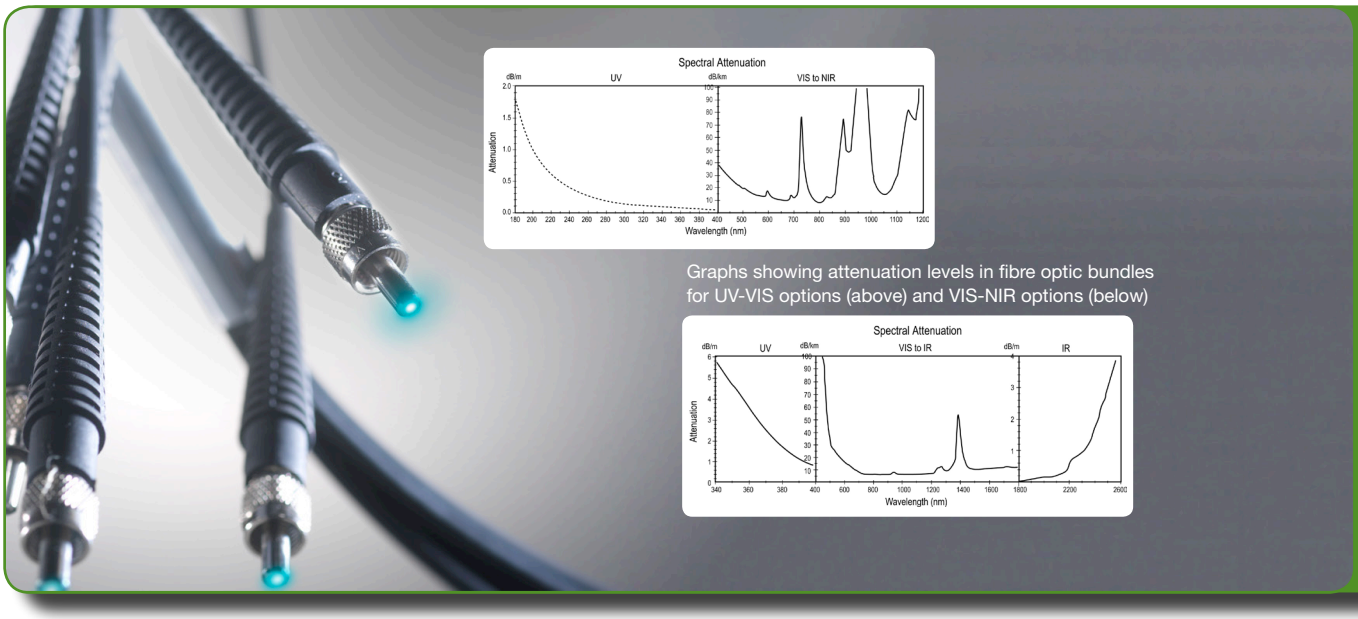
Fibre Optics for Spectroscopy

ANDOR
an Oxford Instruments company



Graphs showing attenuation levels in fibre optic bundles for UV-VIS options (above) and VIS-NIR options (below)

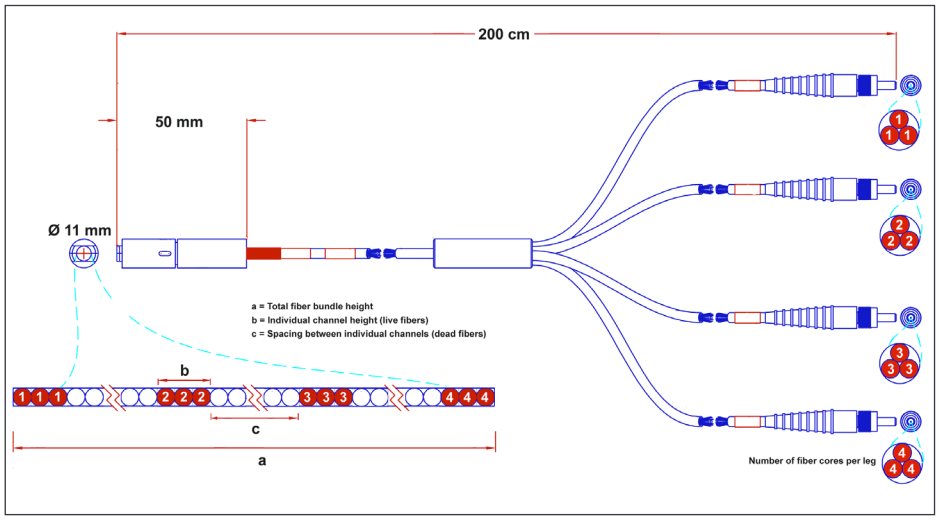
Features and Benefits

- **UV-VIS and VIS-NIR optimised options**
- **Numerical aperture = 0.22**
- **100 and 200 µm fibre core options**
- **From 1 to 5 leg options as standard**
- **Standard SMA connectors to Ø 11 mm Andor compatible ferrule**
- **2 m overall length – setup convenience and minimum transmission losses**
- **Re-enforced shield and ruggedized connectors**
- **Compatible with Andor Shamrock F/number matchers and X-Y adjusters**
- **Custom fibre design available**

Andor's range of off-the-shelf and custom designed fibre optic solutions can be a very convenient way to collect and transport light from an experimental set-up to a spectrograph-based detection solution.

Round-to-Line, multi-core fibre optic bundles maximize the signal collection by positioning the multiple cores alongside the spectrograph entrance slit. Our wide range of fibre bundles addresses most fibre coupling needs, but your specific experimental requirement may not be addressed by this range. Andor can provide a complete custom fibre optic solution, allowing you do define all required fibre optic and bundle requirements.

Andor works with the leading manufacturers to deliver solutions that meet any user requirements.



a = Total fibre optic bundle height

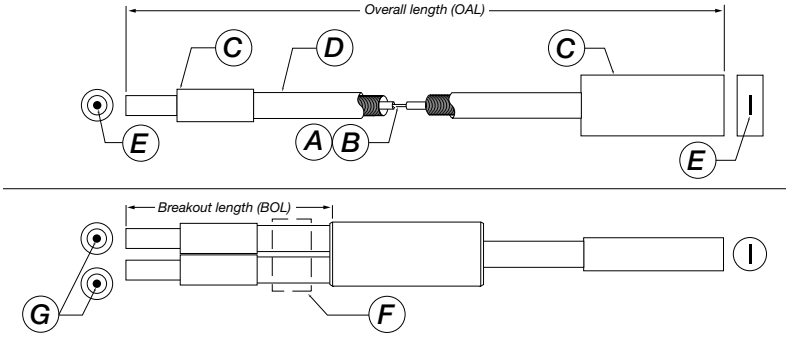
b = Individual channel height (live fibres)

c = Spacing between individual channels (dead fibres)

Standard Fibre Bundle Specifications

Fibre reference	Number of legs	Fibre core diameter	Optimized wavelength region	Number of fibre cores per leg	Fibre slit height (mm)	Individual channel height (mm)	Channel spacing (mm)
SR-OPT-8002	1 way	100 µm	VIS-NIR (LOH)	19	2.375	2.375	-
SR-OPT-8007	2 way	100 µm	VIS-NIR (LOH)	7	3	0.875	1.25
SR-OPT-8008	4 way	100 µm	VIS-NIR (LOH)	3	5.625	0.375	1.375
SR-OPT-8009	5 way	100 µm	VIS-NIR (LOH)	3	5.375	0.375	0.875
SR-OPT-8013	3 way	100 µm	VIS-NIR (LOH)	7	5.625	0.875	1.50
SR-OPT-8014	1 way	100 µm	UV-VIS (HOH)	19	2.375	2.375	-
SR-OPT-8015	2 way	100 µm	UV-VIS (HOH)	7	3	0.875	1.25
SR-OPT-8016	3 way	100 µm	UV-VIS (HOH)	7	5.625	0.875	1.5
SR-OPT-8017	4 way	100 µm	UV-VIS (HOH)	3	5.625	0.375	1.375
SR-OPT-8018	5 way	100 µm	UV-VIS (HOH)	3	5.375	0.375	0.875
SR-OPT-8019	1 way	200 µm	VIS-NIR (LOH)	19	4.655	4.655	-
SR-OPT-8020	2 way	200 µm	VIS-NIR (LOH)	7	5.39	1.715	1.96
SR-OPT-8021	3 way	200 µm	VIS-NIR (LOH)	3	5.635	0.735	1.715
SR-OPT-8022	4 way	200 µm	VIS-NIR (LOH)	3	5.88	0.735	0.98
SR-OPT-8024	1 way	200 µm	UV-VIS (HOH)	19	4.655	4.655	-
SR-OPT-8025	2 way	200 µm	UV-VIS (HOH)	7	5.39	1.715	1.96
SR-OPT-8026	3 way	200 µm	UV-VIS (HOH)	3	5.635	0.735	1.715
SR-OPT-8027	4 way	200 µm	UV-VIS (HOH)	3	5.88	0.735	0.98

Custom Fibre Bundles



A Fibre type	B Fibre size	C Connector	D Sheating	E Aperture size or number of fibres	F Number of legs	G Aperture or number of fibres per leg
1) Silica/Silica (UV/VIS) 2) Silica/Silica low solarization (UV) 3) Silica/Silica (VIS/NIR) 4) Polymer clad Silica (UV/VIS high NA) 5) Polymer clad Silica (VIS/NIR high NA) 6) Plastic (PMMA) 7) Other	1) 50 µm 2) 100 µm 3) 200 µm 4) 300 µm 5) 400 µm 6) 500 µm 7) 600 µm 8) 800 µm 9) 1000 µm 10) Other	1) SMA-905 2) O-ring SMA 3) Std ferrule 4) FC 5) Housing (0.313” x 0.75” x 1.5”) 6) ST 7) Biconic 8) Ø 0.250” ferrule 9) Ø 10 mm ferrule 10) Other 11) Andor Ø 11 mm ferrule	1) PVC tubing 2) PVC/Kevlar furcation tubing 3) PVC Monocoil 4) Stainless steel BX 5) Braided SSTL/PTFE hose 6) Teflon tubing 7) Other	1) 0.75 mm round 2) 1.25 mm round 3) 1.75 mm round 4) 2.2 mm round 5) 2.7 mm round 6) 0.6 mm x 5 mm rectangle 7) 1.1 mm x 5 mm rectangle 8) Other	Specify	Specify

Order Today

Need more information? At Andor we are committed to finding the correct solution for you. With a dedicated team of technical advisors, we are able to offer you one-to-one guidance and technical support on all Andor products. For a full listing of our local sales offices, please see: andor.com/contact

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Fax +86 (10) 8271 9055

Need to couple fibre optic to a Shamrock spectrograph?

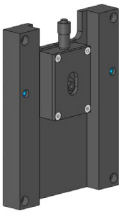
The typical fibre optic accessories shown below are available from our spectroscopy portfolio - for further details check out the Shamrock spectrograph specification sheets at: www.andor.com/spectroscopy.

Need a custom coupling interface?

Please contact your local Andor Sales representative to discuss your requirements.

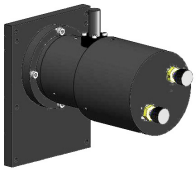
Fixed FC Fibre Adapter
(SR-ASM-8011)

Fixed SMA Fibre Adapter
(ACC-SR-ASM-8003)

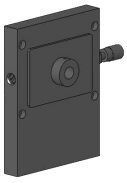


Y Adjustable 'Fast Kinetics' Fibre Adapter, SMA Input
(SR-ASM-8012)

X-Y Adjustable Fibre Adapter
(See relevant Shamrock specification sheet for full details)



F/# Matcher for
NA = 0.22 Fibre
(SR-ASM-0038)*10



X Adjustable Fibre Adapter,
Ferrule Input
(SR-ASM-8006)

Fixed Fibre Adapter,
Ferrule Input
(SR-ASM-8001)