

QX-870

工业光栅 激光扫描器

QX-870 激光扫描器配有最新的条形码读取技术，并可连接至易于使用的条形码追踪、跟踪和控制应用程序解决方案。其特点是易于安装和部署的可编程扫描光栅，可以读取各种位置上的多种条码，即使条码已受损或未对齐。

凭借即插即用设置及最具效率的编码算法，QX-870 成为所有工业应用的理想激光扫描器。



QX-870: 简介

- 每秒扫描次数: 300 至 1400 次
- 读取范围: 1 至 30" (25 mm 至 762 mm)
- 可选的嵌入式以太网 TCP/IP 和 EtherNet/IP 协议
- IP65 封装



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: 此按钮可在不使用计算机的情况下, 对阅读器进行设置和配置。



可见指示器: 性能指示灯包括“有效读取”时的绿色闪光和 LED 指示灯。



扫描光栅: 此可编程功能使阅读器能扫描不同距离和不同位置的多种标签。



QX 平台: 快速连接系统与 X-Mode 技术相结合, 提供简单的连接、网络通信和高性能的解码能力。

有关本产品的详细信息, 请访问 www.microscan.com。



快速连接系统

- M12 Ultra-Lock™ 连接器和线缆套件
- 即插即用设置
- 一台或多台扫描器解决方案

X-Mode 技术

- 解码受损、印刷不良或未对齐的码
- 确保高读取率和扫描量

高性能

高效的解码能力, 能以长达 10" (25.4 cm) 的光束宽度可靠读取长达 30" (762 cm) 的条码。

以太网协议

QX-870 包含可选的嵌入式以太网 TCP/IP 和 EtherNet/IP 协议, 可用于高速通信。

智能光栅

除控制扫描角度和速度之外, 具有智能自动调整技术的可编程光栅也是 QX-870 的一大特色。先进的软件可自动调整激光的光栅高度和宽度, 使之与条码相匹配, 从而可在一个读取周期内有选择地瞄准条码。

应用实例

- 从轻型到重型的各种工业环境
- 自动组装
- 包装和分类
- 电子产品生产
- 机器内部的嵌入式设备

QX-870: 可用码

线性条码

所有标准



堆栈标签

MicroPDF 码



PDF417 码



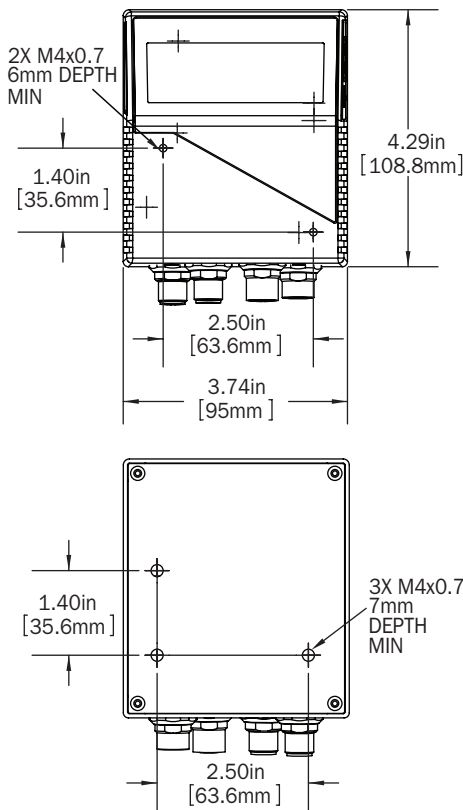
GS1 Databar 码



QX-870 SPECIFICATIONS AND OPTIONS

MECHANICAL

Height: 4.29" (109 mm)
Width: 3.74" (95 mm)
Depth: 1.76" (45 mm)
Weight: 16 oz. (453 g)



READ RANGES¹

LOW DENSITY RANGE DATA

| Narrow-bar-width | Read Range |
|-------------------|---------------------------|
| .0075" (0.191 mm) | 10 to 12" (254 to 305 mm) |
| .010" (0.254 mm) | 7 to 15" (178 to 381 mm) |
| .015" (0.381 mm) | 6 to 19" (152 to 483 mm) |
| .020" (0.508 mm) | 5 to 22" (127 to 558 mm) |
| .040" (1.02 mm) | 4 to 30" (102 to 762 mm) |

MEDIUM DENSITY RANGE DATA

| | |
|-------------------|----------------------------|
| .0075" (0.191 mm) | 2.5 to 5.5" (64 to 140 mm) |
| .010" (0.254 mm) | 1.5 to 7.0" (38 to 178 mm) |
| .015" (0.381 mm) | 1.5 to 8.5" (38 to 216 mm) |
| .020" (0.508 mm) | 1.5 to 11" (38 to 280 mm) |
| .030" (0.762 mm) | 1.0 to 12" (25 to 304 mm) |

HIGH DENSITY RANGE DATA

| | |
|-------------------|-----------------------------|
| .0033" (0.084 mm) | Call Microscan |
| .005" (0.127 mm) | 4 to 5.0" (102 to 127 mm) |
| .0075" (0.191 mm) | 3.5 to 6.75" (89 to 171 mm) |
| .010" (0.254 mm) | 3.25 to 8" (82 to 203 mm) |
| .015" (0.381 mm) | 3.25 to 9" (82 to 228 mm) |

¹Ranges based on a Grade A, Code 39 label. If your read range falls outside the above ranges, please call Microscan. Data subject to change.

SCANNING PARAMETERS

Mirror Type: Rotating, 10-faceted
Scan Rate: Adjustable from 300 to 1400 scans/sec. **Scan Width Angle:** Typically 60°
Pitch: ±50° max. **Skew:** ±40° max.
Label Contrast: 25% min. absolute dark to light differential at 655 nm wavelength
Raster Mirror Performance:

| Raster sweep angle | Maximum sweeps per second |
|--------------------|---------------------------|
| 1°–10° | 80 |
| 11°–20° | 60 |
| 21°–34° (max.) | 40 |
| 35°–36° (max.) | 20 |

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

PIN ASSIGNMENTS²

Connector A (Serial) M12 12-pin plug:

| Pin Assignment | |
|----------------|---------------|
| 9 | Host Rx/D |
| 10 | Host Tx/D |
| 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 (Serial) 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 (-) |

Connector P/M (Serial) M12 12-pin plug:

| Pin Assignment | |
|----------------|-----------------|
| 9 | N/C |
| 10 | N/C |
| 2 | Power |
| 7 | Ground |
| 1 | N/C |
| 8 | N/C |
| 3 | N/C |
| 4 | N/C |
| 5 | 422/485 TxD (+) |
| 11 | 422/485 TxD (-) |
| 6 | 422/485 RxD (+) |
| 12 | 422/485 RxD (-) |

Connector B (Ethernet) M12 8-pin socket:

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

Connector T (Trigger) M12 4-pin socket:

| Pin Assignment | |
|----------------|--------------|
| 1 | Power |
| 2 | Trigger |
| 3 | Ground |
| 4 | Input Common |

²Note: Detailed connector pinout information is available in the User's Manual.

ENVIRONMENTAL

Enclosure: IP65 rated
Operating Temperature: 0° to 50° C (32° to 122° F)
Storage Temperature: -50° to 75° C (-58° to 167° F)
Humidity: Up to 90% (non-condensing)

EMISSIONS

Heavy Industrial: EN 61000-6-2:2005
Radiated Emissions: EN 55022:2006 Class A 30-1000 MHz
Conducted Emissions: EN 55022:2006 Class A .15-30 MHz

COMMUNICATION INTERFACE

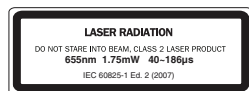
Interface: RS-232/422/485 and/or Ethernet

SYMBOLOGIES

Standard: Code 39, Codabar, Code 93, Interleaved 2 of 5, Code 128, PDF417, Micro PDF417, Pharmacode, UPC, GS1 Databar
Applications Standard: UCC/EAN-128, AIAG

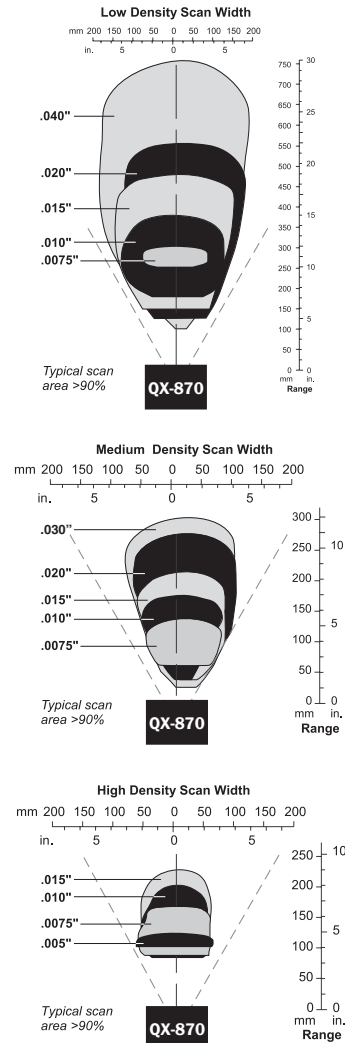
LASER LIGHT

Type: Laser diode
Output Wavelength: 655 nm nominal
Operating Life: 50,000 hours @ 25° C
Safety Class: Visible laser: Class 2



ELECTRICAL

Power Requirement: 10–28 VDC, 200 mV p-p max ripple, 270mA at 24 VDC (typ.)



Note: Data subject to change.

DISCRETE I/O

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

SAFETY CERTIFICATIONS

CDRH, FCC, CE, CB, BSMI (compliant)

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.

MICROSCAN®

Microscan Systems Inc.

Tel 425 226 5700 / 800 251 7711
 Fax 425 226 8250

Microscan Europe

Tel 31 172 423360 / Fax 31 172 423366

Microscan Asia Pacific

Tel 65 6846 1214 / Fax 65 6846 4641

www.microscan.com

Product Information: info@microscan.com
 Technical Support: helpdesk@microscan.com