

# MICROFLOWCELL ACCESSORIES

Operation and Installation Manual



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## 1. Micro Flow Cell Operating Manual

### 1.1 Parts included

1. Micro Flow Cell
2. The Micro Flow Cell Operating manual

### 1.2 Starting up

The micro flow cells are Z-cells that can be easily coupled by 1.5mm PTFE tubing with 0.5mm inner diameter for in-line absorption measurements and HPLC applications. The Z-flow cells can be coupled with 2 special fiber optic cables (see below).

### 1.3 Technical Specifications

Flow Cell Type	Micro flow Z-cell -10	Micro flow cell-1.5
Wavelength Range	200-2500 nm	
Optical path length	10 mm	1.5 mm
Sample volume	18 µl	3 µl
Tubing OD connection	1.5mm (1/16")	
Pressure rating	10 bar	
Fiber optic coupling	1.6 mm ferrule	
Dimensions / material	32 x 38 x 13 mm / PEEK	

### 1.4 1/4-28 Flangeless Fittings for 1/16" OD Tubing

- Flat-bottom Fittings for 1/16" OD Tubing
- PEEK™, Delrin®, Polypropylene, Tefzel® and PPS Nuts
- Tefzel and Polypropylene Ferrules
- Quick and Dependable!
- Easy to Use

The Upchurch Scientific® flangeless fitting eliminates the need to flange tubing. Just slide one of our flangeless nuts onto your tubing with one of our flangeless ferrules (coned end toward the nut) and finger tighten.



This system is fast, convenient, and reliable. These flangeless fittings are compatible with all ports having a common 1/4-28 flat-bottom thread. They are direct substitutes for all Cheminert® and Omnifit® fittings.

For those tight spaces where nuts often interfere with each other, try the F-358, a 1/4-28 FlushNut™ for 1/16" OD tubing.

The ferrules are excellent for connecting Teflon®, Tefzel, PEEK, titanium or stainless steel capillary tubing. The pressure rating for these ferrules depends on the tubing used.

	<u>P-200 PRESSURE RATING</u>	<u>P-240 PRESSURE RATING</u>
	(using the P-201 Delrin Nut)	(Using the P-201 Delrin Nut)
ETFE Tubing	2,500 psi (172 bar)	2,600 psi (179 bar)
PEEK Tubing	3,000 psi (207 bar)	2,500 psi (172 bar)
Stainless Steel Tubing	2,200 psi (152 bar)	2,800 psi (193 bar)

These tests were performed at room temperature and with water – testing the fitting, not the tubing.

## 1.4.1 Ordering Information

<b>FLOWCELL-Z-10</b>	Flow Z cell with 10 mm optical path
<b>FLOWCELL-1.5</b>	Flow Z cell with 1.5 mm optical path
<b>FC-UV400-1-FIA-SR</b>	Fiber cable 400µm, UV/VIS, sol. Resistant for Flow Z cell 10/1.5

## 1.4.2 Practical tips

If air bubbles are causing an instable signal the following might help:

- pumping a solution containing 0.1-1% detergent in water through the flow cell
- opening the fitting that holds the fiber in place (this will force liquid out of the channel, thus replacing the air pocket)
- tightening the fitting
- repeating the procedure for the other fiber