

HIGH-NA IMAGING AR COATED CELLS

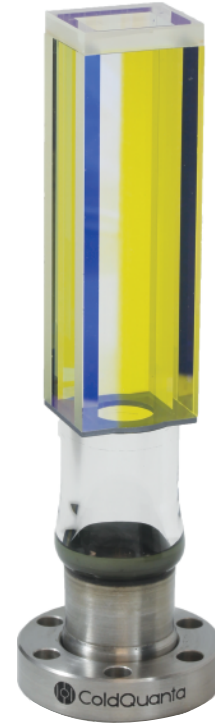
Product

Optically matched to readily available objectives at 0.3, 0.5, and 0.7 NA

Ultrahigh vacuum cell

Anti-reflection coated on inside and outside surfaces of all cell walls (uncoated available)

Bakeable to high temperatures



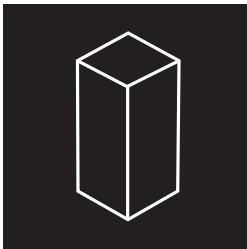
Product Description

ColdQuanta's high-quality glass cells offer a new level of optical access to in-vacuum experiments. Assembled with an optical contacting process, the cells provide high-quality AR coatings while maintaining very high optical flatness in the cell walls, enabling minimal optical distortion through the cell. This cell family is designed to be used with readily available microscope objectives, including the G Plan APO 20x and 50x ULWD objectives from Mitutoyo, which allow the user to access samples at 0.3 and 0.5 NA, respectively. The cell is fabricated to ensure excellent parallelism between the two large faces, making it possible to image or project light through two faces of the cell with almost no astigmatism. The cells are connected to the flange through an anodic bond to a silicon transfer, and have no epoxy or frits, giving them excellent outgassing properties.

Product Specifications

Nominal ID Dimensions	10 mm x 13 mm x 60 mm
Optical Flatness	$< \lambda/2$ per cm peak-valley flatness
Wall Thickness	3.5 mm \pm 0.05 mm
Top/bottom face parallelism	< 1 arcminute
AR Coating	IBS AR coating. Stocked with targeted coating for rubidium, cesium, potassium, sodium, and optical trapping at 532 and 1064nm. Uncoated cell also available
Temperature Range	up to 300 °C
Vacuum Connection	DN16 (1.33") or DN40 (2.75") CF flange
Cell Material	Schott Borofloat-33





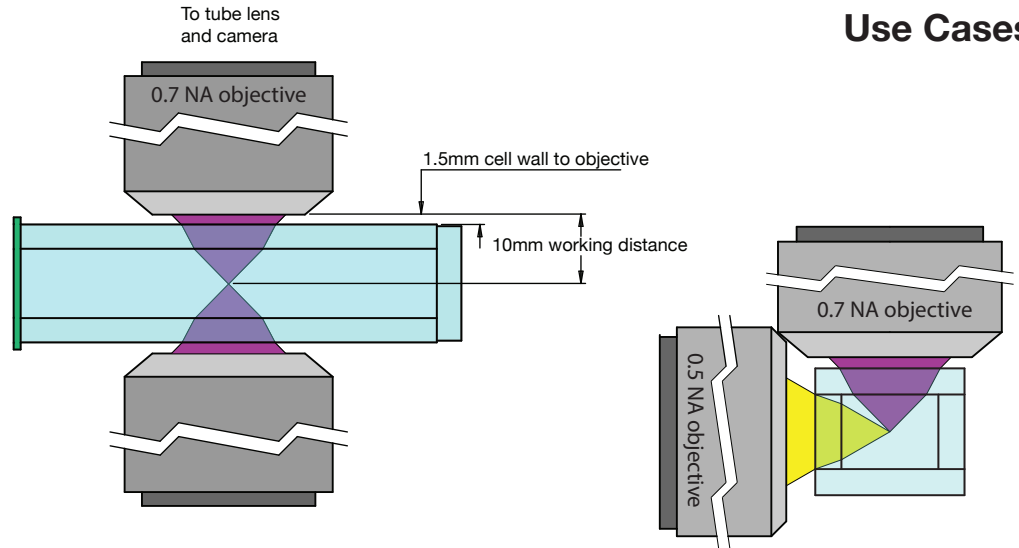
HIGH-NA IMAGING CELLS

Quantum Technology Simplified

Product Numbers

AR Coated: CCR-MAGG-B16M
Uncoated: CCR-MAGG-B16N

Use Cases



Mechanical Drawing (CCR-MAGG-BXXX shown)

