

Fluorescence, Reflectance, Raman and General Sensing Probes



DESCRIPTION

Assemblies such as this are multi-legged (usually 2 legged but can be be more) and used to deliver an excitation signal and collect a measurement signal.

The "probe"end can have the excitation fiber(s) and the signal collection fiber(s) mapped into any pattern desired.As an example,for fluorescence measurements the excitation fiber is usually located in the center of a ring of signal collection fibers,but for a reflectometry probe it might be better to use multiple "source"fibers and distribute them in a known pattern among the signal collection fibers.

The source fibers are grouped together into a single connector or fitting that

interfaces to a light source and the signal collecting fiber(s) are grouped together into a single connector or fitting that interfaces to the measuring instrument or device.For some applications a line array is best (for slit matching) on the signal side and for others a round aperture is more appropriate (for coupling directly to a photodiode or PMT package).

Represented in the photo above is a very common configuration.These assemblies however,are available in their simplest form of two fibers to their most complicated with multiple legs incorporating many aperture sizes and end termination types.Elaborate mapping configurations are also available.

APPLICATIONS

- Fluorescence
- Raman
- Reflectance
- General Sensing

FEATURES

- Excitation and signal collection fibers in a single probe end.
- Virtually any configuration or "mapping" is possible.
- Same unit can be used for several measuring techniques.
- Signal collection fibers can easily be configured into a slit aperture to match certain instruments.
- Available in deep UV, UV/VIS and VIS/NIR versions.
- Various fiberoptic connectors, ferrules and fittings are available.

These units are available with fiber that can span the deep UV out through the NIR. Various standard end fittings and connectors are available but RoMack is capable of providing whatever custom fitting you may desire.

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ORDERING/SPECIFYING INFORMATION

Fluorescence, reflectance or Raman products need to be specified with regard to their aperture shapes and sizes, lengths, fiber type and end terminations, mapping requirements, if any, and any specialty information, such as environmental characteristics.

The specifying system is an effort to accommodate the most commonly ordered probes, but the possible configurations that fall under this product area are limited only by your imagination

and the diverse applications that require fiberoptic assemblies like these. If the device you desire does not conform to the system below please give RoMack a call and one of our application specialists will help you.

The possible end terminations or end fittings are also unlimited. We have called out some standard fittings below but we are able to provide virtually any configuration that can be made. **Please call us to discuss your needs.**

NOTES

- For multi-legged probes or any configuration that is not accommodated by the specifying system, please call RoMack.
- To discuss high temperature, vacuum or other environmental concerns please call RoMack.
- Fiber transmission curves and other performance details can be provided as required.

A Fiber Type	B Fiber Size	C Termination	D Jacketing
1) Silica/Silica (UV/VIS)	1) 50µm 6) 500µm	1) SMA-905 5) ST	1) PVC Tubing
2) Silica/Silica Low Solarization (UV)	2) 100µm 7) 600µm	2) O-ring SMA 6) Biconic	2) PVC/Kevlar Furcation Tubing
3) Silica/Silica (VIS/NIR)	3) 200µm 8) 800µm	3) Std. Ferrule* 7) Ø0.250" Ferrule	3) PVC Monocoil
4) Polymer Clad Silica(UV/VIS High NA)	4) 300µm 9) 1,000µm	4) FC 8) Ø10mm Ferrule	4) Stainless Steel BX
5) Polymer Clad Silica(VIS/NIR High NA)	5) 400µm 10) Other _____	9) Other _____	5) Braided SSSL/PTFE Hose
6) Plastic (PMMA)			6) Teflon Tubing
7) Other _____			7) Other _____

E Probe Configuration	F Bundle Configuration
1) 6 around 1 (Shown)	1) Line (Shown)
2) 18 around 1	2) Round
3) 60 around 1	3) Other _____
4) 2.2mm Round	
5) Other _____	

RoMack offers a wide variety of assembly options. Please contact one of our technical sales associates to assist you in defining the configuration that really works in your application.

Temperature Requirements: _____

Other Requirements: _____

*Std Ferrule pictured at Top drawing, right letter C

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