

# Filter Wheels (Kepler Cameras)

All filter wheels use unmounted filters only. All use a stepper motor and magnetic Hall-effect homing device.

FLIFilter software is included in the FLI Software Installation Kit on <https://www.flicamera.com/software/index.html>.

For additional detail regarding mechanical specifications, please see drawings at <https://www.flicamera.com/cfw/index.html>

For most materials, subtract 1/3 of the thickness of any filter (e.g. subtract 1mm for a 3mm thick filter) as well as 1/3 of the thickness of any cover glass on the sensor.

Model	# of Wheels	FW Thickness <sup>1</sup> inch (mm)	Weight lbs (kg)	Filter Positions	Filter Size <sup>2</sup>	Filter Thickness	Camera Side	Optics Side	OBFD KL65 <sup>3</sup>	OBFD KL <sup>4</sup>
CFW2-7	1	0.822 (20.88)	2.9 (1.32)	7	2" / 50 mm <sup>5</sup>	1-5 mm	FLI Dovetail	2" 24tpi	41.7 mm	36.4 mm
CFW5-7	1	0.85 (21.59)	4.3 (1.95)	7	50 mm SQ	1-5 mm	FLI Dovetail	3" 24tpi	42.4 mm	37.1 mm
CFW9-5	1	0.595 (15.11)	3.2 (1.45)	5	65 mm SQ	1-5 mm	10-32 BP <sup>6</sup>	M92-1	35.9 mm	30.6 mm
CL-1-10	2	1.10 (27.94)	4.3 (1.95)	10 <sup>7</sup>	50 mm SQ	1-5 mm	CL ZTA <sup>8</sup>	CL ZTA	48.7 mm <sup>9</sup>	43.4 mm <sup>9</sup>
CL-1-14	2	1.10 (27.94)	4.3 (1.95)	14 <sup>9</sup>	2" / 50 mm <sup>5</sup>	1-5 mm	CL ZTA	CL ZTA	48.7 mm <sup>9</sup>	43.4 mm <sup>9</sup>

## Notes:

1. Front to back thickness of the filter wheel excluding motor, in inches (mm).
2. Filters are round unless followed by SQ, indicating square.
3. KL65 OBFD = Optical back focal distance (image plane of CCD to optics side of filter wheel) for KL camera with 65 mm shutter. See note 12.
4. KL OBFD = OBFD for Kepler camera with no shutter, 25mm shutter, or 45mm shutter with FLI dovetail + filter wheel. See note 12.
5. Carousel will accept either 2" or 50 mm filters.
6. BP = bolt pattern. Mates directly to ProLine, MicroLine, or Kepler with optional front plate.
7. Because the carousels overlap, one position in each is normally left open. For example, eight + two open positions for the CL-1-10.
8. CL ZTA = CenterLine Zero Tilt Adapter™
9. Assumes CL ZTA flange on front of camera. Add 9.22mm for CL adapter to FLI dovetail (AD70 or AD71).

Kepler cameras with the standard FLI dovetail flange mate directly to the CFW2 and CFW5 filter wheels. The dovetail does not add to the back focal distance.

Kepler cameras with the CFW9 flange bolts directly to the CFW9.

Kepler cameras with the CL ZTA flange mate directly to the CenterLine CL-1-10 and CL-1-14 filter wheels. The dovetail does not add to the back focal distance.