

Single-Use Measurement Cells

FEATURES

- Zero dead volume
- Quick Insert/Release Mechanism
- Line sizes from 1/16" to 1"
- Optical path-lengths from 10 mm (4.5 OD) to 0.5 mm (90 OD)
- USP Class VI and FDA certification
- Sterilizable by autoclaving or irradiation



Kemtrak single-use measurement cells feature an award winning design that eliminates cross-contamination between products and batches, providing exceptional safety, convenience, and flexibility in biopharmaceutical processing. The Kemtrak UV measurement platform is ideally suited for chromatographic separation and filtration applications, offering a wide range of line sizes and optical path lengths to support everything from small-scale discovery to full-scale production.

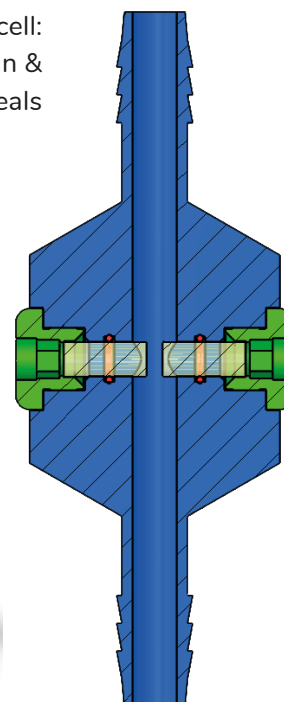
Manufactured from high-purity medical-grade polyphenylsulfone (PPSU), the measurement cells are color-coded by optical path length and can be sterilized via autoclaving or irradiation. The zero dead volume design across the entire cell range ensures sharp peak detection which is critical for precise fractionation control and filtration performance.

Verification accessory with NIST traceable verification filters



Kemtrak single-use measurement cells are available in sizes from 1/16" to 1", with ready-to-attach hose barb connections. Luer lock connections are available on the 1/16 and 1/8" size cells. A robust, space-saving cell dock with a quick insertion/release mechanism accurately positions the cell in the optical light path, ensuring reliable measurement performance. Optical path lengths range from 10 mm to 0.5 mm, providing a measurement capability of 4.5 to 90 OD when used with the Kemtrak DCP007 UV absorbance analyzer.

Single-use measurement cell:
Zero dead volume design &
FDA certified o-ring seals



Single-Use Measurement Cells

DISTRIBUTOR

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tubing size	inside diameter ¹ (mm)	internal volume ² (mL)	Optical Pathlength (mm) & Color Code					
			0.5 red - blue	1.0 blue - blue	1.5 blue - green	2.0 green - green	5.0 yellow - yellow	10 black - black
1/16" ³	1.60	0.10	✓	✓	✓			
1/8" ³	2.44	0.23	✓	✓	✓	✓		
3/16"	3.18	0.79	✓	✓	✓	✓		
1/4"	3.94	1.2	✓	✓	✓	✓		
3/8"	6.35	3.2	✓	✓	✓	✓	✓	
1/2"	10.5	8.7	✓	✓	✓	✓	✓	✓
3/4"	14.7	17	✓	✓	✓	✓	✓	✓
1"	20.8	34	✓	✓	✓	✓	✓	✓
Absorbance range ⁴ (OD)			90	45	30	22.5	9	4.5

SINGLE-USE MEASUREMENT CELL

PROCESS CONNECTION

Hose barb 1/16" to 1"
 Luer lock 1/16" to 1/8"
 1/4"-28 UNF female tube fitting

OPTICAL PATHLENGTH (OPL)

0.5, 1.0, 1.5, 2.0, 5.0 & 10 mm
 OPL accuracy better than ±0.01 mm
 Color coded

WETTED MATERIALS

Body: Polyphenylsulfone (PPSU blue)
 Windows: UV grade fused silica (190 - 2000 nm)
 Seals: O-Rings (EPDM or FFKM).
 FDA, USP class VI, Animal free

SURFACE FINISH

N6: Ra < 0.8 µm (32 µinch)

PRESSURE

0 - 6 bar (0 - 87 psi)

STERILIZATION

Autoclave: +135 °C (+275 °F)
 Radiation: 25 - 50 kGy

OPERATING CONDITIONS

Ambient & process temperatures from
 -20 to +150°C (-4 °F to +302 °F)

SHELF LIFE

36 months after manufacturing date

DOCK FOR MEASUREMENT CELL

MATERIAL

Stainless Steel 316 L (polished), POM / polyacetal plastic

FIBER OPTIC CONNECTION

SMA 905 type connector

OPERATING CONDITIONS

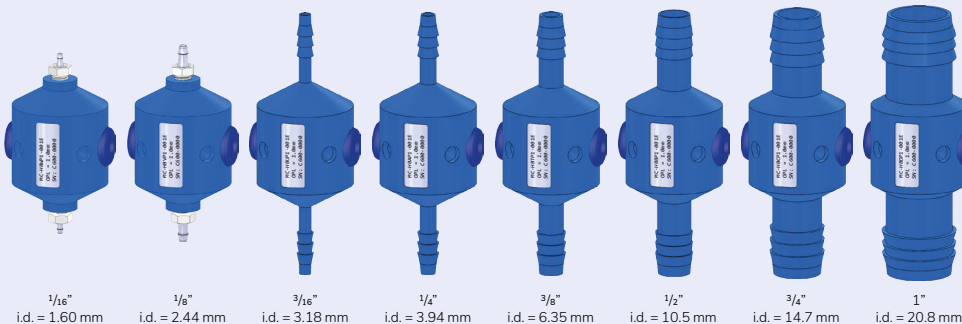
Ambient temperature:
 316L: -20 to 130°C (-4 °F to 266 °F)
 POM: 10 to 60°C (50 °F to 140 °F)

PROTECTION

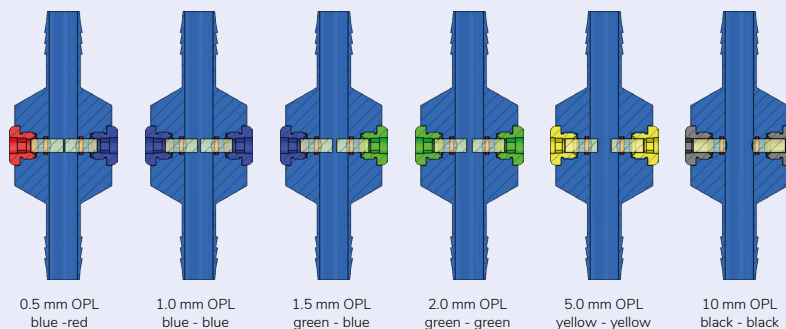
IP66 / EN 60529 on 316L dock

¹ The 1" single-use measurement cell has a 10 mm wide slit in the middle (reduced diameter)
² Approximate volume based on a 2 mm OPL
³ 1/4"-28 UNF tube fitting (adapters used for 1/16" to 1/8" hose barb and luer lock fittings)
⁴ OD range stated relates to the maximum absorbance on a Kemtrak DCP007-UV analyzer at 280 nm (4.5 AU)

HOSE BARB CONNECTION 1/16" TO 1"



COLOR CODED OPTICAL PATHLENGTH (OPL) FROM 0.5 TO 10 MM



Kemtrak is the leading manufacturer of high performance LED based industrial photometers and automation products for the process engineering industry. Kemtrak provides tailor made solutions to meet the needs of a wide range of industries including chemical, petrochemical & offshore, biotech, pharmaceutical, food & beverage, pulp & paper and water & environment.

Kemtrak has trained representatives and support personnel globally and is certified according to ISO 9001:2015.