Industrial Compact Laser Scanner

The QX-830 laser scanner combines revolutionary flexible connectivity with high performance decoding capabilities to reliably read 1D bar codes in almost any automation environment. In addition to the Quick Connect System and X-Mode Technology, the QX-830 features IP65 industrial sealing and optional embedded Ethernet protocols.

High performance, simple connectivity, and IP65 enclosure make the QX-830 an ideal laser scanner for any industrial application.

**QX-830: At a Glance**

- **Scans/second:** 300 to 1400
- **Read Range:** 1 to 37" (25 to 940 mm)
- **Optional Embedded Ethernet TCP/IP & EtherNet/IP**
- **IP65 Enclosure**

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

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

**Visible Indicators:** Performance indicators include “good read” green flash and LEDs.

**QX Platform:** Quick Connect system and X-Mode technology combine to provide high performance connectivity, networking, and decoding.

For more information on this product, visit [www.microscan.com](http://www.microscan.com).

**QX-830: Available Codes**

**Linear**  
- All Standard

**Stacked**  
- MicroPDF
- PDF417
- GS1 Databar

**Quick Connect System**

The innovative Quick Connect System includes M12 Ultra-Lock™ connectors and cordsets for plug-and-play setup of single or multi-reader solutions.

**X-Mode Technology**

Symbol reconstruction provides decoding of damaged, poorly printed, or poorly aligned 1D bar codes to ensure high read rates and throughput.

**High Performance**

Aggressive decoding capabilities allow reliable reading of bar codes out to 37" (94 cm), at up to a 10" (25.4 cm) beam width.

**Real-time Feedback**

LED illumination on the side of the scanner and a “good read” green flash projecting from the front window provide visual confirmation of the scanner’s performance. The green flash is visible within a complete 360 degree radius from the scanner.

**Ethernet Protocols**

The QX-830 includes embedded Ethernet TCP/IP and EtherNet/IP for high speed communication.

**Flexibility**

The compact size of the QX-830 allows flexible positioning for a variety of applications.

**Application Examples**

- Any industrial environment from light to heavy duty
- Conveyor lines
- Packaging and sortation
- Electronics production
- Embedded within machinery
**MECHANICAL**

Depth: 2.95" (66 mm)
Width: 3.47" (88 mm)
Height: 1.38" (35 mm)
Weight: 7.5 oz. (212 g)

**READ RANGES**

**LOW DENSITY RANGE DATA**

<table>
<thead>
<tr>
<th>Narrow-bar-width</th>
<th>Read Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0033&quot; (.084 mm)</td>
<td>10 to 12&quot; (254 to 305 mm)</td>
</tr>
<tr>
<td>.010&quot; (.254 mm)</td>
<td>7 to 16&quot; (178 to 406 mm)</td>
</tr>
<tr>
<td>.015&quot; (.381 mm)</td>
<td>6 to 19&quot; (152 to 483 mm)</td>
</tr>
<tr>
<td>.020&quot; (.508 mm)</td>
<td>5 to 22&quot; (127 to 558 mm)</td>
</tr>
<tr>
<td>.040&quot; (.102 mm)</td>
<td>4 to 30&quot; (102 to 762 mm)</td>
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</tbody>
</table>

**MEDIUM DENSITY RANGE DATA**

<table>
<thead>
<tr>
<th>Narrow-bar-width</th>
<th>Read Range</th>
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</thead>
<tbody>
<tr>
<td>.0075&quot; (.191 mm)</td>
<td>2 to 5.2&quot; (51 to 132 mm)</td>
</tr>
<tr>
<td>.010&quot; (.254 mm)</td>
<td>1.5 to 7.0&quot; (38 to 178 mm)</td>
</tr>
<tr>
<td>.015&quot; (.381 mm)</td>
<td>1.5 to 8.5&quot; (38 to 216 mm)</td>
</tr>
<tr>
<td>.020&quot; (.508 mm)</td>
<td>1.5 to 11&quot; (38 to 280 mm)</td>
</tr>
<tr>
<td>.030&quot; (.762 mm)</td>
<td>1.0 to 12&quot; (25 to 304 mm)</td>
</tr>
</tbody>
</table>

**HIGH DENSITY RANGE DATA**

<table>
<thead>
<tr>
<th>Narrow-bar-width</th>
<th>Read Range</th>
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</thead>
<tbody>
<tr>
<td>.0033&quot; (.084 mm)</td>
<td>Call Microscan</td>
</tr>
<tr>
<td>.005&quot; (.127 mm)</td>
<td>4 to 5.0&quot; (102 to 127 mm)</td>
</tr>
<tr>
<td>.0075&quot; (.191 mm)</td>
<td>3.5 to 6.75&quot; (89 to 171 mm)</td>
</tr>
<tr>
<td>.010&quot; (.254 mm)</td>
<td>3.25 to 8&quot; (82 to 203 mm)</td>
</tr>
<tr>
<td>.015&quot; (.381 mm)</td>
<td>3.25 to 9&quot; (82 to 228 mm)</td>
</tr>
</tbody>
</table>

**SCANNING PARAMETERS**

Mirror type: Rotating, 10-faceted
Optional raster mirror image: 10 raster scan lines over a 2" arc (or 0.500" raster height at 8" (203 mm) distance)
Scan rate: Adjustable from 300 to 1400 scans/sec.
Scan width angle: Typically 60°
Pitch: ±50° max.
Label contrast: 25% min. absolute dark to light differential at 655 nm wavelength

**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

**SYMBOLOLOGIES**

Applications standards: UCC/EAN-128, AIA

**PIN ASSIGNMENTS**

**CONNECTOR A**
M12 12-pin plug:
Port 1 - RS-232
Port 2 - RS-232

**CONNECTOR B**
M12 12-pin socket:
Port 3 - RS-422/485
Port 4 - Ethernet

**ETHERNET CONFIGURATION**

**CONNECTOR B**
M12 8-pin socket:
Port 4 - Ethernet

**DISCRETE I/O**

Input 1: (Trigger/New Master): Optoisolated, 4.5–28V rated, (13 mA at 24 VDC) New Master is (−) to signal ground
Outputs (1, 2 & 3): Optoisolated, 5–28V rated, (I≤ <100 mA at 24 VDC, current limited by user)

**SAFETY CERTIFICATIONS**

CDRH, FCC, UL/cUL, CE, CB, BSMI (compliant)
ISO 9001:2000 Certified QMS
ROHS/WEEA COMPLIANT
ISO CERTIFICATION
Issued by TÜV USA Inc, Member of TÜV NORD Group, Cert No. 06–1080

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