

# QUADRUS<sup>®</sup> MINI VELOCITY

## High Speed Mini Imager for ID



The Quadrus MINI Velocity is optimized for the fastest reading in any dynamic application. The ultra-compact imager reads all standard 2D and linear barcodes, plus multiple codes per capture, at high speed with real time autofocus.

With easy setup and outstanding read rate performance, the Quadrus MINI Velocity is an ideal solution for virtually all dynamic barcode applications.

### Quadrus MINI Velocity: At a Glance

- Decodes/second: up to 60
- Patented Quadrus Technology
- Autofocus
- Optional USB Connectivity

**ESP** ESP<sup>®</sup> Easy Setup Program: Single-point software provides quick and easy setup and configuration of all Microscan readers.

**EZ TRAX** EZ Trax<sup>™</sup>: Image capture and storage software provides tracking of symbol images.

**EZ** EZ Button: This performs reader setup and configuration with no computer required.

**GOOD READ** Visible Indicators: Performance indicators include "good read" green flash and LEDs, as well as the label positioning tool.

For more information on this product, visit [www.microscan.com](http://www.microscan.com).

#### Dynamic, High Speed Reading

The Quadrus MINI Velocity decodes linear barcodes and 2D symbols omnidirectionally in moving applications at speeds over 100 inches per second (254 cm/sec).

#### Ease of Use

The imager series includes such user-friendly features as visible performance indicators, ESP<sup>®</sup> software, and one touch setup and configuration.

#### Autofocus

For real time dynamic autofocus, position the symbol at the center of the field of view, and push the EZ button. The Quadrus MINI Velocity automatically adjusts focal distance and sets internal parameters to optimize the symbol.

#### EZ Trax<sup>™</sup> Option

Image capture and storage software provides tracking of symbol images.

#### Compact Shape/Size

The Quadrus MINI Velocity's small form factor allows for flexible positioning in tight spaces or mounting into robotic applications.

#### Wide Field of View

High resolution zero-distortion optics, diffractive full field illumination, and a wide field of view allow symbols as large as 2" (50.8 mm) square to be read as close as 1" (25.4 mm) with the optional right angle mirror.

#### Application Examples

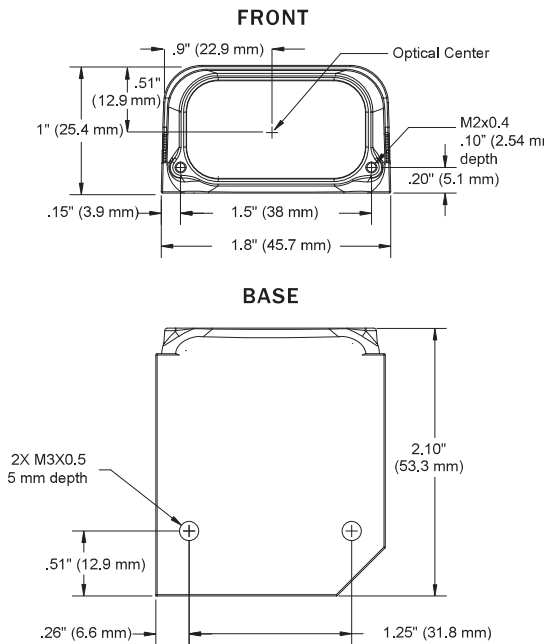
- Document handling
- Pharmaceutical packaging
- Printed circuit boards
- Electronics assembly
- Assembly line manufacturing

### Quadrus MINI Velocity: Available Codes

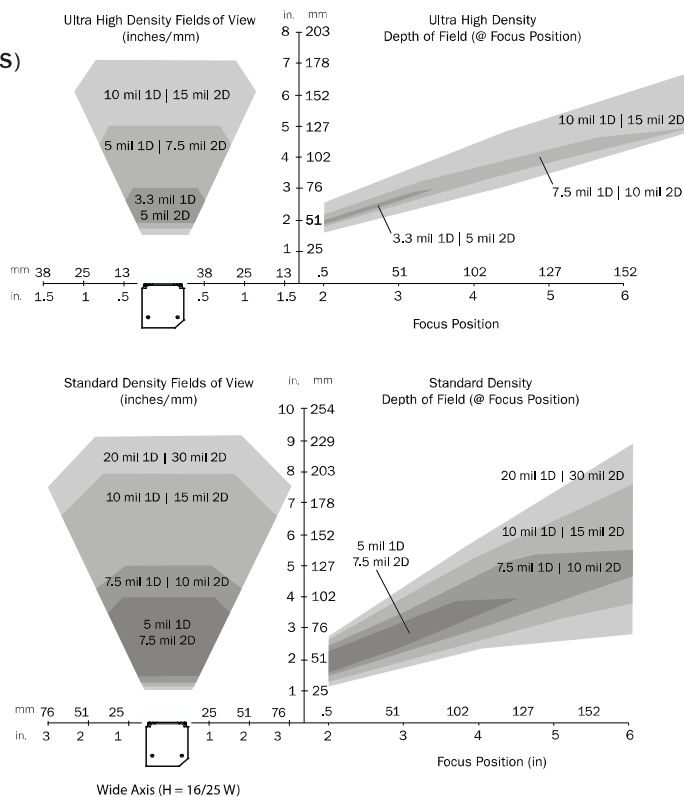


**MICROSCAN<sup>®</sup>**

# QUADRUS® MINI VELOCITY SPECIFICATIONS AND OPTIONS



## READ RANGES (GRAPHS AND TABLES)



### MECHANICAL

**Height:** 1" (25.4 mm) **Width:** 1.80" (45.7 mm)  
**Depth:** 2.10" (53.3 mm) **Weight:** 2 oz. (57 g)

### ENVIRONMENTAL

**Enclosure:** IP54 (category 2)  
**Humidity:** up to 90% (non-condensing)  
**Operating Temperature:** 0° to 40° C (32° to 104° F)  
**Storage Temperature:** -50° to 75° C (-58° to 167° F)

### CE MARK

**General Immunity for Light Industry:**  
 EN 55024: 1998 ITE Immunity Standard  
**Radiated and Conducted Emissions of ITE**  
 Equipment: EN 55022:98 ITE Disturbances

### LIGHT SOURCE

**Type:** High output LEDs

### LIGHT COLLECTION OPTIONS

Progressive scan, square pixel. Software adjustable shutter speed, electronic shutter.  
**WVGA:** 752 by 480 pixels



### SYMBOLOGIES

**2D Symbologies:** Data Matrix (ECC 0-200), QR Code  
**Stacked Symbologies:** PDF417, Micro PDF417, GS1 Databar (Composite & Stacked)  
**Linear Bar Codes:** Code 39, Code 128, BC 412, I2 of 5, UPC/EAN, Codabar, Code 93

### READ PARAMETERS

**Pitch:** ±30° **Skew:** ±30° **Tilt:** 360°  
**Decode Rate:** Up to 60 decodes per second  
**Focal Range:** 1.3 to 10" (33 to 254 mm) (autofocus)

### CONNECTOR

**Type:** 3 ft. cable terminated with High Density 15-pin D-Sub socket connector or USB Type A connector

### INDICATORS

**LEDs:** Read Performance, Power, Read Status  
**Green Flash:** Good read **Blue V:** Symbol locator  
**Beeper:** Good read, match/mismatch, noread, serial command confirmation, on/off

### COMMUNICATION PROTOCOLS

**Standard Interface:** RS-232, RS-422 or USB

### ELECTRICAL

**Power:** 5 VDC +/- 5%, 200 mV p-p max. ripple, 494 mA @ 5 VDC (typ.)  
**Optional Int.:** 10-28 V Accessory

Narrow-bar-width		Field of View (maximum)	Read Range (using autofocus)
1D	2D		
<b>Ultra High Density</b>			
.0033" (0.08 mm)	.005" (0.13 mm)	1.1" (29 mm)	1.9 to 3.0" (48 mm to 76 mm)
.005" (0.13 mm)	.075" (0.19 mm)	1.8" (45 mm)	1.8 to 5.0" (46 mm to 127 mm)
.010" (0.25 mm)	.15" (0.38 mm)	2.5" (64 mm)	1.6 to 7.0" (41 mm to 178 mm)
<b>Standard Density</b>			
.005" (0.13 mm)	.0075" (0.19 mm)	2.7" (69 mm)	1.7 to 3.4" (43 mm to 86 mm)
.0075" (0.19 mm)	.010" (0.25 mm)	3.7" (93 mm)	1.6 to 5.0" (41 mm to 127 mm)
.010" (0.25 mm)	.15" (0.38 mm)	4.7" (118 mm)	1.4 to 8.0" (36 mm to 203 mm)
.020" (0.51 mm)	.030" (0.76 mm)	5.3" (136 mm)	1.3 to 9.3" (33 mm to 236 mm)

**Subject to change. Contact Microscan for updated graphs.**

### HOST CONNECTOR/PIN ASSIGNMENTS

#### High Density 15 Pin D-sub Socket Connector

Pin No.	Host RS-232	Host/Aux RS-232	Host RS-422/485	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	Aux TxD	TxD(+)	Out
7	Output 1 TTL <sup>a</sup>			Out
8	Default configuration <sup>b</sup>			In
9	Trigger			In
10	CTS	Aux RxD	RxD (+)	In
11	Output 3 TTL <sup>a</sup>			Out
12	New Master (NPN)			In
13	Chassis ground <sup>c</sup>			
14	Output 2 TTL <sup>a</sup>			Out
15	NC			

a. Can sink 10 mA and source 10 mA.  
 b. The default is activated by connecting pin 8 to ground pin 4.  
 c. Chassis ground: Used to connect chassis body to earth ground only. Not to be used as power or signal return.

### DISCRETE I/O

**Trigger Input:** 5 to 28 vdc rated (.16 mA)  
**New Master:** 5 to 28 vdc rated (.16 mA)  
**Outputs (1, 2, 3):** 5V TTL compatible, can sink 10 mA and source 10mA  
**Optional I/O:** Optoisolated (with IC-332 accessory)

### SAFETY CERTIFICATIONS DESIGNED FOR

FCC, UL/cUL, CE, CB

### ROHS/WEEE COMPLIANT

### ISO CERTIFICATION

Certified ISO 9001:2008 Quality Management System

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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. Free extended 3 year warranty upon online product registration.

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