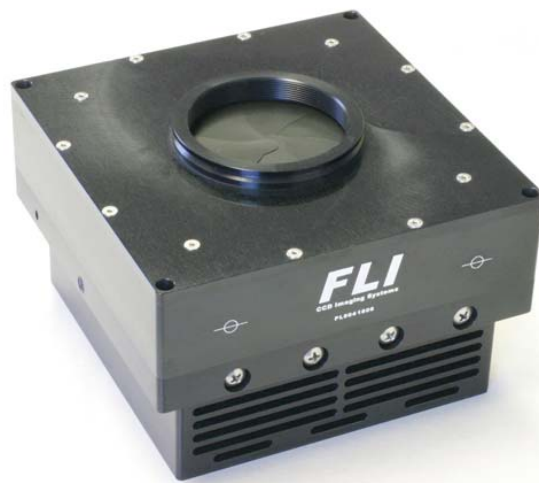


EHD IMAGING GMBH

ProLine-Serie

Cooled CCD Imaging System with USB2.0 Interface



EHD IMAGING GMBH

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The new ProLine imaging systems features a six-leaf stainless-steel shutter, user selectable download speeds, choice of cooling base configurations, a wide range of supported CCDs and dual hermetically sealed chambers.

The ProLine utilizes Kodak, E2V, Fairchild Imaging and SITe arrays. Back-illuminated, front-illuminated and interline sensors are available (including monochrome and 'single shot' color)

The ProLine-Series is a complete camera system, ready to use, with control software, Windows- and Linux-SDK and MathLab driver.

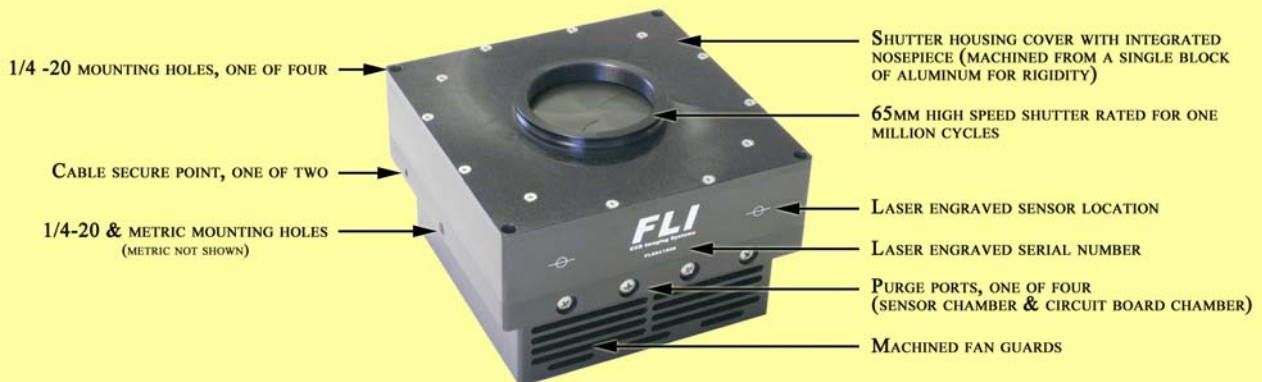
- Kodak Sensors up to 4kx4k Pixel
- E2V Backilluminated Sensors up to 4kx4k
- Triple TEC cooled
- 16-bit USB2 Interface
- OE up to 95%
- Download speed up to 12 megapixel/s
- On-board frame memory
- Six-leaf shutter or optional Uniblitz shutter
- SDK for Windows & Linux
- MathLab Driver

Technical CCD Data ProLine-Series

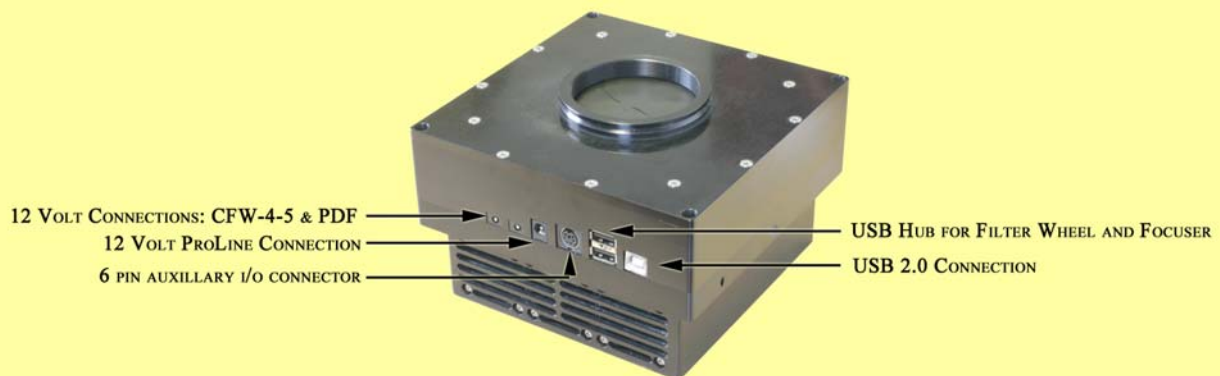
Camera	Sensor	Full Well	Color System	Pixel	Pixelsize	Typ
PL-4240-B	E2V 42-40-1-368	100.000e	monochrome	2048 x 2048	13.5µ	Back-Illuminated
PL-4240-F	E2V 42-40-1-383	100.000e	monochrome	2048 x 2048	13.5µ	Front-Illuminated
PL-4710	E2V 47-10	100.000e	monochrome	1000 x 1000	13µ	Back-Illuminated
PL-3041	Fairchild 3041	100.000e	monochrome	2048 x 2048	15µ	Back-Illuminated
PL-10010-C	KAF-10010CE	40.000e	RGB	3876 x 2584	6.8µ	Front-Illuminated
PL-11000-M	KAI-11002M	60.000e	monochrome	4008 x 2672	9µ	Front-Illuminated
PL-11000-C	KAI-11002C	60.000e	RGB	4008 x 2672	9µ	Front-Illuminated
PL-16801	KAF-16801E	100.000e	monochrome	4096 x 4096	9µ	Front-Illuminated
PL-16803	KAF-16803	85.000e	monochrome	4096 x 4096	9µ	Front-Illuminated
PL-09000	KAF-09000	120.000e	monochrome	3056 x 3056	12µ	Front-Illuminated
PL-4301	KAF-4301E	650.000e	monochrome	2084 x 2084	24µ	Front-Illuminated
PL-6303	KAF-6303E	100.000e	monochrome	3088 x 2056	9µ	Front-Illuminated
PL-8300	KAF-8300CE	25.500e	RGB	3326 x 2504	5.4µ	Front-Illuminated
PL-1001	KAF-1001E	650.000e	monochrome	1024 x 1024	24µ	Front-illuminated

Features ProLine-Series

FINGER LAKES INSTRUMENTATION - PROLINE IMAGING SYSTEM



FINGER LAKES INSTRUMENTATION - PROLINE IMAGING SYSTEM



ProLine Camera Features

Build Quality

Every major component of the ProLine is CNC machined to ensure a long life in the most demanding conditions. The ProLine base / heat sink, shutter housing and front flange are each machined from a single piece of high grade aluminum. (Being part of the base assembly, even the ProLine fan cover is CNC machined!) The electrical printed circuit boards use only the highest quality components and are protected from harsh environment without the need for conformal coatings (Dual Sealed Chambers).

Dual Sealed Chambers

The ProLine features a unique dual sealed chamber system. Both the camera electronics and sensor are located in separate sealed chambers to keep moisture out and the camera's dry noble gas in! Improving upon the highly successful MaxCam sealed camera design, the ProLine avoids environmentally related failures that are common in humid environments.

Fast, Adjustable Download Speeds

Breaking new ground in download speeds, the ProLine provides the user with extremely fast user-selectable download speeds. You can operate at up to 12 megapixels/sec. for focusing. This means that an unbinned PL11002 image can be downloaded to your PC in as little as 0.9 sec for focusing. For imaging, the download time can be increased to dramatically reduce the noise in the final image.

Cooling

The ProLine achieves 60°C cooling performance. This means you can operate your camera at -30°C with ambient temperatures of up to 30°C (84°F) for lowest dark current and its attendant noise. Unlike some competitive products, no additional water cooling or cooling sequence staging is required. Simply set the ProLine cooling where you want it and the camera will do the rest - quickly and without worries.

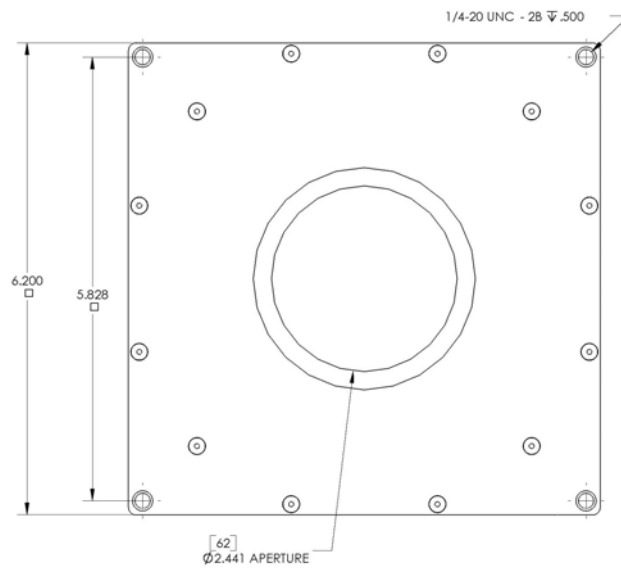
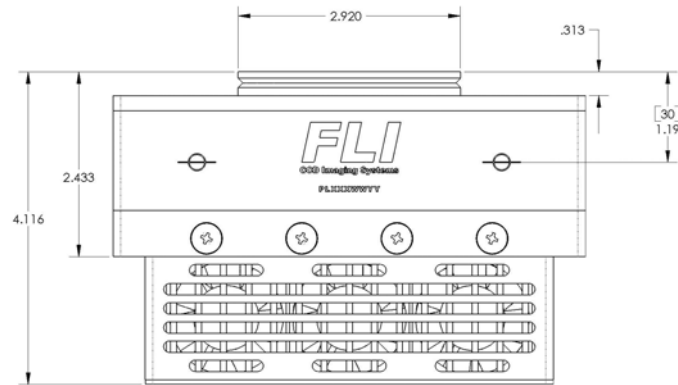
Internal Frame Buffer

Conventional imaging cameras move the image data directly from the image sensor to the USB port, making them susceptible to added artifacts due to PC processing tasks, processor speed, and other PC-related artifacts. By providing memory internal to the camera, the imaging chip is quickly read out to the memory and downloaded to the PC from there. This allows the PC to take the image at whatever speed the PC is capable, without introducing any artifacts.

Accurate Sensor Placement

Through sophisticated design and production techniques, your image sensor is accurately aligned so that the imaging chip is perpendicular to the optical path without shims or other post-assembly adjustments. This is crucially important as chips get larger to insure the entire frame of your image is in focus. Although not required by some applications, we also accurately control the 'X,Y' location of the sensor so that it is square to the camera body.

ProLine Drawings



Accessories



Digital Focuser DF-2



Color Filter Wheel