

# MS-710

## The MS-710 offers the ultimate in adjustable, accurate, high-speed scanning.

This exceptionally compact scanner is ideal for fast-moving bar code label scanning. Its spinning, 10-sided mirror projects a laser beam at a 60° scan angle, up to 8 inches wide. The MS-710 gives you the flexibility to scan a variety of label qualities and densities by way of its embedded firmware which allows operators to program scanning rates from 300 to 550 scans per second. The MS-710's raster option lets you address even more scanning applications. Using tilting mirror facets, which deliver 10 scan lines over a 2° arc, you can achieve greater flexibility with label placement. The MS-710 is the scanner of choice for use in pharmaceutical packaging, automated manufacturing, and office automation.

## BAR CODE SCANNER

**IP54 Enclosure:** Rigid, tightly-sealed housing provides excellent protection against dust deposits, moisture, and other harmful environmental elements.

**Maintenance-Free, Brushless Motor:**

A durable, brushless motor provides tremendous reliability with zero maintenance. It spins the scanning mirror precisely at whatever scanning speed the user selects—with scanning rates of 300 to 550 scans per second.

**Single-Source Voltage:** Accepts regulated +5 VDC power at 480 mA, eliminating the need for multiple power sources.



**Proprietary MS-Sensor:** Features Microscan's patented specular sensing technology that calculates why the scanner failed to read a label, pinpointing whether a label is missing or defective, or whether no

object was present.

**Versatile Mounting:** Can be quickly mounted in a variety of positions. Built-in, blind-threaded mounting holes, located in the bottom of the scanner, eliminate the need for bulky accessory brackets. Operators can also choose from an optional threaded top-mount configuration. The scanner's ±50° pitch and ±40° skew provide positioning flexibility, as well as maximum flexibility of location and mounting options.

**Flexible Positioning:** A 60° scan angle and coaxial optics allow the MS-710 to read labels positioned in narrow openings. The scanner's outstanding mounting flexibility is further increased by the scanner's right-angle-down option, in which a mirror turns the laser beam at a 90° angle as it exits the window.

**Service Options:**

- Installation assistance program
- Service agreements
- Training
- On-site service
- Extended warranty

Like all Microscan scanners, the MS-710 scans virtually all widely used bar code symbologies, including:

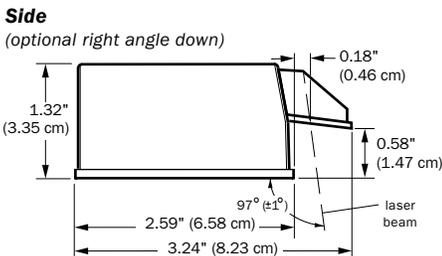
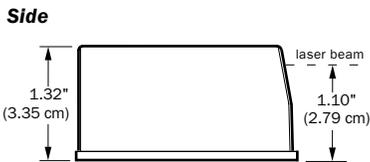
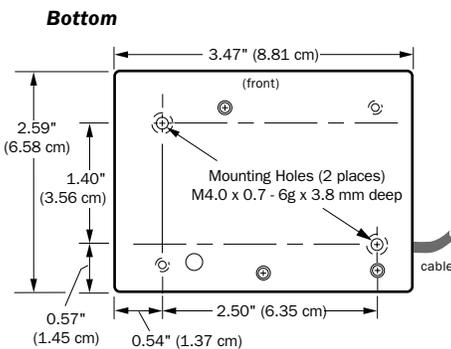
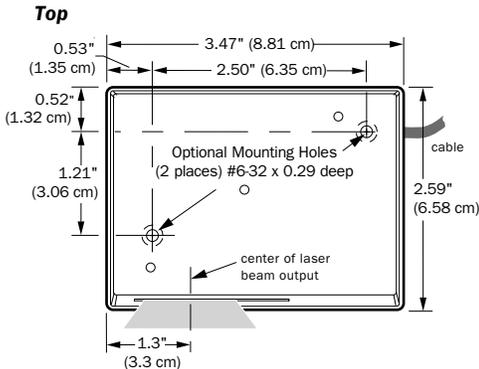
- Code 39
- Codabar
- Interleaved 2 of 5
- UPC/EAN
- Code 128
- Code 49
- Other codes are available, call Microscan for details.

**MICROSCAN®**

# MS-710 SCANNER

## SPECIFICATIONS AND OPTIONS

### MECHANICAL



### ENVIRONMENTAL

**Weight:** 5 oz. (142 g)

**Housing:** IP54

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

**Humidity:** Up to 90% (non-condensing)

### LASER LIGHT

**Type:** Semiconductor visible laser diode (670 nm nominal)

**Safety Class:** CDRH Class II

### COMMUNICATION

**Interface:** RS-232, RS-422/485 (option)

### READ RANGES AND SCAN WIDTHS<sup>1</sup>

Narrow-bar-width	Read Range	Maximum Scan Width
<b>HIGH DENSITY</b>		
.0075" (.127 mm)	2" to 3.1" (5.08 to 7.87 cm)	2.1" (5.33 cm)
.0075" (.191 mm)	2" to 4" (5.08 to 10.2 cm)	3.6" (9.14 cm)
<b>LOW DENSITY</b>		
.0075" (.191 mm)	2.5" to 5.5" (6.35 to 14.0 cm)	4" (10.2 cm)
.010" (.254 mm)	2" to 6.5" (5.08 to 16.5 cm)	5" (12.7 cm)
.015" (.381 mm)	2" to 7.5" (5.08 to 19.0 cm)	6" (15.2 cm)
.020" (.508 mm)	2" to 10" (5.08 to 25.4 cm)	7" (17.8 cm)
.030" (.762 mm)	2" to 10" (5.08 to 25.4 cm)	7" (17.8 cm)
.040" (1.02 mm)	2" to 10" (5.08 to 25.4 cm)	7" (17.8 cm)
<b>RIGHT-ANGLE DOWN</b>		
.0075" (.191 mm)	1.25" to 4" (3.18 to 10.2 cm)	4" (10.2 cm)
.010" (.254 mm)	1" to 5" (2.54 to 12.7 cm)	5" (12.7 cm)
.015" (.381 mm)	1" to 6" (2.54 to 15.2 cm)	6" (15.2 cm)
.020" (.508 mm)	1" to 8.5" (2.54 to 21.6 cm)	7" (17.8 cm)
.030" (.762 mm)	1" to 8.5" (2.54 to 21.6 cm)	7" (17.8 cm)
.040" (1.02 mm)	1" to 8.5" (2.54 to 21.6 cm)	7" (17.8 cm)

<sup>1</sup> At 500 decodes per second using Code 39 grade A label.

### SCANNING PARAMETERS

**Type:** Rotating, 10-faceted mirror

**Options:** Single line/raster

**Scan rate:** Adjustable from 300 to 550 scans/second, default=500

**Scan width angle:** 60°

**Pitch:** ±50°

**Skew:** ±40°

**Label contrast:** 25% min. absolute dark to light differential at 670 nm wavelength

### 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

### CONNECTOR

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

### ELECTRICAL

**Power requirement:** Input +5 VDC ±4% regulated @ 480 mA with 200 mV p-p max. ripple

### PIN ASSIGNMENTS

Pin No.	Function
1	+5 VDC (in)
2	Transmit data (RS-232) (out)
3	Receive data (RS-232) (in)
4	Signal ground
5	NC
6	RTS (out)
7	Output 1
8	Default
9	Trigger (in)
10	CTS (in)
11	NC
12	New master
13	Chassis ground
14	Output 2
15	NC

### SAFETY CERTIFICATIONS

CDRH, FCC, UL/cUL, TÜV, CE



ISO 9001/Cert. No. US96/0465

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 Specifications subject to change.

Product specifications are given for typical performance at 25°C (77°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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