An ideal HD camera solution for various specialty applications

1/3 type MOS Full HD Remote Head Camera with 1080p HDMI

Key Features

- 1/3 type Full HD single MOS sensor
- 1080/59.94p, 50p resolution at HDMI output
- 900 TV lines (typical) at horizontal resolution
- Multi-format:
  (59.94Hz) 1080/59.94p, 59.94i, 29.97p (sF), 720/59.94p, 480/59.94p, 59.94i
  (50Hz) 1080/50p, 50i, 25p (sF), 720/50p, 576/50p, 50i
- Various video outputs: HDMI, RGB/YPbPr, S-video
- Synchronization: Internal or External
- Required illumination: 2000 lx at F5.6
- Minimum illumination: 10 lx at F1.4
- 3 Scene files allow to register each of adjustable parameter settings in accordance with an installation location.
- Other functions: Camera title, ELC, Electronic shutter, Gain adjustment, Electronic sensitivity enhancement, White balance, Electronic zoom, Freeze, Flip, Mirror, Status display
- External control of RS-232C signal level compliant
- HD camera cable can be selected from 2 m (6.6 ft.)/6 m (19.8 ft.)/15 m (49.2 ft.)
- Small camera control unit (GP-KH232CU):
  120 (W) x36 (H) x157 (D) mm (4-3/4 (W) x1-13/32 (H) x6-3/16inches)
- Compact and lightweight camera head (GP-KH232H):
  28 (W) x27 (H) x39 (D) mm (1-3/32 (W) x1-1/16 (H) x1-17/32inches), 43g (0.1 lbs)

Recommended lenses

<table>
<thead>
<tr>
<th>Model</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF6HA-1B</td>
<td>FUJIFILM</td>
</tr>
<tr>
<td>HF25HA-1B</td>
<td></td>
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<tr>
<td>HF50HA-1B</td>
<td></td>
</tr>
<tr>
<td>HF12.5HA-1B</td>
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<tr>
<td>HF16HA-1B</td>
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</tbody>
</table>

*(As of February, 2012)*

* A lens whose projection length of the lens mount section is 7mm (9/32inches) or less shall be used.
* The recommended C-mount lens aperture ranges from F2.8 to F16.
**Specifications**

<table>
<thead>
<tr>
<th>Frame Frequency</th>
<th>60.94 Hz</th>
<th>50 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power source</td>
<td>12 V DC at 10%</td>
<td></td>
</tr>
<tr>
<td>Power consumption</td>
<td>Approx. 7.8 W (including camera head)</td>
<td></td>
</tr>
<tr>
<td>Image sensor</td>
<td>1/3 type Full HD MOS</td>
<td></td>
</tr>
<tr>
<td>Synchronization</td>
<td>Internal or external synchronization</td>
<td></td>
</tr>
</tbody>
</table>

**Video output**

- **S-video output**: S-video connector x 1, C: 0.288 V [p-p] / 75 Ω, C: 0.3 V [p-p] / 75 Ω
- **RGB/YPbPr output**: D-sub 9-pin connector x 1, G: 1.0 V [p-p] / 75 Ω, R: 0.7 V [p-p] / 75 Ω, Y: 1.0 V [p-p] / 75 Ω
- **HDMI output**: HDMI connector x 1, 480i/59.94i, 480p/59.94p, 480i/59.94i, 480p/59.94p

**Video format**

- **S-video output**: 480i/59.94i, 480p/59.94p, 480i/59.94i
- **RGB/YPbPr output**: 1080i/59.94p, 1080i/25p, 1080i/25p
- **HDMI output**: 720p/50p, 720p/50p, 720p/50p

**Minimum illumination**: 10 lx (F1.4, GAIN: HIGH, 30% output, at center)

**Required illumination**: 3000 lx (3000 K, F5.6)

**S/N**: 54 dB (at output using 1080i)

**Horizontal resolution**: 540 TV lines (Typically when 1080i output)

**External control**: Camera title, ELC, Electronic shutter, Gain adjustment, Output signal, Scene file, White balance, Electronic zoom, Freeze, Flip, Mirror, Status display

**Ambient operating temperature**: 0°C to 40°C (32°F to 104°F)

**Ambient operating humidity**: 30% to 90% (excluding rubber feet and projections)

**Dimensions**

- **GP-KH232CU**: 120 mm (W) x 36 mm (H) x 157 mm (D) (excluding rubber feet and projections)
- **GP-KH232H**: 28 mm (W) x 27 mm (H) x 39 mm (D) (excluding rubber feet and projections)

**Mass**

- **GP-KH232CU**: Approx. 660 g (1.46 lbs.)
- **GP-KH232H**: Approx. 43 g (0.1 lbs.)

**Finish**: Ivory color coating

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**Part Names and Functions**

- **Scene file selection button**
- **Freeze/menu button**
- **Power switch**
- **AWC/Up button**
- **Camera cable connector**
- **Dynamic range/Down button**
- **Gain selection button**
- **Left button**
- **RGB/YPbPr output connector**
- **HDMI output connector**
- **S-video output connector**
- **Cable clamp**
- **12 V DC power terminal**
- **Remote terminal**

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**GP-KH232H**

- **HD Camera Head**
- **GP-KH232CU**
- **HD Camera Control Unit**

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**GP-KC23215/V**

- **HD Camera Cable**
- **GP-KC23206/V**
- **GP-KC23202/V**

**Appearance**

**System Block Diagram**

Lens and the other mounted appliances are not included in GP-KH232 series.

*Back focus adjustment may not be available depending on the C-mount lens model.*

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**Important**

- Safety Precaution: carefully read the operating instructions and installation manual before using this product.
- These products do not have medical standard approvals.
- This product is intended for usage in general electronics applications.
- The usage of this product for special purposes, such as traffic control instruments, transportation instruments, and medical instruments, may be prohibited without authorization under the applicable laws and regulations of each country or region where this product is in practical use.
- The arrangement for the authorization shall be made under customer's or user's own responsibility.

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