

## Cells Available with the Zetasizer Range



A wide selection of cells is available for use with the Zetasizer range of instruments. This technical note lists all of the cells currently available from Malvern Instruments. Each has qualities and advantages that suit particular applications. The following tables describe the available cells and show which instruments from the Zetasizer range that the cells can be used with.



Table 1 gives a description of the cells.

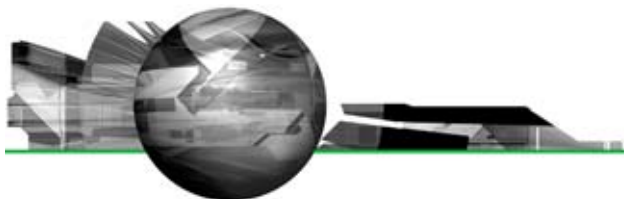
Table 2 shows which of the cells are compatible with size measurements.




Table 3 shows which of the cells are compatible with zeta potential measurements.

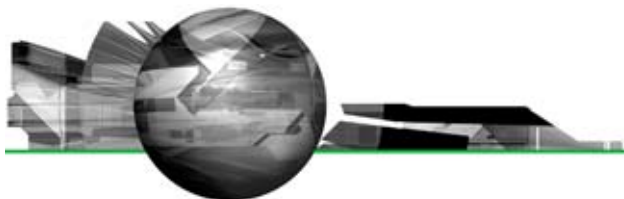
Table 4 shows which of the cells are compatible with molecular weight measurements.




**Table 1:** Size, molecular weight and zeta potential cells available with the Zetasizer range.

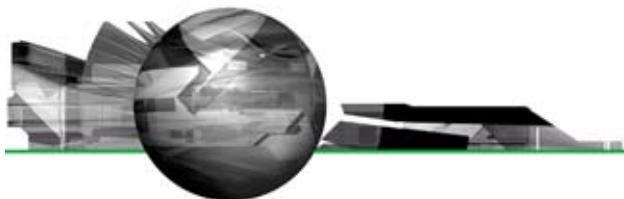
Part number	Description	Picture
DTS0012	Disposable polystyrene cuvette, pack of 100 with 100 caps, minimum volume 1mL, suitable for all systems that measure size. Compatible with: Zetasizer 1000/3000, HPPS, Zetasizer Nano series	
ZEN0118	Disposable low volume cuvette for size measurement, pack of 100 with 100 caps, minimum volume 50µL, suitable for all systems that measure size at 90 degree scattering angles only. Compatible with: Zetasizer Nano series and Zetasizer µV	




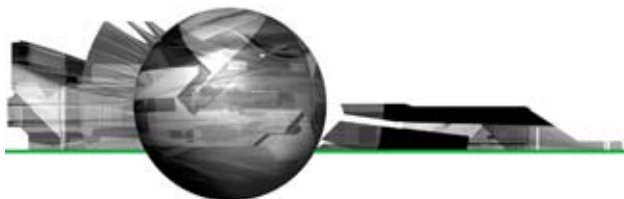
ZEN0040	<p>Disposable, solvent resistant micro cuvette, for size measurement at a 173 degree scattering angle, pack of 100 with 100 caps, minimum volume 40<math>\mu</math>L, suitable for Zetasizer Nano S and ZS. Not suitable for measurements at a 90 degree scattering angle.</p> <p>(Resistant to Acetone, Benzaldehyde, Butanone, Dioxane, DMF, Ethyl acetate, Isopropanol, various acids and bases)</p>	
PCS8501	<p>Square glass cuvette for size and molecular weight measurements. For the Zetasizer 1000/ 3000/ 3000HS, HPPS and Nano series. With circular aperture and stopper. Not suitable for use with the 'dip' cells for electrophoresis measurement</p>	
PCS1115	<p>Square glass cuvette with cap for 'dip cell' electrophoresis measurement and size and molecular weight measurements. Compatible with the Nano series universal dip cell (ZEN1002) and the Zetasizer 2000 and 3000 Series aqueous and non-aqueous 'dip' cells (DTS5001/5002). With square aperture and cap</p>	






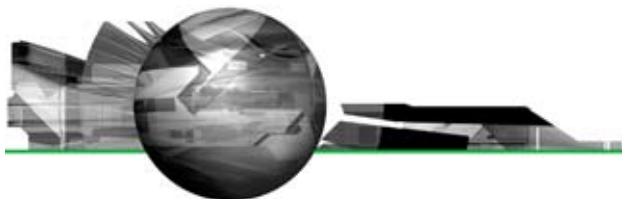
ZEN0023	<p>Quartz flow cell for size, intensity and molecular weight measurement. Compatible with MPT-2 autotitrator and Zetasizer Nano S, ZS, S90. (S90 for Size and Intensity only). Complete with connecting tubing.</p>	
ZEN0116	<p>Quartz flow cell to enable the use of the Zetasizer Nano as a detector when connected to an SEC system. Connections compatible with standard SEC tubing 1/16inch o.d.</p> <p>Includes, ZEN0023 quartz flow cell, connections for cell, 1.5m PEEK tubing, 1/16inch o.d. 0.1mm i.d.</p>	
ZMV1008	<p>Quartz flow cell to enable the use of the Zetasizer <math>\mu</math>V as a detector when connected to an SEC system. 8<math>\mu</math>L volume. Connections compatible with standard SEC tubing 1/16inch o.d.</p> <p>Includes, quartz flow cell, connections for cell, 1.5m PEEK tubing, 1/16inch o.d. 0.1mm i.d.</p>	




ZEN2112	<p>Low-volume quartz batch cuvette for size and molecular weight measurements for use with the Zetasizer Nano series, Minimum sample volume for S/ZS is 12 microlitres, for S90/ZS90 minimum volume is 20 microlitres,</p>	
ZEN1002	<p>Universal Dip Cell for the zeta potential measurement of low mobility samples such as those in organic solvents.</p> <p>Used in conjunction with DTS0012 and PCS1115. Compatible with the Zetasizer Nano Z, ZS and ZS90.</p>	
ZMV1002	<p>Low-volume quartz batch cuvette for size and molecular weight measurements for use with the Zetasizer <math>\mu</math>V. Minimum sample volume 2<math>\mu</math>L</p>	



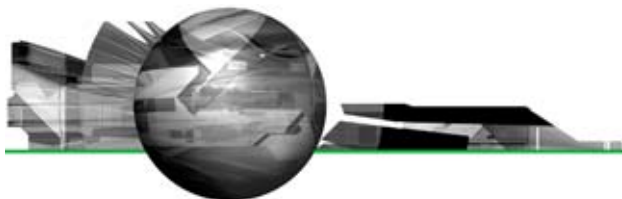
ZMV1012	<p>Low-volume quartz batch cuvette for size and molecular weight measurements for use with the Zetasizer <math>\mu</math>V. Minimum sample volume 12<math>\mu</math>L.</p>	
ZEN1020	<p>Surface zeta potential cell for the measurement of the zeta potential of planar surfaces using the Zetasizer Nano Z, ZS and ZS90.</p> <p>Used in conjunction with DTS0012 and PCS1115.</p> <p>Samples should be 4-7 mm x 4 mm x <math>\leq</math>1.5 mm thick.</p>	
ZEN1010	<p>High concentration cell for the measurement of size and zeta potential with the Zetasizer Nano Z and ZS.</p> <p>The quartz cell has a path length of 1.5mm and this cell is compatible with the MPT-2 autotitrator.</p>	



DTS1061	Disposable cuvettes for the measurement of size and zeta potential with the Zetasizer Nano series. Pack of 10 with 25 stoppers. This part number should be ordered when referred to as DTS1060C in the software. 'C' refers to the cell being manufactured from clear polycarbonate.	
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**Table 2:** Cells capable of size measurements with the different Zetasizers.

Cuvettes for size measurement	Zetasizer 1000/3000	HPPS	Zetasizer Nano S90/ZS90	Zetasizer Nano S/ZS	Zetasizer $\mu$ V
DTS0012	✓	✓	✓	✓	✓
ZEN0118	✓	✗	✓	✗	✓
ZEN0040	✗	✗	✗	✓	✗
PCS8501	✓	✓	✓	✓	✓
PCS1115	✓	✓	✓	✓	✓
ZEN0023	✗	✗	✓	✓	✓
ZEN0116	✗	✗	✓	✓	✓
ZMV1008	✗	✗	✗	✗	✓
ZEN2112	✗	✗	✓	✓	✓
ZMV1002	✗	✗	✗	✗	✓
ZMV1012	✗	✗	✗	✗	✓



**Table 3:** Cells capable of zeta potential measurements with the different Zetasizers.

Cuvettes for zeta potential measurement	Zetasizer Nano Z	Zetasizer Nano ZS90	Zetasizer Nano ZS
DTS1061	✓	✓	✓
ZEN1020	✓	✓	✓
ZEN1010	✓	✓	✓
ZEN1002	✓	✓	✓

**Table 4:** Cells capable of molecular weight measurements with the different Zetasizers.

Cuvettes for molecular weight measurement	Zetasizer Nano ZS90	Zetasizer Nano ZS	Zetasizer $\mu$ V
PCS8501	✓	✓	✓
PCS1115	✓	✓	✓
ZEN2112	✓	✓	✓
ZMV1002	✗	✗	✓
ZMV1012	✗	✗	✓
ZMV1008	✗	✗	✓
ZEN0116	✓	✓	✓

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