Quadrus® EZ FLEX

Flexible C-Mount Imager For ID

The Quadrus EZ FLEX is the ultimate flexible imager for decoding linear and 2D codes in traceability applications. The imager's core is Microscan's patented Quadrus technology, including robust decode algorithms for any symbol. The Quadrus EZ FLEX provides unlimited potential through compatibility with any C-mount lens or external lighting solutions.

Quadrus EZ FLEX: At a Glance

- *Decodes/second: up to 60*
- *Read Range: Varies by lens*
- *Patented Quadrus Technology*
- *Optional packaged lens and lighting kits*

ESP® Easy Setup Program: Single-point software solution 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.

For more information on this product, visit www.quadrus-ez.com.

Lenses & Lighting
The Quadrus EZ FLEX is compatible with any C-mount lens and external lighting solution from any manufacturer. Microscan also offers packaged kits for ease of integration.

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

Video Input/Output
Video input and output ports allow standard analog RS-170 cameras to be used, and a live video feed to view images.

Flexibility
The Quadrus EZ FLEX features interchangeable lenses and external lighting, allowing you to create a powerful custom imager specific to the unique demands of your application.

2D Symbol Quality Reports
Printed reports on a variety of 2D symbol quality parameters provide a useful gauge of symbol readability.

Application Examples
- Factory automation
- Data traceability
- Work-in-progress
- Unlimited potential through a variety of lenses and lighting

Quadrus EZ FLEX: Available Codes

Linear — All Standard

2D Symbols — Data Matrix, QR

Stacked — MicroPDF, PDF417, GS1 Databar

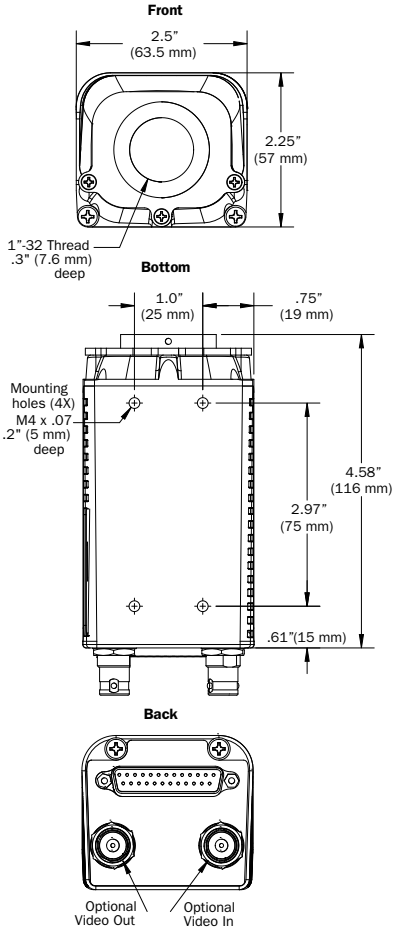
MICROSCAN®

QUADRUS® EZ FLEX IMAGER

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

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 with Lens: -20° to 60° C (-40 to 140°F)
Humidity: up to 90% (non-condensing)

EMISSIONS/IMMUNITY

FCC: EN61000-6-3:2001 +AW:2004
Heavy Industrial Immunity: EN61000-6-2:2001

LIGHT COLLECTION OPTIONS

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

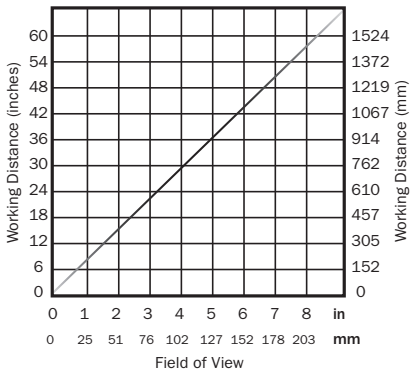
SYMBOLOGY TYPES

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

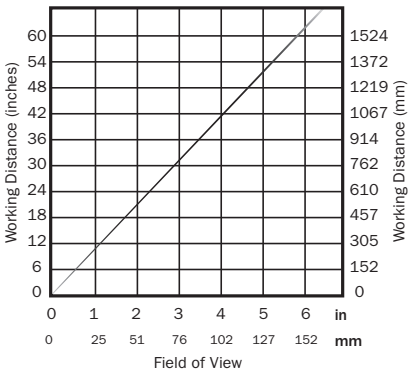
READ PARAMETERS

Pitch: ±30° **Skew**: ±30° **Tilt**: 360 (lens and illumination dependent)
Decode Rate: Up to 60 decodes per second

35 MM LENS



50 MM LENS



NOTE: Data based on standard available lens and lighting kits. Data is subject to change.

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

[a]Chassis ground: Used to connect chassis body to earth ground only. Not to be used as power or signal return.
[b]Signal ground: Used for communication and signal line grounds only. Not to be used as power or chassis return.
[c] The default is activated by connecting pin 11 to ground pin 7.
[d] Power 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

INDICATORS

LEDS: Read Performance, Power, Read Status, and Network Status
Beeper: Good read, match/mismatch, noread, serial command confirmation, on/off

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

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, 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

ISO 9001:2000 **Certified QMS**

ROHS/WEEE COMPLIANT

ISO CERTIFICATION

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

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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General Purpose Kit

Micro Density Kit

Interchangeable Lens & Lighting Options

The Quadrus EZ FLEX imager interchangeable lenses and external lighting allow you to create a powerful custom traceability solution specific to the unique demands of your application.

In addition to compatibility with any C-mount lens or external lighting units, Microscan offers convenient pre-packaged kits for ease of integration.

General Purpose Kit

Micro Density Kit

Lens and Lighting Kits		
Components	**Minimum Element Size**	**Recommended Uses**
• 35 mm Lens • 10 mm Spacer • Ring Light • Lighting Bracket	**5 mil, 15 mil** **Example Symbol Sizes:** 26 X 26 **Capacity:** *Numeric:* 88 *Alphanumeric:* 64	**Working Range:** *8 to 20”* *(203.2 to 508 mm)* **Working Range with Spacer:** *3.75 to 5.75”* *(95.25 to 146.05 mm)* • *Large focal range to accomodate application requirements* • *Multiple codes in FOV* • *High speed applications*
• 50 mm Lens • 40 mm Spacer • Coaxial Light • Lighting Bracket	**1.8 mil** **Example Symbol Size:** 10 X 10 **Capacity:** *Numeric:* 6 *Alphanumeric:* 3 Actual Size Displayed at 600%	**Working Range:** *3.75” (95.25 mm)* • *Tiny codes* • *Low contrast*

Each Data Matrix shown is a square matrix. Symbols are for size reference only, and may not be accurately reproduced on screen or by some print methods. Scale is 1:1.

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