

QUADRUS EZ™

Quadrus EZ™ simplifies 2D reading. Fully featured to operate in static or moving applications, Quadrus EZ™ is ideal for any 1D or 2D bar code application or companies considering the transition from 1D to 2D bar codes.

Quadrus EZ™ is the next generation in vision-based scanning, combining the ease of use of a laser bar code scanner with advanced software features of vision technology.

Compared to vision systems Quadrus EZ™ :

- is easy to use, no PC is required.
- is more cost effective.

Compared to laser bar code scanners Quadrus EZ™:

- reads 2D symbols.
- has omnidirectional reading.
- has the ability to decode etched or dot peen symbols.

DYNAMIC 1D & 2D BAR CODE READER

Ease of Use:

Designed into every aspect of Quadrus EZ™, initial set up can be done in seconds.

A 2-step setup:

1. Position symbol using the "X" pattern.
2. Push the EZ™ button to read.

Field of View Locator & Good Read Indicator:

A red "X" identifies the field of view center, allowing fast and accurate placement. After the symbol has been targeted, Quadrus EZ™ emits a bright green flash (visible from all angles) signaling a successful read.



EZ button:

- Enables locator pattern
- Enables the calibrate mode
- Enables read rate mode
- Defaults the scanner

This simplifies initial set up process and allows the scanner to be configured directly on the line, without the aid of a PC.

Extensive Focal Range:

Quadrus EZ™ offers four optical versions, factory adjustable from 2 to 10 inches (50.8 to 254 mm).

Additional focal points and field of views can be achieved by attaching an analog RS-170 progressive scan camera to the unit.

Dynamic Reading:

High decode speeds allow the Quadrus EZ™ to decode moving symbols, regardless of orientation, at speeds up to 60 reads/sec.

USB & Ethernet Connectivity:

Embedded USB and Ethernet protocols are available for high speed data and image transfer.

2D Label Validation:

The multiple validation parameters provide information which is helpful for monitoring printing/marking quality of a symbol to gauge readability.

Video Input/Output:

Quadrus EZ™ offers optional video input and output ports. This allows standard analog RS-170 cameras to be used, and a live video feed to view images. Adding a camera can expand optical flexibility to increase focal ranges, or be used where there may be size constraints.

Symbologies:

Quadrus EZ™ reads multiple 2D symbologies and traditional linear codes.

2D Symbologies

· Data Matrix (ECC 0-200) 

· QR Code 

· RSS Family 

· PDF417 

Linear Bar Codes

· BC412 

· Code 39 

· Code 128 

· I-2 of 5 

Codes depicted above are for display purposes only. For a sample packet, contact Microscan, info@microscan.com.



ESP™ Software:

Quadrus EZ™ operates with Microscan's Easy Setup Program. Microscan's ESP™ software is Windows-based and easy to use.

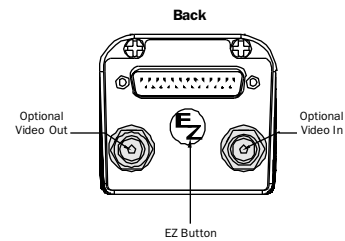
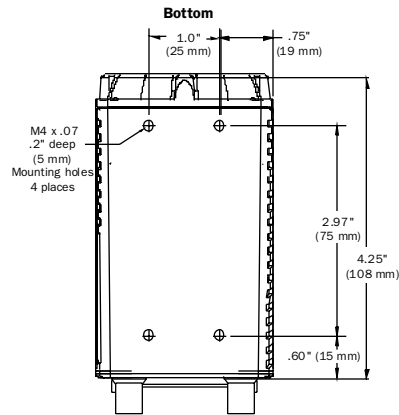
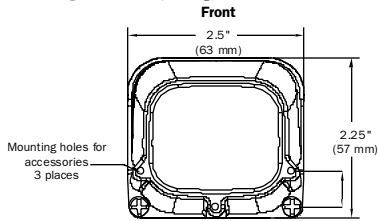
MICROSCAN®

QUADRUS EZ™ DYNAMIC 1D & 2D BAR CODE READER

SPECIFICATIONS AND OPTIONS

MECHANICAL

Height: 2.25" (57 mm)
Width: 2.5" (64 mm)
Depth: 4.2" (107 mm)
Weight: 12 oz. (340 g)



ENVIRONMENTAL

Enclosure: IP65 (standard unit)
With Video I/O Option: IP55
Operating Temperature: 0° to 43°C (32° to 109°F), if mounted on a Microscan stand.
 If mounted on non-metal surface, maximum operating temperature is 40°C (104°F)
Storage Temperature: -50° to 75° C (-58 to 167°F)
Humidity: up to 90% (non-condensing)

EMISSIONS/IMMUNITY

ITE Disturbances: EN55022: 1998 (radiated and conducted). Class A
General Immunity: EN55024:1998 (residential)
Heavy Industrial Immunity: EN61000-6-2:1999

LIGHT SOURCE

Type: High output LEDs

LIGHT COLLECTION OPTIONS

CCD Array: 659 x 494 pixels
 progressive scan, square pixel.
 software adjustable shutter speed,
 electronic mechanism

CMOS Array: 640 by 480 pixels
 progressive scan, square pixel,
 software adjustable shutter speed,
 electronic mechanism

SYMBOLGY TYPES

2D Symbolgies:
 Data Matrix (ECC 0-200), PDF417, QR Code, and RSS family.
Linear Bar Codes: Code 39, Code 128, IBM BC412, I2 of 5.

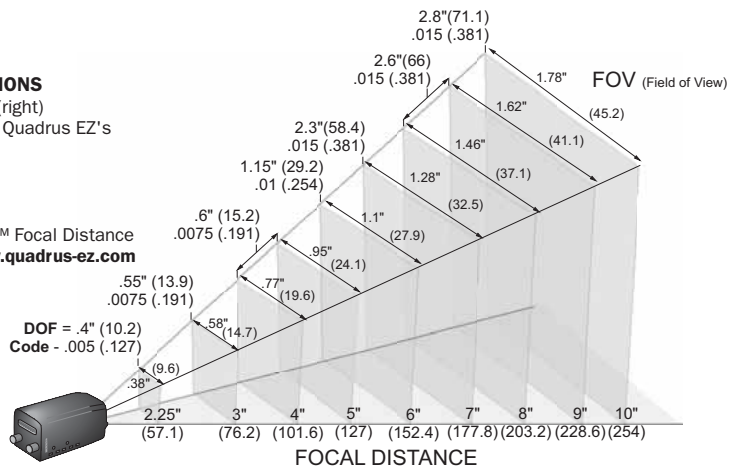
FOUR OPTICAL VERSIONS

Medium Density shown (right)
 For more information on Quadrus EZ's other optical versions:

- Narrow
 - Wide
 - Extra Wide
- refer to the Quadrus EZ™ Focal Distance Matrix, available at www.quadrus-ez.com

MEASUREMENT

Shown in inches (mm)



DOF = .4" (10.2)
Code = .005 (.127)

STANDARD OFFERING

CONNECTORS/PIN ASSIGNMENTS

Host Connector: 25-pin D-subminiature plug

Pin No.	Host RS232	Host & Aux RS232	Host RS422/485	In/Out
1	Chassis ground ^a			
2	TxD			Out
3	RxD			In
4	RTS	TxD		Out
5	CTS	RxD		In
6	Output 1 (+)			Out
7	Signal Ground ^b			
8	Output 2 (+)			Out
9	Trigger (-)			In
10	Trigger (+)			In
11	Default configuration ^c			In
12	Input 1 (+)			In
13		RxD (+)		In
14		TxD (-)		Out
15	Output 3 (+)			Out
16		RxD (-)		In
17	Power Ground ^d			
18	Power +10 to 28 VDC			In
19			TXD +	Out
20	Output 1 (-)			Out
21	Output 2 (-)			Out
22	Output 3 (-)			Out
23	Input 1 (-)			In
24	New master (-)			In
25	New master (+)			In

^aChassis ground: Used to connect chassis body to earth ground only. Not to be used as power or signal return.

^bSignal ground: Used for communication and signal line grounds only. Not to be used as power or chassis return.

^cThe default is activated by connecting pin 11 to ground pin 7.

^dPower ground: Used for power return only.

Caution: If using your own power supply, verify correct connection of power and ground lines. Incorrect connections or use of "Chassis ground," "Power ground," and "Signal ground" lines could cause equipment or software failure.

USB OPTION

Host Connector: Pins Utilized

Pin No.	Function	In/Out
13	USB VBUS	In
14	USB D (-)	In/Out
16	USB GND	In
19	USB D (+)	Out

ETHERNET OPTION

Host Connector: Pins Utilized

Pin No.	Function	In/Out
13	Ethernet RxD (+)	In
14	Ethernet RxD(-)	Out
16	Ethernet TxD (-)	In
19	Ethernet TXD (+)	Out

VIDEO INPUT (Option)

Signal System: Progressive scan
Number of Scanning Lines: 525 lines/non-interlaced
Input: Analog 1 Vp-p

VIDEO OUTPUT (Option)

Signal System: EIA
Number of Scanning Lines: 525 lines/ 2:1 interlaced
Output: Analog 1 Vp-p/75 ohm

READ PARAMETERS

Pitch: ±30° **Skew:** ±30° **Tilt:** 360°
Decode Rate: Up to 60 decodes per second
Focal Range: 2 to 10 inches (factory adjustable)

STATUS LIGHTS

LEDs: Read Performance, Power, Read Status, and Network Status

COMMUNICATION PROTOCOLS

Standard Interface: RS-232, RS-422, RS-485, RS-232, Daisy Chain
Optional Interface: Ethernet, USB

ELECTRICAL

Power Requirements: Input, 10 to 28 VDC, 200 mV p-p max ripple, 270 mA at 24 VDC (typ.-CMOS), 333 mA at 24 VDC (typ.-CCD).
Trigger, New Master, Input 1: (Optoisolated) 5 to 28 VDC rated, (12mA at 24 VDC).
Outputs 1/2/3: (Optoisolated) 1 to 28 VDC rated, (I_{CC} < 100mA at 24 VDC, current limited by user).

SAFETY CERTIFICATIONS

Designed for: FCC, TÜV, CE, cUL, UL, BSMI ISO 9001/Cert. No. 00-1047

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Specification, 02/03-Base C
 Specifications subject to change.

Product specifications are given for typical performance at 25° Celsius (77° Fahrenheit) 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

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For more details and virtual product tour go to www.quadrus-ez.com.