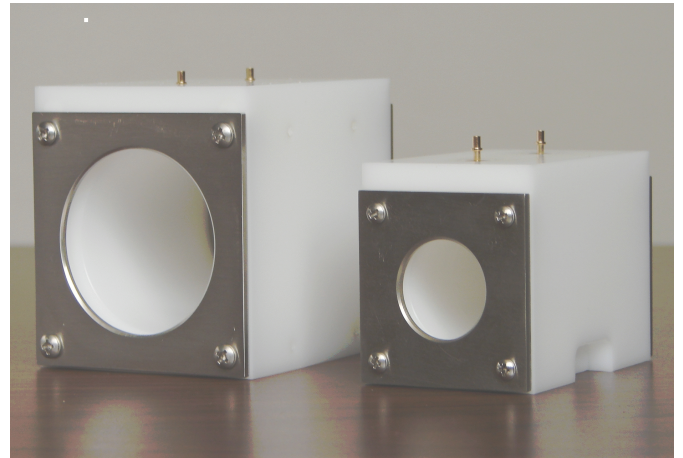


Featuring standard clear apertures up to 50 mm and special order devices up to 75 mm diameter, the 1144 Series is currently being used in multistage laser applications to prevent amplified stimulated emission (ASE) and reflections from returning to and damaging lower level stages. Because of the high peak optical powers encountered and the unusually low wavefront distortion requirements, these devices are fabricated from selected, high quality deuterated KD*P crystals and fused silica windows. Crystals are treated with sol gel antireflection coatings for a variety of wavelengths. Windows are antireflection coated with a vacuum deposited hard coating. Each unit is thoroughly characterized by mechanical, electro-optic and interferometric testing.

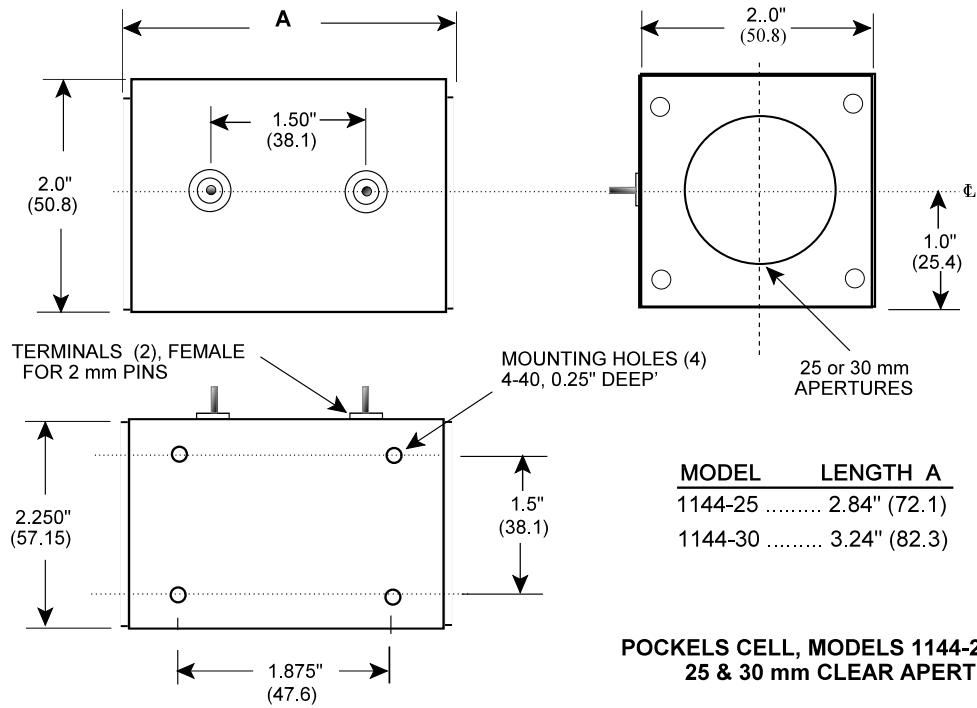


The 1144 Series is intended for use in laser pulse gating, extraction and polarization rotation applications. In ASE Systems, where femtosecond optical pulses are blocked, extinction ratios > 1000:1 are possible with well collimated, uniform wavefront laser beams.

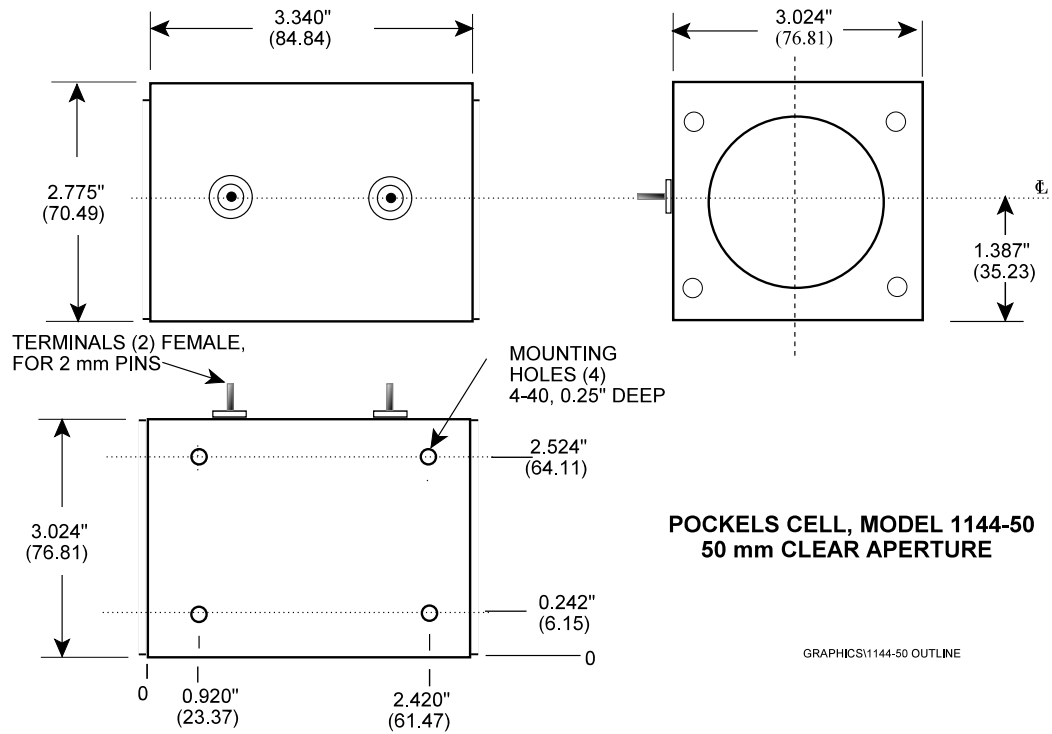
1144 SERIES - NOMINAL SPECIFICATIONS

MODEL	1144-25	1144-30	1144-50
Aperture Diameter, mm	25	30	50
Crystal Material, KD*P -- %Deuteration	>98.5%	>98.5%	95% & 98.5%
Damage Threshold, Peak Optical Power Density, Max. Uniform Beam, No Hot Spots	850 Megawatts/cm ² for pulses <10 ns wide 1 Gigawatts/cm ² for pulses <500 ps wide 10 Gigawatts/cm ² for pulses <100 fs wide		
λ Range for Peak Power Density, nm	450 to 1100		
Transmission, 450 to 1064 nm	>98%	>97%	≈95%
~1/2 Wave Retardation Voltage, kVDC @694 nm	4.3	4.5	4.9
kVDC @800 nm	4.9	5.1	5.6
kVDC @1064 nm	6.5	6.8	7.5
Extinction Ratio (Contrast Ratio), 90% Full Aperture, @633 nm	>1500:1	>1000:1	>700:1
Rise Time, 10 to 90%, ns	<3	<5	<10
Capacitance, pf	≈12	≈15	≈35
Weight, kg	≈0.8	≈0.9	≈1.2

NOT TO SCALE



GRAPHICS\1144-25-30 OUTLINE



GRAPHICS\1144-50 OUTLINE