

### REMOTE HEAD CAMERA - 12MM DIAMETER

#### Main Features:

- SONY CCD Technology
- Frame Buffer
- Remote Control
- 4 x Digital Zoom option
- Function Buffer
- Stainless Steel Camera Head with Cable
- Lens Mount M10.5 Thread
- Range of lenses available
- C-Mount adapter option
- Ultra compact camera head  
12 x 34mm Long
- CCU 106 x 105 x 36mm
- Standard cable lengths 3, 5 & 10 metres
- RS232 Control Software



#### Super compact lipstick camera with a comprehensive control menu.

The RHC-12 is a 12mm diameter lipstick camera with the camera - CCU cable permanently attached to the camera head.

The camera accepts a range of 10.5mm diameter lenses many of which include iris control.

The camera has been selected by Seesense as a replacement to the popular Toshiba IK-M51H and IK-UM51H camera heads and IK-CU51 CCU. This camera uses the same lenses however it utilises a Sony 1/4" CCD sensor.



This camera is ideal for a wide range of applications in different industries including:

- Industrial video / inspection systems  
Including Nuclear, Engine Inspection, Furnaces, Machining Processes, etc
- Miniature POV Broadcast Camera
- Natural history filming
- Covert security camera
- Scientific imaging / diagnostics
- Medical Endoscopy, Microscopy, etc.

SeeSense are able to provide full technical assistance and back up for this camera.

**Please contact SeeSense for further information.**



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### Camera Specification:

|                      |  |                               |                        |
|----------------------|--|-------------------------------|------------------------|
| Power Requirements   | 6 - 12 V DC                                  | SV-Jack                       | - see pin layout below |
| Power Consumption    | 2.1 Watt                                     |                               |                        |
| Image Sensor CCD     | SONY 1/4-inch CCD                            |                               |                        |
| Effective Pixels     | Horizontal: 752 pixels, Vertical: 582 pixels |                               |                        |
| Frame Rate           | 25 frames per second                         |                               |                        |
| Resolution           | 460 TV lines                                 |                               |                        |
| Signal/Noise Ratio   | 50dB   |                               |                        |
| Sensitivity          | 1.5 lux at F1.4                              |                               |                        |
| Shutter Modes        | 1/50s - 1/10000s                             |                               |                        |
| White Balance        | AWB : Auto White Balance (Push to Set White) |                               |                        |
| Zoom                 | 3 x digital                                  |                               |                        |
| Frame Buffer         | 1 Frame                                      |                               |                        |
| Video Output Signals | PAL standard                                 |                               |                        |
| Video Out 1          | FBAS - Signal                                | BNC                           | - see pin layout below |
| Video Out 2          | Y/C - Signal                                 | 4pol. Mini DIN                | - see pin layout below |
| RS-232 Control       | VISCA-Protocol                               | 6pol. Mini DIN                | - see pin layout below |
|                      | Control Software Available                   |                               |                        |
| Remote Control       | R-Matrix                                     | 8pol. Mini DIN                | - see pin layout below |
| Lens Mount           | M10.5  |                               |                        |
| Dimensions           | Camera :                                     | 34mm (L) x 12mm (Diameter)    |                        |
|                      | CCU :  | 106mm(W) x 36mm(H) x 105mm(D) |                        |
| Weight               | Camera Head:                                 | 20 grammes                    |                        |
|                      | Camera Control Unit :                        | 320 grammes                   |                        |



|   |     |                  |
|---|-----|------------------|
| 1 | AD6 | Zoom             |
| 2 | AD7 | ICR              |
| 3 | AD3 | Color balance    |
| 4 | AD4 | Exposure         |
| 5 | AD5 | Focus            |
| 6 | AD0 | Position         |
| 7 | AD1 | Display/Up-Down  |
| 8 | AD2 | Image adjustment |

|   |     |               |
|---|-----|---------------|
| 1 | TxD | RS-232C-Level |
| 2 | RxD | RS-232C-Level |
| 3 | GND |               |
| 4 | AF  | Out           |
| 5 | TD  | TTL-Level     |
| 6 | RD  | TTL-Level     |

|   |   |              |
|---|---|--------------|
| 1 | Y | OUT - SIGNAL |
| 2 | C | OUT - SIGNAL |
| 3 | Y | OUT - GND    |
| 4 | C | OUT - GND    |

|   |     |              |
|---|-----|--------------|
| 1 | VBS | OUT - SIGNAL |
| 2 | VBS | OUT - GND    |

|   |     |                 |
|---|-----|-----------------|
| 1 | 12V | DC center / top |
| 2 | GND |                 |

### CCU Functions:

|               |                               |
|---------------|-------------------------------|
| T1            | Customised Function           |
| T2            | Customised Function           |
| Freeze        | Freeze Function               |
| Black & White | Switch Colour / Monochrome    |
| Display       | Show Status                   |
| Zoom Tele.    | Digital Zoom In               |
| Zoom Wide     | Digital Zoom Out              |
| POS Preset    | Position Store Set            |
| POS Reset     | Position Store Delete         |
| POS 1         | Position Store 1              |
| POS 2         | Position Store 2              |
| AE Auto       | Switch Auto / Manual Exposure |
| Bright Up     | Brightness Up                 |
| Bright Down   | Brightness Down               |
| WB            | Automatic White Balance (AWB) |

### Cables

Cable supplied permanently fitted to the Camera Head (5.3mm diameter)

|            |          |              |
|------------|----------|--------------|
| RHM-12-3M  | 3 metre  | Camera Cable |
| RHM-12-5M  | 5 metre  | Camera Cable |
| RHM-12-10M | 10 metre | Camera Cable |

### Lenses

|       |      |     |           | Length |
|-------|------|-----|-----------|--------|
| 3mm   | F2.0 | 4 g | 91 x 69 ° | 16mm   |
| 5.5mm | F1.6 | 3 g | 50 x 38 ° | 15mm   |
| 11mm  | F2.0 | 3 g | 25 x 19 ° | 15mm   |
| 18mm  | F3.3 | 4 g | 16 x 12 ° | 20mm   |
| 30mm  |      |     |           |        |

### Special Lenses

|       |  |
|-------|--|
| 60mm  |  |
| 90mm  |  |
| 125mm |  |



C-mount adapter option available

Contact SeeSense for full range and lens advice

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