

# AA-65 series Automatic Polarimeter

NEW

The new AA-65 is a versatile polarimeter suitable for measuring the optical rotations of many different types of samples from sugars to pharmaceutical products. The polarimeter is extremely easy to use and has a touchscreen digital display presenting on-screen data in full colour.

The AA-65 is available in 3 versions:

- Single scale angular giving optical rotation in angular degrees
- Sugar Industry Model giving rotation in sugar degrees ( $^{\circ}Z$ ) calibrated in International Sugar Scale (I.S.S.) in accordance with current I.C.U.M.S.A. recommendations. This model also offers temperature corrected sugar scale and includes 26g, 13g and 6.5g scales. Results can also be displayed in angular degrees.
- Analytical Model offering angular degrees and specific rotation and concentration scales, along with the option to enter a scaling factor to simulate any scale required by the user.

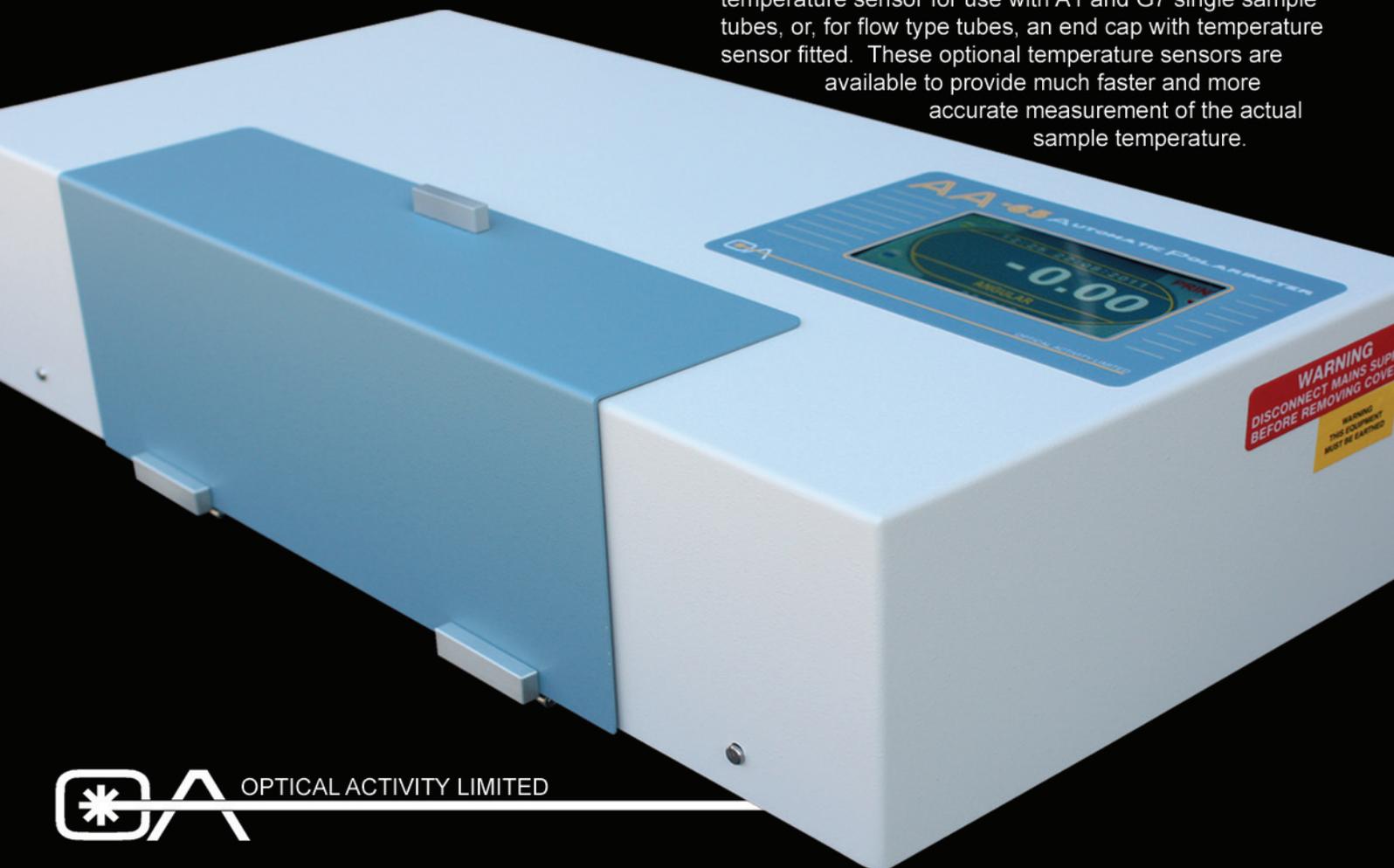
The working wavelength of 589.44nm is determined by means of a factory fitted optical interference filter. The model type - angular scale (A65), sugar industry (Z65) or analytical model (MA65) - is printed on the instrument label inside the sample compartment.

The AA-65 has a USB output for connection to a PC and an RS232 serial output for connection to suitable printers or other devices. Optionally, a wireless connection may be purchased for wireless communication with a computer.

The AA-65 is normally supplied complete and ready to use with one stainless steel sample tube, handbook, dust cover, USB lead and Data Acquisition software for a PC. Up to 1024 readings are automatically stored by the AA-65 every time the PRINT key is touched (even when a printer is not connected). The user can view this data on the display or print it out when required.

The Data Acquisition software generates a text file, a csv file and a Microsoft Excel<sup>®</sup> spread sheet (provided Excel<sup>®</sup> installed on your PC). The data is securely stored in the read-only text file and csv file; utilising the full power of Excel<sup>®</sup>, the data can then be manipulated to perform scaling, averaging, etc. as required.

The sample compartment has a removable temperature sensor. Optionally, you can purchase a 'dip-in' temperature sensor for use with A1 and G7 single sample tubes, or, for flow type tubes, an end cap with temperature sensor fitted. These optional temperature sensors are available to provide much faster and more accurate measurement of the actual sample temperature.



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## Technical Specification

	AA-65 Angular scale	AA-65 Sugar Industry Model	AA-65 Analytical Model
<b>Scale:</b>	Angular Degrees (°)	I.S.S. (°Z) Temperature corrected I.S.S. (°Z(TC)) °Z x 2 (13g sugar scale) °Z x 4 (6.5g sugar scale) Angular degrees (°) °Z (TC) and ° x 2 and x 4	Angular Degrees (°) Specific rotation Concentration Degrees x user entered factor
<b>Range:</b>	Full circle ±90°	In excess of ±250°Z	Full circle ±90°
<b>Resolution:</b>	0.01°	0.01°Z, 0.01°	0.01°
<b>Repeatability:</b>	±0.01°	±0.02°Z, ±0.01°	±0.01°
<b>Reading Time:</b>	6 seconds	10 seconds	6 to 8 seconds
<b>Wavelength:</b>	589.44nm		
<b>Calibration:</b>	Optionally available with UKAS (United Kingdom Accreditation Service) traceable Certificate of Calibration (must be specified at time of ordering)		
<b>Light Source:</b>	Tungsten lamp, life in excess of 2000 hours		
<b>Displayed Data:</b>	Reading, scale name, temperature, time and date		
<b>Digital Display:</b>	Touchscreen, 95 x 64 mm, full colour		
<b>User Access:</b>	Keys can be protected by security code to prevent unauthorised access to zeroing, scale or setup keys		
<b>Sample Compartment:</b>	Accepts standard polarimeter tubes with 30 mm circular ends, maximum path length 200 mm Optical Activity's full range of sample tubes and cells can be used with the AA-65 including single sample tubes, flow tubes (require slotted sample compartment cover, optional accessory) and TT ThermoTubes (tubes with electronic temperature control)		
<b>Temperature:</b>	Range: 0 ~ 50°C Resolution: 0.1°C On all models: sample compartment temperature probe supplied as standard Optional accessories: 'Dip-in' temperature probe for A1 or G7 (single sample) type tubes End cap with fitted temperature probe for A2 flow tubes (Note: the TT ThermoTubes have their own built-in temperature probe)		
<b>Special Feature:</b>	Warning if sample too dark to measure (absorption greater than 97%, OD 1.5)		
<b>Archive:</b>	Instrument stores up to 1024 readings		
<b>Outputs:</b>	On all models: USB, RS232 Optional accessory: wireless connection		
<b>Data Output:</b>	Reading, scale name, temperature, time, date, instrument serial number (user selectable)		
<b>Software:</b>	Generates read-only text file, csv file and Microsoft Excel® spreadsheet (provided Excel® installed on the PC)		
<b>Power Requirements:</b>	86v to 265v ac, 47 Hz to 63 Hz, 14 watts		
<b>Size:</b>	Approximately 460 x 225 x 120 mm		
<b>Weight:</b>	Approximately 7.5 kg (packed 12 kg)		

### Screen Display



### Output Ports



Optical Activity Limited is a UKAS (United Kingdom Accreditation Service) accredited calibration laboratory and all AA-65 series polarimeters can be supplied, if required, with a UKAS certificate of calibration. The UKAS mark on a calibration certificate is your assurance that the laboratory issuing the certificate has been stringently assessed by independent experts and that the measurements are traceable to national and international standards. You may also purchase Optical Activity Quartz Control Plates with UKAS accredited calibration certificates for the routine checking of your polarimeters. Further details can be found in our Quartz Control Plate leaflet.



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Optical Activity manufacture a wide range of stainless steel, glass and PTFE sample tubes and cells, together with a complete range of Quartz Control Plates



OPTICAL ACTIVITY LIMITED

Optical Activity Limited, Bury Road Industrial Estate, Ramsey, Huntingdon, Cambridgeshire, PE26 1NF, England.  
Tel: +44 (0)1487 813913 Fax: +44 (0)1487 812789 E-mail: sales@opticalactivity.com Website: www.opticalactivity.com