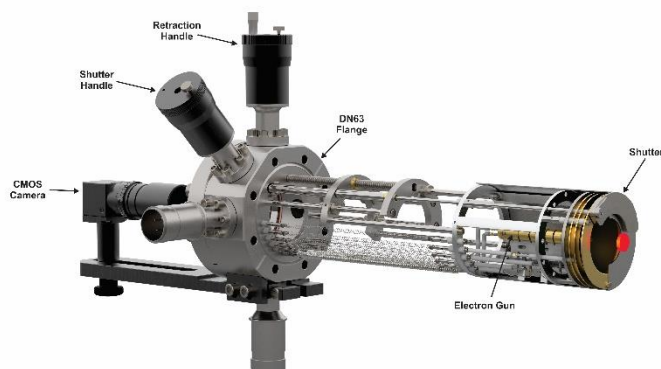


# LEED 450MAX Configuration Guide and Specifications



## LEED configuration

Base configuration		
Model	Order Code	
BDL450-MAX	AO-special	Back-Display LEED spectrometer with 3 Grid-high resolution (0.2%) retarding field analyzer based on gold plated hemispherical grids with <b>92 DEG.</b> capture angle. Integral miniature electron gun with 10 mm O.D. lenses made of gold-plated copper alloy, optical quality glass-luminescent display, and Mu-metal shield mounted on the double-sided CF4.5" (DN63CF) oversized flange. Viewport and mounting kit included. Wide beam current range: from pA to uA. <b>Working distance of 10 mm from the sample.</b>  <b>Flange to sample distance: to be specified.</b>
LMX-MAX	AO-special	Integral linear retraction based on 4 linear ball bearings up to 100 mm
LPS075-D	AO00023	Digital power supply (0-750 V) with USB interface and PC control software for Windows 10/11. True primary beam current and total emission measurements. Ten memory settings, including standby and outgassing mode with timer, constant beam current mode controlled by filament current or Wehnelt voltage. All cables included.
Options		
ISH-MAX	AO-special	Integral shutter for BDL450
ISH-MAX-FL	AO-special	Foldable Integral Shutter for BDL450
LaB <sub>6</sub>	AO00013	LaB <sub>6</sub> single crystal filament instead of a tungsten wire filament
NP-MAX	AO-special	4.5"(DN63) Nipple Extension
Electronics Upgrade		
LPS300-D-UP		Upgrade from LPS075-D(LEED) to LPS300-D(LEED-AES)
LOA10-AES	AO00025	Model LOA10-AES, Digital AES controller with lock-in amplifier, AES high voltage ramp board 0-2.0 kV with precision sinewave oscillator (0.5-20 V pk-pk) and AES software. USB communication to PC. High Auger signal sensitivity based on integrated band-pass filter and pre-amplifier (0.05% of monolayer for Ag peak 351-356 eV). All cables included.

## LEED and AES configuration

Base configuration		
Model	Order Code	
BDL450-MAX	AO-special	<p>Back-Display LEED spectrometer with 3 Grid-high resolution (0.2%) retarding field analyzer based on gold plated hemispherical grids with <b>92 DEG.</b> capture angle. Integral miniature electron gun with 10 mm O.D. and Mu-metal shield mounted on the double-sided CF4.5" (DN63CF) oversized flange. Viewport and mounting kit included. Wide beam current range: from pA to uA.</p> <p><b>Working distance of 10 mm from the sample.</b></p> <p><b>Flange to sample distance: to be specified.</b></p>
LMX-MCP	AO-special	Integral linear retraction based on 4 linear ball bearings up to 150 mm
LPS300-D	AO00024	Digital LEED-Auger power supply (0-3.2 kV) with USB interface and PC control software for Windows 10/11. True primary beam current and total emission measurements. Automatic start-up and shut down, 10 memory settings including outgassing with timer, automatic switch from LEED to AES, constant beam current mode. All cables included.
LOA10-AES	AO00025	Model LOA10-AES, Digital AES controller with lock-in amplifier, AES high voltage ramp board 0-2.0 kV with precision sinewave oscillator (0.5-20 V pk-pk) and AES software. USB communication to PC. High Auger signal sensitivity based on integrated band-pass filter and pre-amplifier (0.05% of monolayer for Ag peak 351-356 eV). All cables included.
Options		
ISH-MAX	AO-special	Integral shutter for BDL450
ISH-MAX-FL	AO-special	Foldable Integral Shutter for BDL450
NP-MAX	AO-special	4.5"(DN63) Nipple Extension
LaB <sub>6</sub>	AO00013	LaB <sub>6</sub> single crystal filament instead of a tungsten wire filament