

With experience of supplying the OEM market for many years, Artemis CCD has developed the VS range of cooled cameras. These products have been designed specifically for ease of integration and to provide a versatile feature set suitable for any long exposure, low light application. They provide an ideal platform for Sony's progressive scan sensors with resolution from 1.4MPixels to 9.2MPixels. The form factor of the VS cameras provides a compact overall package where space in the imaging axis is at a premium.

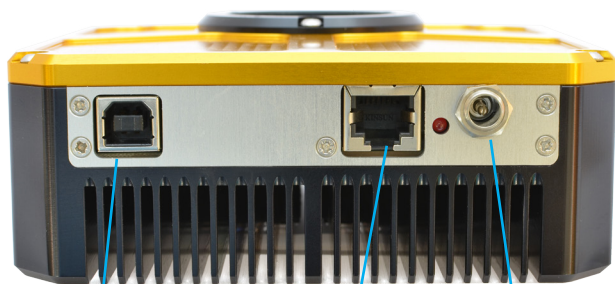


Approximate Dimensions 120 x 120 x 50mm (60mm with filter wheel)

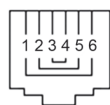


## VS Range Benefits

- 16 bit low noise mode (65,536 grey levels)
- Faster image acquisition at 6MPixels/s
- Extended operating range with -35°C cooling delta
- Argon back-filled sensor chamber
- External control via RJ12 connector
- 8 bit mode for faster image acquisition
- Live view provides up to 24fps for easy focussing
- Asymmetric pixel binning for spectroscopy applications
- Optional integrated 1.25" filter wheel



USB 2.0 Type B Connector



- 1 - Vcc 3.3V
- 2 - GND
- 3 - GPIO Line 0
- 4 - GPIO Line 1
- 5 - Trigger Input
- 6 - Exposure Output

12V DC Centre positive

## Sensor Selection

Model	Sony Sensor	Diag. mm	Format (Type)	Resolution HxV Total	Pixel size $\mu\text{m}$
VS14	ICX-285	11.0	2/3	1392x1040 1.4MPixels	6.45
VS20	ICX-274	8.923	1/1.8	1620x1220 2.0MPixels	4.40
VS28	ICX-674	10.972	2/3	1460x1932 2.8MPixels	4.54
VS50	ICX-655	11.016	2/3	2448 x 2050 5.0MPixels	3.45
VS60	ICX-694	15.99	1	2750x2205 6.0MPixels	4.54
VS92	ICX-814	15.972	1	3450x2704 9.2MPixels	3.69

# Camera Features

Feature	VS14	VS20	VS28	VS50	VS60	VS92
1.4 MPixel CCD - Monochrome or Colour	■					
2.0 MPixel CCD - Monochrome or Colour		■				
2.8 MPixel CCD - Monochrome or Colour			■			
5.0 MPixel CCD - Monochrome or Colour				■		
6.0 MPixel CCD - Monochrome or Colour					■	
9.2 MPixel CCD - Monochrome or Colour						■
Exposure Control 0.001s - 24 hrs	■	■	■	■	■	■
Regulated TE Cooling $\Delta$ from T(amb) °C	-35	-35	-35	-35	-35	-35
Binning 2x2, 4x4, 6x6, 8x8 (16x16 with SDK)	■	■	■	■	■	■
Asymmetric binning (unlimited in Y axis)	■	■	■	■	■	■
USB 2.0 Interface	■	■	■	■	■	■
Windows & Linux compatibility	■	■	■	■	■	■
ROI - Region of Interest (can set X-Y position and size)	■	■	■	■	■	■
16 Bit digitising (with switchable 8 bit option)	■	■	■	■	■	■
Typical Read Noise in electrons (e-) at -10°C	6	6	6	6	6	6
Lens compatibility: C-Mount (Filter wheel version T2)	■	■	■	■	■	■
Current consumption (A) at 12V DC (max)	2.5	2.5	2.5	2.5	2.5	2.5
Electronic shutter with interline sensor - no moving parts	■	■	■	■	■	■
Digitisation speed: 6 - 12 MPixels/s	■	■	■	■	■	■
External trigger	■	■	■	■	■	■
Twin 1/4" (tripod type) mounting holes	■	■	■	■	■	■
Weight g (add 150g for filter wheel version)	800	800	800	800	800	800

## Accessories

» Universal Power Supply (90-240VAC)/DC 12V

## Software Development Kit (SDK)

- » C++ Library covering all camera functions
- » .net Wrapper
- » ImageJ plug in
- » LabView Driver
- » Linux Driver
- » Visual Basic wrapper

### Contact Details

For enquiries, please use the contact details below:

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### Ordering Information:

## VSXX - Y - Z

- » XX : Model number
- » Y : M = Monochrome, C = Colour
- » Z : S = Standard,  
 F = Integrated filter wheel