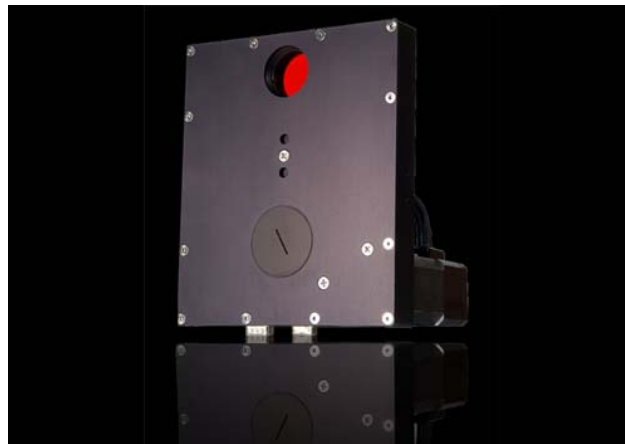


EHD IMAGING GMBH

# High Speed Color Filter Wheel

*Color Filter Wheel for ten 25 to 32mm filters.*



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High-performance servo motors featuring rare Earth magnets coupled with backlash-free power transfer provide ultimate torque which translates to ultimate speed. Adjacent filter distance is traveled in 30ms while the longest distance (5 filter positions or 180 degree wheel turn) is covered in less than 100ms. An additional benefit of servo motors is the use of encoder feedback

resulting in reliable operation compared to a stepper-motor-based open-loop approach where step skipping may occur. However, the advantages of servo motors come at a cost of increased circuitry and controller complexity. This is addressed with state-of-the-art semiconductor components, a high-performance DSP (Digital Signal Processor), and a sophisticated control algorithm. The control system not only optimizes the trajectory to result in maximum speed with minimum vibration, it also adapts to the changes in load. When filters are added or removed, the controller parameters must be adjusted in order to maintain peak

performance. A built-in adaptation mechanism takes care of these adjustments providing optimum performance no matter what the operating conditions are.

- Filter exchange in < 30ms
- Ten 25mm or 32mm Filters
- Up to 9mm Filterthickness
- Adjustable velocity
- Filter Position Indicator
- High Speed fluorescence

## High speed Filterwheel Features

- Filter exchange in less than 30ms
- Holds ten 25mm or 32mm filter positions
- Up to 9mm filter thickness capacity
- Optional external shutters
- Lambda FW plug-in replacement
- Integrated electronics (no need for external controllers)
- Possibility of daisy-chaining of up to 3 wheels for each serial port
- Standard communications protocol supported by common software packages
- Brushless Servo Motor with Encoder Feedback
- Minimum jerk acceleration profile
- Adjustable velocity
- Load-driven controller parameter adaptation
- Compatibility with major microscope brands
- High speed fluorescence capability for the most demanding life sciences applications

## Dimensions:

