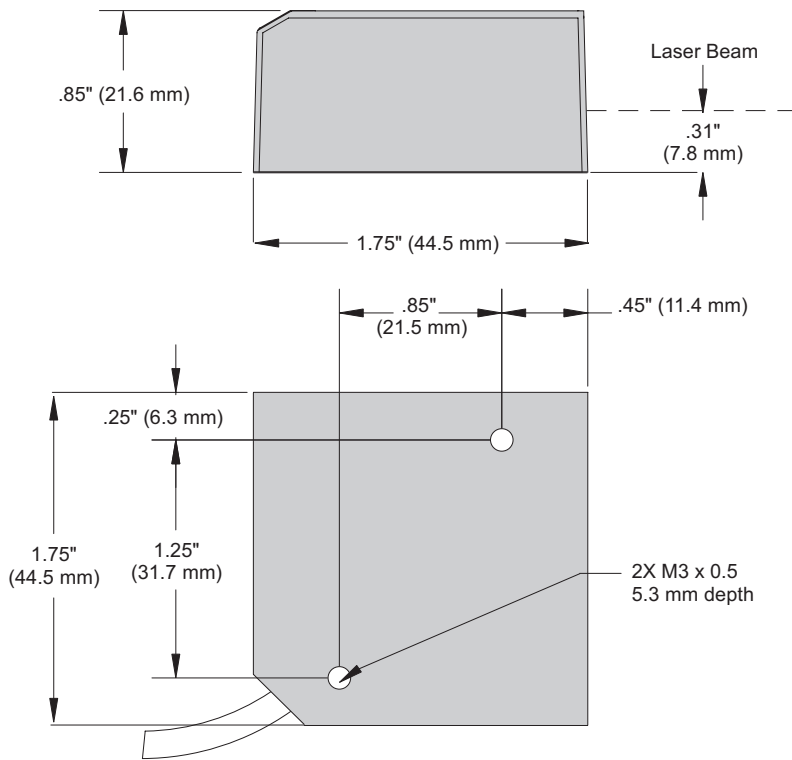
- Code 93
- Code 39
- Code 128
- Codabar
- Pharmacode
- Interleaved 2 of 5
- UPC/EAN



Wide Scan Angle/Adjustable Optics

The wide scan angle of over 70 degrees and a factory customizable focal point add up to space savings within your system, allowing greater flexibility with positioning.

MS-3 LASER SCANNER SPECIFICATIONS AND OPTIONS



MECHANICAL

Weight: 2.5 oz. (70 g)

ENVIRONMENTAL

Housing: IP54

Operating temperature: 0° to 50°C (32° to 122°F)

Humidity: Up to 90% (non-condensing)

Operating life: 40,000 hours at 25° C

CE MARK

General immunity for light industry:

EN 55024: 1998 ITE Immunity Standard

Radiated and conducted emissions of ITE

equipment: EN 55022:98 ITE Disturbances

LASER LIGHT

Type: Semiconductor visible laser diode (650 nm nominal)

Safety Class: CDRH Class II

COMMUNICATION

Interface: RS-232, RS-422/485 (up to 115.2k), Keyboard Wedge, USB

PROTOCOLS

Point-to-Point • Point-to-Point w/RTS/CTS • Point-to-Point w/XON/XOFF • Point-to-Point w/RTS/CTS & XON/XOFF • Polling Mode D • Multidrop • User Defined • User Defined Multidrop • Daisy Chain

SCANNING PARAMETERS

Options: single line, fixed raster

Scan rate: Adjustable from 350 to 1000 scans/second, default=500

Scan width angle: >70°

Pitch: ±50°

Skew: ±40°

Label contrast: 25% min. @ 650 nm

HOST CONNECTOR/PIN ASSIGNMENTS

15 Pin D-sub Socket Connector

Pin No.	Host RS232	Host/Aux RS232	Host RS422/485	In/Out
1	Power +5 VDC			In
2	TxD	TxD	TxD(-)	Out
3	RxD	RxD	RxD(-)	In
4	Power/Signal Ground			
5	NC			
6	RTS (5V only)	Aux TxD	TxD(+)	Out
7	Output 1 TTL (+)			Out
8	Default configuration			In
9	Trigger (NPN)			In
10	CTS (5V only)	NC	RxD (+)	In
11	Output 3 TTL (+)			Out
12	New Master (NPN)			In
13	Chassis ground			
14	Output 2 TTL (+)			Out
15	NC			

CONNECTOR

Type: 3 ft. cable terminated with 15-pin D-Sub socket connector

DISCRETE I/O

Trigger Inputs: 3 to 24V rated (10 mA @ 24 VDC)

New Master: 3 to 24V rated (10 mA @ 24 VDC)

Outputs (1, 2, 3): 5V TTL compatible

SYMBOLOGIES

Code 39, Codabar, Code 128, I 2 of 5,

Code 93, UPC/EAN

INDICATORS

Beeper: Good read, Match/Mismatch, Noread, On/Off **LEDs:** 1 status, 1 power, 5 read performance (representing percentage of good decodes)

READ RANGES AND SCAN WIDTHS₁

Narrow-bar-width	Read Range
HIGH DENSITY	
.003" (.076 mm)	2.3" to 2.7" (58.4 to 68.5 mm)
.005" (.127 mm)	2" to 3.1" (50.8 to 78.7 mm)
.0075" (.191 mm)	2" to 4" (50.8 to 102 mm)
LOW DENSITY	
.005" (.127 mm)	3" to 4" (76.2 to 101.6 mm)
.0075" (.191 mm)	2.5" to 5.5" (63.5 to 140 mm)
.010" (.254 mm)	2" to 6.5" (50.8 to 165 mm)
.015" (.381 mm)	2" to 7.5" (50.8 to 190 mm)
.020" (.508 mm)	2" to 10" (50.8 to 254 mm)
.030" (.762 mm)	2" to 10" (50.8 to 254 mm)

SAFETY CERTIFICATIONS DESIGNED FOR CDRH, FCC, UL/cUL, TÜV, CE, BSMI

ISO 9001/Cert. No. US96/0465

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All rights reserved. Specifications subject to change. Product specifications are given for typical performance at 23°C (74°F) using grade A labels. Some performance characteristics may vary at high temperatures or other environmental extremes.

Warranty—One year limited warranty on parts and labor. Extended warranty available.

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