Modular Concept

Associated price list: Allied Vision Price List Cameras V2020-Apr-01
Modular Concept at a glance

Benefits

When ordering an Allied Vision camera, the Modular Concept provides a system of additional options, such as for camera mounts, housing designs, angled heads, sensor surface options and classes, optical filters, power and interface connectors, and board level options.

Benefits of the Modular Concept options include:

- No customizing effort
- Pre-configured options
- Quick delivery times
- Transparent pricing.

Ordering conditions

Please contact the Allied Vision Sales team for availability, minimum order quantities, and lead time: www.alliedvision.com/en/contact.

Third-party information

This document provides links to websites of third-party manufacturers and suppliers. Allied Vision does not take responsibility for the content provided on linked websites.

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<th>Date</th>
<th>Document updates</th>
</tr>
</thead>
</table>
| V11.7.0  | 2020-Apr-01| **Prosilica GT**: Removed options for discontinued GT3300 models. Removed sensor glass options for GT1910 and GT2300 models.  
**Prosilica GT Large Format**: Removed discontinued GT 4905, GT4907, and GT6600 models and related sensor options. |
| V11.6.0  | 2019-Dec-16| **Prosilica GT Large Format**: Added new GT4400, GT5400, and GT6400 models with TFL and C-Mount options.  
Applied editorial changes. |
| V11.5.1  | 2019-Sep-26| **Prosilica GT and GT Large Format**: Updated prices for ON Semiconductor KAI sensor options.  
**Prosilica GT and GT Large Format**: Added notes for discontinuations. |
| V11.5.0  | 2019-Oct-01| **Obsolete document version**  
**Prosilica GT** and **GT LF**: Added IR Pass filter options. |
| V11.4.0  | 2019-Jul-01| **Prosilica GT**: Removed several taped cover glass options.  
Spectral transmission and filters: Replaced the transmission curve graphic.  
Changes in Taped Cover Glass options. |
| V11.3.0  | 2019-Apr-01| Editorial changes. |
| V11.2.0  | 2019-Jan-01| Various editorial changes. |
| V11.1.0  | 2018-Oct-01| **Guppy PRO**: Removed Hirose power option.  
**Stingray**: Removed Hirose Power option.  
Spectral transmission of filters: Provided a new transmission graph. |
| V11.0.0  | 2018-Jul-01| **Bonito PRO**: Introduced newly developed camera family.  
**Goldeye**: Price adjustment of IRBP 1450 filter for Goldeye models.  
**Mako G, Mako U**: removed medical option for both camera families.  
**Prosilica GT**: Added CS-Mount option for GT2460.  
**Editorial improvements**: Organized defective pixel definitions by camera model. |
| V10.1.0  | 2018-Apr-01| **Editorial improvements**: corrected several minor errors, arranged camera families in alphabetical order. |

*Table 1: Document history (Sheet 1 of 3)*
<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Document updates</th>
</tr>
</thead>
<tbody>
<tr>
<td>V10.0.0</td>
<td>2018-Jan-01</td>
<td><strong>Pike:</strong> All information related to Pike family have been removed. <strong>Prosilica GB, GE, GS, GX:</strong> All information related to Prosilica GB, GE, GS, and GX families have been removed. <strong>Prosilica GT:</strong> Added GT2460. Standard mount for GT1930L was changed from EF-Mount to EF-Mount PA. Removed TCG options for all GT20x0 models.</td>
</tr>
</tbody>
</table>
|         | (continued)| **Manta:** Added released models G-040 and G-158; removed G-609. **Sensor options:** Updated sensor cover glass and quality options. **Editorial improvements:**  
  - Adjusted defect pixel definition tables for better readability.  
  - Replaced the drawings of angled head models (since some of them were erroneous) with valid drawings from the Manta Technical Manual.  
  - Removed all statements concerning warranty, terms and conditions, and legal issues. |
| V9.4.0  | 2017-Jul-31| **Manta:** Manta G-895 and Manta G-1236 models released: added options. **Pearleye:** All information to Pearleye has been removed. Camera has been discontinued, last-time-buy date: December 15, 2016. **Prosilica:** Added Prosilica GT4090, GT4096, GT5120 models. **F-Mount adapter:** All information about the F-Mount adapter has been removed. Component has been discontinued. **Sensor options:**  
  - Improved information on Taped Cover Glass sensor options for  
    - Prosilica GT, GT Large Format, GX, and GE cameras  
    - Pike cameras.  
  - Added link to application note about handling cameras with Cover Glass sensor options.  
  - Corrected product codes for sensor options in availability list in chapter Prosilica GT on page 27. |
<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Document updates</th>
</tr>
</thead>
</table>
| V9.3.0  | 2016-Sep-02| **Goldeye G/CL**: Added image for Silver Design in *Housing color and style on page 21.*  
**Manta**: Added options for Manta G-319 and G-507 models.  
**Prosilica GT**, Prosilica GT Large Format  
- Removed CS-Mount option for GT1930 model.  
- Corrected EF-Mount as standard version for GT1930L model.  
**Stingray**:  
- Deleted Stingray Compact option (discontinued).  
- Deleted Stingray GOF (glass optical fiber) option (discontinued).  
**F-Mount adapter** set: added information on camera pages and in F-Mount adapter on page 24.  
**Sensor options**: Updated product codes, deleted discontinued products. See *chapter Removed Cover Glass for Manta* on page 24. |
**Sensor options**  
- Reworked information on sensor surface options on page 24.  
- Reworked tables with *Defective pixel definitions on page 28* and following pages.  
**Editorial updates**:  
- Added chapter Document history and conventions.  
- Corrected typographical errors, inconsistencies, and terminology. |
| V9.1.2  | 2016-Mar-18| Up to this version no document history has been kept.                                                                                                                                                      |
Conventions used in the Modular Concept

Camera models and options
In general, options apply to all models of a camera family. Specifications, such as color or resolution are stated only to exclude options for models that do not share the corresponding characteristic.

Typographical styles
To give this manual an easily understood layout and to emphasize important information, the following typographical styles and symbols are used.

<table>
<thead>
<tr>
<th>Style</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis</td>
<td>Highlighting important things</td>
</tr>
<tr>
<td>Web addresses and references</td>
<td>Links to webpages and internal cross references</td>
</tr>
</tbody>
</table>

Table 2: Typographical styles

Symbols and notes

<table>
<thead>
<tr>
<th>Style</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material damage</td>
<td>Precautions are described.</td>
</tr>
<tr>
<td>Practical tip</td>
<td>Additional information helps to understand the information.</td>
</tr>
<tr>
<td>Additional information</td>
<td>Web link or reference to an external source with more information is shown.</td>
</tr>
</tbody>
</table>
## Camera options

### Bonito PRO

Bonito PRO X-1250, X-2620

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>F-Mount</td>
<td>• F-Mount PA&lt;sup&gt;1&lt;/sup&gt; (46.5 mm flange focal distance)</td>
<td>• Bonito PRO...-03</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• M58-Mount (12.71 mm flange focal distance)</td>
<td>• Bonito PRO...-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• M58-Mount PA&lt;sup&gt;1&lt;/sup&gt; (46.5 mm flange focal distance)</td>
<td>• Bonito PRO...-13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• EF-Mount PA&lt;sup&gt;1&lt;/sup&gt; (44.0 mm flange focal distance)</td>
<td>• Bonito PRO...-18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• M42-Mount PA&lt;sup&gt;1&lt;/sup&gt; (45.46 mm flange focal distance)</td>
<td>• Bonito PRO...-25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• M42-Mount (45.46 mm flange focal distance)</td>
<td>• Bonito PRO...-31</td>
</tr>
<tr>
<td>Optical filter</td>
<td>Monochrome and NIR models: No filter</td>
<td>• Type IRC30 (IR cut filter)</td>
<td>• Bonito PRO...-06</td>
</tr>
<tr>
<td></td>
<td>Color models: Type IRC30</td>
<td>• B270 (ASG, Protection glass)</td>
<td>• Bonito PRO...-19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type Schneider 486 (IRC filter)</td>
<td>• Bonito PRO...-22</td>
</tr>
</tbody>
</table>

<sup>1</sup>Planarity adjusted

*Table 3: Bonito PRO camera options*
## Goldeye G and CL models

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>C-Mount</td>
<td>• F-Mount</td>
<td>• Goldeye G/CL-... SWIR... F-Mount</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• M42-Mount</td>
<td>• Goldeye G/CL-... SWIR... M42-Mount</td>
</tr>
<tr>
<td>Optical filter</td>
<td>No filter</td>
<td>• Type IRBP 1450 (IR bandpass filter), water absorption peak, see Type IRBP 1450 nm (IR bandpass filter) on page 23.</td>
<td>• Goldeye G/CL-... SWIR... IRBP 1450</td>
</tr>
<tr>
<td>Housing design</td>
<td>Allied Vision standard design</td>
<td>• Silver design</td>
<td>• Goldeye G/CL-... SWIR... silver</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Housing color and style on page 21.</td>
<td></td>
</tr>
</tbody>
</table>

*Table 4: Goldeye G/CL camera options*

### Further options

## Camera options

### Guppy PRO

**All Guppy PRO models**

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>C-Mount</td>
<td>• CS-Mount</td>
<td>• Guppy PRO F-... CS-Mount</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For M12-Mount option, see M12-Mount adapter set on page 20.</td>
<td></td>
</tr>
<tr>
<td>Optical filter</td>
<td>Monochrome models: Protection glass B 270 (ASG)</td>
<td>• B270 (ASG, Protection glass) • Type IRC Jenofilt 217 (IR cut filter) • Type IRC Hoya C-5000 (IR cut filter) • Type IRP RG715 (IR pass filter) • Type IRP RG830 (IR pass filter)</td>
<td>• Guppy PRO F-... ASG • Guppy PRO F-... IRC Jenofilt • Guppy PRO F-... IRC Hoya • Guppy PRO F-... IRP RG715 • Guppy PRO F-... IRP RG830</td>
</tr>
<tr>
<td></td>
<td>Color models: Type IRC Hoya C-5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Spectral transmission of filters on page 22.</td>
<td></td>
</tr>
<tr>
<td>Housing design</td>
<td>Allied Vision standard design</td>
<td>• White medical design</td>
<td>• Guppy PRO F-... medical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Housing color and style on page 21.</td>
<td></td>
</tr>
</tbody>
</table>

*Table 5: Guppy PRO camera options*
## Mako G

All Mako G models (GigE Vision version of Mako)

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>C-Mount</td>
<td>• CS-Mount</td>
<td>• Mako G--- CS-Mount</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>For M12-Mount option, see M12-Mount adapter set on page 20.</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Optical filter  | Monochrome and NIR models: No filter | • B270 (ASG, Protection glass)  
• Type IRC Hoya C-5000 (IR cut filter)  
• Type IRC Jenofilt 217 (IR cut filter)  
• Type IRP RG715 (IR pass filter)  
• Type IRP RG830 (IR pass filter)  | • Mako G--- ASG  
• Mako G--- IRC Hoya  
• Mako G--- IRC Jenofilt  
• Mako G--- IRP RG715  
• Mako G--- IRP RG830 |
|                 |           | **See Spectral transmission of filters on page 22.** |
|                 | Color models: Type IRC Hoya C-5000 | • B270 (ASG, Protection glass)  
• Type IRC Jenofilt 217 (IR cut filter)  
• Type IRP RG715 (IR pass filter)  
• Type IRP RG830 (IR pass filter)  | • Mako G--- ASG  
• Mako G--- IRC Jenofilt  
• Mako G--- IRP RG715  
• Mako G--- IRP RG830 |
|                 |           | **See Spectral transmission of filters on page 22.** |

*Table 6: Mako G camera options*
**Mako U**

All Mako U models (USB3 Vision version of Mako)

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>C-Mount</td>
<td>• CS-Mount</td>
<td>• Mako U-.... CS-Mount</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For M12-Mount option, see M12-Mount adapter set on page 20.</td>
<td></td>
</tr>
<tr>
<td>Optical filter</td>
<td>No filter</td>
<td>• B270 (ASG, Protection glass)</td>
<td>• Mako U-.... ASG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type IRC Hoya C-5000 (IR cut filter)</td>
<td>• Mako U-.... IRC Hoya</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type IRC Jenofilt 217 (IR cut filter)</td>
<td>• Mako U-.... IRC Jenofilt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type IRP RG715 (IR pass filter)</td>
<td>• Mako U-.... IRP RG715</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type IRP RG830 (IR pass filter)</td>
<td>• Mako U-.... IRP RG830</td>
</tr>
</tbody>
</table>

See [Spectral transmission of filters on page 22.](#)

*Table 7: Mako U camera options*
Manta: overview types A and B

Manta **type A**: G-031, G-032, G-033, G-046, G-125, G-145, G-146, G-201, G-504


<table>
<thead>
<tr>
<th></th>
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<th></th>
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<td>Board level</td>
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<td>✓</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

1 Including Manta G-145B/C, Manta G-145B/C 30 fps, Manta G-145B NIR
2 Including Manta G-201B/C, Manta G-201B/C 30 fps
3 Including Manta G-223B/C, Manta G-223B NIR

**Table 8: Overview angled head, board level options for Manta type A and type B, part 1**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
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<td>Type A</td>
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<td>-</td>
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<tr>
<td>Type B</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Angled head</td>
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<td>-</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Board level</td>
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<td>-</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
</tbody>
</table>

4 Including Manta G-419B/C, Manta G-419B NIR

**Table 9: Overview angled head, board level options for Manta type A and type B, part 2**
## Manta: options

**Manta type A:** G-031, G-032, G-033, G-046, G-125, G-145, G-146, G-201, G-504  

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
</table>
| Lens mount              | C-Mount            | • CS-Mount  
For M12-Mount option, see M12-Mount adapter set on page 20.                                                | • Manta G-... CS-Mount                                                    |
| Angled head             | Standard housing   | • W90 housing  
• W90 S90 housing  
• W270 housing  
• W270 S90 housing  
See Housing options: angled-head housing and standard housing on page 21 for possible options. | • Manta G-... W90  
• Manta G-... W90 S90  
• Manta G-... W270  
• Manta G-... W270 S90 |
| Optical filter          | Monochrome models: Protection glass B 270 (ASG)  
Color models: Type IRC Hoya C-5000 | • B270 (ASG, Protection glass)  
• Type IRC Jenofilt 217 (IR cut filter)  
• Type IRC Hoya C-5000 (IR cut filter)  
• Type IRP RG715 (IR pass filter)  
• Type IRP RG830 (IR pass filter)  
See Spectral transmission of filters on page 22. | • Manta G-... ASG  
• Manta G-... IRC Jenofilt  
• Manta G-... IRC Hoya  
• Manta G-... IRP RG715  
• Manta G-... IRP RG830 |
| Housing design          | Allied Vision standard design | • White medical design  
See Housing color and style on page 21. | • Manta G-... medical |
| Sensor surface option   | Fixed Cover Glass with microlens | Only for Manta G-145B model. Before operation, remove the cover glass taped to the sensor. For instructions, see page 24.  
• Removed Cover Glass with microlens | • Manta G-... RCG¹ |
| Board level             |                    | See Ordering a Manta board level camera on page 26.                                                           | • Manta G-... BL |

¹Minimum order quantity of 10 pieces

Table 10: Manta camera options
## Prosilica GC

All Prosilica GC models

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>C-Mount</td>
<td>• CS-Mount</td>
<td>• Prosilica GC.....-01</td>
</tr>
<tr>
<td>Optical filter</td>
<td>Monochrome models: No filter</td>
<td>• Type IRC30 (IR cut filter) &lt;br&gt; • B270 (ASG, Protection glass)</td>
<td>• Prosilica GC.....-06 &lt;br&gt; • Prosilica GC.....-19</td>
</tr>
<tr>
<td></td>
<td>Color models: Type IRC30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Table 11: Prosilica GC camera options*
Prosilica GT

All Prosilica GT models, except Large Format models. See next page for options on Prosilica GT Large Format.

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>C-Mount</td>
<td>• CS-Mount • F-Mount • EF-Mount, Birger(^1) • M42-Mount (45.46 mm flange focal distance)</td>
<td>• Prosilica GT....-01 • Prosilica GT....-03 • Prosilica GT....-09 • Prosilica GT....-31</td>
</tr>
<tr>
<td>Optical filter</td>
<td>Monochrome and NIR models: No filter</td>
<td>• Type IRC30 (IR cut filter) • B270 (ASG, Protection glass) • Type IRP RG780 (IR pass filter) • Type IRP RG715 (IR pass filter)</td>
<td>• Prosilica GT....-06 • Prosilica GT....-19 • Prosilica GT....-24 • Prosilica GT....-27</td>
</tr>
</tbody>
</table>
|                | Color models: Type IRC30

\(^1\)Power supply included (does not work with PoE), see accessories price list.

Table 12: Prosilica GT camera options
Prosilica GT Large Format

Prosilica GT1930L, GT4090\(^1\), GT4096\(^1\), GT4400, GT5120\(^1\), GT5400, GT6400

\(^1\)Available as monochrome and NIR models only

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>F-Mount</td>
<td>• F-Mount PA(^2) (46.5 mm flange focal distance)</td>
<td>• Prosilica GT....-03</td>
</tr>
<tr>
<td>GT1930L:</td>
<td></td>
<td>• C-Mount(^3) (17.53 mm flange focal distance)</td>
<td>• Prosilica GT....-07</td>
</tr>
<tr>
<td>EF-Mount PA(^2)</td>
<td></td>
<td>• M58-Mount (12.71 mm flange focal distance)</td>
<td>• Prosilica GT....-12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• M58-Mount PA(^2) (46.5 mm flange focal distance)</td>
<td>• Prosilica GT....-13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• EF-Mount PA(^2) (44.0 mm flange focal distance)</td>
<td>• Prosilica GT....-18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• M42-Mount PA(^2) (45.46 mm flange focal distance)</td>
<td>• Prosilica GT....-25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• M42-Mount (45.46 mm flange focal distance)</td>
<td>• Prosilica GT....-31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• TFL-Mount(^4) (17.53 mm flange focal distance)</td>
<td>• Prosilica GT....-40</td>
</tr>
<tr>
<td>Optical filter</td>
<td>Monochrome and</td>
<td>• Type IRC30 (IR cut filter)</td>
<td>• Prosilica GT....-06</td>
</tr>
<tr>
<td></td>
<td>NIR models: No filter</td>
<td>• B270 (ASG, Protection glass)</td>
<td>• Prosilica GT....-19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type Schneider 486 (IR cut filter)</td>
<td>• Prosilica GT....-22</td>
</tr>
</tbody>
</table>

\(^2\)Planarity Adjusted

\(^3\)GT4400 and GT5400 cameras only

\(^4\)GT4400, GT5400, and GT6400 cameras only

Table 13: Prosilica GT Large Format camera options
## Stingray

All Stingray models

<table>
<thead>
<tr>
<th>Module</th>
<th>Standard</th>
<th>Options</th>
<th>Product code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens mount</td>
<td>C-Mount</td>
<td>• CS-Mount</td>
<td>• Stingray F-... CS-Mount</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For M12-Mount option, see M12-Mount adapter set on page 20.</td>
<td></td>
</tr>
<tr>
<td>Angled head</td>
<td>Standard housing</td>
<td>• W90 housing</td>
<td>• Stingray F-... W90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• W90 S90 housing</td>
<td>• Stingray F-... W90 S90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• W270 housing</td>
<td>• Stingray F-... W270</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• W270 S90 housing</td>
<td>• Stingray F-... W270 S90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Housing options: angled-head housing and standard housing on page 21.</td>
<td></td>
</tr>
<tr>
<td>Optical filter</td>
<td>Monochrome models: Protection glass B 270 (ASG)</td>
<td>• B270 (ASG, Protection glass)</td>
<td>• Stingray F-... ASG</td>
</tr>
<tr>
<td></td>
<td>Color models: Type IRC Hoya C-5000</td>
<td>• Type IRC Jenofilt 217 (IR cut filter)</td>
<td>• Stingray F-... IRC Jenofilt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type IRC Hoya C-5000 (IR cut filter)</td>
<td>• Stingray F-... IRC Hoya</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type IRP RG715 (IR pass filter)</td>
<td>• Stingray F-... IRP RG715</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Type IRP RG830 (IR pass filter)</td>
<td>• Stingray F-... IRP RG830</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Spectral transmission of filters on page 22.</td>
<td></td>
</tr>
<tr>
<td>Housing design</td>
<td>Allied Vision standard design</td>
<td>• White medical design</td>
<td>• Stingray F-... medical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Housing color and style on page 21.</td>
<td></td>
</tr>
<tr>
<td>Board level</td>
<td></td>
<td>See Board level camera options on page 25.</td>
<td>• Stingray F-... BL</td>
</tr>
</tbody>
</table>

*Table 14: Stingray camera options*
M12-Mount adapter set

The M12-Mount adapter set (product code: E3000115) enables using M12-Mount (S-Mount) lenses with any CS-Mount or C-Mount camera.

To use M12-Mount lenses:
- Order a CS-Mount or C-Mount camera.
- Order the M12-Mount adapter set.
- Attach the lens with the M12-Mount adapter to the camera, as shown in the functional drawings below.

**NOTICE**

**Damage to the camera sensor or electronics**
Observe your camera’s maximum protrusion to avoid damage to the sensor and camera electronics. See the specifications in your camera’s technical manual.

*Figure 1: M12-Mount lens adapted to CS-Mount or C-Mount with the M12-Mount adapter set*
Housing options: angled-head housing and standard housing

The schematic drawings show the sensor position for the following camera families:

- Manta type A: all models
- Stingray

<table>
<thead>
<tr>
<th>Standard housing</th>
<th>W90 housing</th>
<th>W90 S90 housing</th>
<th>W270 housing</th>
<th>W270 S90 housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front view into sensor</td>
<td>Top view into sensor</td>
<td>Top view into sensor</td>
<td>Bottom view into sensor</td>
<td>Bottom view into sensor</td>
</tr>
</tbody>
</table>

*Figure 2: Sensor position of standard housing and angled head options*

Housing color and style

The Allied Vision standard housing is Allied Vision red with white company logo. In addition, for some camera models, you can order the following color or style options.

<table>
<thead>
<tr>
<th>Blue logo for medical style</th>
<th>Medical style (white)</th>
<th>Silver style (used for Goldeye)</th>
</tr>
</thead>
</table>

*Figure 3: Housing color and style*
Spectral transmission of filters
300 to 1000 nm

The following curve shows typical transmissions for the named filters. Values may vary slightly by filter lot.

Figure 4: Spectral transmission of filters 300 to 1000 nm (exemplary curves)
Type IRBP 1450 nm (IR bandpass filter)

The following curve shows the typical transmission for the Type IRBP 1450 nm filter. Values may vary slightly by filter lot.

Figure 5: Spectral transmission of Type IRBP 1450 nm (IR bandpass filter, exemplary curve)

1HW: Half width, spectral range for 50% of the maximum spectral transmission; in this case 40% from 80%
Removed Cover Glass for Manta

Sensors without cover glass are suitable for several applications, to:

- Increase overall quantum efficiency
- Increase quantum efficiency in UV imaging
- Attach fiber optic arrays directly to the sensor, for example in connection with an image intensifier
- Enable applications with laser beam profiling.

**Manta G-145B RCG**: Manta G-145B version with Removed Cover Glass (RCG) as sensor surface option. The cover glass is removed by Allied Vision before shipping.

Handling of cameras with RCG sensor option

Before handling cameras with removed cover glass, read the following application note:

Board level camera options

The Modular Concept provides several options for board level cameras, for example, different lengths for the flex cables. The following pages describe how to order a Manta or Stingray board level camera.

Benefits of board level cameras

Board level cameras provide certain benefits to the end user, some of which (but not all) are listed below.

- Option to use the camera in applications where space is an issue.
- Due to the flex cable-attached sensor board (with optional lens mount) the sensor board can be oriented separate from the camera boards.
- Board level cameras share similar lens mounts and filters as housed models.

Ordering a board level camera step by step

Follow the instructions and order your board level camera by components:
1. Interface type
2. Flex cable length
3. Lens mounting type (optional)
4. Interface cable and I/O cable (optional)

CE, FCC, and ICES

Board level models are designed for integration and are delivered without housing. Because housing design is critical to the electromagnetic compatibility (EMC) of a camera, no CE, FCC, or ICES certification tests regarding electromagnetic interference have been performed for board level models. Users who design board level models into their systems should perform appropriate testing regarding EMC after the product design is completed.
Ordering a Manta board level camera


Step 1: Select the interface type

- Manta G-....._BL
- Manta G-....._BL PoE (Power over Ethernet)

Step 2: Select the flex cable length

- Flex cable Manta type A
  - Flex cable 56 mm FC56
  - Flex cable 110 mm FC110
  - Flex cable 152 mm FC152
  - Flex cable 200 mm FC200

- Flex cable Manta type B
  - Flex cable 60 mm FC60
  - Flex cable 110 mm FC110
  - Flex cable 150 mm FC150
  - Flex cable 200 mm FC200

Step 3: Select the lens mount and filter

- Lens mount:
  - C-Mount
  - CS-Mount

Sensor board, main board(s), I/O board, thermal conductive film, and cooling plate

Ordering flex cables
Flex cables are not sold separately!

Each mounting type is equipped with:
- Type IRC Hoya C-5000 or
- Protection glass B 270 (ASG)

NIR models
NIR models are not equipped with filter or protection glass.

Interface type
- Manta G-....._BL
- Manta G-....._BL PoE (Power over Ethernet)

Flex cable Manta type A
- Flex cable 56 mm FC56
- Flex cable 110 mm FC110
- Flex cable 152 mm FC152
- Flex cable 200 mm FC200

Mount
- C-Mount
- CS-Mount (M12 option available)

Flex cable Manta type B
- Flex cable 60 mm FC60
- Flex cable 110 mm FC110
- Flex cable 150 mm FC150
- Flex cable 200 mm FC200

Filter
- Protection glass B 270 (ASG)
- Type IRC Jenofilt 217 (IR cut filter)
- Type IRC Hoya C-5000 (IR cut filter)
- Type IRP RG715 (IR pass filter)
- Type IRP RG830 (IR pass filter)

For filter details, see Spectral transmission of filters on page 22.

Table 15: Ordering a Manta board level camera in (steps 1 to 3)
Ordering a Manta board level camera

<table>
<thead>
<tr>
<th>Step 4: Select the interface and I/O cable</th>
<th>Step 5: Contact Allied Vision Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected cables below are examples:</td>
<td></td>
</tr>
</tbody>
</table>

**Interface cable**
- GigE interface cable, Cat6, drag chain suitability, RJ45 8-pin straight with screw locks to RJ45 8-pin straight latch, 3.0 m (product code 8259)

**I/O cables**
- Molex PicoBlade 12 wire plus GND Board-to-cable connector, open ended, 3.0 m (product code K1200301)
- Molex PicoBlade 12 wire plus GND Board-to-cable connector, open ended, 5.0 m (product code K1200302)

If you need more cables and accessories, contact the Allied Vision Sales team: www.alliedvision.com/en/contact.

Table 16: Ordering a Manta board level camera (steps 4 and 5)
# Ordering a Stingray board level camera

All Stingray models

## Step 1: Start with the basic camera

- Sensor board, two main boards, and 13-pin connector (interface: 2 x IEEE 1394b copper)

## Step 2: Select the flex cable length

### Flex cable

- Length

## Step 3: Select the lens mount and filter

### Lens mount

- **C-Mount**
- **CS-Mount**

### Ordering flex cables

- Flex cables are not sold separately!

### Each mounting type is equipped with:

- IRC Hoya C-5000 or Protection glass B 270 (ASG)

## Interface type

- Stingray F-....._BL

## Flex cable

- Flex cable 56 mm FC56
- Flex cable 110 mm FC110

## Mount

- C-Mount
- CS-Mount

## Filter

- Protection glass B 270 (ASG) Stingray F-... ASG
- Type IRC Jenofilt 217 (IR cut filter) Stingray F-... IRC Jenofilt
- Type IRC Hoya C-5000 (IR cut filter) Stingray F-... IRC Hoya
- Type IRP RG715 (IR pass filter) Stingray F-... IRP RG715
- Type IRP RG830 (IR pass filter) Stingray F-... IRP RG830

For filter details, see Spectral transmission of filters on page 22.

### Table 17: Ordering a Stingray board level camera (steps 1 to 3)
## Ordering a Stingray board level camera

### Step 4: Select the interface and I/O cable

Selected cables below are examples:

<table>
<thead>
<tr>
<th>Interface cable</th>
<th>I/O cable</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Interface cable" /></td>
<td><img src="image2.png" alt="I/O cable" /></td>
</tr>
</tbody>
</table>

**Interface cable**
- IEEE 1394b interface cable, industrial suitability, with screw locks, 9-pin to 9-pin, 5.0 m (product code K1200169)

**I/O cable**
- Molex PicoBlade 12 wire plus GND Board-to-cable connector, open ended, 3.0 m (product code K1200301)
- Molex PicoBlade 12 wire plus GND Board-to-cable connector, open ended, 5.0 m (product code K1200302)

### Step 5: Contact Allied Vision Sales

If you need more cables and accessories, contact the Allied Vision Sales team: [www.alliedvision.com/en/contact](http://www.alliedvision.com/en/contact).

*Table 18: Ordering a Stingray board level camera (steps 4 and 5)*