

Single Use Hygienic Measurement Cell

Kemtrak single use measurement cells eliminate cross-contamination between products and batches, offering the utmost in safety, convenience and flexibility in bio-pharmaceutical processing. The Kemtrak single use UV measurement system is ideally suited to chromatographic separation and filtration applications where a wide selection of line sizes and choice of measurement path lengths accommodate small scale discovery to full scale production.

Manufactured from high purity medical grade poly-phenylsulfone (PPSU), measurement cells are color coded for optical path length and sterilizable either through autoclaving or irradiation.

Measurement cells can be delivered with an optical path length (OPL) from 10 mm to 0.5 mm, giving overall measurement range capability of 4.5 to 90 OD when used with a Kemtrak DCP007 UV absorbance analyzer.

Benefits

- Zero dead volume
- Quick release mechanism
- Optical path-lengths from 10 mm (4.5 OD) to 0.5 mm (90 OD)
- USP Class VI and FDA certification
- Sterilized by autoclaving or irradiation

Applications

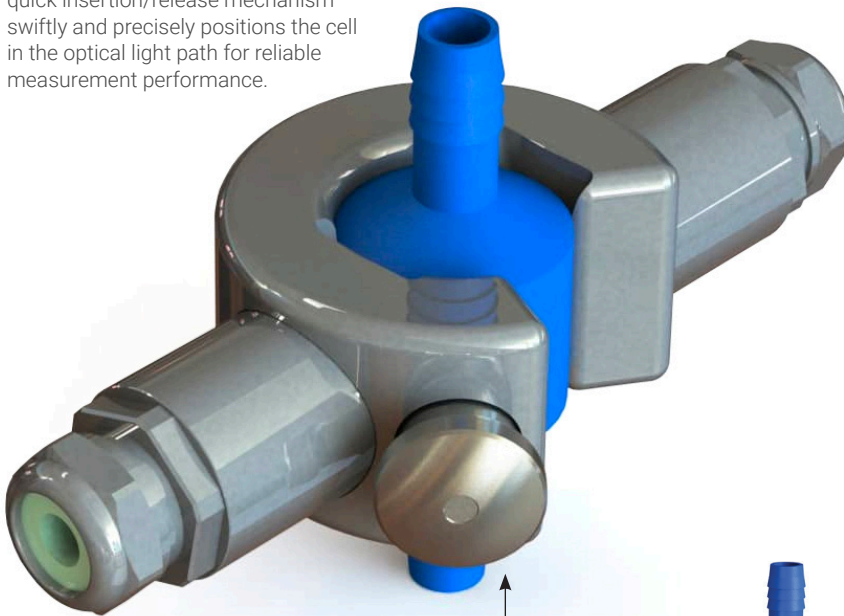
- Chromatographic separation
- Filtration
- Small scale discovery to full scale production




General Specifications

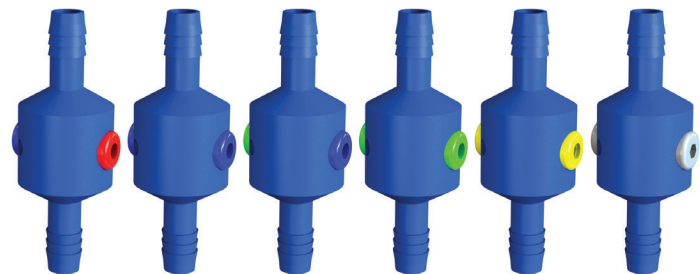
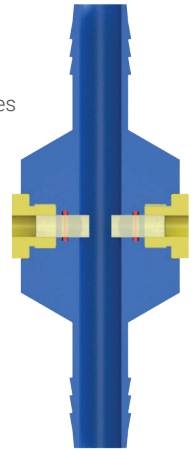
Applicable Design Standards	ISO 2852 & DIN 32676
Cell Material	Poly-phenylsulfone (PPSU)
Surface Finish	Ra < 0.38 µm (electropolished)
Window	Sapphire or fused silica
Elastomers	EPDM (FDA/USP Class VI)
Max. Temperature	174°C (345°F) continuous
Max. Pressure	6 bar (87 psi)
Operating Wavelength Range	Sapphire: >280nm UV Sapphire: >249nm Fused Silica: <250nm
Optical Pathlength Accuracy	± 0.05mm
Connection	Standard SMA905 fiber optic connector (in cell holder)
Standard Certificates	Certificate of Compliance according to EN 10204-2.1 Inspection certificate 3.1 according to EN 10204-3.1 for all the materials in contact with process
Sterilization	Autoclave or irradiation (up to 4 Megarads (Mrad) or 40 kiloGrays (kGy))
Accessories	Retort stand cell dock bracket for lab use Wall/panel mount cell dock bracket for plant use

A robust, space saving cell dock with quick insertion/release mechanism swiftly and precisely positions the cell in the optical light path for reliable measurement performance.



Spring loaded cell retainer

Zero dead volume across the entire cell range ensures sharp peak detection for fractionation control and filtration applications.



0.5 mm OPL 1 mm OPL 1.5 mm OPL 2 mm OPL 5 mm OPL 10 mm OPL

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Pathlength and Volume

Cell Size	Cell Internal Diameter		Standard Pathlength Availability (mm)						Vol. (mL)
			0.5	1	1.5	2	5	10	
3/16"	1/8"	3.18 mm	✓	✓	✓	✓			0.77
0.25"	5/32"	3.94 mm	✓	✓	✓	✓			1.18
0.375"	1//4"	6.35 mm	✓	✓	✓	✓	✓		3.1
0.5"	13/32"	10.5 mm	✓	✓	✓	✓	✓	✓	8.5
0.75"	19/32"	14.73 mm	✓	✓	✓	✓	✓	✓	17
1"	13/16"	20.83 mm	✓	✓	✓	✓	✓	✓	34
Abs Range (OD)			50	25	30	12.5	5	2.5	

The 1" cell has an internal 1cm slot at the window position (reduced diameter)

Volumes are approximate and based upon 2mm OPL

OD range stated relates to linear absorbance performance with Kemtrak DCP007 analyzer. Approx 2x is possible but linearization may be necessary