



Up until now our multichannel switches have always been limited in either the wavelength range for single mode switches, or accuracy for multimode switches. Our new PCF switches solve this problem. Using endlessly single mode photonic-crystal-fibers (PCF) allows us to produce a switch that offers single mode operation for all wavelengths. Using the PCF switch it is possible to switch between light-sources at any wavelength within the device's measurement range and maintain the full accuracy. Combining the PCF switch with other options such as PID control opens new possibilities.

Sold exclusively with the WS8 the PCF switches are available in two-channel (standard), four-channel, and eight-channel configurations.

The HighFinesse/Ångstrom WS8 and PCF switch: enter a new world of accuracy!

Technical Data

Measurement range	Standard (330 – 1180 nm)
	UV-I (248 – 1180 nm)
	UV-II (192 – 800 nm)
	VIS / IR (330 – 1750 nm)
	VIS / IR-II (500 – 2250 nm)
	IR-I (630 – 1750 nm)
	IR-II (1000 – 2250 nm)
	IR-III (1400 – 11000 nm)
Absolute accuracy ¹⁾	192 – 330 nm ²⁾
	330 – 420 nm
	420 – 1100 nm
	1100 – 2250 nm
	1400 – 11000 nm
Quick coupling accuracy (with multi mode fiber)	
Wavelength deviation sensitivity/Measurement resolution ⁶⁾	
Linewidth option	Accuracy ⁷⁾
Measurement speed ⁸⁾	Standard
	UV-I
	UV-II
	IR-I
	IR-II ¹⁰⁾
	IR-III
Fizeau interferometers ¹¹⁾	
Calibration	
Recommended calibration period	
Warm-up time	
Dimensions L × W × H	
Weight	
Interface	
Power supply	

1) According to 3σ criterion
 2) With multi mode fiber
 3) ± 200 nm around calibration wavelength
 4) ± 2 nm around calibration wavelength
 5) 200 MHz for WS6-200 IR-III
 6) Only for standard range
 7) Not better than 5% of the linewidth.
 8) Depending on PC hardware and settings. Highspeed models up to 50 kHz available

Unit	WS5	WS6-600	WS6-200	WS7-60	WS7-30	WS8-10	WS8-2
	■	■	■	■	■	■	■
	■	■	■	■	■	□	□
	■	■	■	■	□	□	□
	■	■	■	□	□	□	□
	■	■	■	□	□	□	□
	■	■	■	■	■	■	□
	■	■	■	■	■	□	□
	■	□	■	□	□	□	□
pm	3	0.6	0.4	0.2	0.1	0.1	0.1
pm	2	0.3	0.2	0.04	0.02	0.01	0.01
MHz	3000	600	200	60	30	10 ³⁾	2 ⁴⁾
	2000	400	150	40	20	10 ³⁾	-
MHz	3000	-	200	-	-	-	-
	3000	600	600 ⁵⁾	150	100	100	100
MHz	1000	100	50	10	5	2	0.5
MHz	2000	500	400	200	100	100	100
Hz	950	950	500	500	500	500	500
	(IR: 2000)	(IR: 2000)	(IR: 1200)	(IR: 1200)	(IR: 1200)	(IR: 1200)	(IR: 1200)
μJ (or μW)	0.02 – 15	0.02 – 15	0.02 – 15	0.02 – 15	0.02 – 15	0.08 – 60	0.08 – 60
	0.02 – 10	0.02 – 10	0.02 – 10	0.02 – 10	0.02 – 10	-	-
	0.02 – 200	0.02 – 200	0.02 – 200	0.01 – 100	-	-	-
	2 – 200	2 – 200	1 – 100	2 – 200	2 – 200	8 – 800	-
	2 – 80	2 – 80	2 – 80	2 – 80	-	-	-
mW	1	-	1	-	-	-	-
GHz	100	16/100 ¹²⁾	16/100 ¹³⁾	8/32	4/32	2/20	2/20
Calibration	Built-in calibration ¹⁴⁾			Built-in calibration ¹⁵⁾	Stabilized HeNe laser or any other well known laser source Δv < 3 MHz		SLR-780 or any well known laser source Δv < 1 MHz
Recommended calibration period	≤ 1 month			≤ 14 days	≤ 10 hours	≤ 1 hour	≤ 2 minutes
Warm-up time	No warm-up time under constant ambient conditions ¹⁶⁾					> 30 minutes	
Dimensions L × W × H	360 × 120 × 120	360 × 120 × 120	360 × 200 × 120	360 × 200 × 120	360 × 200 × 120	360 × 200 × 120	360 × 200 × 120
Weight	2.8	2.8	5.5	5.9	6.1	6.4	6.4
Interface	High-speed USB 2.0 connection						
Power supply	Power consumption < 2.3 W, power provided directly via USB cable IR-II, IR-III: external power supply included; IR-I and WSU via USB or external power supply possible						

9) 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)
 10) μJ interpretation for pulsed lasers. CW signals need more power in [μW] since the exposure is limited at IR-II devices
 11) Values for fine/wide-mode 12) For IR devices: 32/32 13) For IR-I and IR-II devices: 16/16, for IR-III devices: 8/80
 14) IR-III: external reference required, e.g. SLR-1532
 15) IR-devices: external calibration source needed, e.g. SLR-1532
 16) IR-II: > 30 min. warm-up, or until ambient equilibrium