Compact Multi-Code Reader
Reliable Identification of Data Matrix and 1D Codes

List Price
$850.00
Challenging applications – *no problem!*

Reads any marking method on a variety of materials

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**Application challenges in reading DMC codes**

Data matrix codes are critical for tracking parts and insuring reliable quality in the manufacturing process. However, some limitations exist for applying DMC technology which include the complexity of the vision system, its ability to withstand industrial environments, and the cost of the camera.

*ifm* has designed a high-performance, easy-to-use Multi-Code Reader in a compact metal housing for rugged industrial automation applications – priced 50% lower than current technologies.

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**A better alternative from *ifm***

The *ifm* Multi-Code Reader is designed to read 2D Data Matrix Codes and 1D bar codes in high-speed industrial automation applications. The versatile Multi-Code Reader can identify, verify and qualify most marking methods including dot-peened, laser-etched and printed DMC codes as well as printed barcodes.

With more features than current technologies at a price 50% less, *ifm’s Multi-Code Reader* is a new benchmark for price / performance.

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<table>
<thead>
<tr>
<th>Features</th>
<th>ifm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robust housing</td>
<td>✓</td>
</tr>
<tr>
<td>Reads both 2D and 1D codes</td>
<td>✓</td>
</tr>
<tr>
<td>CMOS image sensor</td>
<td>✓</td>
</tr>
<tr>
<td>Reads all marking methods</td>
<td>✓</td>
</tr>
<tr>
<td>Orientation independent</td>
<td>✓</td>
</tr>
<tr>
<td>Configurable quadrant lighting</td>
<td>✓</td>
</tr>
<tr>
<td>7 meters/second line speed</td>
<td>✓</td>
</tr>
<tr>
<td>Easy Setup Wizard</td>
<td>✓</td>
</tr>
<tr>
<td>Switching output for I/O</td>
<td>✓</td>
</tr>
<tr>
<td>Ethernet TCP/IP</td>
<td>✓</td>
</tr>
<tr>
<td>Price – 50% lower than current techs</td>
<td>$850</td>
</tr>
</tbody>
</table>
Minutes vs. hours
Setup Wizard makes it easy

Application parameters are quickly established using the camera’s Setup Wizard and a PC. The Setup Wizard guides the user in a few steps to configure the application.

**Step 1: Establish image quality**
Adjust focus with integrated potentiometer and auto exposure.

**Step 2: Define code**
Auto recognition detects code. Fine tune code type / field size.

**Step 3: Set process interface**
Define data string and set options for code verification.

**Step 4: Configure trigger**
Define a suitable trigger from a number of options.

**Step 5: Perform function test**
A final read test to confirm functionality.

*That’s it! Ready for application.*

**Compatible 2 D Codes:**
- ECC200, PDF-417, QR

**Compatible 1 D Codes:**
- Interleaved 2-of-5
- Industrial 2-of-5
- Code 39
- Code 128
- Pharmacode
- Code 93
- Codabar
- EAN13
- EAN13-Add-On 2
- EAN13-Add-On 5
- EAN8
- EAN8-Add-On 2
- EAN8-Add-On 5
- UPC-A
- UPC-A Add-On 2
- UPC-A Add-On 5
- UPC-E
- UPC-E Add-On 2
- UPC-E Add-On 5

**Integrated lighting system**
Integrated lighting system can eliminate external lighting and reduce total install costs.

**Fast code reading and data transfer**
The Multi-Code Reader features a maximum speed of 7 meters/second. The unit reads three types of data matrix codes: ECC200, PDF-417 and QR as well as 19 styles of printed barcodes.
Reliable functionality with a new benchmark for performance and value

**Robust Housing**
Robust design and compact metal housing provide long life and reliability in industrial environments.

**High-Performance**
CMOS image sensor and DSP with no moving parts for durability.

**Reliable Reader**
Reliably reads dot-peened, laser-etched and printed Data Matrix Codes as well as printed bar codes.

**Orientation Independent**
Innovative “Smart Algorithm” in camera reads codes in any orientation and at angles up to 45°.

**Integrated Lighting**
Configurable four-quadrant lighting improves readability, reduces glare and the need for external lighting.

**High Speed**
Reader can be applied in conveyor and dynamic applications with moving targets.

**Easy Setup**
Easy application Setup Wizard guides you step-by-step with advanced functionality for demanding applications.

**Flexible Connection**
Integrated digital I/O for switching and RS-232 and Ethernet TCP/IP for data transfer.

**New Price / Performance Benchmark**

ifm’s Multi-Code Reader is designed to reliably read 2D Data Matrix Codes and 1D bar codes

The ifm Multi-Reader can reliably read DMC codes and has a list price 50% lower than current technologies in the market.
## Cordsets

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
<th>List Price (USD)</th>
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<tbody>
<tr>
<td>M12 Micro DC Cordset (8-pin)</td>
<td>2 m black, right angle</td>
<td>E11231</td>
<td>$23.00</td>
</tr>
<tr>
<td>M12 Micro DC Cordset (8-pin)</td>
<td>5 m black, right angle</td>
<td>E11232</td>
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<tr>
<td>M12 Micro DC Cordset (8-pin)</td>
<td>2 m black, straight</td>
<td>E11950</td>
<td>$23.00</td>
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<tr>
<td>M12 Micro DC Cordset (8-pin)</td>
<td>5 m black, straight</td>
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<td>Ethernet cable, 2 m, M12 D-coded / RJ45, cross-link</td>
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<td>E11898</td>
<td>$40.00</td>
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</table>

## Accessories

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Part No.</th>
<th>List Price (USD)</th>
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</thead>
<tbody>
<tr>
<td>Plastic lens for diffusing light</td>
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<td>E21165</td>
<td>$99.00</td>
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<tr>
<td>Plastic protective lens for food and beverage applications</td>
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<td>E21166</td>
<td>$85.00</td>
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<tr>
<td>Mounting Set, 100 mm rod</td>
<td></td>
<td>U60042</td>
<td>$37.00</td>
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<tr>
<td>Mounting Set, 100 mm rod with rail mount cube</td>
<td></td>
<td>U60043</td>
<td>$48.00</td>
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<tr>
<td>Spot Light for optional lighting enhancement. M12 connector, transmitter red light 630 mm</td>
<td></td>
<td>O2D909</td>
<td>$290.00</td>
</tr>
</tbody>
</table>

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**Application Variables**

Consider your data code size, field of view and distance before choosing the appropriate camera.

1. Define the minimum code dot size \((a)\).
2. Check whether the field of view size is sufficient \((x \times y)\).
3. Determine the maximum distance to the object \((z)\).
4. Refer to the chart on the right to select your camera.

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**Multi-Code Reader Selection Chart**

*Legend*

- \((x)\) min. code dot size \([\text{mm}]\)
- \((a)\) field of view size \([\text{mm}]\)
- \((z)\) distance \([\text{mm}]\)

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**CMOS image sensor, black and white, VGA resolution 640 x 480**

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<th>Part no.</th>
<th>Description</th>
<th>Unit price (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>O2I100</td>
<td>CMOS image sensor, black and white, VGA resolution 640 x 480</td>
<td>$850.00</td>
</tr>
<tr>
<td>O2I102</td>
<td>CMOS image sensor, black and white, VGA resolution 640 x 480</td>
<td>$850.00</td>
</tr>
</tbody>
</table>

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**Software**

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Oakville, Ontario L6K 3V3
1-800-441-8246
www.ifmefector.ca

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Col. Hacienda San Jeronimo
Monterrey, N.L. 64630
01-800-813-4363
www.ifmefector.com.mx

ifm product line catalogs

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- Actuator and valve sensors
- Photoelectric sensors
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- Flow sensors
- Pressure sensors
- Temperature sensors
- Diagnostic systems

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- Evaluation systems
- Power supplies
- AS-i bus system
- Connection technology

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