



QSI 500 Series Optical Path Length

Adapter	Slim Body (i)		Medium Body (s)		Full Body (ws)		WSG Body	
	inches	(mm)	inches	(mm)	inches	(mm)	inches	(mm)
No Cover Adapter (0.000")	0.350	(8.89)	0.675	(17.15)	1.175	(29.85)	1.750	(44.45)
T-Mount Adapter (0.225")	0.575	(14.61)	0.900	(22.86)	1.400	(35.56)	1.975	(50.17)
C-Mount Adapter (0.325")	0.675	(17.15)	1.000	(25.40)	1.500	(38.10)	2.075	(52.71)
C-Mount Type 2 Adapter (0.000")	NA		0.675	(17.15)	1.175	(29.85)	1.750	(44.45)
2.156" Adapter (0.350")	NA		NA		NA		2.100	(53.34)

Nominal Optical Path Length, $\pm 0.02"$ ($\pm 0.5\text{mm}$)

Note: Optical path length includes $-0.036"$ adjustment for 2mm AR coated chamber window and 0.7mm CCD cover glass. See below for back focus adjustment with a filter added to the optical path.

Sensor Height Variation*

504	0.002
516	-0.013
520	-0.006
532	-0.013
540	0.002
583	0.006

Backfocus adjustment with filters

Filter brand	Filter Thickness		Adjustment	
	inches	(mm)	inches	(mm)
Astronomik	0.039	1.0	-0.013	-0.33
Baader	0.083	2.1	-0.028	-0.70
Astrodon	0.118	3.0	-0.039	-1.00

Back focus reduced by (glass thickness / 3)

*Sensor Height Variation represents the difference from nominal optical back focus because of tiny height differences between each specific model of CCD. This figure should be added to or subtracted from the nominal back focus measurement to determine the precise back focus measurement as designed. Note that the back focus tolerance ($\pm 0.02"$) is greater than these small variations.

This document is provided a convenient reference for QSI customers. See "QSI 500 Series Customer Reference Drawing" at <http://www.qsimaging.com/documentation.html> for complete details.