WS7 Super-Precision Wavelength Meter

Absolute accuracy: 60 MHz, resolution: 10 MHz

Superb precision for a wide range of applications

The HighFinesse/Angstrom WS7 super-precision wavelength meter is a highly sensitive wavelength meter for pulsed and continuous laser sources.

The superb precision of the WS7 is achieved by using two sets of multiple interferometers in a special geometric configuration.

To enable customized applications even years after purchase, the WS7's design allows the integration of additional options.

The WS7 is connected to the PC via a USB interface. The wavelength meter is ready for use as soon as the software delivered with the device is installed. There is no warm-up time required under constant ambient conditions.

Enter a new world of accuracy!

Ångstrom

HighFinesse
Laser and Electronic Systems

Technical Data		WS7
Measurement range (nm)	Standard (350 – 1120)	●
	UV (248 – 1100)	●
	IR (800 – 1750)	●
	UV-II (192 – 800)	●
	IR-II (1000 – 2250)	●
Absolute accuracy [7]	192 – 370 nm (pm) [1]	0.2
	370 – 1100 nm (MHz)	60
	1100 – 2250 nm (MHz)	40
Quick coupling accuracy (with MM fiber)		200
Resolution (MHz)		10
Linewidth option: [4]	Accuracy (MHz) [3]	5 % (>200) [4]
	Max. bandwidth (GHz)	20
Measurement speed (Hz) (depending on PC hardware and settings)	Wavelength	150
	Interferometer picture	40
	Linewidth option	10
Required input power (µJ)	Standard	0.06 – 15
	UV	0.03 – 60
	IR	3 – 200
	UV-II	50 – 1000
	IR-II	250 – 3000
Fizeau interferometers [2]	FSR (GHz)	15 (100)
Coupling fiber diameter (µm)		400 µm or SM fiberset
Calibration		With supplied ext. source or any laser dv < 10 MHz
Calibration period		> 14 days
Warm-up time		No warm-up time under constant ambient conditions (except IR-II: > 30 minutes warm-up time required) Otherw. until thermal and air pressure equilibrium is reached.
Dimensions L × W × H (mm)		360 × 200 × 120
Weight (kg)		5.6
Interface		High-speed USB 2.0 connection
Power supply		Power consumption < 2.3 W, supply directly via USB cable IR-II: external power supply included

1) With MM fiber
2) Values for wide-/fine-mode
3) Only for standard range
4) Max. accuracy in () for narrow lasers
7) according 3σ criteria

Quick coupling with included multi mode fiber

Free-hand measurement with an accuracy of 200 MHz due to the high sensitivity and by default included multi mode fiber.

Typical WS7 applications

The WS7 is a high-resolution device for precision measurement in a wide variety of applications: molecular and atomic spectroscopy, gas detection with Raman scattering or laser-induced fluorescence, LIDAR systems, high-resolution spectroscopy, laser frequency stabilization and for calibration in combination with frequency combs.

Available WS7 options

- Linewidth (L)
- Multi-channel switcher (MC)
- PID-controller (PID)
- TTL-trigger (TTL)
- Double pulse (DP)

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