FL-400 Flame-resistant Fiber Probe

The **FL-400 FLAME-RESISTANT FIBER PROBE** is a heat-resistant fiber optic probe that couples to Ocean Optics miniature fiber optic spectrometers to measure *in situ* emission spectra of samples such as dissolved metals and high-temperature plasmas. The FL-400 is a high-temperature 400-µm gold-jacketed UV-VIS optical fiber in an 8" long nickel sleeve. It can operate in environments up to 750º C. The probe comes with a standard wire loop for emission measurements of dissolved metals. Not included, though necessary for operation, is an optical fiber and a splice bushing for connecting the FL-400 to the optical fiber.

Operation

1. Twist the male end of the FL-400 into a 21-02 Splice Bushing.
2. Connect a standard optical fiber (normally a P400-2-UV/VIS 400 µm optical fiber) to the other end of the splice bushing.
3. To observe flame emission spectra of samples such as sodium, potassium, calcium and copper attach the wire loop to the FL-400 by slipping the FL400 into the coil spring of the wire loop.

Specifications

Fiber core diameter:	400 µm
Fiber core/cladding:	Silica
Fiber jacketing:	Gold
Wavelengths covered:	200-750 nm
Probe sleeve (ferrule):	Nickel
Probe sleeve (ferrule) length:	~8.0" or 20 cm
Temperature range:	-269º C to 750º C
Numerical aperture:	0.22
Fiber termination:	SMA 905