

MS-3 CCD



Compact Shape/Size

Wide Scan Angle

Ultra-Compact CCD Reader

The MS-3 CCD offers the fastest read performance in embedded compact linear CCD readers. Advanced CCD technology is coupled with world-class algorithms to ensure quick and accurate decoding of small, damaged or poorly printed codes.

High performance and flexibility make the MS-3 CCD the optimal embedded reader for reading difficult codes.

MS-3 CCD: At a Glance

- Decodes/second: up to 270
- Read Range: 1 to 16" (25 to 406 mm)
- Low 5V Power Draw
- IP54 Enclosure



ESP® : Easy Setup Program software provides quick and easy setup and configuration of all Microscan readers.

For more information, visit www.smallscanners.com.

Compact & Lightweight

The 1.75" (44.5 mm) square by .85" (21.6 mm) tall scanner weighs only 2 ounces (57 g) for easy mounting onto robotic equipment or into tight spaces.

Wide Scan Angle

The wide scan angle of 48 degrees creates space savings within your system, and allows greater flexibility with positioning.

High Scan Speed

A scan speed of up to 270 decodes per second and Microscan's world-class decode algorithms ensure accurate reading every time.

Reading Capabilities

The MS-3 CCD can easily read the most difficult codes, and excels at reading on highly reflective surfaces.

Application Examples

- Clinical instruments
- Bank ATMs
- Parking kiosks
- Point-of-sale terminals
- Robotics

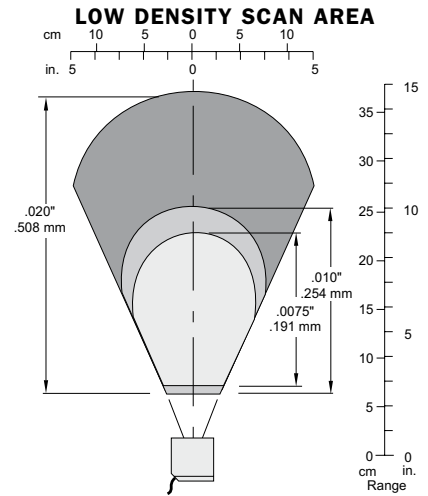
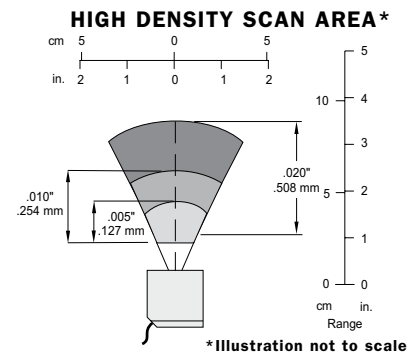
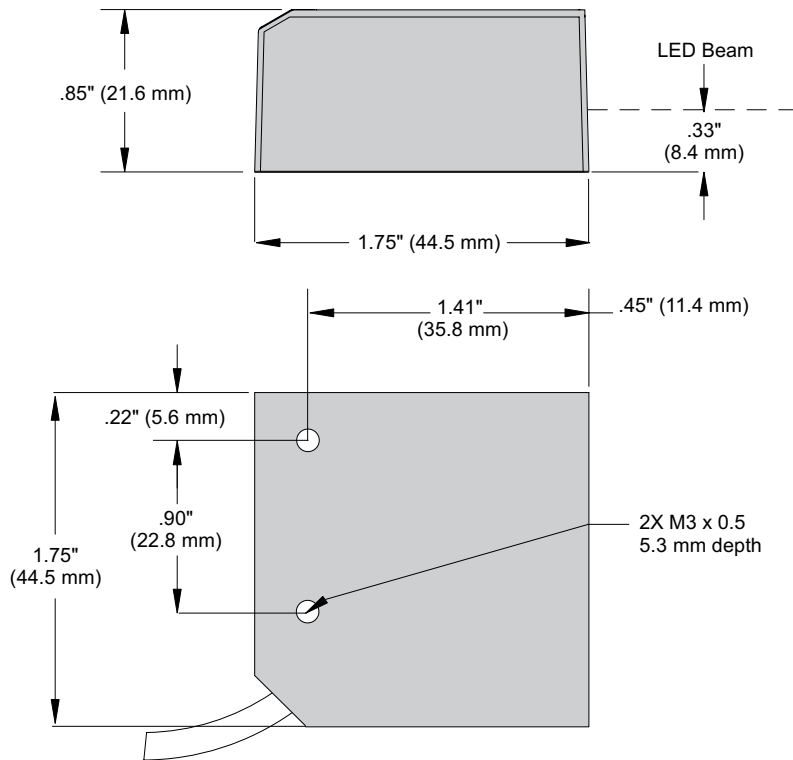
MS-3 CCD: Available Codes

Linear

All Standard



MS-3 CCD SCANNER SPECIFICATIONS AND OPTIONS



GENERAL

Compact CCD scanner for OEM devices.

MECHANICAL

Weight: 2 oz. (57 g)

DESIGN

Flash memory sensor:

CCD linear image sensor

Optics: 645 nm visible LED Bright and sharp scanning line

SCANNING PERFORMANCE

Decoded mode: 270 scans/sec auto-adaptive

Min. X dimension: down to 0.05 mm (2mil) on Code 39

Depth of field: 0 to 49.2 cm (19.4")

Bar code width: up to 18 cm (7") on 0.3 mm (12 mil) resolution code

Print contrast: down to 20%

Scan angle: 48° nominal

COMMUNICATION

Interface: RS-232

CONNECTOR

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

SYMBOLOGIES

UPC (E&A), EAN, Code 11, Code 39, Code 128, UCC EAN 128, ISBN, ISBT, Interleaved, Industrial and Standard 2 of 5, Codabar, Code 93, MSI, Plessey, Telepen

ENVIRONMENTAL CHARACTERISTICS

Operating temperature: -30 to 60° C (-22 to 140° F)

Storage temperature: -40 to 60° C (-40 to 140° F)

Relative humidity:

5% to 95% (non-condensing)

Shock: 2000G **Vibration:** 50G r.m.s.

Ambient light: works in any lighting conditions, from 0 to 100 000 lux

HOST CONNECTOR/PIN ASSIGNMENTS

15 Pin High Density D-sub Socket Connector

Pin No.	Host/RS-232	In/Out
1	Power +5 VDC	In
2	TxD	Out
3	RxD	In
4	Power/Signal Ground	
5	NC	
6	RTS	Out
7	NC	
8	Default Configuration	
9	Trigger (NPN)	In
10	CTS	In
11	NC	
12	NC	
13	Chassis Ground	
14	NC	
15	NC	

CE MARK

Immunity designed for:

EN 55-24:1998 ITE Immunity Standard

Radiated and conducted emissions designed for:

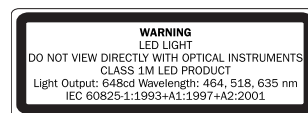
EN 55022:98 ITE disturbances class A

ELECTRICAL

Power: 5V +/-5%, 200 mV p-p max ripple, 150 mA @ 5 VDC (typ.)

DISCRETE I/O

Trigger Inputs: 4.7 to 24V rated (0µA @ 5V, -600 µA @ 0V)



READ RANGES

Narrow-bar-width	Read Range
HIGH DENSITY	
.005" (.127 mm)	.9" to 1.8" (23 to 46 mm)
.010" (.254 mm)	.8" to 2.4" (20 to 61 mm)
.020" (.508 mm)	1" to 3.5" (25 to 89 mm)
LOW DENSITY	
.0075" (.191 mm)	2.8" to 9" (70 to 228 mm)
.010" (.254 mm)	2.5" to 10" (64 to 254 mm)
.020" (.508 mm)	2.5" to 14.5" (64 to 370 mm)

Note: For Right Angle option, subtract 0.6" (15 mm) from read range. Read ranges are base upon optimal scan speed for specific symbol density.

SAFETY CERTIFICATIONS DESIGNED FOR

CDRH, FCC, UL/cUL, CE, BSMI



ISO 9001:2000
CERTIFIED QMS

ROHS/WEEE COMPLIANT

(Low Density CCD Option)

ISO CERTIFICATION

Issued by RWTÜV, USA Inc.

ISO 9001:2000 - Cert No. 03-1212

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Read Range and other performance data is determined using high quality Grade A symbols per ISO/IEC 15415 and ISO/IEC 15416 in a 25°C environment. For application-specific Read Range results, testing should be performed with symbols used in the actual application. Microscan Applications Engineering is available to assist with evaluations. Results may vary depending on symbol quality. Warranty-One year limited warranty on parts and labor. Extended warranty available.

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