

# AnaLight® 4D Workstation

## Product Specification



Technology	Dual Polarization Interferometry, DPI, is embodied in the <b>AnaLight® 4D Workstation</b> , laboratory instrument from Farfield. The system measures the real time changes in <b>size, density</b> and <b>mass</b> of protein assemblies and other biomolecules at sub-nanometer resolution
Information Provided	<ul style="list-style-type: none"> <li>• Quantitative and dynamic measurements for <b>size, density, and mass</b> (and hence <b>conformation</b>) of captured proteins and other molecules</li> <li>• Affinity, kinetics and thermodynamics of <b>binding</b> and <b>conformational change</b></li> <li>• Birefringent layer analysis defining <b>degree of alignment or order</b> of lipid bilayers, inks, dyes, etc</li> <li>• Derived quantities of number of molecules, surface concentration, molecular footprint, stoichiometry</li> </ul>
Automation	Vial,96 and 384 will format, accurate sample cooling down to 4°C, dual microtitre plate capability, multi-solvent needle wash
Sample Volume	Samples volume to below 50µl with user changeable injection loops
Performance	Repeatability <0.5% Accuracy: <0.00001RI, size <1nm, mass <1pg/mm <sup>2</sup> Resolution: <0.000001RI, size <0.01nm, mass <0.1pg/mm <sup>2</sup> Sample Rate 10Hz Temp Control +/-0.001°C Temperature ramping up to 3°C/min
Flow Rate	1-100µl/min
Analysis Temperature range	Accurate temperature control (4°C below ambient to +65°C +/- 0.001°C) with rapid temperature stabilisation
Sensor Surfaces	Farfield provides a range of <b>AnaChip™</b> and <b>AnaChip™ Plus</b> sensor surfaces for immobilization of bio-molecules and a range of <b>AnaKit™</b> reagents and protocols for a wide range of experimental procedures
Weight and Size	Analysis Station: Weight 32kg Size 900x480x350mm Computer Weight 5kg Size 450x450x160mm Screen 450x400x150mm Pump Weight 4kg Size 280x230x160mm
Lab Conditions	<ul style="list-style-type: none"> <li>• All <b>AnaLight®</b> products are intended for use indoors, in a temperature regulated laboratory environment (22-25°C +/-1°C nom), non condensing humidity, category II and pollution Degree 2.</li> </ul>
Software	<ul style="list-style-type: none"> <li>• <b>AnaLight®</b> Script Editor is an icon driven Graphical User Interface for definition of experimental sequences</li> <li>• <b>AnaLight® DAQ</b> is the on-line data acquisition and instrument control software package</li> <li>• <b>AnaLight® Explorer</b> is the software package for detailed analysis of data files acquired from <b>AnaLight®</b> instruments.</li> </ul>
Installation, Performance and Maintenance	<ul style="list-style-type: none"> <li>• <b>IQ/OQ - Installation Qualification/Operational Qualification.</b> Procedures and training are carried out by qualified Farfield service personnel on installation of the <b>AnaLight®</b> system in its operating environment.</li> <li>• <b>PQ - Performance Qualification.</b> Designed to verify that the <b>AnaLight®</b> system performs to operating specifications in the field, enabling regular verification of system performance</li> <li>• <b>MQ - Maintenance Qualification.</b> Providing preventative maintenance to all GxP standards and a re-qualification service, ensuring correct function and maintenance</li> </ul>
Power: 110V / 220V	