

The HPULB4S1 Ultra-Low-Background Lead Shield is a 10 cm (4 in), high performance copper/tin lined lead shield for high-purity germanium detectors (HPGe). The graded liner is designed for the suppression of lead x-rays and consists of a tin layer of 1 mm (0.040 in.) covered by an oxygen free copper layer of 1.6 mm (0.062 in.). The top is solid, minimizing any potential shine and providing the best possible shielding. The shield includes a rigid stand with adjustable feet, an Ultra-Low-Background plug, and an adjustable dewar stand to easily lift and lower the dewar in place. The HPULB4S1 exterior and stand are coated with durable epoxy paint while all copper components are coated with a clear polyurethane sealer to prevent corrosion.

All shields are adjusted at the factory and movable lids are positioned with packing material to prevent opening during shipment. All shields require professional installation by qualified riggers that are competent with heavy weight installations. Once installed, the lids should require only minimal adjustment to remove any packing material and ensure proper operation.

The HPULB4S1 shield is designed to accommodate ORTEC vertical dipstick cryostat models CFG-PV4, CFG-SV, and CFG-LP-SV.

Compatible with the MOBIUS-PT, MOBIUS-ST, and DWR-30.

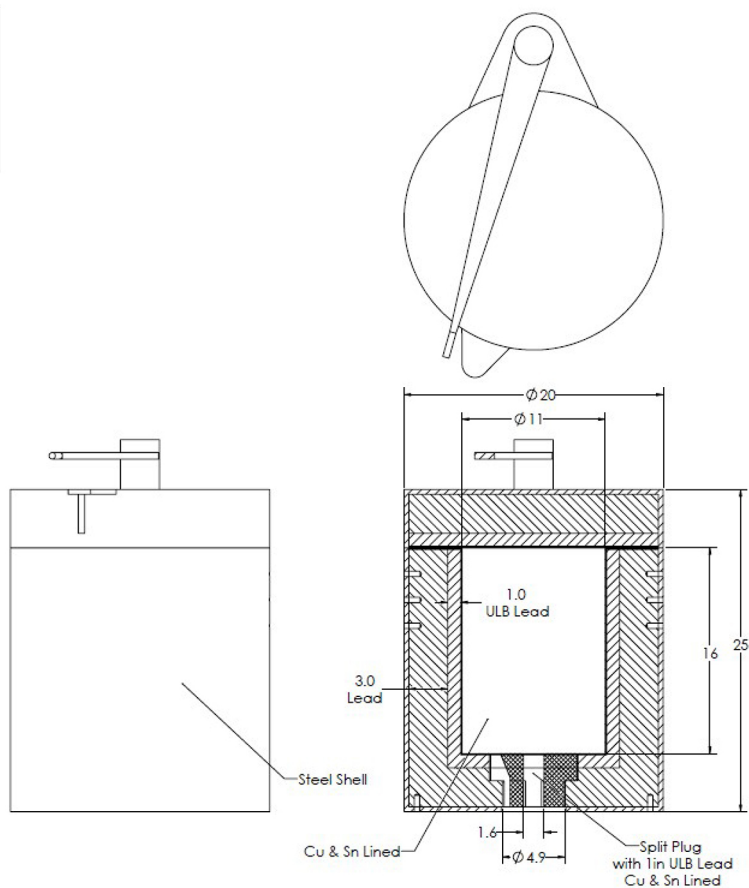
The cutaway sketch shows the shield with the supplied bottom plug.



#### HPULB4S1 Specifications

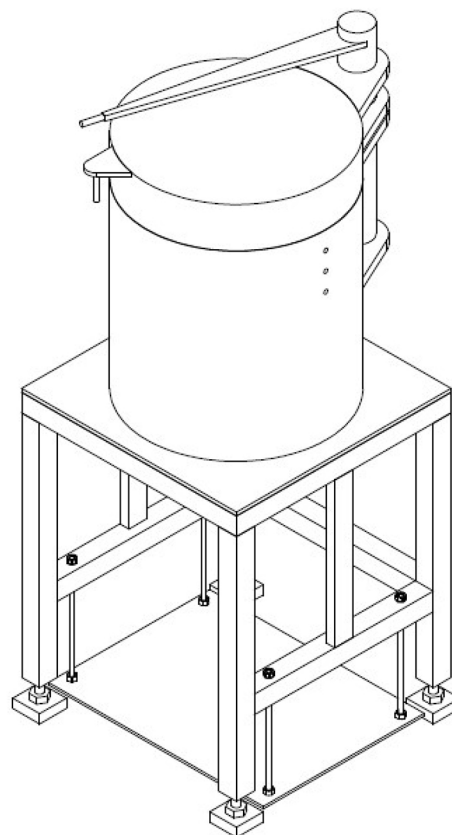
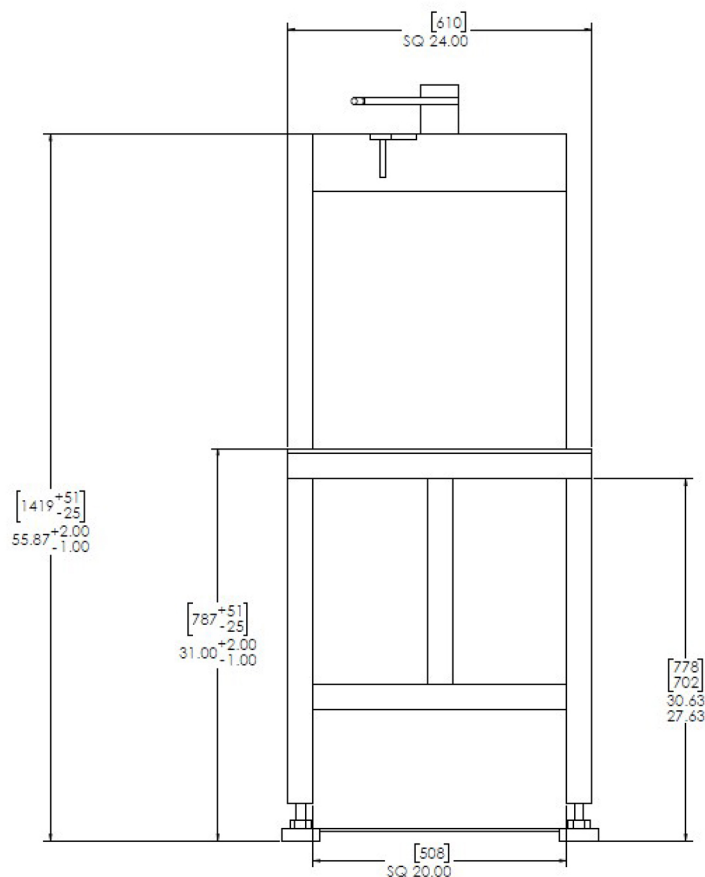
Overall	Height: 635 mm (25 in) Width: 508 mm (20 in)
Cavity	Diameter: 279 mm (11 in) Depth: 406 mm (16 in)
Outer Jacket	9.5 mm (3/8 in) thick low-carbon steel
Shield	Total: 100 mm (4 in) thick lead shielding Inner: 25 mm (1 in) thick ultra-low-background lead, Pb-210 content <30 Bq/kg
Graded Lining	1 mm (0.04 in) tin and 1.6 mm (0.062 in) oxygen free copper
Weight	1090 kg (2400 lbs)

\*All Lead is fully encased in metal.



# HPULB4S1

## High-Performance, Ultra-Low-Background Shield and Stand for HPGe Detectors



### Ordering Information

Model	Description
HPULB4S1	Top Loading Lead Shield for CFG-PV4, CFG-SV, and CFG-LP-SV cryostats.

Other styles of Ultra-Low-Background Shields for HPGe detectors are available. Examples are front-loading shields, shields for detectors with J-style cryostats, and six-inch shields. Contact your ORTEC Sales Representative for a solution to your particular shielding need.