



Color Filter Wheel Specifications

All filter wheels below are software controlled. All use a stepper motor and magnetic Hall-effect homing device.

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

| Model | # of Wheels | FW Thickness ¹ inch (mm) | Weight lbs (kg) | Filter Positions | Filter Size ² | Filter Thickness | Frame Connection ³ | Cover Connection ⁴ | OBFD with ProLine ⁵ | OBFD with MicroLine ⁶ |
|---------|-------------|--|--------------------|------------------|--------------------------|------------------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| CFW1-5 | 1 | 0.810 (20.57) | 1.7 (0.77) | 5 | 2" / 50 mm ⁷ | 3-5 mm | 2.930" pocket | 2" 24tpi | 41.6 mm | 36.3 mm |
| CFW1-8 | 1 | 0.810 (20.57) | 1.7 (0.77) | 8 | 28 mm ⁸ | 3-5 mm | 2.930" pocket | 2" 24tpi | 41.6 mm | 36.3 mm |
| CFW2-7 | 1 | 0.822 (20.88) | 2.9 (1.32) | 7 | 2" / 50 mm ⁷ | 1-5 mm | 2.930" pocket | 2" 24tpi | 41.9 mm | 36.6 mm |
| CFW3-10 | 1 | 0.848 (21.54) | 6.9 (3.14) | 10 | 50 mm SQ | 1-5 mm | 2.930" pocket | 3" 24tpi | 42.5 mm | 37.2 mm |
| CFW3-12 | 1 | 0.848 (21.54) | 6.9 (3.14) | 12 | 2" / 50 mm ⁷ | 1-5 mm | 2.930" pocket | 3" 24tpi | 42.5 mm | 37.2 mm |
| CFW3-20 | 1 | 0.848 (21.54) | 6.9 (3.14) | 20 | 28 mm ⁸ | 1-5 mm | 2.930" pocket | 3" 24tpi | 42.5 mm | 37.2 mm |
| CFW4-5 | 1 | 0.785 (19.94) | 2.9 (1.32) | 5 | 50 mm SQ | 1-5 mm | 2.930" pocket | 3" 24tpi | 40.9 mm | 35.6 mm |
| CFW5-7 | 1 | 0.85 (21.59) | 4.3 (1.95) | 7 | 50 mm SQ | 1-5 mm | 2.930" pocket | 3" 24tpi | 42.6 mm | 37.3 mm |
| CFW9-5 | 1 | 0.595 (15.11) | 3.2 (1.45) | 5 | 65 mm SQ | 1-5 mm | 10-32 BP ⁹ | M92-1 | 36.1 mm | 30.8 mm |
| CFW10-7 | 1 | 0.731 (18.57) | 3.2 (1.45) | 7 | 65 mm SQ | 1-5 mm | 10-32 BP | M92-1 | 39.6 mm | 34.3 mm |
| CL-1-10 | 2 | 1.10 (27.94) | 4.3 (1.95) | 10 ¹⁰ | 50 mm SQ | 1-5 mm | 3.43" ZTA ¹¹ | 3.43" ZTA | 48.9 mm ¹⁴ | 43.6 mm ¹⁴ |
| CL-1-20 | 2 | 1.10 (27.94) | 4.3 (1.95) | 20 ¹⁰ | 25 mm ¹² | 1-5 mm | 3.43" ZTA | 3.43" ZTA | 48.9 mm ¹⁴ | 43.6 mm ¹⁴ |

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. Typically the camera side of the filter wheel.
4. Typically the optical side of the filter wheel (for example, lens or telescope).
5. PL OBFD = Optical back focal distance (image plane of CCD to cover side of filter wheel) for PL or ML camera with 63.5 mm shutter. See note 13.
6. ML OBFD = OBFD for standard MicroLine with FLI dovetail + filter wheel. See note 13.
7. Carousel will accept either 2" or 50 mm filters.
8. May be made for 25 mm on special request.
9. BP = bolt pattern
10. Because the carousels overlap, one position in each is normally left open. Eight + two open positions for the CL-1-10; eighteen + two open positions for the CL-1-20.
11. ZTA = CenterLine Zero Tilt Adapter™
12. May be made for 28 mm on special request.
13. 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 CCD.
14. Assumes CL ZTA flange on front of camera. Add 9.22mm for CL adapter to FLI dovetail (AD70 or AD71).

www.flicamera.com · 1250 Rochester St. · Lima NY 14485 USA · 585-624-3760

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