

Polarimetry Cells

Our polarimetry cells are exclusively manufactured for PerkinElmer. Use them to maintain the high level of accuracy and precision of your PerkinElmer Polarimeter. They are manufactured by a special process in which the windows are fused to the cell bodies to ensure that they are free of tension. Because the windows are not mechanically inserted, birefringence effects, which could affect the accuracy of your reading, are eliminated.

Each of our polarimetry cells is individually tested with respect to its pathlength. The actual pathlength of each cell is engraved on the cell to the nearest 0.001 cm (i.e. to the nearest 0.01 mm), together with the serial number of the cell.

All cells are jacketed for thermostating with constant temperature water, except for one flowcell. Their residual cell rotation is almost zero and may be neglected in most measurements.

Cells are designed for easy filling and emptying, with no loss of sample. The filling ports are arranged so that liquid flows over the inner window surfaces. A wide variety of cells made of fused silica are available. These cells are used for measurements of optical rotation in the ultraviolet range or at elevated temperatures.

PerkinElmer offers a wide range of polarimetry sample cells for virtually all applications, including micro cells, short path cells, flow cells, and fused silica (quartz) cells. Use quartz cells for all wavelengths and for elevated temperatures (200 °C, maximum). Use glass cells only for visible wavelengths, above 400 nm.

Standard Cells for Polarimetry

Material	Lightpath	Cell Vol.	Part No.
Quartz	100 mm	3.0 mL	B0507403
Quartz	100 mm	6.2 mL	B0041696
Optical Glass	100 mm	3.0 mL	B0507447
Optical Glass	100 mm	6.2 mL	B0041693

Short Path Cells for Polarimetry

Material	Lightpath	Cell Vol.	Part No.
Quartz, Fused Silica	20 mm	1.3 mL	B0022087
Quartz, Fused Silica	10 mm	0.6 mL	B0022088
Optical Glass	10 mm	0.5 mL	B0017052
Optical Glass	1 mm	0.25 mL	B0017057

Micro Cells for Polarimetry

Material	Lightpath	Cell Vol.	Part No.
Quartz, Fused Silica	100 mm	1.0 mL	B0023365
Quartz, Fused Silica*	100 mm	0.35 mL	B0131186
Optical Glass	100 mm	1.0 mL	B0017047

* With reduced inner diameter

Beaker Cells for Polarimetry

Beaker cells are not thermostatable.

Material	Lightpath	Cell Vol.	Part No.
Quartz, Fused Silica	100 mm	50 mL	B0023363
Optical Glass	100 mm	50 mL	B0017041

Flow Cells for Polarimetry

Material	Lightpath	Cell Vol.	Part No.
Quartz, Fused Silica*	100 mm	6.2 mL	B0507451
Optical Glass	100 mm	5.0 mL	B0017054

* With two PTFE tubing (4 mm i.d.)

Pluggable Coupling

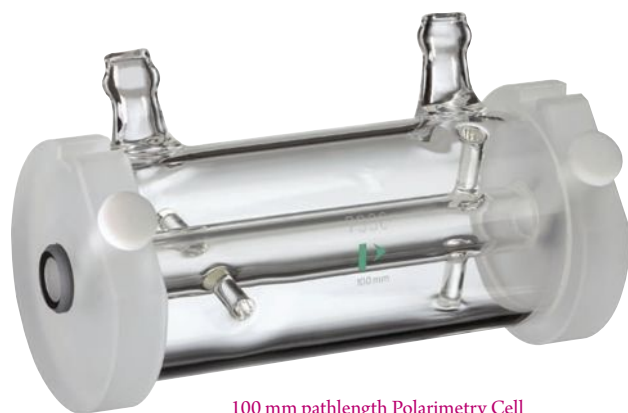
For cell thermostating.

Connection	Part No.
Female	B0023491
Male	B0023492

PTFE Stopper

10 mm long.

Cell Compatibility	Diameter	Part No.
017 047/017 057/022 086 - 022 091/023 365/037 634/037 635/022 085/037 357	3 mm	B0017059
041 693/041 696	6 mm	B0041695



100 mm pathlength Polarimetry Cell

Long Lifetime Source Lamps

High-quality source lamps, specially selected to optimize the performance of all PerkinElmer polarimeters, offer high radiant energy and a long operating lifetime. Their high output ensures that very accurate measurements of optical rotation can be made, even when the sample absorbs strongly.

Description	Polarimeter Model	Part No.
Sodium, 20 W	341/343/343plus/341LC/ 241/241MC/243/243B	B0008754
Mercury Vapor (St46)	341/343S/343plus/341LC	B0510581



Secondary Quartz Standards for Instrument Validation

Quartz control plates provide traceable instrument calibration in the visible spectral range, ensuring the highest standards of accuracy and precision for all measurements. All quartz control plates feature a thermostatable housing.

Description	Nominal Rotation	Part No.
Quartz Control Plate +1	+1° at 589 nm	B0098800
Quartz Control Plate -1	-1° at 589 nm	B0098799

Optional Interference Filter

For Model 341 Polarimeters. Service installation recommended.

Wavelength	Part No.
302 nm	B0094404
325 nm	B2100154
405 nm	B0062666