Intelligent Compact Vision System
SBOC-Q/SBOI-Q

Increased system availability using a vision system. The intelligent Compact Vision System SBOC-Q/SBOI-Q from Festo ensures 100% quality inspection, even where there is an enormous variety of part types. Whether it’s used for orientation detection of small parts, the measurement of turned parts, the precision positioning of drives or the location of objects for the control of handling equipment, the intelligent vision system provides reliable inspection results for a broad range of applications.

Tailor-made diagnostics
Compact design and low weight make these cameras an ideal quality-inspection tool. They are impressively uncomplicated to integrate into existing systems and very easy to commission by means of parameterisation. The systems’ ability to “learn” up to 256 workpieces means maximum flexibility with regard to setting-up.

All inclusive:
Already integrated into the system are not only the imaging sensor system to generate image data but also a complete electronic evaluation unit and interfaces (Ethernet/ CAN) for communication with master controllers (PLCs).

Networking

More compact Zero error rate Even with unstable workpieces
**Intelligent Compact Vision System**
**SBOC-Q/SBOI-Q**

**Spotlight on technology**
- Standard software interfaces for Ethernet and CAN and integrated 24 V I/Os
- Sensor resolution 640 x 480 or 1,280 x 1,024 pixels (monochrome and colour)
- Very short exposure times: The vision system can be used even when the workpiece is travelling at high speed or the camera or workpiece is vibrating
- Compact dimensions, low weight
- IP65, IP67

**General technical data**

<table>
<thead>
<tr>
<th></th>
<th>SBOC-Q-R1B</th>
<th>SBOC-Q-R1C</th>
<th>SBOI-Q-R1B</th>
<th>SBOI-Q-R1C</th>
<th>SBOC-Q-R2B</th>
<th>SBOC-Q-R2C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor resolution [pixels]</td>
<td>640x480</td>
<td></td>
<td>1280x1024</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Exposure time [ms]</td>
<td>0.039 ... 1000</td>
<td></td>
<td>0.008 ... 1000</td>
<td></td>
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<tr>
<td>Frame rate (full image) [fps]</td>
<td>150</td>
<td></td>
<td>27</td>
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<tr>
<td>Lens mounting</td>
<td>C mount</td>
<td></td>
<td>Integrated lens</td>
<td>C mount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensor type</td>
<td>Monochrome</td>
<td>Colour</td>
<td>Monochrom</td>
<td>Colour</td>
<td>Monochrom</td>
<td>Colour</td>
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<tr>
<td>Operating distance [mm]</td>
<td>Dependent on the lens selected</td>
<td>22 ... 1000</td>
<td>Dependent on the lens selected</td>
<td>14x10 ... 520x390</td>
<td>Dependent on the lens selected</td>
<td></td>
</tr>
<tr>
<td>Field of vision [mm]</td>
<td>Dependent on the lens selected</td>
<td>14x10 ... 520x390</td>
<td>Dependent on the lens selected</td>
<td>14x10 ... 520x390</td>
<td>Dependent on the lens selected</td>
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<tr>
<td>Max. no. of test programs</td>
<td>256</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Sorting function</td>
<td>Up to 16 types per test programm</td>
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</tr>
</tbody>
</table>

**Overview of applications**
- Detection of position and rotary orientation of workpieces
- Fine positioning of axes
- 2-D quality inspections
- Workpiece type identification

Systems include integrated sorting function.

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