

# CSB 4000CL

## 4.0 Mega Pixel CMOS B/W Video Camera



- **CameraLink output**
- **Ultra-high resolution 2008 (H) x 2047 (V)**
- **Various shutter modes including**
  - Global shutter - all pixels simultaneously exposed
  - Random Trigger Shutter (RTS)
  - Rolling Shutter exposures line by line
- **WOI-function**  
Up to 16 arbitrary rectangular areas (region of interest) can be read out with increase frame rate
- **Sub-sampling**  
Allows the output of an image with an increase frame rate at a lower resolution
- **High dynamic range**  
By adjustable sensitivity characteristic
- **Application**
  - High end machine vision
  - Factory automation
  - Microscopy
  - Quality control

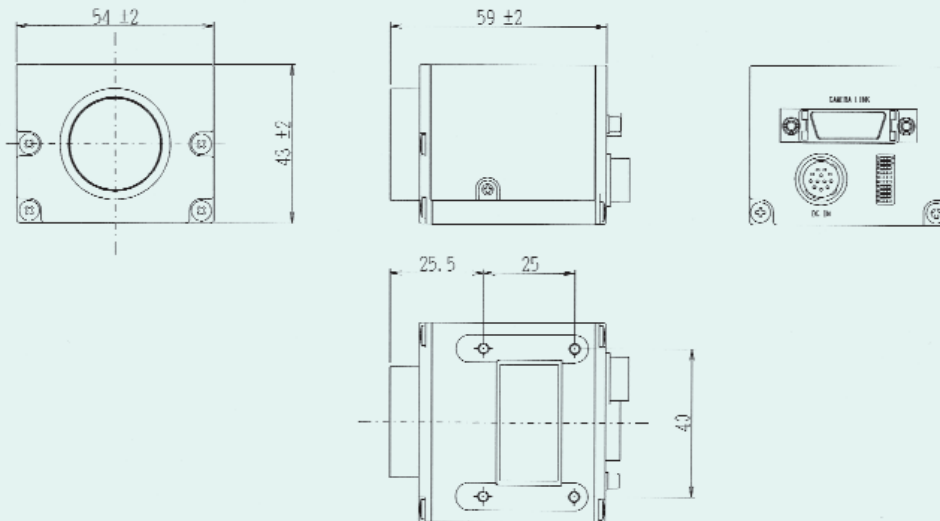
# Technical Data

## Type

**CSB 4000CL**

<b>Image sensor</b>	CMOS Image sensor
<b>Total pixel</b>	2048 (H) x 2048 (V)
<b>Active pixel</b>	2008 (H) x 2047 (V)
<b>Pixel size</b>	6.0 µm(H) x 6.0 µm(V)
<b>Image Area</b>	12.228 mm x 12.228 mm
<b>Driving frequency</b>	33MHz
<b>Scanning line</b>	2047 lines Progressive Scan
<b>Frame rate</b>	7.29fps (full resolution) 83 fps (640x480)
<b>Sync system</b>	Internal / External automatic switch-over
<b>Digital output</b>	CameraLink (10bit 33.0MHz)
<b>WOI-function</b>	Output of up to 16 WOI with increased frame rate
<b>Signal / Noise ratio</b>	>50dB
<b>Input signal</b>	Trigger, CLOCK, COMMAND, Exposure control
<b>Output signal CLOCK</b>	33.00000MHz +/-100ppm (Internal-sync)
<b>Sensitivity setting</b>	FIX (FIX GAIN)
by external signal	PGC (PROGRAMABLE GAIN CONTROL)
<b>Gamma</b>	1.0
<b>Shutter modes</b>	Random trigger shutter, Synchronized global shutter, Rolling shutter
<b>Power source</b>	DC12V plus/minus 10% (ripple <100mV(p-p))
<b>Power consumption</b>	Approx. 1.3 W
<b>Ambient condition</b>	Temperature: 10°C~50°C Humidity: 20%~80%
<b>Lens mount</b>	C-mount (optional TFL-mount)
<b>External dimension</b>	54 (W) x 43 (H) x 59 (D)mm
<b>Weight</b>	Approx. 160 g
<b>Accessories</b>	<ul style="list-style-type: none"> <li>• Data Cable with double-terminated connector (3m)</li> <li>• Tripod mounting kit</li> <li>• IR cut filter</li> </ul>

## Dimension



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