S-MOTION – the modular, compact high speed camera for industrial and research applications. More light sensitive than ever.

Applications
The S-MOTION is particularly suited for all applications where a compact and portable yet robust camera is essential:

- Industrial applications such as the installation and setting up of machinery and assembly lines as well as the subsequent troubleshooting.
- Research applications in mechanical, electrical and process engineering, material stress testing, medical research, sports analysis, etc.

Why the S-MOTION
- Full camera performance in a compact housing – full image resolution with all camera features built-in. No need to buy options to unleash the cameras full potential. The S-MOTION is always ready to face the most challenging applications.
- Robust design – designed for many years of industrial handling and harsh environments (extruded aluminium housing with heavy duty connectors)
- Simple to use – the camera control software is easy to use, even for novices and occasional users; operator training is not necessary – yet provides full control of the camera settings and functions

Unique features
- **High Sensitivity** – the S-MOTION offers a light sensitivity greater than in previous cameras models. In many applications and settings, the camera delivers well-lit images without extra illumination, while in others only minimal extra light is necessary.
- **High light sensitivity** also allows for crisper images as motion blur, associated with fast moving objects can be substantially reduced by a shorter shutter time, and depth of field can be extended by stopping down the lens – both parameters are essential to create better, more informative images
- **Modular concept** – Have your S-MOTION extended with extra modules by choosing from an extensive range of extensions like CF interface (for image storage inside the camera) or a Video Interface to connect a video monitor
- **Selectable ROI** – the customer can select the most suitable image format (ROI, region of interest) almost without limitations, for best camera performance and image quality
Technical key specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Image Sensor</strong></td>
<td>Progressive CMOS, 1280 x 1024 pixels, mono or color</td>
</tr>
<tr>
<td><strong>Sensor size (@ full resolution)</strong></td>
<td>17.82 x 14.33 mm, 14 µm pixel size</td>
</tr>
<tr>
<td><strong>Light sensitivity</strong></td>
<td>ISO 3200 (monochrome), ISO 1600 (color)</td>
</tr>
<tr>
<td><strong>Dynamic range</strong></td>
<td>5-, 8- or 10 bit, adjustable by user</td>
</tr>
<tr>
<td><strong>Gain control</strong></td>
<td>User selectable, High Dynamic Range (HDR) mode</td>
</tr>
<tr>
<td><strong>Frame rate at full resolution</strong></td>
<td>500 fps @ 1280 x 1024 pixels</td>
</tr>
<tr>
<td><strong>Typical fps/resolution settings</strong></td>
<td>1280 x 1024 @ up to 500fps, 900 x 700 @ up to 1’000fps, 800 x 600 @ up to 1’250fps</td>
</tr>
<tr>
<td><strong>Max. frame rate</strong></td>
<td>100’000 fps</td>
</tr>
<tr>
<td><strong>Shutter type</strong></td>
<td>Global electronic shutter</td>
</tr>
<tr>
<td><strong>Shutter exposure times</strong></td>
<td>4 µsec to 1/frame rate</td>
</tr>
<tr>
<td><strong>Image memory</strong></td>
<td>Built-in DRAM, circular buffer</td>
</tr>
<tr>
<td><strong>Sequence length</strong></td>
<td>2.2 sec @ 800 x 600 / 1250fps (1.3 GB memory), 4.4 sec @ 800 x 600 / 1250fps (2.6 GB memory), 8.8 sec @ 800 x 600 / 1250fps (5.2 GB memory), 17.6 sec @ 800 x 600 / 1250fps (10.4 GB memory)</td>
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<tr>
<td><strong>Data Interface</strong></td>
<td>Gigabit Ethernet (1’000 Mb/s), RJ45, other connectors on request</td>
</tr>
<tr>
<td><strong>Frame synchronisation</strong></td>
<td>Sync in, Sync out (TTL)</td>
</tr>
<tr>
<td><strong>Multi-camera operation</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Memory Interface</strong></td>
<td>Built-in CF interface (optional), accepting CF cards for non-volatile data storage</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>12 VDC (9...16VDC), other voltage ratings on request</td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>14 W (w/o data link), 18 W (with data link)</td>
</tr>
<tr>
<td><strong>Battery</strong></td>
<td>Built-in, rechargeable NiMH battery allowing 3 hours camera operation.</td>
</tr>
<tr>
<td><strong>Video Interface (optional)</strong></td>
<td>SDI (digital) or PAL/NTSC (analog)</td>
</tr>
<tr>
<td><strong>Operating temperature</strong></td>
<td>0 … +45 ºC (32 …113 ºF)</td>
</tr>
<tr>
<td><strong>Storage temperature</strong></td>
<td>-40 … +70 ºC (40 … 158 ºF)</td>
</tr>
<tr>
<td><strong>Size, weight (standard model)</strong></td>
<td>72 x 72 x 122 mm, 1100 gr</td>
</tr>
<tr>
<td><strong>I/O Connector</strong></td>
<td>LEMO Type: FG6.2B.314.CLAD82Z</td>
</tr>
<tr>
<td></td>
<td>ODÚ Type: S22LOC-P14MG0-8200</td>
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<tr>
<td></td>
<td>different pinout configuration and connectors on request</td>
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<tr>
<td><strong>CE</strong></td>
<td>In compliance with relevant standards</td>
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Complete technical specifications of our products are available as a separate document (‘technical specs’) from your AOS partner, or as a download from our webpage www.aostechnologies.com/downloads