

# CUVETTE Buying guide

A comprehensive list of premium quality cuvettes for a wide variety of applications and instruments.



Precision Plastic and Quartz Glass Manufacturer:



## CUVETTES SPECIALLY FOR YOUR MAKE & MODEL

- Spectrophotometer cuvettes
- Fluormeter cuvettes
- Cuvette accessories
- Tablet dissolution & flow cells
- Sub-micro volume cuvettes
- Dve laser cells
- · Plates & discs
- Microfluidic chips
- Flow channel cells
- Ges cells
- Custom manufacturing
- UV / VIS / NIR Spectrophotometer calibration standards
- Evacuable dies
- Refractometers
- · and much more



# CUVETTE Buying guide

A comprehensive list of premium quality cuvettes for a wide variety of applications and instruments.



#### **Vision**

Provide solutions for fast and reliable scientific trails.

We are an experienced distributor with a vast portfolio of laboratory equipment, accessories and consumables made by renowned manufacturers.

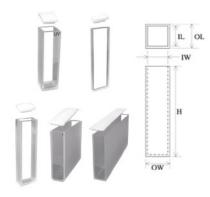
We are a distributor with 25 years of experience in the laboratory equipment and consumables sector.



Precision Plastic and Quartz Glass Manufacturer

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#### TYPE 1

#### Standard cuvette with PTFE cover

• Two windows polished

Polished = Optical polishing L/P = Light Path

	Outer	Dimensions	(mm)	Inside Dimer	nsions (mm)	//	Material & Part Numbers			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV	IR	
0.5	3.0	12.5	45.5	0.5	10.0	0.220	-	1UV0.5	1IR0.5	
1	3.5	12.5	45.5	1.0	10.0	0.400	1G1	1UV1	1IR1	
2	4.5	12.5	45.5	2.0	10.0	0.700	1G2	1UV2	1IR2	
5	7.5	12.5	45.5	5.0	10.0	1.700	1G5	1UV5	1IR5	
10	12.5	12.5	45.5	10.0	10.0	3.500	1G10	1UV10	1IR10	
20	22.5	12.5	45.5	20.0	10.0	7.000	1G20	1UV20	1IR20	
30	32.5	12.5	45.5	30.0	10.0	10.500	1G30	1UV30	1IR30	
40	42.5	12.5	45.5	40.0	10.0	14.000	1G40	1UV40	1IR40	
50	52.5	12.5	45.5	50.0	10.0	17.500	1G50	1UV50	1IR50	
100	102.5	12.5	45.5	100.0	10.0	35.000	1G100	1UV100	1IR100	





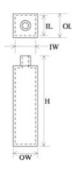
#### TYPE 5

#### Standard cuvette with PTFE cover, rounded corners

Two windows polished

	Outer	Dimensions	(mm)	Inside Dimensions (mm)			Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV	
10	12.5	12.5	45.0	10.0	10.0	3.500	5G10	5UV10	





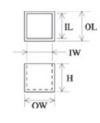
#### **TYPE 11**

#### Standard cuvette with quartz cap

• Two windows polished

	Outer	Dimensions	(mm)	Inside Dimensions (mm)			Material & Part Numbers			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV	IR	
5	7.5	12.5	55.5	5.0	10.0	1.700	11 <b>G</b> 5	11UV5	11IR5	
10	12.5	12.5	55.5	10.0	10.0	3.500	11G10	11UV10	11IR10	
40	42.5	12.5	55.5	40.0	10.0	14.000	11G40	11UV40	11IR40	
50	52.5	12.5	55.5	50.0	10.0	17.500	11G50	11UV50	11IR50	





#### **TYPE 523**

#### Rectangular absorption cuvette

Two windows polished

	Outer	Dimensions	(mm)	Inside Dimen	sions (mm)		Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G
10	13.5	35.0	35.0	10.0	31.5	8.800	523G10

See also Type-37 for a cylindrical cuvette with quartz to glass graded seal tube, page 18.

**Cylindrical Cuvettes** 1-2

#### **TYPE 32**

#### Cylindrical cuvette with PTFE stopper

• Two windows polished



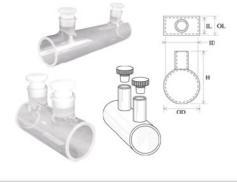
	Oute	r Dimensions (	mm)	Inside Dim	Inside Dimensions (mm)			Material & Part Numbers			
L/P (mm)	LENGTH	DIAMETER	HEIGHT	LENGTH	DIAMETER	CAPACITY (ml)	G	UV	IR		
1	3.5	22.0	30.0	1.0	19.0	0.280	32G1	32UV1	32IR1		
2	4.5	22.0	30.0	2.0	19.0	0.560	32G2	32UV2	32IR2		
5	7.5	22.0	30.0	5.0	19.0	1.400	32G5	32UV5	32IR5		
10	12.5	22.0	30.0	10.0	19.0	2.800	32G10	32UV10	32IR10		
20	22.5	22.0	30.0	20.0	19.0	5.600	32G20	32UV20	32IR20		

#### **TYPE 34**

#### Cylindrical cuvette with 2 PTFE stoppers

• Two windows polished

	Oute	r Dimensions (	mm)	Inside Dimensions (mm)			Material & Part Numbers		
L/P (mm)	LENGTH	DIAMETER	HEIGHT	LENGTH	DIAMETER	CAPACITY (ml)	G	UV	IR
50	52.5	22.0	35.5	50.0	19.0	14.000	34G50	34UV50	34IR50
100	102.5	22.0	35.5	100.0	19.0	28.000	34G100	34UV100	34IR100
200	202.5	22.0	35.5	200.0	19.0	56.000	34G200	34UV200	34IR200

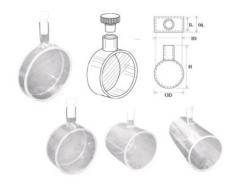


#### **TYPE 35**

#### Large diameter cylindrical cuvette with PTFE stopper

Two windows polished

3	Oute	r Dimensions (	mm)	Inside Dimensions (mm)			Material & Part Numbers		
L/P (mm)	LENGTH	DIAMETER	HEIGHT	LENGTH	DIAMETER	CAPACITY (ml)	G	UV	IR
10	12.5	50.0	58.0	10.0	47.0	17.000	35G10	35UV10	35IR10
20	22.5	50.0	58.0	20.0	47.0	34.000	35G20	35UV20	35IR20
50	52.5	50.0	58.0	50.0	47.0	85.000	35G50	35UV50	35IR50
100	102.5	50.0	58.0	100.0	47.0	170.000	35G100	35UV100	35IR100







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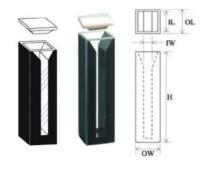
#### TYPE 9

#### Semi-Micro Cuvette with PTFE cover

• Two windows polished

• Base thickness is 3mm

	Outer Dimensions (mm)			Inside Dimer	nsions (mm)		Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV	IR
5	7.5	12.5	45.0	5.0	4.0	0.700	9 <b>G</b> 5	9UV5	9IR5
10	12.5	12.5	45.0	10.0	4.0	1.400	9G10	9UV10	9IR10
20	22.5	12.5	45.0	20.0	4.0	2.800	9G20	9UV20	9IR20
30	32.5	12.5	45.0	30.0	4.0	4.200	9G30	9UV30	9IR30
40	42.5	12.5	45.0	40.0	4.0	5.600	9G40	9UV40	9IR40
50	52.5	12.5	45.0	50.0	4.0	7.000	9G50	9UV50	9IR50
100	102.5	12.5	45.0	100.0	4.0	14.000	9G100	9UV100	9IR100



#### TYPE 9M

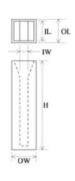
#### Self masking semi-micro cuvette with PTFE cover

Two windows polished

• Base thickness is 3mm

	Outer	Dimensions	(mm)	Inside Dimensions (mm)			Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV	IR
5	7.5	12.5	45.0	5.0	4.0	0.700	9MG5	9MUV5	9MIR5
10	12.5	12.5	45.0	10.0	4.0	1.400	9MG10	9MUV10	9MIR10
20	22.5	12.5	45.0	20.0	4.0	2.800	9MG20	9MUV20	9MIR20
40	42.5	12.5	45.0	40.0	4.0	5.600	9MG40	9MUV40	9MIR40
50	52.5	12.5	45.0	50.0	4.0	7.000	9MG50	9MUV50	9MIR50
100	102.5	12.5	45.0	100.0	4.0	14.000	9MG100	9MUV100	9MIR100





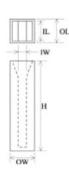
#### TYPE 9B

#### Variable capacity micro/semi-micro cuvette with PTFE cover

- Two windows polished
- Capacity changes based on inside width
- Base thickness is 9mm
- No black masking

	Outer	Dimensions	(mm)	Inside Dimer	sions (mm)	Material & Part Numbers			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR	
10	12.5	12.5	45.0	10.0	1.0	0.4	9BUV10X1	9BIR10X1	
10	12.5	12.5	45.0	10.0	3.0	1.1	9BUV10X3	9BIR10X3	
10	12.5	12.5	45.0	10.0	5.0	1.8	9BUV10X5	9BIR10X5	





#### **TYPE 9BM**

#### Variable capacity self masking micro/semi-micro cuvette with PTFE cover

• Two windows polished • Capacity changes based on inside width • Base thickness is 9mm

	Outer	Dimensions	(mm)	Inside Dimer	sions (mm)	Material & Part Numbers			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR	
10	12.5	12.5	45.0	10.0	1.0	0.4	9BMUV10X1	9BMIR10X1	
10	12.5	12.5	45.0	10.0	3.0	1.1	9BMUV10X3	9BMIR10X3	
10	12.5	12.5	45.0	10.0	5.0	1.8	9BMUV10X5	9BMIR10X5	



#### **TYPE 34S**

#### Large Cylindrical Polarimeter Cell with Screw Caps

• Includes 2 SC2 open screw caps and two SC1 closed screw caps

	Oute	Outer Dimensions (mm)			sions (mm)		Material & Part Numbers	
L/P (mm)	LENGTH	HEIGHT	DIAMETER	DIAMETER	LENGTH	CAPACITY (ml)	UV	
50	52.5	35.5	22.0	19.0	50.0	14.000	34SUV50	
100	102.5	35.5	22.0	19.0	100.0	28.000	34SUV100	



SCREW CAP OD: 16mm SEPTA: Diameter: 11mm Thickness: 3.5mm THREADING ID: 8mm THREADING OD: 12mm

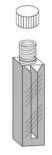
#### **TYPE 41**

#### Standard cuvette with screw cap

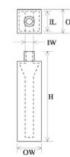
- Two windows polished
- Height includes threading, but not screw cap
- Cuvette comes with both open and closed screw caps
- Each cap contains a PTFE septa seal
- Suitable for anaerobic work

	Outer	Outer Dimensions (mm)			Inside Dimensions (mm) Material & F			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV
1	3.5	12.5	55.0	1.0	10.0	0.400	-	41UV1
2	4.5	12.5	55.0	2.0	10.0	0.700	-	41UV2
5	7.5	12.5	55.0	5.0	10.0	1.700	41G5	41UV5
10	12.5	12.5	55.0	10.0	10.0	3.500	41G10	41UV10
50	52.5	12.5	55.0	50.0	10.0	17.500	41G50	41UV50
100	102.5	12.5	55.0	100.0	10.0	35.000	41G100	41UV100









#### **TYPE 46**

#### Variable capacity micro/semi-micro cuvette with screw cap

- Two windows polished
- Height includes threading, but not screw cap
- Cuvette comes with both open and closed screw caps
- Each cap contains a PTFE septa seal
- Suitable for anaerobic work
- Base thickness is 3mm

	Outer	Dimensions	(mm)	Inside Dimer	sions (mm)		Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV		
10	12.5	12.5	55.0	10.0	1.0	0.350	46UV10X1		
10	12.5	12.5	55.0	10.0	2.0	0.700	46UV10X2		
10	12.5	12.5	55.0	10.0	3.0	1.050	46UV10X3		
10	12.5	12.5	55.0	10.0	4.0	1.400	46UV10X4		
10	12.5	12.5	55.0	10.0	5.0	1.750	46UV10X5		







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#### **TYPE 37**

#### Micro cylindrical cuvette with graded seal tube

- Two windows polished
- Quartz or glass to glass graded seal tube: OD5 x ID3mm

Spectrophotometer Cuvettes

• Overall height is approximately 92mm

	Outer Dime	ensions (mm)	Inside Dim	ensions (mm)		Material & Part Numbers			
L/P (mm)	LENGTH	DIAMETER	LENGTH	DIAMETER	CAPACITY (ml)	G	UV	IR	
1	3.5	22.0	1.0	19.0	0.280	37G1	37UV1	37IR1	
2	4.5	22.0	2.0	19.0	0.570	37G2	37UV2	37IR2	
5	7.5	22.0	5.0	19.0	1.420	37G5	37UV5	37IR5	
10	12.5	22.0	10.0	19.0	2.830	37G10	37UV10	37IR10	
20	22.5	22.0	20.0	19.0	5.670	37G20	37UV20	37IR20	
50	52.5	22.0	50.0	19.0	14.000	37G50	37UV50	37IR50	
100	102.5	22.0	100.0	19.0	28.000	37G100	37UV100	37IR100	



#### **TYPE 61**

#### Standard cuvette with graded seal tube

- Two windows polished
- Quartz to glass graded seal tube: OD8 x ID6mm
- Overall height is approximately 125mm

	Outer Dimensions (mm)			Inside Dimer	sions (mm)	Sec. 1000	Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR	
0.5	3.0	12.5	45.0	0.5	10.0	0.200	61UV0.5	61IR0.5	
1	3.5	12.5	45.0	1.0	10.0	0.400	61UV1	61IR1	
2	4.5	12.5	45.0	2.0	10.0	0.700	61UV2	61IR2	
5	7.5	12.5	45.0	5.0	10.0	1.700	61UV5	61IR5	
10	12.5	12.5	45.0	10.0	10.0	3.500	61UV10	61IR10	



#### **TYPE 504**

#### Gas absorption cuvette with graded seal tube

- Two windows polished
- Quartz to glass graded seal tube: OD8 x ID6mm
- Overall height is approximately 84mm

	Outer Dime	ensions (mm)	Inside Dim	ensions (mm)		Material & Part Numbers		
L/P (mm)	LENGTH	DIAMETER	LENGTH	DIAMETER	CAPACITY (ml)	UV	IR	
74	80.0	22.0	74.0	19.0	21.000	504UV74	504IR74	



#### **TYPE 505**

#### Semi-micro cuvette with graded seal tube

- Two windows polished
- Quartz to glass graded seal tube: OD8 x ID6mm
- Base thickness is 3mm
- Overall height is approximately 125mm

	Outer Dimensions (mm)				Inside Dimensions (mm)			Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR		
10	12.5	12.5	45.0	10.0	4.0	1.400	505UV10	505IR10		





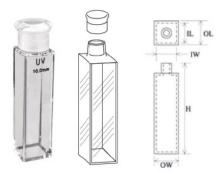


#### Fluorometer cuvette with PTFE cover

• Four windows and base polished

	Outer	Dimensions	(mm)	Inside Dimer	sions (mm)		Material & Part Numbers			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV	IR	
1	3.5	12.5	45.0	1.0	10.0	0.400	1FLG1	1FLUV1	1FLIR1	
2	4.5	12.5	45.0	2.0	10.0	0.700	1FLG2	1FLUV2	1FLIR2	
5	7.5	12.5	45.0	5.0	10.0	1.700	1FLG5	1FLUV5	1FLIR5	
10	12.5	12.5	45.0	10.0	10.0	3.500	1FLG10	1FLUV10	1FLIR10	
20	22.5	12.5	45.0	20.0	10.0	7.000	1FLG20	1FLUV20	1FLIR20	
30	32.5	12.5	45.0	30.0	10.0	10.500	1FLG30	1FLUV30	1FLIR30	
40	42.5	12.5	45.0	40.0	10.0	14.000	1FLG40	1FLUV40	1FLIR40	
50	52.5	12.5	45.0	50.0	10.0	17.500	1FLG50	1FLUV50	1FLIR50	
100	102.5	12.5	45.0	100.0	10.0	35.000	1FLG100	1FLUV100	1FLIR100	

2-1

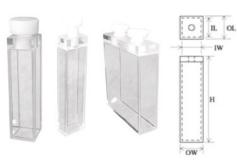


#### TYPE 11FL

#### Fluorometer cuvette with quartz cap

• Four windows and base polished

	Outer	Dimensions	(mm)	Inside Dimensions (mm)			Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR	
5	7.5	12.5	55.0	5.0	10.0	1.700	11FLUV5	11FLIR5	
10	12.5	12.5	55.0	10.0	10.0	3.500	11FLUV10	11FLIR10	
20	22.5	12.5	55.0	20.0	10.0	7.000	11FLUV20	11FLIR20	
40	42.5	12.5	55.0	40.0	10.0	14.000	11FLUV40	11FLIR40	



#### TYPE 21FL

#### Fluorometer cuvette with PTFE stopper

• Four windows and base polished

	Outer	Dimensions	(mm)	Inside Dimer	nsions (mm)		Material & Part Numbers				
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV	IR		
5	7.5	12.5	49.0	5.0	10.0	1.700	21FLG5	21FLUV5	21FLIR5		
10	12.5	12.5	49.0	10.0	10.0	3.500	21FLG10	21FLUV10	21FLIR10		
20	22.5	12.5	49.0	20.0	10.0	7.000	21FLG20	21FLUV20	21FLIR20		
40	42.5	12.5	49.0	40.0	10.0	14.000	21FLG40	21FLUV40	21FLIR40		
50	52.5	12.5	49.0	50.0	10.0	17.500	21FLG50	21FLUV50	21FLIR50		





#### TYPE 701MFL

#### Sub-micro self masking fluorometer cuvette with PTFE threaded stopper

• Three windows polished

	Outer I	Dimension:	s (mm)	Chambei	Dimensio	ns (mm)			Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	ZD (mm)	CAPACITY (µI)	UV
10	12.5	12.5	45.0	10.0	1.0	1.0	8.5	10	701MFLUV10.10A
10	12.5	12.5	45.0	10.0	1.0	1.0	15.0	10	701MFLUV10.10B
10	12.5	12.5	45.0	10.0	1.0	1.0	20.0	10	701MFLUV10.10C
10	12.5	12.5	45.0	10.0	1.0	1.0	8.5	50	701MFLUV10.50A
10	12.5	12.5	45.0	10.0	1.0	1.0	15.0	50	701MFLUV10.50B
10	12.5	12.5	45.0	10.0	1.0	1.0	20.0	50	701MFLUV10.50C
10	12.5	12.5	45.0	10.0	1.0	1.0	8.5	100	701MFLUV10.100A
10	12.5	12.5	45.0	10.0	1.0	1.0	15.0	100	701MFLUV10.100B
10	12.5	12.5	45.0	10.0	1.0	1.0	20.0	100	701MFLUV10.100C
10	12.5	12.5	45.0	10.0	1.0	1.0	8.5	160	701MFLUV10.160A
10	12.5	12.5	45.0	10.0	1.0	1.0	15.0	160	701MFLUV10.160B
10	12.5	12.5	45.0	10.0	1.0	1.0	20.0	160	701MFLUV10.1600

#### 2-4 Screw Cap Fluorometer Cuvettes



SCREW CAP OD: 16mm

SEPTA: Diameter: 11mm Thickness: 3.5mm

THREADING ID: 8mm THREADING OD: 12mm

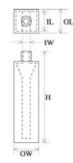
#### **TYPE 41FL**

#### Standard fluorometer cuvette with screw cap

- Four windows and base polished
- Each cap contains a PTFE septa seal
- Height includes threading, but not screw cap
- Suitable for anaerobic work and dye laser applications
- Cuvette comes with both open and closed screw caps

	Outer Dimensions (mm)				sions (mm)		Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV
5	7.5	12.5	55.0	5.0	10.0	1.700	41FLUV5
10	12.5	12.5	55.0	10.0	10.0	3.500	41FLUV10
50	52.5	12.5	55.0	50.0	10.0	17.500	41FLUV50
100	102.5	12.5	55.0	100.0	10.0	35.000	41FLUV100





SCREW CAP OD: 16mm

SEPTA: Diameter: 11mm Thickness: 3.5mm

THREADING ID: 8mm THREADING OD: 12mm

#### **TYPE 46FL**

#### Semi-micro fluorometer cuvette with screw cap

- Height includes threading, but not screw cap
- Cuvette comes with both open and closed screw caps
- Suitable for anaerobic work and dye laser applications
- Two windows polished
- Each cap contains a PTFE septa seal
- Base thickness is 3mm

	Outer	Dimensions	(mm)	Inside Dimen	sions (mm)		Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV		
10x2	12.5	12.5	55.0	10.0	2.0	0.700	46FLUV10x2		
10x4	12.5	12.5	55.0	10.0	4.0	1.400	46FLUV10x4		









#### **TYPE 3FT**

#### Flow-through observation cell, open bottom

- Four windows polished
- Both ends are open

	Outer I	Dimension	s (mm)	Chambe	Chamber Dimensions (mm)				Material & Part Numbers			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	CAPACITY (ml)	G	UV	IR		
10	12.5	12.5	40.0	10.0	10.0	40.0	4.000	3FTG10	3FTUV10	3FTIR10		

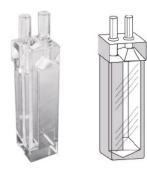


#### **TYPE 45FL**

#### Fluorometer flow cell with detachable inlet/outlet tubes, 2.8ml

- Three windows polished
- Height is without tubes
- Inlet/outlet tubes: OD4 x ID2mm
- Tubes are made of quartz

	Outer [	Dimension	s (mm)	Chamber Dimensions (mm)				Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	CAPACITY (ml)	UV	IR	
10	12.5	12.5	50.0	10.0	7.0	40.0	2.800	45FLUV10	45FLIR10	



#### TYPE 58FL

#### Fluorometer flow-through cell with top tubes

- Three windows polished
- · Height is without tubes
- Inlet/outlet tubes: OD4 x ID2 x L10mm Tubes are made of quartz

	Outer I	Dimension	s (mm)	Chamber	r Dimensio	ons (mm)		Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	CAPACITY (ml)	UV
10	12.5	12.5	48.0	10.0	7.0	36.0	2.520	58FLUV10



#### TYPE 501FL

#### Fluorometer flow-through cell with top and bottom tubes

- Four windows polished
- Height is without tubes
- Inlet/outlet tubes: OD5 x ID3 x L10mm Tubes are made of quartz

	Outer I	Dimension	s (mm)	Chamber	Dimensio	ns (mm)		Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	CAPACITY (ml)	UV		
10	12.5	12.5	65.0	10.0	10.0	33.0	3.300	501FLUV10		





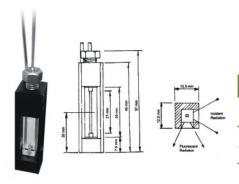


#### TYPE 608FL

#### **HPLC UV Quartz Flow Cell**

- Comes with stainless steel inlet/outlet pipes.
- Dimensions of tubing: Inlet (OD1.6 x ID0.25 x L100mm); Outlet (OD1.6 x ID0.5 x L100mm)
- All cells and tubing tested to 5 bars of pressure (75psi).
- In metal and black quartz housing
- Comes in 3 lightpaths- 1, 1.5 and 3mm
- Available in Z-Dimensions of 8.5 and 15mm
- Three windows optically polished

	Outer [	Dimension	s (mm)	Chambe	r Dimensio	ons (mm)		10 700	Material & Part Numbers	
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	ZD (mm)	CAPACITY (µI)	UV	
1	12.5	12.5	45.0	1.0	1.0	11.0	8.5	11	608FLUV1X1X11A	
1	12.5	12.5	45.0	1.0	1.0	11.0	15	11	608FLUV1X1X11B	
1.5	12.5	12.5	45.0	1.5	1.5	11.0	8.5	25	608FLUV1.5X1.5X11A	
1.5	12.5	12.5	45.0	1.5	1.5	11.0	15	25	608FLUV1.5X1.5X11B	
3.0	12.5	12.5	45.0	3.0	3.0	11.0	8.5	100	608FLUV3X3X11A	
3.0	12.5	12.5	45.0	3.0	3.0	11.0	15	100	608FLUV3X3X11B	



#### **TYPE 8830**

#### μ fluorescence flow cell

• Four windows polished

	Outer Dimensions (mm)			Chamber Dimensions (mm)					Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	ZD (mm)	CAPACITY (µl)	uv
1	12.5	12.5	45.0	1.0	1.0	21.0	20.0	20	8830UV1

This cell has been designed to facilitate the monitoring of HPLC fractions whilst using a spectrofluorometer.

The sample cavity is constructed so that the sample volume is kept to a minimum (20µl nominal). The cell has a large aperture capable of accepting the full exciting and fluorescent radiation. A fluorescence free grade of fused silica has been carefully selected for the construction of the cell which is of a square cross section. The flat sides ensure that any scattering of the incident radiation is kept to a minimum but still allows maximum throughput.

The sample cavity is mounted in an aluminum alloy housing 12.5mm square. Both flow tubes are fitted to the upper face and are 1.5mm OD and 0.25mm ID by 75mm long.

This construction enables the cell to fit any cuvette holder designed for standard fluorescence cuvettes.







#### **TYPE 25AFL**

#### Rectangular tandem fluorometer cell

- Four windows, base, and partition polished
- Height of divider is approximately 37mm

	Outer D	imensior	ns (mm)	Inside Dimensions (mm)			Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR	
10	12.5	12.5	45.0	2 x 4.5	10	2 x 1.300	25AFLUV10	25AFLIR10	



#### **TYPE 56**

#### Rectangular tandem fluorometer cell with PTFE stoppers

• Four windows, base, and partition polished

	Outer E	Dimensior	ns (mm)	Inside Dimer	sions (mm)	Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR
10	12.5	12.5	48.0	2 x 4.5	10	2 x 1.500	56UV10	56IR10

## 2-11 Quartz to Glass Grading Fluorometer Cuvettes



#### **TYPE 61FL**

#### Fluorometer cuvette with graded seal tube

- Four windows and base polished
- Quartz to glass graded seal tube: OD8 x ID6mm
- Height is without graded seal tube
- Overall height is approximately 125mm

	Outer E	imensior	ns (mm)	Inside Dimer	sions (mm)		Material & Part Numbers			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G	UV	IR	
10	12.5	12.5	45.0	10	10	3.500	61FLG10	61FLUV10	61FLIR10	



#### **TYPE 62FL**

#### Quartz cuvette with straight bore tube

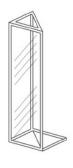
- All windows polished
- Overall height is approximately 125mm

	Outer D	imensior	ns (mm)	Inside Dimen	sions (mm)		Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV
10	12.5	12.5	140.0	10	10	3.500	62FLUV10









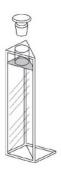
#### **TYPE 81**

#### Triangle cuvette

- Three windows and base polished
- Square base Angle: 45°x45°x90°

	Outer E	Dimensio	ns (mm)	Inside Dimen	sions (mm)		Material & Pa	rt Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR
10	12.5	12.5	45.0	10	10	1.750	81UV10	81IR10





#### **TYPE 82**

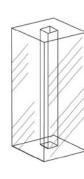
#### Triangle cuvette with PTFE stopper

- Three windows and base polished
- Square base Angle: 45°x45°x90°

	Outer D	Dimension	ns (mm)	Inside Dimen	sions (mm)	Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR
10	12.5	12.5	49.0	10	10	1.750	82UV10	82IR10

3-2





#### **TYPE 77**

#### **Observation Cell**

- Four windows and both ends polished
- Both ends open

	Outer D	imensio	ns (mm)	Inside Dimer	sions (mm)		Material & Pa	rt Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	UV	IR
2	10.5	10.5	27.4	2	2	0.110	77UV2	77IR2



Liquid Chromatography and Refractometer Flow Cells

Cells made from Optical Glass with a wavelength range of 340-2,500nm for use in colorimeters.





#### **Colorimeter Cell**

- Two windows optically polished
- Fits ACS, Data Color, Hunter and several other colorimeters

	Outer D	imension	ns (mm)	Chamber	Dimensi	ons (mm)		Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	CAPACITY (ml)	G		
2	6.0	55.0	56.0	2.0	51.0	51.0	5.000	93G2		
5	9.0	55.0	56.0	5.0	51.0	51.0	12.500	93G5		
10	14.0	55.0	56.0	10.0	51.0	51.0	25.000	93G10		
20	24.0	55.0	56.0	20.0	51.0	51.0	50.000	93G20		
30	34.0	55.0	56.0	30.0	51.0	51.0	125.000	93G30		
50	54.0	55.0	56.0	50.0	51.0	51.0	245.00	93G50		





#### **TYPE 96**

#### **Colorimeter Cell**

- Two windows optically polished
- Made for X-Rite colorimeters



	Outer D	imension	ns (mm)	Chamber Dim	ensions (mm)		Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	G		
2.5	8.5	28.0	40.0	2.5	24.0	1.800	96G2.5		
5	11.0	28.0	40.0	5.0	24.0	3.600	96G5		
10	16.0	28.0	40.0	10.0	24.0	7.200	96G10		
20	26.0	28.0	40.0	20.0	24.0	14.000	96G20		
40	46.0	28.0	40.0	40.0	24.0	28.000	96G40		
100	106.0	28.0	40.0	100.0	24.0	70.000	96G100		





#### **TYPE 87**

#### Laser absorption cell

- Four windows polished
- Quartz tube: OD6 x ID4 x L20mm
- · Height is without tube

	Outer [	Dimension	ns (mm)	Chamber	Dimens	ions (mm)	Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	CAPACITY (µI)	UV	IR
30.0	32.5	12.5	12.5	30.0	10.0	10.0	3.0	87UV30	87IR30
60.0	62.5	12.5	12.5	60.0	10.0	10.0	6.0	87UV60	87IR60

3-5 Spacers

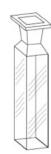
Spacers are used to reduce volume and light path for standard 10mm l/p cuvettes such as Types 1 & 1FL.

This silica block with a 30mm optical portion is suspended from a flat cover by a fused member which is narrower than the block, to form an overflow chamber when placed in the cuvette.

Spacers cannot be used in a Type 5 cell. Also, please note that due to tolerances, the Type 1 or 1FL you plan to use with the spacer ought to be ordered with the spacer to ensure proper fit.







#### **TYPE 527**

#### Precision 2-way insert spacer

All sides polished

	Out	er Dimensions (n	Material & Part Numbers	
L/P (mm)	LENGTH	WIDTH	HEIGHT	UV
1.00 & 5.00	9.00	5.00	46.50	527UV9X5
1.00 & 3.00	9.00	7.00	46.50	527UV9X7
1.00 & 2.00	9.00	8.00	46.50	527UV9X8
1.00 & 0.05	9.00	9.95	46.50	527UV9X9.95
0.50 & 2.00	9.50	8.00	46.50	527UV5X8
0.50 & 1.00	9.50	9.00	46.50	527UV5X9
0.50 & 0.20	9.50	9.80	46.50	527UV9.5X9.8
0.30 & 0.10	9.70	9.90	46.50	527UV9.7X9.9
0.20 & 0.05	9.80	9.95	46.50	527UV9.8X9.95



#### **Disposable/Plastic Cuvettes**



#### TYPE 1P

#### Standard disposable spectrophotometer cuvette

- Two windows clear
- Shipped 100 per box

	Outer D	imensio	ns (mm)	Inside Dimer	nsions (mm)			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (µI)	MATERIAL	PART NUMBER
10	12.5	12.5	45.0	10.0	10.0	3.500	UV Plastic	1PUV
10	12.5	12.5	45.0	10.0	10.0	3.500	Acrylic	1PMMA
10	12.5	12.5	45.0	10.0	10.0	3.500	Polystyrene	1PS



#### TYPE 9P

#### Semi-micro disposable cuvette

- Two windows clear
- Shipped 100 per box

	Outer E	imensio	ns (mm)	Inside Dimer	sions (mm)			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (µI)	MATERIAL	PART NUMBER
10	12.5	12.5	45.0	10.0	4.0	1.500	UV Plastic	9PUV
10	12.5	12.5	45.0	10.0	4.0	1.500	Acrylic	9PMMA
10	12.5	12.5	45.0	10.0	4.0	1.500	Polystyrene	9PS



#### **TYPE 21P**

#### **Disposable Macro Cuvettes with Stoppers**

- Two windows optically polished
- Shipped 100 per box

	Outer E	imensio	ns (mm)	Inside Dimer	sions (mm)		Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	POLYSTYRENE
10	12.5	12.5	68.0	10.0	10.0	3.5	21PS



#### **TYPE 509P**

#### **Disposable 100mm Tall Macro Cuvettes**

- Two windows optically polished
- Shipped 100 per box

	Outer D	imensio	ns (mm)	Inside Dimen	sions (mm)		Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (ml)	POLYSTYRENE
10	12.5	12.5	100.0	10.0	10.0	10	509PS







#### **TYPE 700P**

#### **Disposable Sub-Micro Cuvettes**

- Two windows clear
- Shipped 100 per box

	Outer E	Dimensior	ns (mm)	Inside C	Dimensio	ns (mm)			Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	HEIGHT	ZD (mm)	CAPACITY (µl)	UV PLASTIC
10	12.5	12.5	45.0	10.0	2.0	3.50	8.5	70	700PUV10A
10	12.5	12.5	45.0	10.0	2.0	3.50	15.0	70	700PUV10B



#### **TYPE 704P**

#### **Disposable Electroporation Cuvettes**

- Two windows clear
- Shipped 100 per box

	Outer D	imensio	ns (mm)	Inside Dimen	sions (mm)		Material & Part Numbers		
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (µI)	POLYCARBONATE		
1 <b>0X1</b>	12.5	12.5	50.0	10.0	1.0	50	704PC10X1		
10X2	12.5	12.5	50.0	10.0	2.0	220	704PC10X2		
10X4	12.5	12.5	50.0	10.0	4.0	440	704PC10X4		



#### **TYPE 1FLP**

#### Fluorometer disposable cuvette

- Four windows clear
- Shipped 100 per box

	Outer D	imensio	ns (mm)	Inside Dimen	sions (mm)			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (µl)	MATERIAL	PART NUMBER
10	12.5	12.5	45.0	10.0	10.0	3.500	Acrylic	1FLPMMA
10	12.5	12.5	45.0	10.0	10.0	3.500	Polystyrene	1FLPS



#### **TYPE 9FLP**

#### Fluorometer semi-micro disposable cuvette

- Four windows clear
- Shipped 100 per box

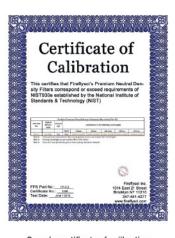
	Outer D	imensio	ns (mm)	Inside Dimer	nsions (mm)			
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (µI)	MATERIAL	PART NUMBER
10	12.5	12.5	45.0	10.0	4.0	1.500	Acrylic	9FLPMMA

## UV/VIS/NIR Calibration Standards for Spectrophotometers

Save thousands of dollars a year by using our solid-state photometric accuracy verification calibration standards. Several of our solid state filters are NIST traceable reference standards that never need recalibration due to material aging.



HF Series: VIS Photometric Accuracy Calibration Standards (400-700nm) (Optical Densities: 0.04 - 4.0au)



Sample certificate of calibration

#### HF SERIES STANDARDS

Firefly's HF neutral density solid-state filter series tests photometric accuracy in the VIS range (400-700nm).

#### PRODUCT SPECS:

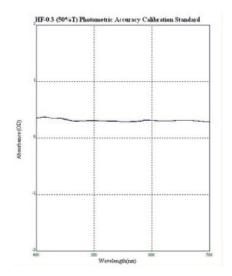
- Optical densities available: 0.04au, 0.2au, 0.3au, 0.5au, 0.7au, 1.0au, 1.5au, 2.0au, 2.5au, 3.0au, 4.0au
- Expanded uncertainties of each filter: HF-0.04 (+/- 0.0019au), HF-0.2 (+/- 0.0022au), HF-0.3 (-/- 0.0020au), HF-0.5 (+/- 0.0022au), HF-0.7 (+/- 0.0023au), HF-1.0 (+/- 0.0023au), HF-1.5 (+/- 0.0054au), HF-2.0 (+/- 0.0055au), HF-2.5 (+/- 0.0090au), HF-3.0 (+/- 0.0181au), HF-4.0 (+/- 0.0110au)
- Wavelength range: 400-700nm. Standard validation points included on the certificate of calibration are 440, 465, 546.1, 590, 635nm.
- External dimensions: 12.5x12.5x45mm

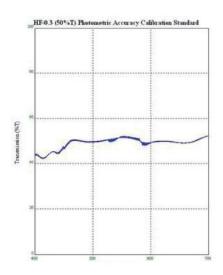
#### BENEFITS OF USING THE HF SERIES PHOTOMETRIC ACCURACY FILTERS:

- · Firefly Unique Lifetime Warranty
- · Highly accurate and consistent spectrophotometer calibration every time.
- · Never has to be replaced.
- · Never has to be recalibrated if used properly
- · Scratch-resistant coating protects optical surfaces
- Can be used in any spectrophotometer (with standard 12.5x12.5x45mm holder)
- Surpasses NIST-930e requirements and tolerances.
- · Full NIST traceability and compatibility.

#### **INCLUDED WITH HF SERIES FILTERS:**

- Instructional manual
- · Certificate of calibration with NIST traceability
- · Photometric data tables are available for qualified customers. Please contact us for more information.





Sample scan charts of HF-Series filter



#### UV/VIS/NIR Calibration Standards for Spectrophotometers



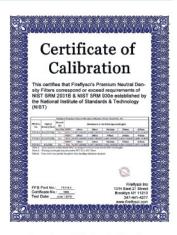
FUV Series: UV/VIS Photometric Accuracy Calibration Standards (200-700nm) (Optical Densities: 0.04 - 4.0au)

#### **FUV-SERIES**

Firefly's FUV neutral density solid-state filter series tests photometric accuracy in the UV and VIS range from 200-700nm.

#### PRODUCT SPECS:

- Optical densities: 0.04au, 0.2au, 0.3au, 0.5au, 0.7au, 1.0au, 1.5au, 2.0au, 2.5au, 3.0au, 4.0au
- Expanded uncertainties: FUV-0.04 (+/- 0.0019au), FUV-0.2 (+/- 0.0022au), FUV-0.3 (+/- 0.0020au), FUV-0.5 (+/- 0.0022au), FUV-0.7 (+/- 0.0023au), FUV-1.0 (+/- 0.0042au), FUV-1.5 (+/- 0.0054au), FUV-2.0 (+/- 0.0055au), FUV-2.5 (+/- 0.0090au), FUV-3.0 (+/- 0.0181au), FUV -4.0 (+/- 0.0110au).
- Wavelength range: 200-700nm. Standard peaks included on certificate of calibratior are 250, 280, 340, 360, 400, 465, 500, 546.1, 590 and 635nm. FireflySci can provide alternate wavelengths in the 200-700nm range upon request.
- External Dimensions: 12.5x12.5x45mm



Sample certificate of calibration

#### BENEFITS:

- · Save thousands of dollars on recalibration fees and replacement filters.
- · Save time by having standards in your lab where they are needed.
- Save on having to handle fragile and toxic liquid calibration standards.
- Give yourself peace-cf-mind knowing that all our standards are 100% NIST Traceable.
- High durability with scratch-resistant coating that protects optical surfaces.
- Can be used in any spectrophotometer in your lab (with standard 12.5 x 12.5 x 45mm holder).



Potassium Dichromate UV/VIS Photometric Accuracy Liquid Standard- NIST 935 (235-430nm)

#### POTASSIUM DICHROMATE

Potassium Dichromate liquid photometric standards for validating UV/ VIS spectrophotometers.

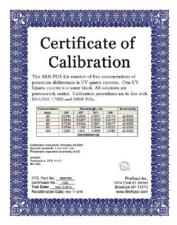
Potassium Dichromate dissolved in Perchloric Acid (0.001N) is a tried and true method of verifying for absorbance accuracy (photometric) as well as linearity in the UV range. Producing several characteristic peaks throughout the UV range, Potassium Dichromate enables checking at 235nm, 257nm, 313nm, 350nm and 430nm. FireflySci produces its own blend in house, derived from the NIST SRM 935a guidelines and permanently seals the contents in a fire-fused quartz cuvette.

#### CAPABILITIES:

 Verify for photometric accuracy and linearity in the UV range at the following wavelengths

235nm 350nm 257nm 313nm

430nm (only available with the 600mg/L concentration)



Sample certificate of calibration

#### INCLUDED WITH POTASSIUM DICHROMATE LIQUID CALIBRATION STANDARD:

- Instructions are included with every Potassium Dichromate liquid filter
- · Certificate of calibration with NIST traceability
- MSDS data for Potassium Dichromate





## UV/VIS/NIR Calibration Standards for Spectrophotometers



FNIR Series: NIR Photometric Accuracy Calibration Standards (700-3000nm) (Optical Densities: 0.04 - 4.0au)

#### **FNIR-SERIES**

NIST-traceable FNIR series standards for verifying photometric accuracy in the wavelength range of 700-3000nm.

#### PRODUCT SPECS:

- Optical densities: 0.04au, 0.2au, 0.3au, 0.5au, 0.7au, 1.0au, 1.5au, 2.0au, 2.5au, 3.0au, 4.0au.
- Expanded uncertainties: FNIR-0.04 (+/- 0.0019au), FNIR-0.2 (+/- 0.0022au), FNIR-0.3 (+/- 0.0020au), FNIR-0.5 (+/- 0.0022au), FNIR-0.7 (+/- 0.0023au), FNIR-1.0 (+/- 0.0042au), FNIR-1.5 (+/- 0.0054au), FNIR-2.0 (+/- 0.0055au), FNIR-2.5 (+/- 0.0090au), FNIR-3.0 (+/- 0.0181au), FNIR-4.0 (+/- 0.0110au).
- Wavelength range: 700-3000nm. Certified wavelength points include 700, 1100, 1700, 2700 and 3000nm. Firefly can provide alternative points in the 200-700nm range upon request or full scan data for informational purposes.
- External Dimensions: 12.5x12.5x45mm
- Fully NIST-traceable



Sample certificate of calibration



Superband Series: Full UV/VIS/NIR
Photometric Accuracy
Calibration Standards
(200-3000nm)
(Optical Densities: 0.04 - 4.0au)

#### SUPERBAND SERIES

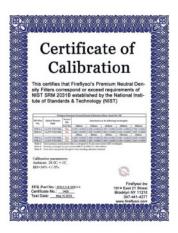
FireflySci is proud to announce the only calibration standard in existence that can verify photometric accuracy over a wavelength range of 200-3000nm.

#### CAPABILITIES:

 Photometric accuracy in the UV, VIS and NIR range (200-3000nm) at 10 certified wavelengths including: 250, 360, 465, 546.1, 635, 1100, 1700, 2210, 2500, 2850nm.

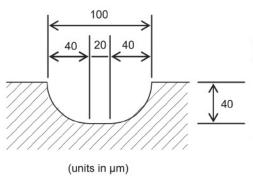
#### PRODUCT SPECS:

- Optical densities: 0.04au, 0.2au, 0.3au, 0.5au, 0.7au, 1.0au, 1.5au, 2.0au, 2.5au, 3.0au, 4.0au
- Uncertainties: SPB-0.04 (+/- 0.0019au), SPB-0.2 (+/- 0.0022au),
   SPB-0.3 (+/- 0.0020au), SPB-0.5 (+/- 0.0022au), SPB-0.7 (+/- 0.0023au), SPB-1.0 (+/- 0.0042au), SPB-1.5 (+/- 0.0054au), SPB-2.0 (+/- 0.0055au), SPB-2.5 (+/- 0.0090au), SPB-3.0 (+/- 0.0181au),
   SPB-4.0 (+/- 0.0234au).
- Wavelength range: 200-3000nm. FireflySci can provide certified calibration points anywhere in this range. Customers are able to choose points.
- External Dimensions: 12.5x12.5x45mm
- Fully NIST-traceable



Sample certificate of calibration





#### Common Specifications:

- Outer Dimensions: 32 x 65 x t3.8mm
- Material: UV Grade (Synthetic Silica Glass)
- · Grooving Method: Wet Etching
- · Cross section fluid path (see diagram above)

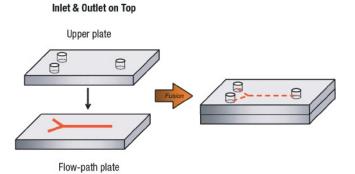
Most microfluidic chips are custom manufactured. In addition to custom manufacturing, we offer the standard chip configurations as described below. These configurations may offer a starting point upon which modifications can be made. We also offer nanoport assemblies for these chips.

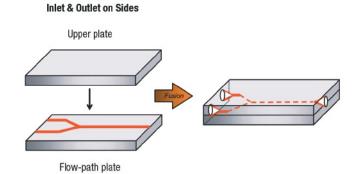
MODEL NAME	FLUID PATH LAYOUT	FLUID PATH LENGTH
YSY-01		28 mm
YLY-01		100 mm
SSS-01		55 mm
TST-101		55x20 mm

#### 7-2 Custom Microfluidic Chips

#### STRUCTURE AND ASSEMBLY

**Thermal Fusion:** Using special thermal processing, each plate is fused together to create one solid plate. No adhesives are used.







#### **TYPE 526**

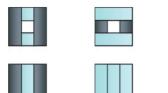
#### Standard flow channel cell

Four windows polished

• Both ends open

	Outer	Dimensions	(mm)	Inside Dimen	sions (mm)		Material & Part Numbers
L/P (mm)	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH	CAPACITY (µI)	UV
0.25	4.25	4.25	20.00	0.25	0.25	10	526UV0.25

#### 8-2 Custom Flow Channel Cells



#### **Optical Features:**

Material: Synthetic Silica Glass Usable Range: 190-2,500nm

#### Variations:

Single Cone
Double Cone
Polished Cone
Anti-Reflection Coating
Aluminum Coating... and more

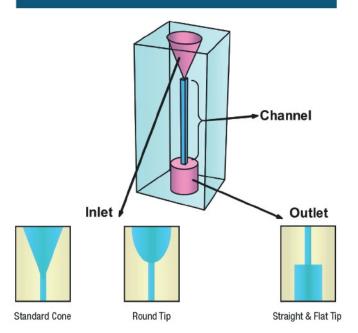
#### **Applications:**

Particle Counter & Analyzer Blood Cell Counter & Analyzer

#### **Available Size:**

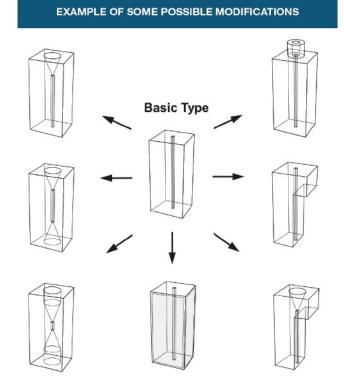
Channel Size: 50µm~ Channel Length: 100µm ~ (cone head to cone head)

#### **EXAMPLE OF A TYPICAL DESIGN**



Method: Thermal fusion or optical contact bonding Size: 50  $\mu m \sim$ 

Accuracy:  $\pm$  10  $\mu$ m standard ( $\pm$  5  $\mu$ m available)



In constructing flow channel cells, four quartz blocks are fused together. Variations using black quartz are also available, as shown above. For a quotation or if you have any questions, please send your drawing or idea to info@fireflysci.com, or fax it to +1-347-554-8048.





#### **Evacuable KBr Dies**

KBr Disc Technique: This widely practiced method consists of grinding and mixing a sample with dry KBr or KCl powder, which is then compressed within an evacuated Die to produce a transparent disc, since KBr and KCl are transparent from the ultra-violet well into the infrared. The method may be used for investigation in the ultra-violet and the visible, as well as the infrared region.

Dies suitable for producing discs of 3, 5, 6, 8, 10, 13, and 16mm diameter are available as standard within the size range of the KB series. Non-standard sizes are available on request.

All dies in the KB series are constructed entirely of stainless tool steel, and parts are precision machined. Pellets are optically flat and mirror polished. Tungsten carbide pellets and component parts can be supplied to special order.

Dies are supplied with black anodised sleeves.

#### Spares for KBr Dies

PART#	DESCRIPTION
KB-30	Set of 1 pellet for KB-3
KB-03	Plunger pellet for KB-3
KB-003	2 sets of 0-rings for KB-3
KB-50	Set of 2 pellets for KB-5
KB-05	Plunger for KB-5
KB-005	2 sets of 0-rings for KB-5
KB-60	Set of 2 pellets for KB-6
KB-06	Plunger for KB-6
KB-006	2 sets of 0-rings for KB-6
KB-80	Set of 2 pellets for KB-8
KB-08	Plunger for KB-8
KB-008	2 sets of 0-rings for KB-8
KB-100	Set of 2 pellets for KB-10
KB-010	Plunger for KB-10
KB-0010	2 sets of 0-rings for KB-10
KB-130	Set of 2 pellets for KB-13
KB-013	Plunger for KB-13
KB-0013	2 sets of 0-rings for KB-13
KB-160	Set of 2 pellets for KB-16
KB-016	Plunger for KB-16
KB-0016	2 sets of 0-rings for KB-16
KB-SE	Spare extractor ring for the above dies
KB-3	KBr Die for 3mm Disc
KB-5	KBr Die for 5mm Disc
KB-6	KBr Die for 6mm Disc
KB-8	KBr Die for 8mm Disc
KB-10	KBr Die for 10mm Disc
KB-13	KBr Die for 13mm Disc
KB-16	KBr Die for 16mm Disc
KB-13ST	KBr Die Starter Kit for 13mm Disc
KB-16ST	KBr Die Starter Kit for 16mm Disc







#### **Evacuable XRF Dies**

X-Ray Disc Technique: The BKX series of x-ray dies provides a standard size range producing discs of 20, 25, 32, 35, and 40mm diameter for x-ray fluorescence study of powders and materials. Certain powders which are normally difficult to pelletize without the addition of a binding agent may be successfully pressed within a thin walled plastic ring.

9-1

Tungsten carbide plungers and pellets also available.

#### Spares for X-RF Dies

PART#	DESCRIPTION	
KBX-200	Set of 2 pellets for KBX-20	
KBX-020	One only plunger for KBX-20	
KBX-0020	2 sets of 0-rings for KBX-20	
KBX-250	Set of 2 pellets for KBX-25	
KBX-025	One only plunger for KBX-25	
KBX-0025	2 sets of 0-rings for KBX-25	
KBX-320	Set of 2 pellets for KBX-32	
KBX-032	One only plunger for KBX-32	
KBX-0032	2 sets of 0-rings for KBX-32	
KBX-350	Set of 2 pellets for KBX-35	
KBX-035	One only plunger for KBX-35	
KBX-0035	2 sets of 0-rings for KBX-35	
KBX-400	Set of 2 pellets for KBX-40	
KBX-040	One only plunger for KBX-40	
KBX-0040	2 sets of 0-rings for KBX-40	
KBX-SE	Spare extractor ring for the above dies	
KBX-20	Evacuable die for 20mm disc	
KBX-25	Evacuable die for 25mm disc	
KBX-32	Evacuable die for 32mm disc	
KBX-35	Evacuable die for 35mm disc	
KBX-40	Evacuable die for 40mm disc	



#### **Evacuable 8mm Spanner Die**

This KBr Spanner Die is used to produce small numbers of 8mm diameter KBr Discs when a standard die and hydraulic press cannot be justified. The sample is squeezed between the optically polished faces of two 9/16 UNF bolts in the evacuable die body. Moisture is removed from the sample by evacuation. Pressure is then applied by tightening a spanner each end, on the bolts relative to each other. On removal of the bolts, the sample disc remains in the die body. A slide holder is supplied for holding the die body in the FTIR instrument.

PART#	DESCRIPTION
KB/SD-1	Spanner die complete with bolts, seals, & slide holder
KB/SD-2	Spanner die with bolts and seals
KB/SD-3	Spare set of bolts
KB/SD-4	Set of spanners
KB/SD-5	Spare seals
KB/SD-6	Slide holder









#### **KBr Disc Holders with Rectangular Mounting Plate**

Other sizes available on request.

PART#	DESCRIPTION
KB-DH3	For 3mm disc
KB-DH5	For 5mm disc
KB-DH10	For 10mm disc
KB-DH13	For 13mm disc
KB-DH16	For 16mm disc
KB-DHM13	Magnetic holder for 13mm disc
KB-FH	Magnetic film holder 20mm aperture



#### Reflex Evacuable 13mm KBr Minidie (Uni-Die)

Simple, three–piece construction, manufactured from hardened stainless steel. The stepped end pellets are optically polished and there are O-rings on each end for vacuum seal. This can be used with any standard hydraulic press. The pellet is formed in the body and held in the 3" x 2" V-mount for analyzing. After analysis, the sample is washed out and the die is ready for re-use.

PART#	DESCRIPTION
KB/UD-1	Minidie complete with 3"x2" V-mount
KB/UD-2	Set of spare stepped pellets (2)
KB/UD-3	Spare 3"x2" V-mount slide holder
KB/UD-4	Spare set of 0-rings (4)





PART#	DESCRIPTION
CHR1/50	Rectangular cuvette holder for cells 1-50mm p/l
CHR1/100	Rectangular cuvette holder for cells 1-100mm p/l
CHC10/50	Cylindrical cuvette holder for cells 10-50mm p/l
CHC10/100	Cylindrical cuvette holder for cells 10-100mm p/l
CHM12.5	Micro cuvette holder for cells 10mm p/l
CHU1/100	Universal cuvette holder for rect & cyl cells 10-100mm

9-2

9-3 Gas Cells



#### 100mm Stainless Steel Gas Cell for FTIR

Gas cell is constructed in 316 S.S.

O-rings are used in each end to seal windows with anodized aluminium caps.

Two nupro plug valves are connected via S.S. tubes to body of gas cell.

Window size: 38mm diameter x 6mm, clear aperture 25mm diameter.

Volume is 50cc. Valve outlet connection 1/4" (6.35mm) swagelok.

Two 1/4" (6.35mm) S.S. tubes with rifle ends are supplied for connecting with laboratory tubing.

Slide plate holder with captive screw to lock cell on holder.

Gas cell is supplied with slide plate holder in presentation case.

Windows are not included. Part number: GC-10SS



#### 100mm PTFE Gas Cell for FTIR

Gas cell is constructed in PTFE. O-rings are used in each end to seal windows with anodized aluminium caps.

Two PFA valves are connected to body of gas cell.

Window size: 38mm diameter  ${\bf x}$  6mm, clear aperture 25mm diameter.

Volume is 50cc. Valve outlet connection 1/4"(6.35mm).

Two 1/4"(6.35mm) PTFE tubes with rifle ends are supplied for connecting with laboratory tubing.

Slide plate holder with captive screw to lock gas cell on holder.

Gas cell is supplied with slide plate holder in presentation case.

Windows are not included. Part number: TGC-10



# CUVETTE

# **Buying guide**

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