

ATF4-OA

AUTOFOCUS SENSOR WITH OFFSET ADJUSTER

- + Equipped with an Offset Adjuster (OA) to compensate for variances between the sensor focal plane and the camera imaging plane.
- + NIR laser wavelength of 785 or 850 nm prevents interference with imaging systems.
- + Suited for applications in DNA & genomics sequencing, and fluorescence based biomedical imaging applications.



Maximum flexibility

By automatically adjusting laser intensity and exposure time, the ATF4-OA can adapt to a variety of surfaces, from low reflectivity to high reflectivity (1% - 99%). The sensor is also compatible with objective lenses from 2X to 100X magnification.



Tracking autofocus

The ATF4-OA sensor quickly determines both the distance and direction to focus, updating every 0.5 milliseconds. This allows the sample to stay in focus while in motion, making it perfect for scanning specimens rapidly and precisely.



High accuracy at fast speeds

The ATF4-OA sensor projects its focusing laser directly through the objective lens. The through-the-lens technique provides accurate autofocusing, achieving focus in less than 0.6 seconds with a success rate higher than 99%.

Biomedical imaging

Many biomedical imaging systems experience a variance between the imaging and the autofocus laser focal planes. WDI has overcome this issue with a novel Offset Adjuster (OA) which compensates for this variance, resulting in greater accuracy and speed.

Fluorescence techniques are commonly used for DNA and genomics sequencing, as well as other biomedical imaging. Imaging systems require effective autofocus that does not interfere with data collection. WDI's ATF4-OA functions at near infrared wavelength of 785 nm or 850 nm, making it an excellent choice for high quality fluorescence-based imaging. The OA is designed to allow fluorescence microscopes to operate in optimal condition, preventing the sensor from interfering with the system.

Easy integration

The ATF4-OA is a new addition to our family of autofocus sensors, that are designed with easy integration in mind. All of WDI's sensors are compatible with most infinity corrected objectives, and can be used either as a stand alone solution or as part of a full autofocus system.

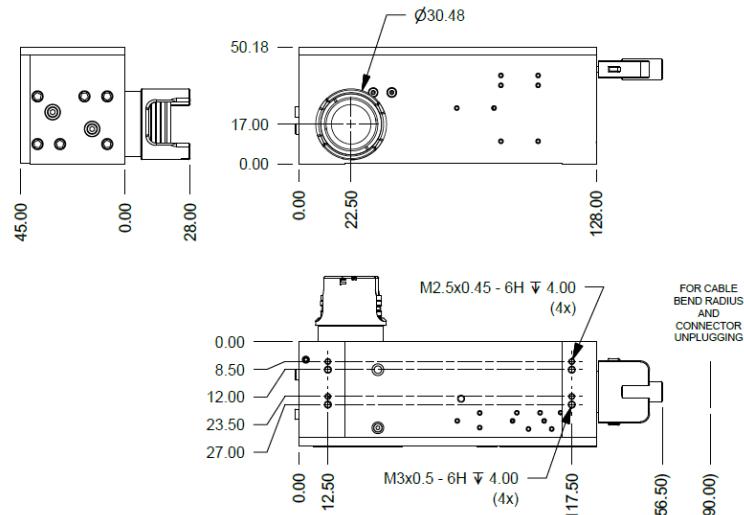
Offset Adjuster (OA)



WDI's ATF4-OA is a fast, highly accurate, autonomous digital autofocus solution. Its "Smart Sensor Architecture" (SSA) incorporates a semiconductor laser, CMOS image sensor, FPGA, and microprocessor, in a small easily integrated package.

The new Offset Adjuster (OA) is designed to correct for the focus variance experienced with traditional sensors. It comes equipped with precise autofocus capabilities to achieve fast optical performance with accuracy and flexibility.

Objective (Mitutoyo Plan Apo)	Maximum Offset (μm) Calculated
5X	± 175
10X	± 44
20X	± 11
50X	± 2



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