

## MINI HAWK

## 超紧凑型自动对焦成像仪




### MINI HAWK: 简介


- 解码速度和读取范围: 随型号而定
- X-Mode解码技术
- 自动聚焦
- 可选USB连接


**MINI HAWK 3MP:** 300万像素分辨率的影像式读码器

**MINI HAWK HR:** 高分辨率影像式读码器

**MINI HAWK HS:** 高速影像式读码器

 **ESP® 简易设置程序:** 单点软件解决方案为所有 Microscan 阅读器提供迅速、简便的设置和配置。

 **EZ 按钮:** 此按钮可以无需计算机而执行阅读器的设置和配置操作。

 **可见指示灯:** 性能指示灯包括“有效读取”的绿色闪光和 LED 指示灯。

有关本产品的详细信息, 请访问 [www.microscan.com](http://www.microscan.com).

### MINI HAWK: 可读码

线性码

所有标准  邮政编码 

堆栈码

MicroPDF 码  PDF417 码  GS1 Databar 码 

二维标签

数据矩阵  QR 码  Micro QR 码  Aztec 码 

MINI HAWK是一款功能强大的微型影像式读码器, 解决了所有行业中的众多数据跟踪和可追溯性需求。它提供了出色的条码读取算法和简单的设置, 适用于任何一维、二维或直接部件标记(DPM)应用。通过X-Mode技术确保实现可靠的解码, 该技术可以读取损坏或难以辨认的符号, 而无需进行配置或调整。

凭借简单设置、功能强大的图像处理能力和多种配置, MINI HAWK成为了任何条形码或DPM应用的理想解决方案。

#### X-Mode技术

我们拥有专利的 X 模式技术可以在任何应用是实现简单的设置和部署。除了能够可靠的解码损坏或难以辨认的线性条形码及二维符号之外, MINI HAWK还采用了先进的解码算法, 用以读取多种不同类型的直接部件标记。

#### 灵活性

可选的多种分辨率, 为众多应用提供解决方案。

#### 广角视野

通过衍射光场照明和可选的直角镜读取最大尺寸为2平方英寸(50.8平方毫米)最近距离为1英寸(25.4毫米)的符号。

#### 外形小巧、轻便

十分小巧的外形尺寸可以轻松安装在狭小空间内, 而且轻便的重量适合安装到机器人应用中。

#### 自动聚焦

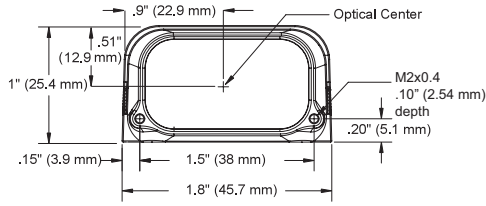
对于实时动态自动聚焦, 将符号置于视野中心, 并按下EZ按钮。MINI HAWK将自动调节焦距并设置内部参数以优化符号。

#### 应用示例

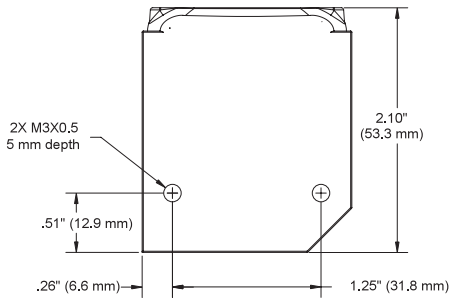
- 装配线制造业
- 组件跟踪
- 汽车
  - 动力总成部件上的点刻标记
  - 汽车电子部件上的激光标记
- 医疗设备
  - 部件上的激光标记
- 电子设备
  - 在印刷电路板、柔性电路上进行激光打标
- 半导体
  - 包装和部件上的激光标记

# MINI HAWK SPECIFICATIONS AND OPTIONS

## Front

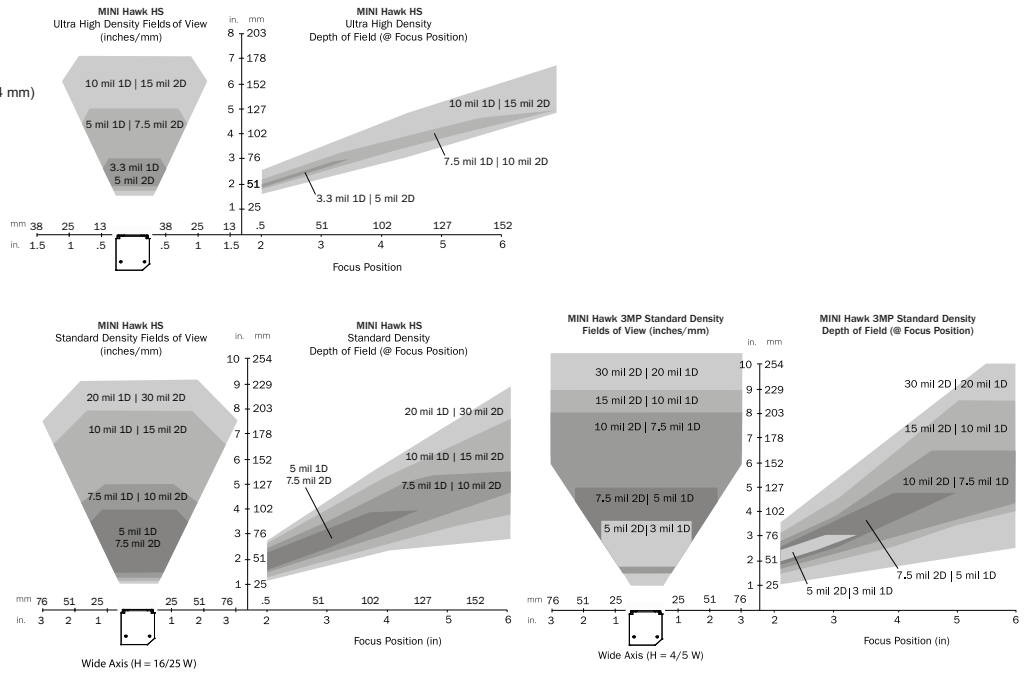


## Base



Note: Nominal dimensions shown.  
Typical tolerances apply.

## 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

EN 55024: 1998 ITE Immunity Standard  
EN 55022:98 ITE Disturbances

## LIGHT SOURCE

**Type:** High output LEDs

## LIGHT COLLECTION OPTIONS

Progressive scan, square pixel. Software adjustable shutter speed, electronic shutter  
**MINI HAWK 3MP:** 2048 by 1536 pixels (QXGA)  
**MINI HAWK HR:** 1280 by 1024 pixels (SXGA)  
**MINI HAWK HS:** 752 by 480 pixels (WVGA)



## SYMBOLOGIES

**2D Symbolologies:** Data Matrix (ECC 0-200), QR Code, Micro QR Code, Aztec Code  
**Stacked Symbolologies:** 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

## READ PARAMETERS

**Pitch:** ±30° **Skew:** ±30° **Tilt:** 360°  
**Decode Rate:** Up to 60 decodes per second (HS model)  
**Focal Range:** 1.3 to 9.3" (33 to 236 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

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)	1.6" (40 mm)	1.9 to 4.4" (47 mm to 110 mm)
.0075" (0.19 mm)	.010" (0.25 mm)	2.5" (64 mm)	1.7 to 6.7" (42 mm to 170 mm)
.015" (0.38 mm)	.020" (0.51 mm)	2.9" (74 mm)	1.5 to 8.0" (38 mm to 203 mm)
<b>Standard Density</b>			
.005" (0.13 mm)	.0075" (0.19 mm)	2.8" (72 mm)	1.6 to 4.4" (41 mm to 112 mm)
.0075" (0.19 mm)	.010" (0.25 mm)	3.8" (97 mm)	1.5 to 6.2" (38 mm to 157 mm)
.010" (0.25 mm)	.015" (0.38 mm)	4.7" (118 mm)	1.4 to 7.6" (36 mm to 193 mm)
.020" (0.51 mm)	.030" (0.76 mm)	6.2" (158 mm)	1.3 to 10.0" (33 mm to 254 mm)

MINI HAWK HS units used for data provided in table. Subject to change. See User Manual for complete data.

## HOST CONNECTOR/PIN ASSIGNMENTS

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

Pin No.	Host RS232	Host/Aux RS232	Host RS422/485	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			Out
8	Default configuration <sup>a</sup>			In
9	Trigger			In
10	CTS	Aux RxD	RxD (+)	In
11	Output 3 TTL			Out
12	New Master (NPN)			In
13	Chassis ground <sup>b</sup>			
14	Output 2 TTL			Out
15	NC			

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

## ELECTRICAL

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

## DISCRETE I/O

**Trigger Input, 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**—For current warranty information on this product, please visit [www.microscan.com/warranty](http://www.microscan.com/warranty)

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