

Quadrus® EZ



Dynamic Smart Camera

The Quadrus EZ smart camera provides an integrated decoding solution for linear, stacked, and 2D symbols. The fully featured Quadrus EZ is exceptionally easy to use and is available in multiple focal distances.

Specializing in dynamic applications, the Quadrus EZ offers accurate decoding of almost any symbol, including direct part marks, with outstanding read rate performance.

Quadrus EZ: At a Glance

- Decodes/ second: up to 60
- Read Range: 2 to 10" (51 to 254 mm)
- Patented Quadrus Technology
- IP65 Enclosure



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



EZ Trax™: Image capture and storage software provides tracking of symbol images.



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



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.quadrus-ez.com.

Quadrus EZ: Available Codes

Linear



2D Symbols



Stacked



Ease of Use

Initial set up of the Quadrus EZ can be done in seconds. Position the symbol using the "X" pattern, then push the EZ button to read.

Field of View Locator & Good Read Flash

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

Extensive Focal Range

The Quadrus EZ offers four optical versions, factory adjustable from 2 to 10" (50.8 to 254 mm). Adding a camera can expand optical flexibility to increase focal ranges.

Ethernet Connectivity

Embedded Ethernet is an option available for high speed data and image transfer.

Dynamic Reading

High decode speeds and superior light collection allow the Quadrus EZ to meet the needs of applications with line speeds up to 600 feet per minute (180 meters/ minute).

2D Symbol Quality Reports

The Quadrus EZ provides printed reports on a variety of quality parameters which are useful in gauging readability of a symbol.

Video Input/Output

The Quadrus EZ features video input and output ports. This allows standard analog RS-170 cameras to be used, and a live video feed to view images.

Application Examples

- Printed circuits assembly
- Automotive
- Aerospace
- Semiconductor manufacturing

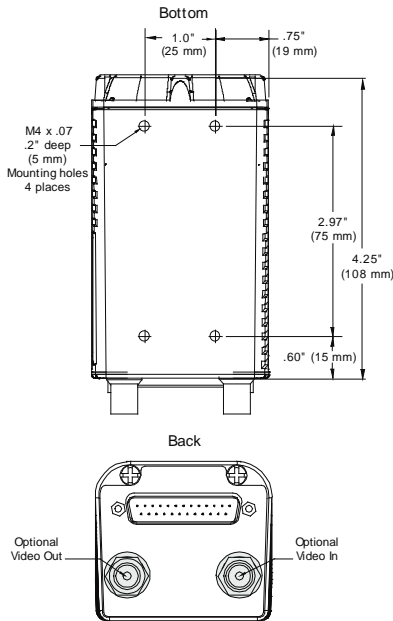
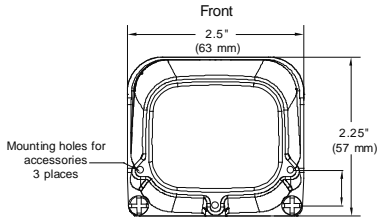
MICROSCAN®

Quadrus® EZ dynamic smart camera

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: IP54
 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

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

SYMBOLGY TYPES

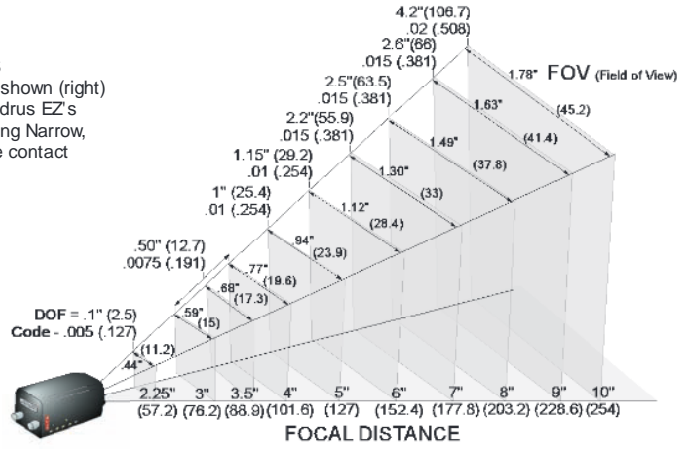
2D Symbolgies: Data Matrix (ECC 0-200), QR Code
 Stacked Symbolgies: PDF417, Micro PDF417, GS1 Databar (Composite & Stacked)
 Linear Bar Codes: Code 39, Code 128, IBM BC412, I2 of 5, Pharmacoode, UPC/ EAN

FOUR OPTICAL VERSIONS

Medium Density CCD option shown (right)
 For more information on Quadrus EZ's other optical versions including Narrow, Wide, and Extra Wide, please contact Microscan.

MEASUREMENT

Shown in inches (mm)



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.

ETHERNET OPTION

Host Connector: Pins Utilized

Pin No.	Function	In/ Out
13	Ethernet RxD (+)	In
14	Ethernet RxD(-)	In
16	Ethernet TxD (-)	Out
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 (RS-170)
 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)

INDICATORS

LEDs: Read Performance, Power, Read Status, and Network Status
 Beeper: Good read, match/ mismatch, no read, serial command confirmation, on/ off

COMMUNICATION PROTOCOLS

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

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_{CE} < 100mA at 24 VDC, current limited by user).

SAFETY CERTIFICATIONS

Designed for: FCC, CE, cUL, UL, BSMI



ISO 9001:2000
 Certified QMS

ROHS/ WEEE COMPLIANT

ISO CERTIFICATION

Issued by TÜV USA Inc, Member of TÜV NORD Group, Cert No. 06-1080

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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.

MICROSCAN®

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