KBR2D is the family of barcode scanners designed for self-service kiosks, ATMs, price checkers, healthcare and for any OEM application, also available in a plastic case version (KBR2D-C). KBR2D is a high-performance, high-volume omnidirectional scanner, capable of quickly and accurately reading any 1D and 2D barcodes, whether printed on paper (badges, receipts, health bracelets) or displayed on the screen of a smartphone or of a tablet. KBR2D scanners are based on CMOS technology for optimal image sensitivity and dynamic range. KBR2D integration is quick and easy thanks to several mounting options.
CHARACTERISTICS

- **Easily integrated** with various OEM applications
- 1D and 2D barcode scanning
- **Omnidirectional scanning**: no need to align barcode and scanner, ensuring user comfort and protecting productivity
- **Long distance reading** from 3 to 28 cm without problems even in direct sunlight (100,000 lux)
- **Reading barcodes on screens** of smartphones or tablets even with brightness reduced to 25/30%
- Red colored pointer for precise aiming and optimal barcode acquisition
- **Flexibility**: various external mounting options or internal screw holes
- **Integrated decoder**
- **Custom ScannerSet** configuration software

DIMENSION:

![KBR2D-C](image)

56 mm W x 69 mm D x 28 mm H
KBR2D

38.85 mm W x 23.50 mm x 5.20 mm H

- 2 • Ø1.65 (screw hole)
- 2 • Ø1.4 (screw hole)
### TECHNICAL SHEET

#### KBR2D-C

**Interface**
USB-HID (or Virtual COM port)

**Barcodes Supported (1D)**

**Barcodes Supported (2D)**
Data Matrix, PDF 417, QR Code, Micro QR Code, Dot Code
DISABLED BY DEFAULT: Aztec, Micro PDF 417, Han Xin Code, GM Code

#### KBR2D

**Interface**
RS232/USB-HID (or Virtual COM port)

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#### GENERAL

**Barcodes Supported (1D)**

**Barcodes Supported (2D)**
Data Matrix, PDF 417, QR Code, Micro QR Code, Dot Code
DISABLED BY DEFAULT: Aztec, Micro PDF 417, Han Xin Code, GM Code

#### ELECTRICAL

**Supply Voltage**
DC + 5V ± 5%

**Current Draw**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Current Draw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stand By (Typ.)</td>
<td>40mA ± 10%</td>
</tr>
<tr>
<td>Operation (Typ.)</td>
<td>380mA ± 10%</td>
</tr>
</tbody>
</table>

#### PERFORMANCE

**Light Source**
White light LED

**Sensor**
1280 (H) x 800 (V) pixels

**Field of View**
Horizontal – 55°, Vertical – 35°

**Scan Rate**
60 fps (at full resolution)

**Reading Distance**
From 3 to 28 cm

**Print Contrast Ratio**
PCS30%@5mil/0.127 mm

**Resolution**
3mil/0.076 mm@PCS90% Code 39, 8mil/0.2 mm@PCS90% QR Code

**Reading Angle**
Test Conditions: Code 39, 10mil/0.25 mm, PCS90%

**Pitch Angle/Skew Tolerance**
5°~60° (±5°)

**Ambient Light**
Works in any lighting conditions from 0 to 100,000 lux

**Roll**
360°

**Indicator**
Good read beep

#### ENVIRONMENTAL

**Operating Temperature**
0 °C to 50 °C

**Storage Temperature**
-20 °C to 70 °C

**Relative Humidity**
20% to 95% (Non-condensing)

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#### RELIABILITY

**Life Time**
MTBF (calculated)
50,000 hours

**Thermal Shock**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Temp.</td>
<td>60°C</td>
</tr>
<tr>
<td>Low Temp.</td>
<td>-20°C</td>
</tr>
</tbody>
</table>

**Cycle Time**
30 minutes for high temp./30 minutes for low temp.

**Mechanical Shock**
2000G, 0.7ms, half sinus, 3 axes

**Vibration**
8G r.m.s, from 10 to 500Hz, 2 hours per axis, 3 axes

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<table>
<thead>
<tr>
<th>KBR2D-C</th>
<th>KBR2D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHYSICAL</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td></td>
</tr>
<tr>
<td>Reader</td>
<td>106 g (optical + board + case)</td>
</tr>
<tr>
<td>USB cable</td>
<td>51 g</td>
</tr>
<tr>
<td>Material</td>
<td>Polycarbonate</td>
</tr>
<tr>
<td>Dimension</td>
<td>56 mm W x 69 mm D x 28 mm H</td>
</tr>
</tbody>
</table>

<p>| <strong>READING RANGE</strong> | |</p>
<table>
<thead>
<tr>
<th>Barcode mil/Depth of Field mm</th>
<th>KBR2D-C</th>
<th>KBR2D</th>
</tr>
</thead>
<tbody>
<tr>
<td>3mil Code39</td>
<td>50–90 mm</td>
<td>60–100 mm</td>
</tr>
<tr>
<td>4mil Code39</td>
<td>45–100 mm</td>
<td>55–110 mm</td>
</tr>
<tr>
<td>10mil Code39</td>
<td>30–220 mm</td>
<td>50–220 mm</td>
</tr>
<tr>
<td>20mil Code39</td>
<td>30–280 mm</td>
<td>50–300 mm</td>
</tr>
<tr>
<td>20mil QR Code</td>
<td>30–210 mm</td>
<td>50–200 mm</td>
</tr>
<tr>
<td>20mil PDF417</td>
<td>30–120 mm</td>
<td>50–120 mm</td>
</tr>
</tbody>
</table>

**Note:** The test is under ambient light 700 ~ 800 Lux.

The difference in depth of field between the two models depends on the fact that in the KBR2D-C model the optics are housed in a frame.

**MODELS**

- **9C3FH010000001**
  - KIOSK BARCODE SCAN 1/2D OPEN FRAME KBR2D

- **9C3FH010000002**
  - KIOSK BARCODE SCAN 1D/2D COVERED KBR2D-C


The technical data on this website are not binding and may be changed without advanced notice.

Last update: 24 June 2020