

# MS-710

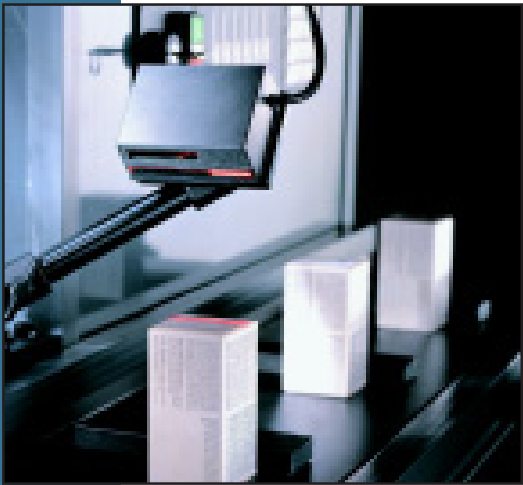
The MS-710 is compact and offers features including high speed reading with field of view, infrared reading, and feature rich software. Its spinning, 10-sided mirror projects a laser beam at a 60° scan angle, up to 8 inches wide. The MS-710 gives you the flexibility to scan a variety of label qualities 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 ±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 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

# MS-710 SCANNER

## SPECIFICATIONS AND OPTIONS

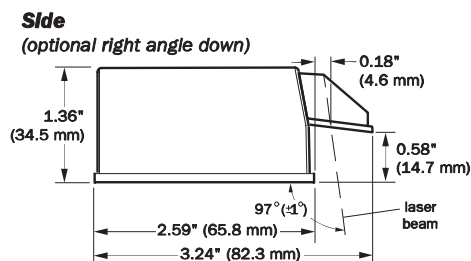
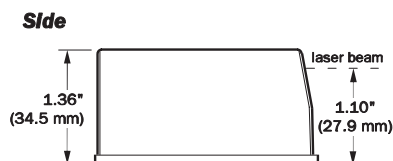
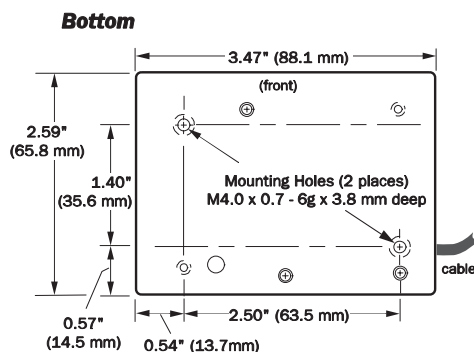
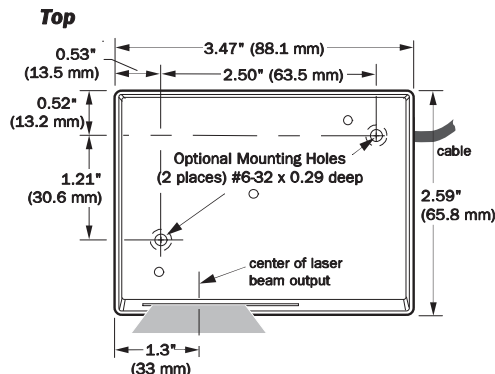
### MECHANICAL

**Depth:** 2.59" (65.8 mm)

**Width:** 3.47" (88.1 mm)

**Height:** 1.36" (34.5 mm)

**Weight:** 9 oz. (255 g)



### 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

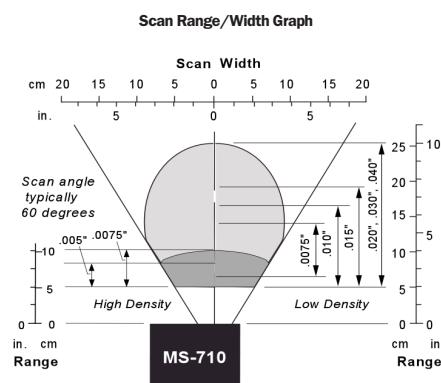
### ELECTRICAL

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

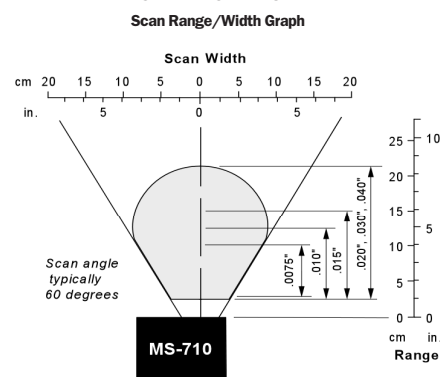
### HOST CONNECTOR/PIN ASSIGNMENTS 15 Pin D-sub Socket Connector

| 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

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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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