

page	SPECTROMETERS		
19	<b>AvaSpec-128</b>	Fiber Optic Spectrometer, 45 mm Avabench, 128 pixel PDA detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable and PS-12V/1.0A power supply. Specify grating, wavelength range and options	1.995,00
19	<b>AvaSpec-128-USB2</b>	Fiber Optic Spectrometer, 45 mm Avabench, 128 pixel PDA detector, USB powered high speed USB2 interface, incl AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	2.095,00
21	<b>AvaSpec-256</b>	Fiber Optic Spectrometer, 45 mm Avabench, 256 pixel CMOS detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable and PS-12V/1.0A power supply. Specify grating, wavelength range and options	2.390,00
21	<b>AvaSpec-256-USB2</b>	Fiber Optic Spectrometer, 45 mm Avabench, 256 pixel CMOS detector, USB powered high speed USB2 interface, incl AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	2.490,00
23	<b>AvaSpec-1024</b>	Fiber Optic Spectrometer, 75 mm Avabench, 1024 pixel CMOS detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable and PS-12V/1.0A power supply. Specify grating, wavelength range and options	3.190,00
23	<b>AvaSpec-1024-USB2</b>	Fiber Optic Spectrometer, 75 mm Avabench, 1024 pixel CMOS detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	3.290,00
31	<b>AvaSpec-ULS1024-USB2</b>	Ultra Low Straylight Fiber Optic Spectrometer, 75 mm Avabench, 1024 pixel CMOS detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	3.490,00
25	<b>AvaSpec-2048</b>	Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel CCD detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable and PS-12V/1.0A power supply. Specify grating, wavelength range and options	2.190,00
25	<b>AvaSpec-2048-USB2</b>	Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel CCD detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	2.290,00
31	<b>AvaSpec-ULS2048-USB2</b>	Ultra Low Straylight Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel CCD detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	2.490,00
30	<b>AvaSpec-2048L-USB2</b>	Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel 14x200µm CCD detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	2.490,00
31	<b>AvaSpec-ULS2048L-USB2</b>	Ultra Low Straylight Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel 14x200µm CCD detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	2.690,00
27	<b>AvaSpec-3648-USB2</b>	Fiber Optic Spectrometer, 75 mm Avabench, 3648 pixel CCD detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	2.490,00
31	<b>AvaSpec-ULS3648-USB2</b>	Ultra Low Straylight Fiber Optic Spectrometer, 75 mm Avabench, 3648 pixel CCD detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, specify grating, wavelength range and options	2.690,00
29	<b>AvaSpec-2048x14-USB2</b>	Fiber Optic Spectrometer, 75 mm Avabench, 2048x14 pixel back illum CCD detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interf cable, specify grating, wavelength range and options	3.950,00
31	<b>AvaSpec-ULS2048x14-USB2</b>	Ultra Low Straylight Fiber Optic Spectrometer, 75 mm Avabench, 2048x14 pixel back illum CCD detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interf cable, specify grating, wavelength range and options	4.150,00

page	NIR SPECTROMETERS		
33	<b>AvaSpec-256-NIR1.7</b>	Fiber Optic Spectrometer, 50 mm Avabench, 256 pixel InGaAs detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, 1000-1700nm, OSF-1000, specify NIR grating, wavelength range and slit	8.950,00
35	<b>AvaSpec-256-NIR2.0</b>	Fiber Optic Spectrometer, 50 mm Avabench, 256 pixel InGaAs detector with 2stage TEC, high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, 1000-2000nm, OSF-1000, specify NIR grating, wavelength range and slit	18.450,00
35	<b>AvaSpec-256-NIR2.2</b>	Fiber Optic Spectrometer, 50 mm Avabench, 256 pixel InGaAs detector with 2stage TEC, high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, 1000-2200nm, OSF-1000, specify NIR grating, wavelength range and slit	18.950,00
35	<b>AvaSpec-256-NIR2.5</b>	Fiber Optic Spectrometer, 50 mm Avabench, 256 pixel InGaAs detector with 2stage TEC, high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, 1000-2500nm, OSF-1000, specify NIR grating, wavelength range and slit	19.450,00

DUAL CHANNEL SPECTROMETERS USB1 PLATFORM			
36	<b>AvaSpec-128-2</b>	Dual Channel Fiber Optic Spectrometer, 45 mm Avabench, 128 pixel PDA detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable and PS-12V/1.0A power supply. Specify grating, wavelength range and options	2.690,00
36	<b>AvaSpec-256-2</b>	Dual Channel Fiber Optic Spectrometer, 45 mm Avabench, 256 pixel CMOS detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable and PS-12V/1.0A power supply. For both channels specify grating, wavelength range and options	3.390,00
36	<b>AvaSpec-1024-2</b>	Dual Channel Fiber Optic Spectrometer, 75 mm Avabench, 1024 pixel CMOS detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable and PS-12V/1.0A power supply. For both channels specify grating, wavelength range and options	4.790,00
36	<b>AvaSpec-2048-2</b>	Dual Channel Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel CCD detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable and PS-12V/1.0A power supply. For both channels specify grating, wavelength range and options	2.990,00

MULTICHANNEL SPECTROMETERS USB1 PLATFORM			
37	<b>AvaSpec-128-x-DT/RM</b>	Multichannel AvaSpec-128 Fiber Optic Spectrometer with master channel in Desktop (DT) or Rackmount (RM) housing, specify grating, wavelength range and options	2.595,00
		Add x-1 slave channels, price per channel, for all channels specify grating, wavelength range and options	695,00
37	<b>AvaSpec-256-x-DT/RM</b>	Multichannel AvaSpec-256 Fiber Optic Spectrometer with master channel in Desktop (DT) or Rackmount (RM) housing, specify grating, wavelength range and options	2.990,00
		Add x-1 slave channels, price per channel, for all channels specify grating, wavelength range and options	995,00
37	<b>AvaSpec-1024-x-DT/RM</b>	Multichannel AvaSpec-1024 Fiber Optic Spectrometer with master channel in Desktop (DT) or Rackmount (RM) housing, specify grating, wavelength range and options	3.790,00
		Add x-1 slave channels, price per channel, for all channels specify grating, wavelength range and options	1.695,00
37	<b>AvaSpec-2048-x-DT/RM</b>	Multichannel AvaSpec-2048 Fiber Optic Spectrometer with master channel in Desktop (DT) or Rackmount (RM) housing, specify grating, wavelength range and options	2.790,00
		Add x-1 slave channels, price per channel, for all channels specify grating, wavelength range and options	795,00

DUAL CHANNEL SPECTROMETERS USB2 PLATFORM			
36	<b>AvaSpec-128-2-USB2</b>	Dual Channel Fiber Optic Spectrometer, 45 mm Avabench, 128 pixel PDA detector, 2 x USB powered high speed USB2 interface, incl AvaSoft-Basic, 2x USB cable. For each channel specify grating, wavelength range and options	3.380,00
36	<b>AvaSpec-256-2-USB2</b>	Dual Channel Fiber Optic Spectrometer, 45 mm Avabench, 256 pixel CMOS detector, 2 x USB powered high speed USB2 interface, incl AvaSoft-Basic, 2x USB cable. For each channel specify grating, wavelength range and options	3.880,00
36	<b>AvaSpec-1024-2-USB2</b>	Dual Channel Fiber Optic Spectrometer, 75 mm Avabench, 1024 pixel CMOS detector, 2 x USB powered high speed USB2 interface, incl AvaSoft-Basic, 2x USB cable. For each channel specify grating, wavelength range and options	5.380,00
36	<b>AvaSpec-2048-2-USB2</b>	Dual Channel Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel CCD detector, 2 x USB powered high speed USB2 interface, incl AvaSoft-Basic, 2x USB cable. For each channel specify grating, wavelength range and options	3.780,00
36	<b>AvaSpec-2048L-2-USB2</b>	Dual Channel Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel 14x200µm CCD detector, 2 x USB powered high speed USB2 interface, incl AvaSoft-Basic, 2x USB cable. For each channel specify grating, wavelength range and options	4.180,00
36	<b>AvaSpec-3648-2-USB2</b>	Dual Channel Fiber Optic Spectrometer, 75 mm Avabench, 3648 pixel CCD detector, 2 x USB powered high speed USB2 interface, incl AvaSoft-Basic, 2x USB cable. For each channel specify grating, wavelength range and options	4.180,00
36	<b>AvaSpec-2048x14-2-USB2</b>	Dual Channel Fiber Optic Spectrometer, 75 mm Avabench, 2048x14 pixel back illum CCD detector, 2 x USB powered high speed USB2 interface, incl AvaSoft-Basic, 2x USB cable. For each channel specify grating, wavelength range and options	7.900,00

MULTICHANNEL SPECTROMETERS USB2 PLATFORM			
37	<b>AVS-DESKTOP-USB2</b>	Desktop for USB2 platform multichannel AvaSpec, incl. channel synchronization, USB2-hub, one DB26-IO connector and 100-240VAC power supply, supports max 4 rackmount unit spectrometer channels.	995,00
37	<b>AVS-RACKMOUNT-USB2</b>	19" Rackmount for USB2 platform multichannel AvaSpec, incl. channel synchronization, USB2-hub, one DB26-IO connector and 100-240VAC power supply, supports max 10 rackmount unit spectrometer channels.	1.195,00
37	<b>AvaSpec-128-USB2-RM</b>	Rackmount Unit Fiber Optic Spectrometer, 128 pixel PDA detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	1.690,00
37	<b>AvaSpec-256-USB2-RM</b>	Rackmount Unit Fiber Optic Spectrometer, 256 pixel CMOS detector, self powered high speed USB2 interface, incl AvaSoft-Basic, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	1.990,00
37	<b>AvaSpec-1024-USB2-RM</b>	Rackmount Unit Fiber Optic Spectrometer, 1024 pixel CMOS detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	2.690,00
37	<b>AvaSpec-ULS1024-USB2-RM</b>	Ultra Low Straylight Rackmount Unit Fiber Optic Spectrometer, 1024 pixel CMOS detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	2.890,00
37	<b>AvaSpec-2048-USB2-RM</b>	Rackmount Unit Fiber Optic Spectrometer, 2048 pixel CCD detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	1.890,00
37	<b>AvaSpec-ULS2048-USB2-RM</b>	Ultra Low Straylight Rackmount Unit Fiber Optic Spectrometer, 2048 pixel CCD detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	2.090,00
37	<b>AvaSpec-3648-USB2-RM</b>	Rackmount Unit Fiber Optic Spectrometer, 3648 pixel CCD detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	2.090,00

37	<b>AvaSpec-ULS3648-USB2-RM</b>	Ultra Low Straylight Rackmount Unit Fiber Optic Spectrometer, 3648 pixel CCD detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	2.290,00
37	<b>AvaSpec-2048x14-USB2-RM</b>	Rackmount Unit Fiber Optic Spectrometer, 2048x14 pixel back illum CCD detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	3.450,00
37	<b>AvaSpec-ULS2048x14-USB2-RM</b>	Ultra Low Straylight Rackmount Unit Fiber Optic Spectrometer, 2048x14 pixel back illum CCD detector, self powered high speed USB2 interface, incl. AvaSoft-Basic software, USB cable and sync cable, specify grating, wavelength range and options. Desktop/Rackmount needs to be ordered separately	3.650,00
37	<b>AvaSpec-256-NIR1.7-RM</b>	Rackmounted Unit Fiber Optic Spectrometer, 50 mm Avabench, 256 pixel InGaAs detector, USB powered high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, 1000-1700nm, OSF-1000, specify NIR grating, wavelength range and slit	8.950,00
37	<b>AvaSpec-256-NIR2.0-RM</b>	Rackmounted Unit Fiber Optic Spectrometer, 50 mm Avabench, 256 pixel InGaAs detector with 2stage TEC, high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, 1000-2000nm, OSF-1000, specify NIR grating, wavelength range and slit	18.450,00
37	<b>AvaSpec-256-NIR2.2-RM</b>	Rackmounted Unit Fiber Optic Spectrometer, 50 mm Avabench, 256 pixel InGaAs detector with 2stage TEC, high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, 1000-2200nm, OSF-1000, specify NIR grating, wavelength range and slit	18.950,00
37	<b>AvaSpec-256-NIR2.5-RM</b>	Rackmounted Unit Fiber Optic Spectrometer, 50 mm Avabench, 256 pixel InGaAs detector with 2stage TEC, high speed USB2 interface, incl. AvaSoft-Basic, USB interface cable, 1000-2500nm, OSF-1000, specify NIR grating, wavelength range and slit	19.450,00
	<b>CONN-DB26-RM</b>	Extra DB26-IO connector output for Desktop/Rackmount for USB2 platform multichannel AvaSpec	195,00
			Price (€)

page	PRECONFIGURED AND SPECIAL SPECTROMETERS		
	<b>AvaSpec-EDU-VIS</b>	Educational Fiber Optic VIS spectrometer, 2048 pixels, grating VB(350-850nm), no slit, USB2 interface	999,00
	<b>AvaSpec-EDU-UV/VIS</b>	Educational Fiber Optic UV/VIS spectrometer, 2048 pixels, grating UA(200-850nm), DUV400, no slit, USB2 interface	1.299,00
38	<b>AvaSpec-2048-USB2-UA-50</b>	Fiber Optic UV/VIS/NIR spectrometer, 2048 pixels, grating UA(200-1100nm), slit-50, DUV400, OSC-UA, DCL-UV/VIS, USB2 interface, incl. AvaSoft-full, USB interface cable	2.468,00
38	<b>AvaSpec-3648-USB2-UA-25</b>	Fiber Optic UV/VIS/NIR spectrometer, 3648 pixel CCD detector, Slit 25, DUV3648, OSC-UA, USB powered USB2 high speed interface. including Avasoft-Full.	2.524,00
38	<b>AvaSpec-2048-USB2-VA-50</b>	Fiber Optic VIS/NIR spectrometer, 2048 pixels, grating VA(360-1100nm), slit-50, OSC, DCL-UV/VIS, USB2 interface, incl. AvaSoft-full, USB interface cable	2.240,00
38	<b>AvaSpec-2048-USB2-VA-200</b>	Fiber Optic VIS/NIR spectrometer, 2048 pixels, grating VA(360-1100nm), slit-200, OSC, DCL-UV/VIS, USB2 interface, incl. AvaSoft-full, USB interface cable	2.240,00
39	<b>AvaSpec-2048TEC</b>	Thermo-Electric Cooled Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel TE cooled CCD detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable in desktop housing. Specify grating, wavelength range and options.	3.790,00
39	<b>AvaSpec-2048TEC-USB2</b>	Thermo-Electric Cooled Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel TE cooled and regulated CCD detector, USB2 high speed interface, incl AvaSoft-Basic, USB cable in desktop housing. Specify grating, wavelength range and options.	4.485,00
39	<b>AvaSpec-3648TEC-USB2</b>	Thermo-Electric Cooled Fiber Optic Spectrometer, 75 mm Avabench, 3648 pixel TE cooled and regulated CCD detector, USB2 high speed interface, incl AvaSoft-Basic, USB cable in desktop housing. Specify grating, wavelength range and options.	4.685,00
	<b>AvaSpec-2048TEC-2</b>	Dual channel Thermo-Electric Cooled Fiber Optic Spectrometer, 2 * 75 mm Avabench, 2048 pixel TE cooled CCD detector, USB1.1/RS-232 interface, incl AvaSoft-Basic, USB cable in desktop housing. For 2 channels specify grating, wavelength range and options.	5.585,00

<b>AvaSpec-2048TEC-USB2-2</b>	Dual channel Thermo-Electric Cooled Fiber Optic Spectrometer, 75 mm Avabench, 2048 pixel TE cooled and regulated CCD detector, USB2 high speed interface, incl AvaSoft-Basic, USB cable in desktop housing. Specify grating, wavelength range and options	7.285,00
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**SPECTROMETER OPTIONS**

	<b>-SPU</b>	incl. switch for USB powered USB1, or external power for RS232	free
	<b>-SPU2</b>	incl. switch for USB powered USB2 or external power for RS232	free
41	<b>-SPU2-BT</b>	Bluetooth interface for USB2 platform only, including antenna	390,00
	<b>SD2G</b>	Internal 2 GB SD card for on board data saving with AS5216-DLL, for USB2 platform only	190,00
	<b>DUV</b>	>150 nm Deep UV detector coating, only for AvaSpec-2048/3648 <350 nm	245,00
	<b>DCL-VIS</b>	Detector collection lens to enhance sensitivity, only for AvaSpec-128	95,00
	<b>DCL-UV/VIS</b>	Detector collection lens for AvaSpec-2048/3648 to enhance sensitivity, Quartz, 200-1100 nm	130,00
	<b>DCL-UV/VIS-200</b>	Detector collection lens for AvaSpec-2048L/3648/2048x14 for >200µm fibers, to enhance sensitivity, Quartz, 200-1100nm.	140,00
	<b>Slit-XX</b>	Slit size, please specify XX = 10, 25, 50, 100, 200, 500 µm	130,00
	<b>OSF-YYY</b>	Order sorting filter for reduction of second order effects (1mm <2%), please specify YY= 385, 475, 515, 550, 600 nm	45,00
16	<b>OSF-YYY-3</b>	Order sorting filter for reduction of second order effects (filter 3mm <0.01%), please specify YY= 385, 475, 515, 550, 600 nm	45,00
16	<b>OSC</b>	Order sorting coating with 590nm long pass filter for VA, BB and VB gratings in AvaSpec-1024/2048/3648	150,00
16	<b>OSC-UA</b>	Order sorting coating with 350 and 590nm longpass filter for UA gratings in AvaSpec-1024/2048/3648	190,00
16	<b>OSC-UB</b>	Order sorting coating with 350 and 590nm longpass filter for UB and BB gratings starting <350nm in AvaSpec-1024/2048/3648	190,00
16	<b>OSC-NIR</b>	Order sorting coating with 1400nm longpass filter for NIR100-2.5 and NIR150-2.0 gratings in AvaSpec-NIR256-2.2/2.5	0,00
	<b>Purge</b>	set of 4 mm Gasfittings for AvaSpec purging in DUV (<200nm) applications	199,00
	<b>-FCPC</b>	FCPC entrance connector on AvaSpec instead of SMA	100,00
			Price (€)

**page SPECTROMETER ACCESSORIES**

46	<b>IC-DB9-2</b>	Interface cable AvaSpec to RS-232, 9 pole, 2m	34,00
46	<b>IC-DB15-2</b>	Interface cable AvaSpec to AvaLight-S with shutter for auto save dark/ lamp off, AvaLight-XE control, 2m	34,00
46	<b>IC-DB26-2</b>	Interface cable AvaSpec-USB2 platform to DB15 for AvaLight-S with shutter for auto save dark/ lamp off, AvaLight-XE control, 2m	99,00
46	<b>IC-DB26/DB9-2</b>	Interface cable AvaSpec-USB2 platform DB26 male to RS232 DB9 female cable, 2m	99,00
46	<b>IC-DB26/DB9/DB15-2</b>	Interface Y cable AvaSpec-USB2 platform to RS-232 (DB9) and AvaLight-S (DB15) with shutter for auto save dark/ lamp off, AvaLight-XE control, 2m	139,00
46	<b>IC-Extrig-2</b>	Interface cable AvaSpec-USB1 to External trigger pushbutton, 2m	99,00
46	<b>IC-Extrig-USB2</b>	Interface cable AvaSpec-USB2 to External trigger pushbutton, 2m	99,00
46	<b>IC-DB26-EXTRIG-BNC-2</b>	Interface cable AvaSpec-USB2 platform to BNC plug External trigger, 2 m	99,00
46	<b>IC-DB15-Extrig-2</b>	Interface Y-cable AvaSpec to External trigger pushbutton and AvaLight-S with shutter, 2m	139,00
46	<b>IC-DB26-Extrig-USB2</b>	Interface Y-cable AvaSpec-USB2 to External trigger pushbutton and AvaLight-S with shutter, 2m	139,00
46	<b>IC-DB15-FOS2-2</b>	Interface Y-cable AvaSpec-USB1 platform to FOS-2 and AvaLight-S with shutter, 2m	149,00
46	<b>IC-DB26-FOS2-2</b>	Interface Y-cable AvaSpec-USB2 platform to FOS-2 and AvaLight-S with shutter, 2m	149,00
46	<b>IC-USB-2</b>	Interface cable AvaSpec to USB port on PC, 2m	18,00
46	<b>IC-USB2-2</b>	USB2 Interface cable AvaSpec-USB2 to USB port on PC, 2m	29,00
46	<b>IC-COAX-SMB-0,25</b>	Synchronization coax cable with 2 SMB connectors 0.25m for Avaspec USB2 platform	50,00
47	<b>NL-calibration</b>	Non-linearity calibration service (per channel)	100,00
47	<b>Spectral-cal-service</b>	Spectral calibration service for an AvaSpec, incl. calibration sheet	150,00
	<b>AvaSpec-upgrade</b>	AvaSpec (< 3 years old) upgrade (per channel), change in grating, options (add price of additional options)	350,00

<b>AvaSpec-SPU upgrade</b>	Spectrometer upgrade, change to Self Powered USB1, possible for all existing AvaSpec-102/256/1024/2048 1&2 channels	150,00
<b>AvaSpec-TEC upgrade</b>	Spectrometer upgrade, change AvaSpec-2048/3648 to AvaSpec-2048/3648TEC, incl desktop housing	1.950,00
<b>AvaSpec Product Case</b>	Product case for Spectrometers, fiberoptics and light sources	145,00

**page SPECTROMETER SYSTEMS**

**Raman System**

49	<b>Ava-Raman-785-USB2</b>	Raman System, includes 500 mW 785 nm diode laser, AvaSpec-2048-USB2, grating IB (100-2700cm-1), slit-50, DCL-UV/VIS , AvaSoft-Raman software and 785nm laser safety goggles.	11.900,00
49	<b>Ava-Raman-785TEC-USB2</b>	Raman System, includes 500 mW 785 nm, TE-controlled diode laser, AvaSpec-2048TEC-USB2, grating NC (100-2100cm-1), slit-25, DCL-UV/VIS, AvaSoft-Raman and 785nm laser safety goggles.software	14.500,00
49	<b>Ava-Raman-532-USB2</b>	Raman System, includes 50 mW 532 nm diode laser, AvaSpec-2048-USB2, grating NC (100-5400cm-1), slit-25, DCL-UV/VIS, AvaSoft-Raman software and 532nm laser safety goggles.	11.900,00
49	<b>Ava-Raman-532TEC-USB2</b>	Raman System, includes 50 mW 532 nm diode laser, AvaSpec-2048TEC-USB2, grating NC (100-5400cm-1), slit-25, DCL-UV/VIS, AvaSoft-Raman software and 532nm laser safety goggles.	14.500,00
49	<b>AvaRaman-PRB-XXX</b>	3/8" Standard low cost fiber optic Raman focusing probe, specify XXX=Excitation wavelength	2.490,00
49	<b>AvaRaman-PRB-FP-XXX</b>	1/2" SS focusing probe with 90 µm excitation and 200 µm read fiber, specify XXX=Excitation wavelength	4.490,00
49	<b>AvaRaman-PRB-FIP-XXX</b>	5/8" SS focusing probe for in-situ measurements with 100 µm excitation and 200 µm read fiber, specify XXX=Excitation wavelength	6.950,00
49	<b>AvaRaman-PRB-FC-XXX</b>	3/8" SS focusing probe for in-situ measurements with 100 µm excitation and 200 µm read fiber (500 degr. C and 3000psi), specify XXX=Excitation wavelength	7.990,00
49	<b>Ava-Raman-SH-3/8"</b>	Rugged sample holder for secure positioning of 3/8" Raman probes	790,00
49	<b>Ava-Raman-SH-1/2"</b>	Rugged sample holder for secure positioning of 1/2" Raman probes	790,00
49	<b>AvaRaman-Calibrationtile</b>	PTFE white tile in holder for 3/8" Raman probe	290,00

**LIBS System**

52	<b>AvaLIBS</b>	LIBS System and components, pricing available on request, contact our sales staff	on request
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page	SOFTWARE	
54	<b>AvaSoft-Basic</b>	Basic Spectrometer software for Windows95/98/2000/NT/ME/XP/Vista for the AvaSpec free
55	<b>AvaSoft-Full</b>	Spectrometer software version 7 for Windows95/98/2000/NT/ME/XP/Vista for the AvaSpec 199,00
55	<b>AvaSoft-All</b>	Spectrometer software version 7 including applications Color, Irradiance, Chemometrics, Excel and Process Control for Windows95/98/2000/NT/ME/XP/Vista for the AvaSpec 399,00
56	<b>AvaSoft-COL</b>	Color application add-on software, to be ordered with AvaSoft-full 99,00
57	<b>AvaSoft-IRRAD</b>	Irradiance application add-on software, to be ordered with AvaSoft-full 99,00
58	<b>AvaSoft-CHEM</b>	Chemometry application add-on software for concentration measurements, to be ordered with AvaSoft-FULL 99,00
59	<b>AvaSoft-XLS</b>	Export online to Excel add-on software, to be ordered with AvaSoft-full 99,00
60	<b>AvaSoft-PROC</b>	Process control application add-on software, to be ordered with AvaSoft-full. Controls 8 on-board TTL output signals 99,00
60	<b>AvaSoft-FOM</b>	Fiber Optic Multiplexer integration stand-alone Software 399,00
61	<b>AvaSoft-Raman</b>	Raman stand-alone software for the AvaRaman system 399,00
61	<b>AvaSoft-Thinfilm</b>	Thin film stand-alone software for the AvaThinfilm system 995,00
62	<b>Panorama-Pro</b>	Spectroscopic Mathematic Dataprocessing Software package, 2D/3D display 1.500,00
62	<b>Panorama-Search</b>	Add-on to Panorama Pro, incl library module & spectrum search module 750,00
62	<b>Panorama-Quantify</b>	Add-on to Panorama Pro, incl Multivariate Data Analysis with PLS, MLR 950,00
62	<b>Panorama-Raman</b>	Add-on to Panorama Pro, incl Raman Interpretation and functional group assignment 950,00
62	<b>Panorama-Security</b>	Add-on to Panorama Pro, full 21 CFR part 11 compliance. Ideal for FDA/GXP regulated environments 950,00
63	<b>AvaLIBS-Specline-A</b>	Spectroscopy software for peak finding and identifying spectral lines, complete version with database for atoms and ions according to list on request
63	<b>AvaLIBS-Specline-AM</b>	Spectroscopy software for peak finding and identifying spectral lines and molecular bands, complete version with data base for atoms, molecules and ions on request
63	<b>AvaLIBS-Specline-AMS</b>	Spectroscopy software for peak finding and identifying spectral lines and molecular bands, complete version with data base for atoms, molecules, extended by many special molecules (e.g molecular hydrogen and polyatomic molecules) on request
64	<b>TFProbe</b>	Thinfilm multilayer measurement software 3.570,00
66	<b>AS-161-DLL</b>	Interface DLL package for AvaSpec-USB1 platform for Windows 95/98/2000/ME/NT/XP/Vista, incl. sample programs 399,00
66	<b>AS-5216-DLL</b>	Interface DLL package for AvaSpec-USB2 platform for Windows 95/98/2000/ME/NT/XP/Vista, incl. sample programs 399,00
66	<b>FOM-DLL</b>	Interface DLL driver package for FOM Fiber Optic Multiplexer for Windows95/98/ 2000 - ME/NT/XP/Vista, including sample programs for C++, Delphi and Labview 199,00
66	<b>COLOR-DLL</b>	32-bit DLL for Windows 95/98/2000/ME/NT/XP/Vista to calculate L*,a*,b* etc color coefficients 199,00
66	<b>IRRAD-DLL</b>	32-bit DLL for Windows 95/98/2000/ME/NT/XP/Vista for Irradiance/LED applications 199,00

LIGHT SOURCES			
69	<b>AvaLight-DHc</b>	Compact Deuterium/Halogen light source 200-2500nm with TTL-shutter, needs extra PS-12V/1.0A	1.350,00
69	<b>AvaLight-DHc-RM</b>	Compact Rackmount Deuterium/Halogen light source 200-2500 nm with TTL-shutter	1.390,00
69	<b>AvaLight-DHc-B</b>	Compact Deuterium/Halogen replacement bulb	395,00
71	<b>AvaLight-HAL</b>	10W Tungsten Halogen Lamp, fan-cooled, needs extra PS-24V/1.25A power supply	490,00
71	<b>AvaLight-HAL-S</b>	10W Tungsten Halogen Lamp, fan-cooled, incl. TTL shutter, needs extra PS-24V/1.25A	690,00
71	<b>AvaLight-HAL-S-IND</b>	10W Tungsten Halogen Lamp, fan-cooled, incl. TTL shutter, incl industrial connector and PS-24V/1.25A, Europlug standard, otherwise please specify -UK, -USA, -AUS	795,00
71	<b>AvaLight-HAL-S-RM</b>	Rack mounted version of the 10W Tungsten Halogen Lamp, fan-cooled, incl. TTL shutter	790,00
71	<b>AvaLight-HAL-B</b>	10W, 4000 hrs. Tungsten Halogen Replacement bulb for AvaLight-HAL, AvaLight-HAL-S	15,00
71	<b>HAL-S-IND-UPGRADE</b>	Upgrade from HAL-S to HAL-S-IND, incl. industrial connector please return with PS-24V/1.25A	95,00
71	<b>GL-XXX-Y</b>	External Glass Filter 50x50xY mm for Lamp or Filter holder (see table page 71)	49,00
71	<b>GL-BG28-Y</b>	External Glass Filter BG28 50x50xY mm for Lamp or Filter holder	129,00
73	<b>AvaLight-D-S</b>	Deuterium light source, 215-400 nm, incl. TTL shutter, -SR fibers needed	2.095,00
73	<b>AvaLight-DH-S</b>	Deuterium-Halogen light source, 215-2500 nm, incl. TTL shutter, -SR fibers needed	2.195,00
73	<b>AvaLight-D-S-DUV</b>	Deep UV deuterium light source, 190-400 nm, incl. TTL shutter, -SR fibers needed	2.195,00
73	<b>AvaLight-DH-S-DUV</b>	Deep UV deuterium-halogen light source, 190-2500 nm, incl. TTL shutter, -SR fibers needed	2.295,00
73	<b>AvaLight-DH-S-DUV-LL</b>	Deep UV deuterium-halogen light source, long-life 2000 hrs, 190-2500 nm, incl. TTL shutter, -SR fibers needed	2.395,00
73	<b>AvaLight-D-B</b>	Replacement deuterium bulb for AvaLight-D/AvaLight-DH light source	495,00
73	<b>AvaLight-D-B-DUV</b>	Replacement deep UV deuterium bulb for AvaLight-D/AvaLight DH light source	595,00
73	<b>AvaLight-D-B-DUV-LL</b>	Long life 2000 hrs, replacement deep UV deuterium bulb for AvaLight-D/AvaLight DH light source	695,00
73	<b>AvaLight-DH-B</b>	Replacement 5W halogen bulb for AvaLight-DH light source and AvaSphere-50-LS-HAL	15,00
74	<b>AvaLight-D-S-BAL</b>	Balanced Deuterium light source, 215-450 nm, incl. TTL shutter, -SR fibers needed	2.495,00
74	<b>AvaLight-DH-S-BAL</b>	Balanced Deuterium-Halogen light source, 215-2500 nm, incl. TTL shutter, -SR fibers needed	2.595,00
74	<b>DH-S-BAL upgrade</b>	Upgrade existing AvaLight-DH-S to an AvaLight-DH-S-BAL Balanced Deuterium-Halogen light source, 215-2000 nm	995,00
75	<b>Avalight-XE</b>	Xenon Light Source (200-1000nm), needs interface cable and extra PS-12V/1.0A power supply	995,00
75	<b>Avalight-XE-DUV</b>	Xenon Light Source for DUV (160-1000nm), needs interface cable and extra PS-12V/1.0A power supply	1.195,00
75	<b>Avalight-XE-RM</b>	Rack mounted Xenon Light Source (200-1000nm), needs interface cable and extra PS-12V/1.0A power supply	995,00
75	<b>Avalight-XE-B</b>	Spare bulb for the Avalight-XE (200-1000nm)	375,00
75	<b>Avalight-XE-B-DUV</b>	Spare bulb for the Avalight-XE-DUV (160-1000nm)	550,00
77	<b>AvaLight-HAL-CAL</b>	NIST traceable Halogen Lamp with CC-VIS/NIR diffuser, incl. calibrated PS-24V/1.25A	870,00
77	<b>AvaLight-HAL-CAL-ISP30</b>	NIST traceable Halogen Lamp for use with AvaSphere-30-IRRAD, incl. calibrated PS-24V/1.25A and special sphere holder bottomplate BOTTOM PLATE-30-CAL	870,00
77	<b>AvaLight-HAL-CAL-ISP50</b>	NIST traceable Halogen Lamp for use with AvaSphere-50-IRRAD, incl. calibrated PS-24V/1.25A and special sphere holder bottomplate BOTTOM PLATE-50-CAL	870,00
77	<b>AvaLight-HAL-CAL-ISP80</b>	NIST traceable Halogen Lamp for use with AvaSphere-80-IRRAD, incl. calibrated PS-24V/1.25A and special sphere holder bottomplate BOTTOM PLATE-80-CAL	990,00
77	<b>AvaSphere-50-LS-HAL-CAL</b>	NIST traceable radiance calibration source, 10mm and SMA adapter calibrated, incl PS-24V/1.25A	2.190,00
77	<b>HL-Recal</b>	AvaLight-HAL-CAL (re)calibration service	195,00
77	<b>HL-Recal-NIR</b>	AvaLight-HAL-CAL (re)calibration service for 1100-2500nm	250,00
77	<b>AvaLight-D-CAL</b>	NIST traceable UV Deuterium Lamp with CC-UV/VIS diffuser, -SR fibers recommended	2.195,00
77	<b>AvaLight-DH-CAL</b>	NIST traceable UV/VIS Deuterium/Halogen Lamp with CC-UV/VIS diffuser, -SR fibers recommended	2.495,00

77	<b>AvaLight-DH-BAL-CAL</b>	NIST traceable balanced UV/VIS Deuterium/Halogen Lamp with CC-UV/VIS diffuser, -SR fibers recommended	2.995,00
77	<b>AvaLight-DH-CAL-ISP30</b>	NIST traceable UV/VIS Deuterium/Halogen Lamp for use with AvaSphere-30-IRRAD, incl. special sphere holder bottomplate, -SR fibers recommended	2.495,00
77	<b>AvaLight-DH-CAL-ISP50</b>	NIST traceable UV/VIS Deuterium/Halogen Lamp for use with AvaSphere-50-IRRAD, , incl. special sphere holder bottomplate, -SR fibers recommended	2.495,00
77	<b>AvaLight-DH-CAL-ISP80</b>	NIST traceable UV/VIS Deuterium/Halogen Lamp for use with AvaSphere-80-IRRAD, , incl. special sphere holder bottomplate, -SR fibers recommended	2.495,00
77	<b>DH-Recal</b>	AvaLight-DH-CAL (re)calibration service	390,00
78	<b>AvaLight-CAL</b>	Mercury Argon Calibration source , 5000 hrs, needs extra PS-12V/1.0A power supply, SMA	390,00
78	<b>AvaLight-CAL-NEON</b>	Neon Calibration source, 5000 hrs, needs extra PS-12V/1.0A power supply, SMA	390,00
78	<b>AvaLight-CAL-AR</b>	Argon Calibration source, 5000 hrs, needs extra PS-12V/1.0A power supply, SMA	390,00
78	<b>AvaLight-CAL-RM</b>	Rack mounted version of Mercury-Argon Calibration source, SMA	460,00
78	<b>AvaLight-CAL-B</b>	Replacement bulb, 5000 hrs, Mercury-Argon	139,00
78	<b>AvaLight-CAL-NEON-B</b>	Replacement bulb, 5000 hrs, Neon	139,00
78	<b>AvaLight-CAL-AR-B</b>	Replacement bulb, 5000 hrs, Argon	149,00
79	<b>AvaLight-LED-XXX</b>	Miniature LED source specify wavelength XXX=380, 400, 475, 590 nm, other wavelengths available on request, needs extra PS-12V/1.0A	490,00
79	<b>AvaLight-LED-XXX-RM</b>	Rackmount version of Miniature LED source specify wavelength XXX=380, 400, 475, 590 nm	490,00
79	<b>AvaLight-LED-CON</b>	LED lightsource control unit with electrical connector to LED, needs interface cable and extra PS-12V/1.0A	390,00
79	<b>CUV-LED-XXX</b>	LED holder for cuvette, specify LED wavelength	190,00

page	FIBER OPTIC CABLES	
		specify fiber type xx = UV for UV/VIS (200-800 nm) ; xx = IR for VIS/NIR(350-2000 nm)
89	<b>FC-IR008-2</b>	Fiber cable, 8 µm fiber , 2 m. length, SMA Terminations 99,00
89	<b>FC-UV050-2</b>	Fiber cable, UV/VIS, 50 µm fiber, 2 m. length, SMA Terminations 149,00
89	<b>FC-IR050-2</b>	Fiber cable, VIS/NIR, 50 µm fiber, 2 m. length, SMA Terminations 99,00
89	<b>FC-xx100-2</b>	Fiber cable, 100 µm fiber, 2 m. length, SMA Terminations 99,00
89	<b>FC-xx200-2</b>	Fiber cable, 200 µm fiber, 2 m. length, SMA Terminations 99,00
89	<b>FC-xx400-2</b>	Fiber cable, 400 µm fiber, 2 m. length, SMA Terminations 119,00
89	<b>FC-xx600-2</b>	Fiber cable, 600 µm fiber, 2 m. length, SMA Terminations 169,00
89	<b>FC-xx800-2</b>	Fiber cable, 800 µm fiber, 2 m. length, SMA Terminations 269,00
89	<b>FC-xx1000-2</b>	Fiber cable,1000 µm fiber, 2 m. length, SMA Terminations 369,00
	<b>FC-UV400-1-SR-FIA</b>	Fiber cable, 400 µm fiber, UV/VIS, SR, 1 m. length, 1 SMA and 1,5mm ferrule for FIA-Z-CELL 245,00
89	<b>FCB-UV050-2</b>	Bifurcated fiber cable, 50 µm fibers, UV/VIS, 2 m. length, SMA Terminations 345,00
89	<b>FCB-IR050-2</b>	Bifurcated fiber cable, 50 µm fibers, VIS/NIR, 2 m. length, SMA Terminations 245,00
89	<b>FCB-xx100-2</b>	Bifurcated fiber cable, 100 µm fibers, 2 m. length, SMA Terminations 245,00
89	<b>FCB-xx200-2</b>	Bifurcated fiber cable, 200 µm fibers, 2 m. length, SMA Terminations 245,00
89	<b>FCB-xx400-2</b>	Bifurcated fiber cable, 400 µm fibers, 2 m. length, SMA Terminations 275,00
89	<b>FCB-xx600-2</b>	Bifurcated fiber cable, 600 µm fibers, 2 m. length, SMA Terminations 345,00
90	<b>FC4-xx200-2</b>	Four-furcated cable, 4x200 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 440,00
90	<b>FC4-xx400-2</b>	Four-furcated cable, 4x400 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 540,00
90	<b>FC4-xx600-2</b>	Four-furcated cable, 4x600 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 790,00
90	<b>FC5-xx200-2</b>	Five-furcated cable, 5x200 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 540,00
90	<b>FC5-xx400-2</b>	Five-furcated cable, 5x400 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 690,00
90	<b>FC6-xx200-2</b>	Six-furcated cable, 6x200 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 640,00
90	<b>FC6-xx400-2</b>	Six-furcated cable, 6x400 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 790,00
90	<b>FC8-xx200-2</b>	Eight-furcated cable, 8x200 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 840,00
90	<b>FC8-xx400-2</b>	Eight-furcated cable, 8x400 µm fibers , all legs SMA terminated, total 2m long, splitting point in the middle, specify xx=UV or IR or UV/IR 990,00
	<b>FCRL-7xx100-2</b>	Round to linear fiber cable, 7x 100 µm fibers, 2 m., SMA Terminations 290,00
	<b>FCRL-4xx200-2</b>	Round to linear fiber cable, 4x 200 µm fibers,2 m., SMA Terminations 290,00
85	<b>-ME</b>	Flexible Metal sheathing : Add per meter 15,00
85	<b>-MS</b>	Flexible Metal sheathing with silicone cover, IP67 : Add per meter 45,00
86	<b>-HT</b>	High temperature (max 200 dgr.C) for all metall sheathing cables and probes 46,00
84	<b>-SR (UV50)</b>	Solarization resistant fiber for DUV applications, 50 µm only, add per m 9,00
84	<b>-SR (UV100)</b>	Solarization resistant fiber for DUV applications, 100 µm only, add per m 2,00
84	<b>-SR (UV200)</b>	Solarization resistant fiber for DUV applications, 200 µm only, add per m 6,00
84	<b>-SR (UV400)</b>	Solarization resistant fiber for DUV applications, 400 µm only, add per m 12,00
84	<b>-SR (UV600)</b>	Solarization resistant fiber for DUV applications, 600 µm only, add per m 24,00
84	<b>-SR (UV800)</b>	Solarization resistant fiber for DUV applications, 800 µm only, add per m 36,00
88	<b>-ST</b>	ST connector termination instead of standard SMA905, per connector extra 10,00
88	<b>-FCPC</b>	FC/PC connector termination instead of standard SMA905, per connector extra 42,00

page	FIBER OPTIC PROBES		
91	<b>FCR-7xx200-2-ME</b>	Reflection Probe, 6 illumination, 1 read fiber, 200 µm fibers with flexible metal sheathing	395,00
91	<b>FCR-7xx400-2-ME</b>	Reflection Probe, 6 illumination, 1 read fiber, 400 µm fibers with flexible metal sheathing	595,00
92	<b>FCR-19xx200-2-ME</b>	Reflection probe, 17 illumination, 2 read fibers in separate legs, SMA, metal sheathing	695,00
91	<b>FCR-90-OPTION</b>	90° Reflection add-on reflector for use with all 1/4" reflection probes	195,00
91	<b>FCR-COL-UV/VIS</b>	Adjustable UV/VIS/NIR Collimating/focussing lens	195,00
93	<b>FCR-14xx200-2-REF-ME</b>	Reflection Probe with Reference, 2 m. length, SMA Term, with flexible metal sheathing	795,00
94	<b>FCR-7xx200-2-1,5x100</b>	Reflection probe, 6+1 fibers, 1.5x100 mm tip, 2m long	445,00
94	<b>FCR-7xx200-2-2,5x100</b>	Reflection probe, 6+1 fibers, 2.5x100 mm tip, 2m long	445,00
	<b>FCR-7UV100-2-1x25</b>	Reflection probe for AFH-Ocular, 6+1 UV/VIS fibers, 1.0 x 25 mm tip, 2m long	421,00
95	<b>FCR-7xx200-2-45-ME</b>	Reflection Probe, 45 degr. window for liquids and powders with flexible metal sheathing	645,00
96	<b>FCR-7xx200-2-45-IND</b>	1/2" Reflection Probe, 45 degr. window for liquids and powders with flexible metal sheathing	895,00
96	<b>FCR-TIP45</b>	1/2" Replacement tip with 45 degr. window for liquids and powders	295,00
97	<b>FCR-UV200/600-2-IND</b>	1/2" Reflection Probe for fluorescence applications	1.095,00
97	<b>FCR-FLTIP-IND</b>	Fluorescence Reflector Accessory for 1/2" FCR-45-IND probes	425,00
98	<b>FDP-UV-micro-yy</b>	1/16" Micro Dip probe, specify spacing yy (1, 2.5 or 5 mm) optical path = 2 * spacing	795,00
99	<b>FDP-2xx200-2-5-mini</b>	1/8" Mini Dip probe, 5 mm spacing, 10 mm path length, specify XX= UV (UV/VIS) or IR (VIS/NIR), 2m	695,00
100	<b>FDP-7xx200-2-yy</b>	Transmission dip probe, specify tip spacing yy 1, 2.5 or 5 mm (optical path=2*yy) ,metal sheat.	795,00
100	<b>FDP-TIP-yy</b>	Replacement tip for dip probe, specify tip spacing:yy (1, 2.5 or 5 mm)	245,00
	<b>FDP-14xx200-2-yy-REF-ME</b>	Transmission dip probe with reference, specify tip spacing yy 1, 2.5 or 5 mm (optical path=2*yy)	1.095,00
101	<b>FDP-7xx200-2-VAR</b>	Transmission dip probe with variable tip length (0.25-10 mm (optical path=0.5-20 mm)	895,00
101	<b>FDP-7xx200-2-VAR-PK</b>	Transmission dip probe in PEEK with variable tip length (0.25-10 mm (optical path=0.5-20 mm)	1.195,00
	<b>FDP-14xx200-2-VAR-REF-ME</b>	Transmission dip probe with variable tip length with reference (0.25-10 mm (optical path=0.5-20 mm)	1.295,00
101	<b>FDP-TIP-VAR</b>	Replacement Stainless Steel tip for Transmission dip probe with variable tip length	295,00
101	<b>FDP-TIP-VAR-PEEK</b>	Replacement PEEK tip for Transmission dip probe with variable tip length	445,00
FIBER OPTIC ACCESSORIES			
103	<b>COL-UV/VIS</b>	Collimating lens for UV/VIS/NIR, incl. SMA adapter, adjustable focus	109,00
103	<b>COL-UV/VIS-FCPC</b>	Collimating lens for UV/VIS/NIR, incl. FC/PC adapter, adjustable focus	129,00
103	<b>COL-90-UV/VIS</b>	Right angle collimating lens for UV/VIS/NIR, incl. SMA conn.	299,00
103	<b>COL-UV/VIS-25</b>	Collimating lens 25 mm for UV/VIS/NIR, incl SMA adapter and adjustable focus	990,00
104	<b>CC-UV/VIS</b>	Cosine Corrector for UV/VIS with SMA coupling	139,00
104	<b>CC-UV/VIS/NIR-5.0</b>	Cosine Corrector with Radin diffusing material for UV/VIS/NIR, special 5.0 degrees aperture, SMA coupling.	1.250,00
104	<b>CC-VIS/NIR</b>	Cosine Corrector Radin for UV/VIS/NIR with SMA coupling	199,00
104	<b>CC-UV/VIS/NIR-8MM</b>	Cosine Corrector with Radin diffusing material for UV/VIS/NIR, 8mm active area, SMA	249,00
105	<b>FC-VFT-xx50</b>	Vacuum feedthrough for 50 µm fibers, incl. SMA adapter, needs 2 extra SMA interconnects	249,00
105	<b>FC-VFT-xx100</b>	Vacuum feedthrough for 100 µm fibers, incl. SMA adapter, needs 2 extra SMA interconnects	249,00
105	<b>FC-VFT-xx200</b>	Vacuum feedthrough for 200 µm fibers, incl. SMA adapter, needs 2 extra SMA interconnects	249,00
105	<b>FC-VFT-xx400</b>	Vacuum feedthrough for 400 µm fibers, incl. SMA adapter, needs 2 extra SMA interconnects	249,00
105	<b>FC-VFT-xx600</b>	Vacuum feedthrough for 600 µm fibers, incl. SMA adapter, needs 2 extra SMA interconnects	249,00
105	<b>FC-VFT-xx800</b>	Vacuum feedthrough for 800 µm fibers, incl. SMA adapter, needs 2 extra SMA interconnects	249,00
105	<b>FC-VFT-xx1000</b>	Vacuum feedthrough for 1000 µm fibers, incl. SMA adapter, needs 2 extra SMA interconnects	249,00

		interconnects	
106	<b>MMA1-UV/VIS-SMA</b>	Mode mixer , 1 mm diameter, UV/VIS/NIR, SMA	199,00
106	<b>MMA3-UV/VIS-SMA</b>	Mode mixer , 3 mm diameter, UV/VIS/NIR, SMA	199,00
	<b>AVS-MFA-SMA</b>	Microscope/telescope fiber adapter SMA with C-mount thread	150,00
107	<b>RPH-1</b>	Reflection probe holder for straight or 45 degree measuring	79,00
107	<b>AFH-15</b>	Angled fiber probe holder for measuring under different angles, needs 1.5 mm ferrule fibers	249,00
107	<b>FC-UV200-2-1.5x40</b>	Fiber cable, 200µm UV/VIS fiber, 2m long, one end with SMA connector, other end with stainless steel ferrule, OD=1.5 mm x 40 mm length	183,00
107	<b>AFH-Ocular</b>	Angled fiber probe holder for precise measurements under 45 degrees, incl. ocular. Needs FCR-7UV100-2-1x25	495,00
107	<b>FCR-7UV100-2-1x25</b>	Reflection probe with 7x100µm UV/VIS fibers to 1x25 mm stainless steel ferrule, 2 meter long with PVC/Kevlar protection sleeve and 2 SMA connectors	421,00

Price (€)

**FIBER OPTIC ACCESSORIES**

108	<b>MWS-1</b>	Multipurpose work stand with 1 rod 300mm long, 14mm diameter	295,00
108	<b>MWS-2</b>	Multipurpose work stand with 2 rods 300mm long, 14mm diameter	345,00
108	<b>MWS-CLIP4</b>	Fiber Optic Cable Clip with 4 channels	195,00
108	<b>MWS-PBHLD-6.35</b>	Probe holder for standard reflection probes	165,00
108	<b>MWS-PBHLD-1.5</b>	Probe holder 1.5mm ferrule terminated fibers	165,00
108	<b>MWS-PBHLD-MULT</b>	Multiple Probe holder	165,00
108	<b>MWS-PBHLD-1.5-30</b>	Angular Probe holder 1.5mm ferrule terminated fibers	195,00
108	<b>MWS-AWD-15</b>	SMA Fiber holder adjustable working distance 15mm	245,00
108	<b>MWS-AWD-30</b>	SMA Fiber holder adjustable working distance 30mm	245,00
108	<b>MWS-SAPLC-10</b>	Rod mounted sample platforms with 10 mm diameter aperture and Clip	195,00
110	<b>ME-FI-SM-MM</b>	SMA fiber interconnect, panel mountable	10,00
110	<b>ME-FI-ST-MM</b>	ST fiber interconnect, panel mountable	10,00
110	<b>ME-FI-FCPC-MM</b>	FC/PC fiber interconnect, panel mountable	29,00
110	<b>ME-SM-BC</b>	SMA to TO18 adapter	24,00
110	<b>ME-SM-BC-S</b>	SMA to TO5 adapter	19,00
110	<b>ME-ST-BC</b>	ST Bulkhead adapter	14,00
110	<b>ME-FCPC-BC</b>	FC/PC Bulkhead adapter	29,00

page	ACCESSORIES		
113	<b>PS-12V/1.0A</b>	Power supply 100-240VAC/12VDC, 1.0A, necessary for AvaLight-XE, AvaLight-DHc, AvaLight-LED, AvaLight-CAL. Europlug standard, otherwise please specify -UK, -US, -AUS	39,00
113	<b>PS-24V/1.25A</b>	Power supply 100-240VAC/24VDC, 1.25A, necessary for AvaLight-HAL. Europlug standard, otherwise please specify -UK, -US, -AUS	80,00
115	<b>Batterypack-5+12V/13Ah</b>	Battery pack 5 and 12VDC, 13Ah	795,00
115	<b>Batterypack-5+12V/13Ah-RM</b>	Battery pack 5 and 12VDC, 13Ah, Rackmounted version	795,00
115	<b>Batterypack-12V/1.5Ah</b>	Battery pack 12 VDC, 1500mAh	395,00
115	<b>Batterypack-12V/1.5Ah-RM</b>	Battery pack 12 VDC, 1500mAh, Rackmounted version	395,00
115	<b>Batterypack-24V/3.2Ah</b>	Battery pack 24 VDC, 3200mAh	695,00
115	<b>Batterypack-24V/3.2Ah-RM</b>	Battery pack 24 VDC, 3200mAh, Rackmounted version	695,00
115	<b>Batterypack-charger 5V/2.5A</b>	Charger for batterypack 5VDC, input 100-240 VAC, 2.5A, Europlug standard, otherwise please specify -UK, -US, -AUS	99,00
115	<b>Batterypack-charger 1.0A</b>	Charger for batterypack 12/24VDC, input 100-240 VAC, 1.0A, Europlug standard, otherwise please specify -UK, -US, -AUS	99,00
116	<b>CUV-UV/VIS</b>	Cuvette Holder, 10 mm path, includes 2 UV/VIS/NIR collimating lenses and cover	445,00
116	<b>CUV-FL-UV/VIS</b>	Cuvette Holder, 10 mm path, with fluorescence port, 2 UV/VIS/NIR lenses, 2 coated mirrors and cover	595,00
116	<b>CUV-ALL-UV/VIS</b>	Cuvette Holder, 10 mm path, 2 beams, 4 x UV/VIS/NIR collimating lenses and cover	795,00
116	<b>CUV-FL-MIRROR</b>	SiO <sub>2</sub> coated aluminum mirror	70,00
116	<b>CUV-10-2</b>	Quartz Cuvette 10 mm, 2 windows, 3,5 ml	41,00
116	<b>CUV-10-4</b>	Quartz Cuvette 10 mm, 4 windows, 3,8 ml	95,00
117	<b>CUV-UV/VIS-TC</b>	Absorbance Kit. Price includes qpod sample compartment, TC 125 Temperature-Controller, two QIL-UV imaging lenses, BATH 100 submersible pump, QSLITS optical slits, cover with access cap, tubing, cables and a stir bar	3.470,00
117	<b>CUV-TC-QCL-UV</b>	AR coated fused silica collimating lens for temperature controlled cuvette holder	380,00
117	<b>CUV-TC-QIL-UV</b>	AR coated fused silica imaging lens for temperature controlled cuvette holder	590,00
117	<b>CUV-TC-QMP</b>	Spherical mirror plate with steering plate for CUV-UV/VIS-TC	220,00
117	<b>CUV-TC-QFH</b>	Filter holder for CUV-UV/VIS-TC	125,00
118	<b>CUV-DHc/XE/LED</b>	SMA screw-on 10 mm cuvette holder for AvaLight-DHc/XE/LED, incl. COL-UV/VIS lens and 2 mirrors	490,00
118	<b>CUV-DHS</b>	Direct attachment 10 mm cuvette holder for AvaLight-DH(S), incl. COL-UV/VIS lens and 2 mirrors	490,00
118	<b>CUV-HAL</b>	Direct attachment 10 mm cuvette holder for AvaLight-HAL(S), incl. COL-UV/VIS lens and 2 mirrors	490,00
119	<b>CUV-VAR-UV/VIS</b>	Cuvette holder with variable path length 0-100 mm path, includes 2 COL-UV/VIS lenses	990,00
121	<b>AvaSphere-30-IRRAD</b>	Sphere 30 mm for light measurements (250-2500 nm), sample port 6 mm, 1 SMA port	990,00
121	<b>AvaSphere-50-IRRAD</b>	Sphere 50 mm for light measurements (250-2500 nm), sample port 10 mm, 1 SMA port	1.290,00
121	<b>AvaSphere-80-IRRAD</b>	Sphere 80 mm for light measurements (250-2500 nm), sample port 15 mm, 1 SMA port	1.690,00
121	<b>AvaSphere-30-REFL</b>	Integrating sphere 30 mm for reflection (250-2500 nm), sample port 6 mm diam., 2 SMA ports (illum.& refl.)	1.190,00
121	<b>AvaSphere-50-REFL</b>	Integrating sphere 50 mm for reflection (250-2500 nm), sample port 10 mm diam., 2 SMA ports (illum.& refl.)	1.490,00
121	<b>AvaSphere-80-REFL</b>	Integrating sphere 80 mm for reflection (250-2500 nm), sample port 15 mm diam., 2 SMA ports (illum.& refl.)	1.890,00
122	<b>AvaSphere-50-LS-HAL</b>	Integrating sphere 50 mm for reflection(360-2500nm), including 5W halogen lightsource, sample port 10 mm diam., 2 SMA ports (reflection and reference) and 24V power supply.	1.980,00
121	<b>AvaSphere-LED-ADR</b>	Cylindrical Adapter to hold 3, 5, 8 mm LED's inside the AvaSphere-50-IRRAD	99,00
121	<b>AvaSphere-LED-ADR-80</b>	Cylindrical Adapter to hold 3, 5, 8 mm LED's inside the AvaSphere-80-IRRAD	99,00
121	<b>AvaSphere-GT50</b>	Optional gloss-trap 10 mm for AvaSphere-50-REFL, coated with black absorbing material	199,00

121	<b>AvaSphere-GT-50-W</b>	Gloss-trap 10 mm for AvaSphere-50-REFL, coated with white material to include specular reflection	199,00
121	<b>AvaSphere-50-HOLD</b>	WS-2-GEM Tile holder for AvaSphere-50-REFL/LS-HAL for gemology applications	148,00
123	<b>AvaSphere-100</b>	Integrating Sphere, 100mm, 3 ports (0,90,NP), 1baffled SMA port, incl. Postmount	1.650,00
123	<b>AvaSphere-100-SMA</b>	Additional SMA port for the AvaSphere-100	140,00
123	<b>AvaSphere-100-PR10</b>	Port reducer for the AvaSphere-100 to 10 mm	250,00
123	<b>AvaSphere-100-PP</b>	Port plug for unused ports for the AvaSphere-100	70,00
123	<b>AvaSphere-150</b>	Integrating Sphere, 150mm, 3 ports (0,90,NP), 1baffled SMA port, incl. Postmount	2.350,00
123	<b>AvaSphere-150-SMA</b>	Additional SMA port for the AvaSphere-150	140,00
123	<b>AvaSphere-150-PR10</b>	Port reducer for the AvaSphere-150 to 10 mm	250,00
123	<b>AvaSphere-150-PP</b>	Port plug for unused ports for the AvaSphere-150	70,00
123	<b>AvaSphere-200</b>	Integrating Sphere, 200mm, 3 ports (0,90,NP), 1baffled SMA port, incl. Postmount	3.200,00
123	<b>AvaSphere-200-SMA</b>	Additional SMA port for the AvaSphere-200	150,00
123	<b>AvaSphere-200-PR10</b>	Port reducer for the AvaSphere-200 to 10 mm	250,00
123	<b>AvaSphere-200-PP</b>	Port plug for unused ports for the AvaSphere-200	70,00
123	<b>AvaSphere-300</b>	Integrating Sphere, 300mm, opens, 3 ports (0,90,NP), 1baffled SMA port, incl. Mount and port plug	3.600,00
123	<b>AvaSphere-300-SMA</b>	Additional SMA port for the AvaSphere-300	150,00

Price (€)

page	ACCESSORIES		
124	<b>CLH-VAR-UV/VIS</b>	Variable Collimating Lens Holder, including 2 COL-UV/VIS collimating lenses	795,00
124	<b>OPM</b>	Optical Post Mount	129,00
125	<b>AvaTripod</b>	Tripod with COL-UV/VIS thread and 6.8mm hole for FCR and CC-UV/VIS	159,00
126	<b>AvaTrigger-USB1</b>	External triggerbox, with opto entrance and multiple triggers for averaging USB1 platform, incl. IC-DB15-2	495,00
126	<b>AvaTrigger-USB2</b>	External triggerbox, with opto entrance for USB2 platform, incl. IC-DB26-2	495,00
127	<b>FOS-1-Inline</b>	In-line Fiber Optic Switch, one optical path, incl. 2 COL-UV/VIS, needs extra 24V power supply	795,00
127	<b>FOS-2-Inline</b>	In-line Fiber Optic Switch, 2 optical path, incl. 4 COL-UV/VIS, needs extra 24V power supply	990,00
127	<b>IC-DB15-FOS2-2</b>	Interface Y-cable AvaSpec-USB1 platform to FOS-2 and AvaLight-S with shutter, 2m	149,00
127	<b>IC-DB26-FOS2-2</b>	Interface Y-cable AvaSpec-USB2 platform to FOS-2 and AvaLight-S with shutter, 2m	149,00
128	<b>FOA-Inline</b>	In-line Fiber Optic attenuator, 0-100%, incl. 2 COL-UV/VIS	480,00
129	<b>FH-Inline-UV/VIS-VAR</b>	In-line filter holder for filters 12 mm diameter and 1-8 mm thickness, incl. 2 COL-UV/VIS	290,00
129	<b>FH-Inline-1"</b>	Inline filterholder for 1" filters, max 60mm optical path, incl 2 collimating lenses and SMA connectors	695,00
129	<b>GL-XXX-3-12</b>	External Glass Filter 12 mm round, 3mm thick for FH-Inline (see table page 129)	49,00
129	<b>GL-BG28-3-12</b>	External Glass Filter BG28 12 mm round, 3mm thick for FH-Inline	79,00
130	<b>FOM-UV400-1x16</b>	Fiber Optic Multiplexer, 1 x 16 channels, 400 µm, UV/VIS, add -USA for 110VAC	6.950,00
130	<b>FOM-UV400-2x8</b>	Fiber Optic Multiplexer, 2 x 8 channels, 400 µm, UV/VIS, add -USA for 110VAC	6.950,00
130	<b>FOM-IR400-1x16</b>	Fiber Optic Multiplexer, 1 x 16 channels, 400 µm, VIS/NIR, add -USA for 110VAC	6.950,00
130	<b>FOM-IR400-2x8</b>	Fiber Optic Multiplexer, 2 x 8 channels, 400 µm, VIS/NIR, add -USA for 110VAC	6.950,00
131	<b>FOPFC-XX-YY</b>	Fiber Optic Process Flow Cell, base price without options, specify XX=OPL, YY= line size	2.950,00
132	<b>Flowcell-1/4"</b>	Flow cell 1/4" with variable SMA adapter, 5 mm path length, including 2 UV/VIS/NIR lenses	495,00
132	<b>Flowcell-1/2"</b>	Flow cell 1/2" with variable SMA adapter, 10 mm path length, including 2 UV/VIS/NIR lenses	695,00
132	<b>Flowcell-1"</b>	Flow cell 1" with variable SMA adapter, 20 mm path length, including 2 UV/VIS/NIR lenses	995,00
132	<b>Flowcell-1/4"-FL</b>	Fluorescence Flow cell 1/4" with 2 SMA adapters, including 1 UV/VIS/NIR lens	795,00
132	<b>Gasflowcell-1/4"-5-HPHT</b>	Gasflow cell 1/4" , 5mm optical path length with SMA adapter, including 2 UV/VIS/NIR lenses, high pressure 200 bar, high temp 200 degr C.	750,00
132	<b>Gasflowcell-1/4"-50-HPHT</b>	Gasflow cell 1/4" , 50mm optical path length with SMA adapter, including 2 UV/VIS/NIR lenses, high pressure 200 bar, high temp 200 degr C.	1.250,00
133	<b>Flowcell-Z-10</b>	Flow cell with 10mm optical path, ID 1.5 mm, needs 2pcs FC-UV400-1-SR-FIA fibers	273,00
133	<b>Flowcell-1,5</b>	Flow cell with 1,5mm optical path, ID 1.5 mm, needs 2pcs FC-UV400-1-SR-FIA fibers	278,00
134	<b>LPC-FS-50</b>	Long path flow cell fused silica tubing, 50 mm pathlength	1.540,00

134	<b>LPC-FS-100</b>	Long path flow cell fused silica tubing, 100 mm pathlength	1.540,00
134	<b>LPC-FS-500</b>	Long path flow cell fused silica tubing, 500 mm pathlength	1.608,00
134	<b>LPC-FS-1000</b>	Long path flow cell fused silica tubing, 1 m pathlength	1.657,00
134	<b>LPC-FS-2000</b>	Long path flow cell fused silica tubing, 2 m pathlength	1.852,00
135	<b>RS-2</b>	Specular Reflectance standard with Al+MgF2, 200-2500nm	390,00
135	<b>RS-2-CAL</b>	Specular Reflectance standard with Al+MgF2, 200-2500nm	790,00
135	<b>WS-2</b>	White Reference tile for reflectance measurements	255,00
135	<b>WS-2-GEM</b>	White Reference tile with 10 mm radius hole, specially for gemstone measurement	350,00

Price (€)

## SENSORS / APPLICATIONS

### Color Measurement System

144	<b>Ava-Color</b>	Color Measurement System, consisting of AvaSpec-2048-USB2, grating BB (360-780nm), 200 µm slit, AvaSoft-full and AvaSoft-Color, AvaLight-HAL with PS-24V/1.25A, FCR-7UV200-2 reflection probe, RPH reflection probe holder and WS-2 white reflection tile	4.017,00
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### UV/VIS Absorbance Measurement System

145	<b>Ava-Absorbance</b>	UV/VIS Absorbance Measurement System, consisting of AvaSpec-2048-USB2, grating UA (200-1100nm), DUV, 25 µm slit, DCL-UV, OSC-UA, AvaSoft-full, AvaLight-DH-S, FDP-7UV200-VAR Dip Probe	6.274,00
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### Irradiance System

146	<b>Ava-Irrad-UV/VIS</b>	UV/VIS/NIR Irradiance Measurement System, consisting of AvaSpec-2048-USB2, grating UA (200-1100nm), DUV, 50 µm slit, OSC-UA, AvaSoft-full and AvaSoft Irrad, IRRAD-CAL-UV/VIS, FC-UV200-2, CC-UV/VIS	3.891,00
146	<b>IRRAD-CAL-UV</b>	Irradiance calibration service UV range (200-400nm) per channel, incl. NL-calibration, needs AvaSoft-FULL, AvaSoft-IRRAD	250,00
146	<b>IRRAD-CAL-VIS</b>	Irradiance calibration service VIS range (360-1100nm) per channel, incl. NL-calibration, needs AvaSoft-FULL and AvaSoft-IRRAD	250,00
146	<b>IRRAD-CAL-NIR</b>	Irradiance calibration service NIR range (1100-2200nm) per channel, incl. NL-calibration, needs AvaSoft-FULL and AvaSoft-IRRAD	250,00
146	<b>IRRAD-CAL-UV/VIS</b>	Irradiance calibration service UV/VIS range (200-1100nm) per channel, incl. NL-calibration, needs AvaSoft-FULL, AvaSoft-IRRAD and -SR fibers	500,00

### LED measurements

147	<b>Ava-LED</b>	LED Measurement System, consisting of AvaSpec-2048-USB2, grating VA (350-1000nm), 25 µm slit, DCL-UV, OSC, AvaSoft-full and AvaSoft Irrad, IRRAD-CAL-VIS, FC-UV600-2, AvaSphere-50-IRRAD, AvaSphere LED adapter	4.806,00
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### Thin Film measurements

148	<b>Ava-Thinfilm</b>	Thinfilm measurement system, consisting of AvaSpec-2048-USB2, grating UA, DCL-UV/VIS, DUV coating, slit-100, OSC-UA, AvaSoft-Thinfilm, AvaLight-DHc and PS-12V/1.0A, FCR-7UV200-2-ME reflection probe and thinfilm stage	6.159,00
148	<b>AvaSoft-Thinfilm</b>	AvaSoft Thin film application software	995,00
148	<b>Thinfilm-Stage</b>	Stage to hold reflection probe	395,00
	<b>Thinfilm Standard</b>	3 Thinfilm Si-SiO2 waferparts in housing, one reference and 2 samples, incl. calibration sheet	290,00

### Coating processes in vacuum chambers

149	<b>Ava-Vacuum</b>	Vacuum measurement system, consisting of AvaSpec-2048-USB2, grating UA, slit-50, DUV coating, DCL-UV, OSC-UA, AvaSoft-Full and AvaSoft-XLS add-on, AvaLight-DH-S, FCR-7UV200-2-ME reflection probe, FC-UV600-2 and FC-UV200-2, FC-VFT-UV200 and FC-VFT-UV600 and 4 interconnects	6.679,00
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### Gemmology Measurements

151	<b>Ava-GEM</b>	Gemmology Measurement System, consisting of AvaSpec-2048-USB2, grating VA (350-1000nm), 25 µm slit, DCL-UV, OSC, AvaSoft-full, AvaLight-HAL and PS-24V/1.25A, 2 pcs FC-UV600-2, AvaSphere-50-REFL, AvaSphere-50-HOLD, WS-2-GEM	5.795,00
151	<b>AvaSphere-50-HOLD</b>	Holder to position WS2-GEM in center of AvaSphere-50-REFL sample port	148,00
<b>Fluorescence measurements</b>			
152	<b>Ava-Fluorescence</b>	Fluorescence setup, consisting of AvaSpec-2048-USB2, grating VA, slit-200, DCL-UV, OSC, AvaSoft-Full, AvaLight-LEDxxx and power supply, FCR-UV200/600-2-IND with FCR-FLTIP-IND fluorescence probe	4.948,00
<b>Biomedical applications</b>			
153	<b>Ava-Biomedical</b>	Biomedical setup, consisting of AvaSpec-2048-USB2, grating NB, slit-50, OSF-475, AvaSoft-Full, AvaSoft-CHEM, AvaLight-HAL and power supply, FCR-71R200-2-MS-PK-S, WS-2	3.983,00
<b>HortiSpec</b>			
150	<b>HortiSpec</b>	Horticulture measurement system, includes HortiSpec-2048-VIS-BT, grating VA (360-1100 nm), slit-200, DCL-UV/VIS, OSC, CC-UV/VIS, Bluetooth interface, AvaSoft-HortiSpec software, Battery pack, Charger	4.073,00