QX HAWK

QX Hawk: Un Vistazo

- *Decodificación/segundo: hasta 60*
- *Rango de Lectura: Varía según el modelo*
- *Autoenfoque de Lentes Líquidos y Zoom Modular*
- *Sistema de Red Integrado Ethernet*
- *Opciones de configuración: 0.4MP CMOS o 1.3MP CCD*

ESP® Programa de Fácil Instalación: La solución de software de únicoo clic proporciona una rápida y fácil instalación y configuración de todos los lectores de Microscan.

Botón EZ: Éste desempeña la instalación del lector y la configuración sin requerir de una computadora.

Indicadores Visibles: Los indicadores de desempeño incluyen el flash verde de “buena lectura” y LEDs.

Plataforma QX: El Sistema de Conexión Rápida y la tecnología X-Mode se combinan para proporcionar un sencillo sistema de red de conectividad alto desempelo en decodificación.

Para mayor información acerca de este producto, visite www.microscan.com.

QX Hawk: Códigos Disponibles

Lineal	Todos Estándar	Códigos Postales
Apilados	MicroPDF	PDF417
	Barra de Datos GS1	
2D	Matriz de Datos	QR
	Micro QR	Aztec

Generador de Imagen Flexible e Industrial

El QX Hawk es el primer generador de imágenes mudial que esta totalmente integrado con tecnología de lentes líquidos, permitiendo una flexibilidad de enfoque infinita. Construyendo el puente entre la facilidad de uso y desempeño, el QX Hawk presenta un sistema de zoom óptico modular de alta resolución, decodificación agresiva X-Mode, y una conectividad de conexión y activación simple. El generador de imágenes QX Hawk lee fácilmente cualquier código de barras o símbolo 2D, incluyendo marcas de partes directas 2D (DPM), en cualqueir entorno, en cuestión de segundod a partir de la instalación.

Decodifica cualquier símbolo
Utilizando los mejores algoritmos de decodificación X-Mode, el QX Hawk captura consistentemente todo, desde bajo contraste, marcas dañadas, o marcas de partes directas difíciles, hasta una densidad de 3.3 mil Matriz de Datos, a to a very large linear barcode.

Desempeño Potente
El QX Hawk suministra energía mediante un procesador dual core ARM/DSP para permitir tanto la captura de imagen a gran velocidad así como la configuración y comunicación en tiempo real. El procesamiento inserto, combinado con tres entradas/salidas de alta velocidad directamente del lector, permite al QX Hawk proporcionar funciones de control de nivel de línea.

Fácil de Utilizar
Además del tamaño compacto para el posicionamiento flexible, el QX Hawk incluye indicadores LED visibles, patrón de láser de apunte, flash verde de “buena lectura” y botón EZ par ainstalación y configuración instantánea.

Sistema Óptico Avanzado
La tecnología de imagen avanzada incluye un sistema de zoom óptico modular de alta resolución que permite que el QX Hawk lea marcas a una distance de 20 mm a 800 mm y de mayor distancia. Combinada con auntoenfoque de lentes líquidos (patente pendiente), el QX Hawk puede cubrir fácilmente casi cualquier aplicación de auto Identificación.

Protocolos Ethernet
Los protocolos Ethernet integrados están incluidos para una comunicación de alta velocidad.

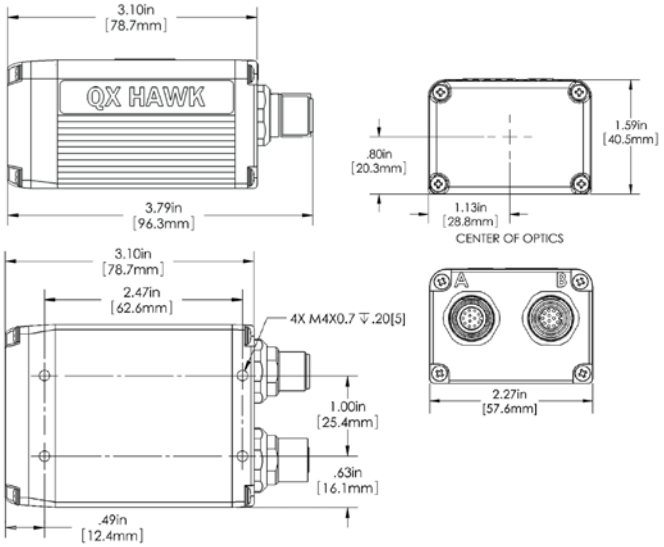
Diseño Robusto
El QX Hawk presenta un diseño industrial robusto con una caja de aleación de aluminio adjunta IP65/67 y conectores M12.

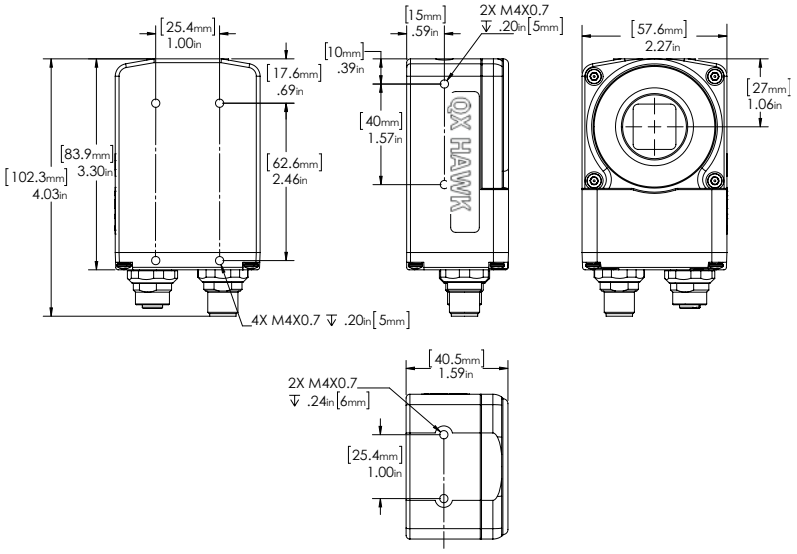
Ejemplos de Aplicación
- Tableros de circuito impresos
- Fabricación de electrónica y semiconductores
- Automotriz
- Aeroespacial
- Dispositivos Médicos

MICROSCAN®

QX Hawk Flexible, Industrial Imager

Specifications and Options





NOTE: Nominal dimensions shown. Typical tolerances apply. For Integrated Optics Model Read Range charts and information, see Page 3.

MECHANICAL (INTEGRATED OPTICS)
Height: 1.59" (40.5 mm)
Width: 2.27" (57.6 mm)
Depth: 3.79" (96.3 mm)
Weight: 10 oz. (280 g)

MECHANICAL (C-MOUNT OPTICS)
Height: 4.03" (102.3 mm)
Width: 2.27" (57.6 mm)
Depth: 1.59" (40.5 mm)
Weight: 11 oz. (320 g)

ENVIRONMENTAL
Enclosure: Die-cast aluminum, IP65/67 rated
CMOS Operating Temperature: 0° to 50° C (32° to 122° F)
CCD Operating Temperature: 0° to 45° C (32° to 113° F)
Storage Temperature: -29° to 70° C (-20° to 158° F)
Humidity: Up to 90% (non-condensing)

COMMUNICATION INTERFACE
Interface: RS-232/422/485 or Ethernet

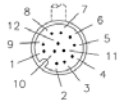
CE MARK
General Immunity for Light Industry: EN 55024: 1998 ITE Immunity Standard
Radiated and Conducted Emissions of ITE Equipment: EN 55022:98 ITE Disturbances

LIGHT SOURCE (INTEGRATED OPTICS)
Type: High output LEDs

SYMBOLOGIES
2D Symbologies: Data Matrix (ECC 0-200), QR Code, Micro QR Code, Aztec Code
Stacked Symbologies: PDF417, Micro PDF417, GS1 Databar (Composite & Stacked)
Linear Barcodes: Code 39, Code 128, BC 412, I2 of 5, UPC/EAN, Codabar, Code 93, Pharmacode, PLANET, PostNet, Japanese Post, Australian Post, Royal Mail, Intelligent Mail, KIX

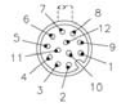
LIGHT COLLECTION OPTIONS
Progressive scan, square pixel.
Shutter: Software adjustable 10 µs to 1/60 second
Sensor: 1/3 inch
WVGA: CMOS, 752 by 480 pixels, up to 60 fps
SXGA: CCD, 1280 by 960 pixels, up to 20 fps

PIN ASSIGNMENTS
CONNECTOR A
M12 12-pin plug:



Pin	Assignment
9	Host RxD
10	Host TxD
2	Power
7	Ground
1	Trigger
8	Input Common
3	Default
4	New Master
5	Output 1
11	Output 2
6	Output 3
12	Output Common

CONNECTOR B
M12 12-pin socket:



Pin	Assignment
9	TxD/RTS
10	RxD/CTS
2	Power
7	Ground
1	Trigger
8	Input Common
3	Terminated
4	Input 1
5	422/485 TxD (+)
11	422/485 TxD (–)
6	422/485 RxD (+)
12	422/485 RxD (–)

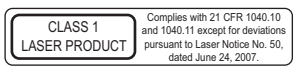
ETHERNET CONFIGURATION CONNECTOR B
M12 8-pin socket:

Pin	Assignment
1	Terminated
2	Terminated
3	Terminated
4	TX (–)
5	RX (+)
6	TX (+)
7	Terminated
8	RX (–)

INDICATORS
LEDS: Read Performance, Power, Read Status, Network activity, I/O **Beeper:** Good read, match/mismatch, noread, serial command confirmation, on/off
INTEGRATED OPTICS MODEL ONLY:
Green Flash: Good read **Red X:** Symbol locator

READ PARAMETERS
Pitch: ±30° **Skew**: ±30° **Tilt**: 360°
CMOS Decode Rate: Up to 60 decodes per second
CCD Decode Rate: Up to 20 decodes per second

LASER LIGHT (INTEGRATED OPTICS)
Type: Laser diode
Output Wavelength: 655 nm nominal
Operating Life: 50,000 hours @ 25° C
Safety Class: Visible laser: Class 1



PROTOCOLS
Point-to-Point, Point-to-Point w/RTS/CTS, Point-to-Point w/XON/XOFF, Point-to-Point w/RTS/CTS & XON/XOFF, Multidrop, Daisy Chain, User-Defined Multidrop, Ethernet TCP/IP, EtherNet/IP

ELECTRICAL
CMOS Power Requirement: 5-28 VDC, 200 mV p-p max ripple, 135 mA at 24 VDC (typ.)
CCD Power Requirement: 5-28 VDC, 200 mV p-p max ripple, 170 mA at 24 VDC (typ.)

DISCRETE I/O
Input 1/Trigger/New Master: Bi-directional, optoisolated, 4.5–28V rated, (13 mA at 24 VDC)
Outputs (1, 2 & 3): Bi-directional, optoisolated, 1–28V rated, (I_{CE} <100 mA at 24 VDC, current limited by user)

SAFETY CERTIFICATIONS
CDRH, FCC, UL/cUL, CE, CB, BSMI (compliant)

ROHS/WEEE COMPLIANT

ISO CERTIFICATION
Certified ISO 9001:2008 Quality Management System

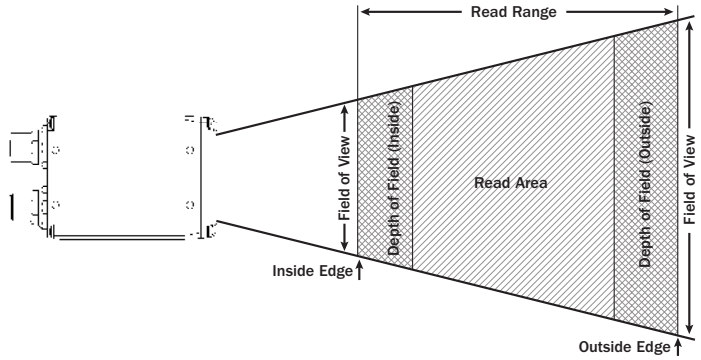
Read Range and other performance data is determined using high quality Grade A symbols per ISO/IEC 15415 and ISO/IEC 15416 in a 25° C environment. For application-specific Read Range results, testing should be performed with symbols used in the actual application. Microscan Applications Engineering is available to assist with evaluations. Results may vary depending on symbol quality. **Warranty–**For current warranty information on this product, please visit www.microscan.com/warranty.

MICROSCAN®
Microscan Systems Inc.
Tel 425 226 5700 / 800 251 7711
Fax 425 226 8250
Microscan Europa
Tel 31 172 423360 / Fax 31 172 423366
Microscan Asia Pacífico
Tel 65 6846 1214 / Fax 65 6846 4641

www.microscan.com
Información de Producto: info@microscan.com
Soporte Técnico: helpdesk@microscan.com

QX Hawk Flexible, Industrial Imager

Specifications and Options



INTEGRATED OPTICS MODEL: CMOS MODULAR ZOOM OPTICS

Inches (mm)

12°

Narrow-bar-width		Read Range	Field of View		Depth of Field	
1D	2D	(using autofocus)	Inside Edge	Outside Edge	Inside Edge	Outside Edge
0.0033 (0.08)	0.005 (0.13)	3.4 to 6 (86 to 152)	0.9 (23)	1.42 (36)	0.2 (5)	0.4 (10)
0.0075 (0.19)	0.010 (0.25)	3.3 to 12.2 (83 to 310)	0.9 (23)	2.62 (66)	0.4 (10)	1.5 (38)
0.0150 (0.38)	0.020 (0.51)	3.3 to 13 (82 to 330)	0.9 (23)	2.77 (70)	0.5 (13)	3.5 (89)
0.0350 (0.89)	0.050 (1.27)	4 to 16 (101 to 406)	1.03 (26)	3.34 (85)	0.7 (18)	6.5 (165)

15°

Narrow-bar-width		Read Range	Field of View		Depth of Field	
1D	2D	(using autofocus)	At Inside Edge	At Outside Edge	Inside Edge	Outside Edge
0.0033 (0.08)	0.005 (0.13)	1.9 to 5 (48 to 127)	0.75 (19)	1.53 (39)	0.3 (6)	0.4 (10)
0.0075 (0.19)	0.010 (0.25)	1.8 to 8 (46 to 203)	0.72 (18)	2.28 (58)	0.4 (10)	1 (25)
0.0150 (0.38)	0.020 (0.51)	1.75 to 9 (44 to 229)	0.72 (18)	2.52 (64)	0.5 (13)	3 (76)
0.0350 (0.89)	0.050 (1.27)	3 to 10.8 (76 to 274)	1.03 (26)	2.96 (75)	0.6 (15)	4 (101)

30°

Narrow-bar-width		Read Range	Field of View		Depth of Field	
1D	2D	(using autofocus)	Inside Edge	Outside Edge	Inside Edge	Outside Edge
0.0033 (0.08)	0.005 (0.13)	1 to 3 (25 to 76)	0.83 (21)	1.8 (46)	0.4 (10)	0.8 (20)
0.0075 (0.19)	0.010 (0.25)	1 to 6.5 (25 to 165)	0.83 (21)	3.5 (89)	0.8 (20)	1.8 (46)
0.0150 (0.38)	0.020 (0.51)	1 to 16 (25 to 406)	0.83 (21)	8.3 (211)	2 (51)	8.5 (216)
0.0350 (0.89)	0.050 (1.27)	2 to 32 (51 to 813)	1.3 (33)	16.4 (417)	3 (76)	21.5 (546)

45°

Narrow-bar-width		Read Range	Field of View		Depth of Field	
1D	2D	(using autofocus)	Inside Edge	Outside Edge	Inside Edge	Outside Edge
0.0075 (0.19)	0.010 (0.25)	1 to 5 (25 to 127)	1.3 (33)	4.1 (104)	1.5 (38)	2 (51)
0.0150 (0.38)	0.020 (0.51)	1 to 9.5 (25 to 241)	1.3 (33)	7.5 (191)	2 (51)	6 (152)
0.0350 (0.89)	0.050 (1.27)	1 to 23.5 (25 to 597)	1.3 (33)	18.3 (465)	3.8 (97)	19 (483)

NOTE: Read ranges are for specific element sizes as listed in the tables.

INTEGRATED OPTICS MODEL: CCD MODULAR ZOOM OPTICS

Inches (mm)

12°

Narrow-bar-width		Read Range	Field of View		Depth of Field	
1D	2D	(using autofocus)	Inside Edge	Outside Edge	Inside Edge	Outside Edge
0.002 (0.05)	0.0033 (0.08)	3.5 to 7 (87 to 178)	0.9 (23)	1.62 (41)	0.1 (3)	0.3 (8)
0.005 (0.13)	0.0075 (0.19)	3.4 to 12 (86 to 304)	0.9 (23)	2.62 (66)	0.2 (5)	1 (25)
0.010 (0.25)	0.0150 (0.38)	3.3 to 13 (83 to 330)	0.9 (23)	2.77 (70)	0.4 (10)	2.5 (64)
0.020 (0.51)	0.0300 (0.76)	4 to 14 (101 to 355)	1.03 (26)	2.96 (75)	0.6 (15)	5 (127)

15°

Narrow-bar-width		Read Range	Field of View		Depth of Field	
1D	2D	(using autofocus)	At Inside Edge	At Outside Edge	Inside Edge	Outside Edge
0.002 (0.05)	0.0033 (0.08)	2 to 5 (51 to 127)	0.78 (20)	1.53 (39)	0.2 (5)	0.4 (10)
0.005 (0.13)	0.0075 (0.19)	1.9 to 8.3 (48 to 210)	0.75 (19)	2.35 (60)	0.3 (8)	1 (25)
0.010 (0.25)	0.0150 (0.38)	1.9 to 9.5 (47 to 241)	0.75 (19)	2.65 (67)	0.5 (13)	3 (76)
0.020 (0.51)	0.0300 (0.76)	3 to 10.3 (76 to 261)	1.03 (26)	2.84 (72)	0.6 (15)	4.5 (114)

30°

Narrow-bar-width		Read Range	Field of View		Depth of Field	
1D	2D	(using autofocus)	Inside Edge	Outside Edge	Inside Edge	Outside Edge
0.002 (0.05)	0.0033 (0.08)	1 to 3 (25 to 76)	0.83 (21)	1.8 (46)	0.4 (10)	0.8 (20)
0.005 (0.13)	0.0075 (0.19)	1 to 6.5 (25 to 165)	0.83 (21)	3.5 (89)	0.8 (20)	1.8 (46)
0.010 (0.25)	0.0150 (0.38)	1 to 16 (25 to 406)	0.83 (21)	8.3 (211)	2 (51)	8.5 (216)
0.020 (0.51)	0.0300 (0.76)	2 to 32 (51 to 813)	1.3 (33)	16.4 (417)	3 (76)	21.5 (546)

45°

Narrow-bar-width		Read Range	Field of View		Depth of Field	
1D	2D	(using autofocus)	Inside Edge	Outside Edge	Inside Edge	Outside Edge
0.005 (0.13)	0.0075 (0.19)	1 to 5 (25 to 127)	1.3 (33)	4.1 (104)	1.5 (38)	2 (51)
0.010 (0.25)	0.0150 (0.38)	1 to 9.5 (25 to 241)	1.3 (33)	7.5 (191)	2 (51)	6 (152)
0.020 (0.51)	0.0300 (0.76)	1 to 23.5 (25 to 597)	1.3 (33)	18.3 (465)	3.8 (97)	19 (483)

NOTE: Read ranges are for specific element sizes as listed in the tables.

MICROSCAN®