

## MS-710

**The MS-710 is compact and offers features including high speed reading with field of view, infrared reading, and feature rich software.** 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 handle 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.

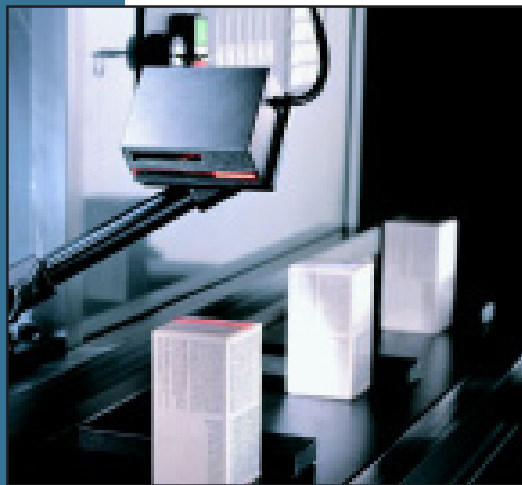
## BAR CODE SCANNER

**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 top-mount, threaded configuration.

The scanner's  $\pm 50^\circ$  pitch and  $\pm 40^\circ$  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 when using the right-angle-down mirror (optional). The mirror option allows the laser beam to turn at a 90° angle as it exits the window.

**ESP™ Easy Setup Program:**

Microscan's ESP™ software is a user friendly, window-based setup program that gives the user a simplified configuration tool. It is compatible with Windows 95, 98, NT, and 2000. Easy-to-use menus let you customize the RS-232 communication protocols, operating parameters, match codes, and bar code types.

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

- |                      |                     |                  |
|----------------------|---------------------|------------------|
| • Code 39            | <u>Applications</u> | <u>Standards</u> |
| • Interleaved 2 of 5 | • UPC/EAN           |                  |
| • Code 128           | • Code 49           |                  |
| • Codabar            |                     |                  |
| • Code 93            |                     |                  |

Other codes are available, call Microscan for details.

**Support Options:**

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

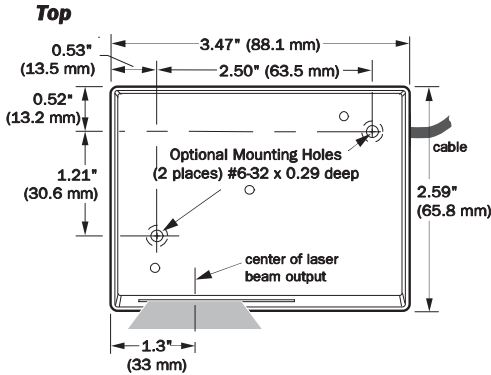
**MICROSCAN®**

# MS-710 SCANNER

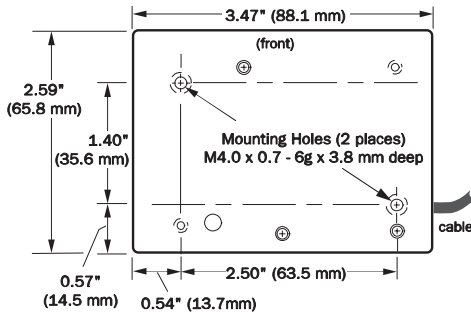
## SPECIFICATIONS AND OPTIONS

### MECHANICAL

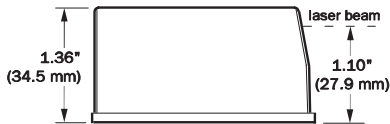
**Depth:** 2.59" (65.8 mm)  
**Width:** 3.47" (88.1 mm)  
**Height:** 1.36" (34.5 mm)  
**Weight:** 9 oz. (255 g)



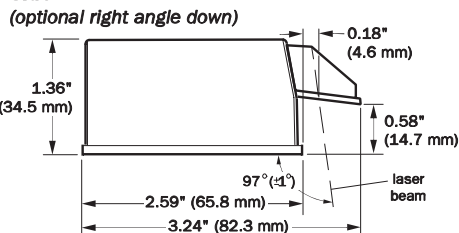
### Bottom



### Side



### Side



### ENVIRONMENTAL

**Housing:** IP54  
**Operating temperature:** 0° to 50°C (32° to 122°F)  
**Humidity:** Up to 90% (non-condensing)  
**Operating life:** 50,000 hours at 25° C

### EMISSIONS

**General immunity for light industry:** EN 50082:97  
**Radiated and Conducted Emissions of ITE equipment:** EN 55022:98, Class A.

### LASER LIGHT

**Type:** Semiconductor visible laser diode (670 nm nominal)  
**Safety class:** CDRH Class II

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

Narrow-bar-width	Read Range
<b>HIGH DENSITY</b>	
.005" (.127 mm)	2" to 3.1" (50.8 to 78.7 mm)
.0075" (.191 mm)	2" to 4" (50.8 to 102 mm)
<b>LOW DENSITY</b>	
.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)
.040" (1.02 mm)	2" to 10" (50.8 to 254 mm)
<b>RIGHT-ANGLE DOWN</b>	
.0075" (.191 mm)	1.25" to 4" (31.8 to 102 mm)
.010" (.254 mm)	1" to 5" (25.4 to 127 mm)
.015" (.381 mm)	1" to 6" (25.4 to 152 mm)
.020" (.508 mm)	1" to 8.5" (25.4 to 216 mm)
.030" (.762 mm)	1" to 8.5" (25.4 to 216 mm)
.040" (1.02 mm)	1" to 8.5" (25.4 to 216 mm)

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

### COMMUNICATION

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

### 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 socket connector

### ELECTRICAL

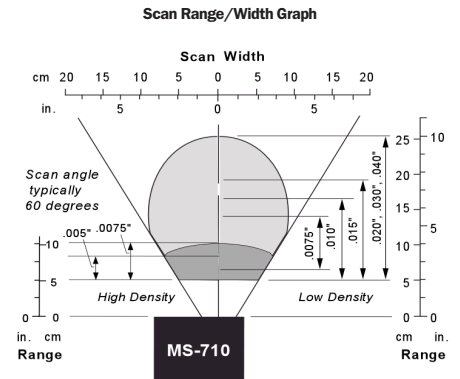
**Power requirement:** Input +5 VDC ±4% regulated at 480 mA with 200 mV p-p max. ripple

### HOST CONNECTOR/PIN ASSIGNMENTS

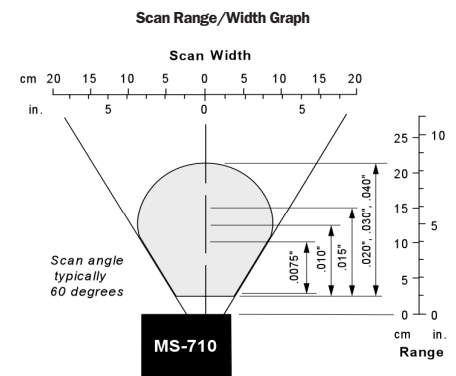
#### 15 Pin D-sub Socket Connector

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	NC			
12	New Master (NPN)			In
13	Chassis ground			
14	Output 2 TTL (+)			Out
15	NC			

### LOW DENSITY AND HIGH DENSITY



### RIGHT ANGLE DOWN



### SAFETY CERTIFICATIONS

CDRH, FCC, UL/cUL, TÜV, CE, BSMI

### ISO 9001/Cert. No. US96/0465

© 2006 Microscan Systems, Inc. 5/06  
 All rights reserved.  
 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.

# MICROSCAN®

### Microscan Systems, Inc.

Tel 425 226 5700 / 800 251 7711  
 Fax 425 226 8250

### Microscan Europe

Tel 31 172 423360 / Fax 31 172 423366

### Microscan Asia Pacific R.O.

Tel 65 6846 1214 / Fax 65 6846 4641

**Web site:** www.microscan.com

**E-mail:** info@microscan.com

**Tech support:** helpdesk@microscan.com