

# VS-310

**The VS-310 is the smallest, lightest, and most affordable fixed-mount scanner offered by Microscan.**

Features include wide scan angle with two optional scanning patterns, two programmable outputs, bracketless top or bottom mounting, all enclosed in a compact IP54 rated housing weighing only 3 ounces. Set up and configuration is also fast and easy with Microscan's patented, Window's based ESP™ software (Easy Setup Program).

The VS-310's compact size combined with its feature set make it ideally suited for OEM applications or other space constrained environments.

## BAR CODE SCANNER

**Wide scan angle, exceptional read flexibility:**

A wide scan angle and short focal point add up to space savings for your system. The VS-310 produces a 4-inch (10.16 cm) scan line at a distance of 2.75 inches (6.99 cm), making it ideal for integration in tight spaces. A  $\pm 50^\circ$  pitch and  $\pm 40^\circ$  skew allow for flexible label positioning. In addition, the VS-310 can read down a 0.25-inch (0.64 cm) slot from a distance of 5 inches (12.7 cm).

**Ultracompact shape and size:** The smallest and lightest scanner offered by Microscan, the VS-310 is big on performance, reliability,

**Two scanning beam patterns available:**

While other scanners offer just one beam pattern, the VS-310 offers optional patterns best suited to your application. Both patterns are projected from a 10-sided spinning mirror. Choose either a single line pattern or a raster pattern.

**IP54 housing:** The die-cast metal housing and industrial IP54 rated sealing protect circuitry and optical components against dust and moisture.

**Multicolored status LEDs:** Verify "good decodes" at a glance with the VS-310's multicolored LEDs. A programmable beeper provides additional auditory confirmation of read status.

**ESP™ Easy Setup Program:**

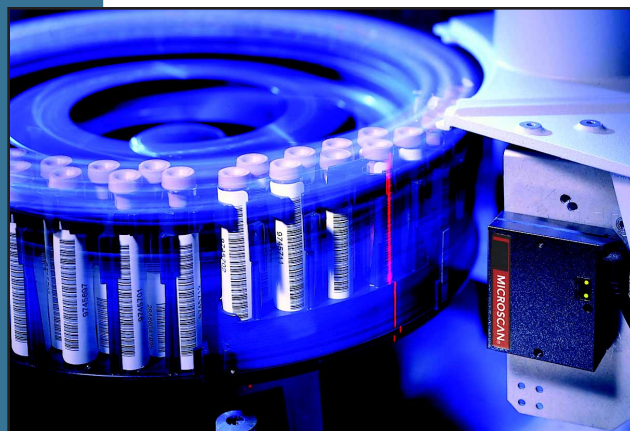
Microscan's ESP™ software is a user friendly, window-based setup program that gives the user a simplified configuration tool. It is compatible with Windows 95, 98, NT, and 2000. Easy-to-use menus let you customize the RS-232 communication protocols, operating parameters, match codes, and bar code types.

**Symbologies:** The VS-310 comes standard with all widely used linear bar code symbologies, including:

- Code 39
- Codabar
- Interleaved 2 of 5
- Code 93
- Code 128

**Service options:**

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

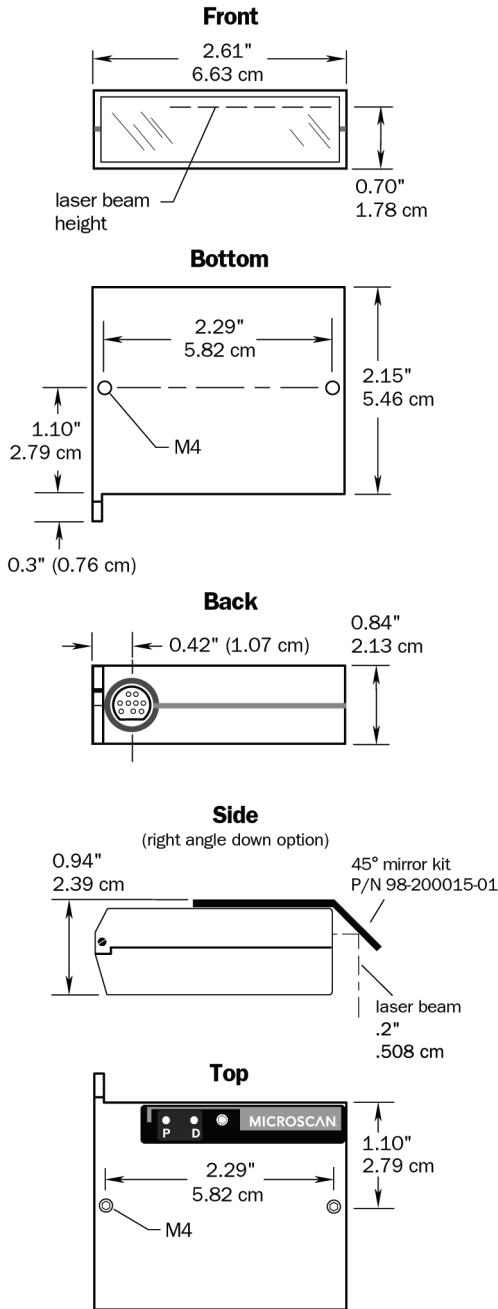


and accuracy. The 9-pin mini-DIN connector gives the VS-310 a sleek profile and eliminates the need for bulky mating connectors. Blind-threaded mounting holes allow optional top or bottom mounting without extra accessory brackets. Due to its wide scanning angle, a 4-inch (10.16 cm) scanning beam at a distance of 2 inches (5.08 cm), the VS-310 can be positioned up close to labels. This makes the VS-310 an ideal solution in any system where space is at a premium.

# VS-310 LASER SCANNER

## SPECIFICATIONS

### MECHANICAL



### ENVIRONMENTAL

**Weight:** Approximately 3 oz. (85 g)  
**Housing:** NEMA 12, IP54 when used with specified connector  
**Operating temperature:** 0° to 40°C (32° to 104°F)  
**Storage temperature:** -50° to 75°C (-63° to 167°F)  
**Humidity:** Up to 90% (non-condensing)

### EMISSIONS

**Radiated and conducted:**  
 EN 55022:98, Class B

### READ RANGES

Narrow-bar-width	Read Range
<b>HIGH DENSITY (60 SPS)</b>	
.005" (.127 mm)	2.25" to 3" (5.72 to 7.62 cm)
.0075" (.191 mm)	2" to 3.5" (5.08 to 8.89 cm)
<b>LOW DENSITY (100 SPS)</b>	
.0075" (.191 mm)	2.5" to 4.5" (6.35 to 11.43 cm)
.010" (.254 mm)	2" to 5.5" (5.08 to 13.97 cm)
.015" (.381 mm)	2" to 6.5" (5.08 to 16.51 cm)
.020" (.508 mm)	2" to 7.25" (5.08 to 18.42 cm)

### PIN ASSIGNMENTS: 9-pin mini-DIN socket

Pin No.	RS-232 Pin Function	RS-422/485 Pin Function
1	+5 VCC (in)	+5 VCC (in)
2	Output-1 TTL <sup>a</sup>	Output-1 TTL <sup>a</sup>
3	RS-232 RxD	TxD (+)
4	Signal ground	Signal ground
5	RS-232 TxD	TxD (-)
6	Trigger input	Trigger input
7	Default pin	Default pin
8	Output-2 TTL (+) <sup>a</sup>	RxD (+)
9	RS-485 driver enable	RxD (-)
Shield	Chassis ground <sup>b</sup>	Chassis ground

<sup>a</sup>. Can sink 3.5 mA or source 60 µA

<sup>b</sup>. Chassis and signal ground connected internally through 0 OHM Resistor.

### STATUS LIGHTS

LED	Color	Condition
Power LED	Yellow	On power-on
Status LED	Green	Normal operations: illuminates whenever a bar code label is decoded and remains on until a new trigger occurs.  Continuous Read or Continuous Read 1 Output: flash for each good read.

### LASER LIGHT

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

### SCANNING PARAMETERS

**Type:** 10-sided, single line or raster, spinning mirror  
**Scan rate:** High Density - 60 scans per second. Low Density - 100 scans per second  
**Scan width:** 4" (10.16 cm) at 2.75" (6.99 cm) from window (7.5 mil and larger bar widths)  
**Pitch:** ±50°  
**Skew:** ±40°  
**Label contrast:** 25% min. absolute dark to light differential at 670 nm wavelength

### COMMUNICATION

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

### PROTOCOLS

Point-to-Point • Point-to-Point w/Xon/Xoff • Polling Mode D • Multidrop • User defined • User defined multidrop

### CONNECTORS

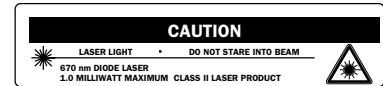
**Type:** 9-pin mini-DIN socket connector

### ELECTRICAL

**Power requirement:** +5 VDC ±4% at 200 mA

### SAFETY CERTIFICATIONS

CDRH, FCC, CE, TÜV, BSMI and UL/cUL



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 Code 39 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®

**EURO AUTOMATION S.L.**  
 Tel (+34) 902.171.171  
 Fax (+34) 932.052.012  
[www.euro-automation.com](http://www.euro-automation.com)  
[ventas@euro-automation.com](mailto:ventas@euro-automation.com)

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