



Wavelength Meter

Overview WS Series






















































HighFinesse
The Standard of Accuracy



Ångström

Measurement range	UV-II (192 – 800 nm)
	UV-I (248 – 1180 nm)
	Standard (330 – 1180 nm)
	VIS / IR-I (330 – 1750 nm) ¹⁵⁾
	IR-I (630 – 1750 nm)
	VIS / IR-II (500 – 2250 nm) ¹⁵⁾
	IR-II (1000 – 2250 nm)
Absolute accuracy ¹⁾	192 – 330 nm ²⁾
	330 – 375 nm
	375 – 800 nm
	800 – 1180 nm
	1180 – 2250 nm
Quick coupling accuracy (with 50 µm multi mode fiber)	
Wavelength deviation sensitivity/Measurement resolution ⁵⁾	
Linewidth option ¹⁰⁾ Estimation accuracy ⁶⁾	
Measurement speed	
Minimum required input energy and power ⁸⁾	Standard (VIS)
	UV-I
	UV-II
	IR-I
	IR-II ⁹⁾
FSR of the Fizeau interferometers (Fine/wide mode) ¹⁰⁾	
Calibration ¹⁶⁾	
Recommended calibration period	
Warm-up time	
Dimensions L × W × H	
Weight	
Interface	
Power supply	

Unit	WS5	WS6-600	WS6-200	WS7-60	WS7-30	WS8-10 	WS8-2 
							
							
							
							
				 ¹⁸⁾			
							
					 ¹⁷⁾		
pm	3	0.6	0.3	0.2	0.1	0.1 ¹⁹⁾	–
	3000	900	300	100	50	20 ³⁾	10 ⁴⁾
	3000	600	200	60	30	10 ³⁾	2 ⁴⁾
	2000	500	150	50	25	8 ³⁾	2 ⁴⁾
MHz	2000	400	120	40	20	8 ²⁰⁾	–
	3000	600	600	150	100	100	100
	500	20	4	2	1	0.2	0.1
	2000	500	400	200	200	100	100
Hz	950, on request IR-I and IR-II: 1500	950, on request IR-I and IR-II: 1500	500, Vis/IR-I: 950, on request IR-I and IR-II: 1500	500	500	1000	1000
	0.02 – 15	0.02 – 15	0.02 – 15	0.02 – 15	0.08 – 60	0.08 – 60	0.08 – 60
	0.02 – 10	0.02 – 10	0.02 – 10	0.02 – 10	0.08 – 40	–	–
μJ (or μW)	0.02 – 200	0.02 – 200	0.02 – 200	0.04 – 400	–	–	–
	2 – 200	2 – 200	2 – 200	2 – 200	8 – 800	8 – 800	–
	2 – 80	2 – 80	2 – 80	2 – 80	8 – 800	–	–
GHz	100	16/100 ¹¹⁾	16/100 ¹²⁾	8/32	4/32	2/20	2/20
	Built-in calibration			Built-in calibration ¹³⁾	Stabilized HeNe laser or any other well known laser source Δν < 5 MHz	SLR-780 or any other well known laser source Δν < 2 MHz	SLR-780 or any other well known laser source Δν < 1 MHz
	≤ 1 month			≤ 14 days	≤ 10 hours	≤ 1 hour	≤ 2 minutes
	No warm-up time under constant ambient conditions ¹⁴⁾					> 30 minutes	
mm	360 × 120 × 120	360 × 120 × 120	360 × 200 × 120	360 × 200 × 120	360 × 200 × 120	360×200×120 340×252×106	360×200×120 340×252×106
kg	2.8	2.8	5.5 ¹⁶⁾	5.9	6.1	6.4	6.4
	USB 2.0 connection					USB 3.0	USB 3.0
	UV-II, UV-I, Standard,Vis/IR-I: <2.5 W, WS8 all ranges: <4.5 W IR-I: <10 W, external power supply included IR-II: <30 W, external power supply included						

- 1) According to 3σ criterion, but never better than 20% of the laser linewidth.
- 2) With multi mode fiber.
- 3) ± 200 nm around calibration wavelength; outside of this range the accuracy as WS7-30.
- 4) ± 2 nm around calibration wavelength; outside of this range the accuracy as WS8-10; note 3 also applies.
- 5) Standard deviation within 1 minute. WS6-200 and higher models require singlemode or photonic crystal fibers to reach this resolution.
- 6) Not better than 20% of the linewidth.
- 7) Depending on PC hardware and settings. Ultra-fast models up to 76 kHz available.
- 8) The CW power interpretation in [µW] compares to an exposure of 1s (generally the energy needs to be divided by the exposure time to obtain the required power).
- 9) µJ interpretation for pulsed lasers. CW signals need more power in [µW] since the exposure is limited at IR-II instruments.
- 10) Each instrument in each mode can measure lasers with a linewidth up to 30% of the correspondig FSR. This option is not available for next generation wavemeters.
- 11) For IR instruments: 32/32.
- 12) For IR-I and IR-II instruments: 16/16.
- 13) IR and UV-II instruments: external calibration source needed, e. g. LFR-1532 or stabilized HeNe.
- 14) IR-II: > 30 min. warm-up, or until ambient equilibrium.
- 15) These instruments have a decreased power sensitivity by a factor of 4, compared to the Standard and IR ranges in the required input fields, respectively.
- 16) External source required for IR-I and IR-II instrument. Our recommendation: LFR-1532.
- 17) Photonic crystal switches can be used up to 2000 nm. Please contact HighFinesse if you want to measure over 2000 nm.
- 18) Measurement range WS7-60 IR-I: 520 – 1750 nm
- 19) Range is limited from 248 to 330 nm.
- 20) Range is limited up to 1750 nm.



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