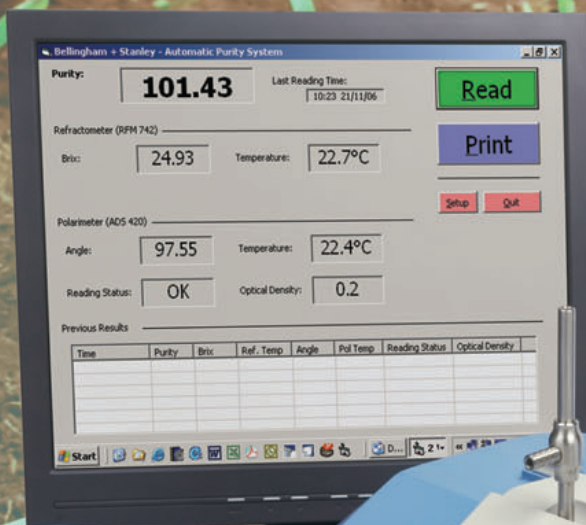


**Standard and flow applications  
in the sugar industry**

**Sugar Cane Juice  
Sugar Beet Juice  
Processed Sugar  
Purity System**



# ADS420 Automatic Digital Saccharimeter



The ADS420 Saccharimeter is a low cost automatic polarimeter specifically designed for use in busy sugar laboratories and tare houses. Operation is very simple by way of four graphically presented push buttons and therefore requires no on-screen language interpretation. The ADS420 is available in two formats, either as a standard package with glass polarimeter tube or as a funnel flow package for repetitive testing. PC software is included with each package, allowing simultaneous measurement of Brix by refractometer<sup>1</sup> to calculate PURITY. A robust touch sensitive LCD screen is available as an optional extra for use with the PC<sup>1</sup>.

Unlike other low cost polarimeters, the ADS420 uses an LED light source that requires no maintenance. A single temperature sensor provides the measurement for sugar compensation whilst quartz compensation facilitates accurate verification and calibration using a quartz control plate by accessing the span facility in the setup menu. Latest specification electronics within the instrument allows measurement of samples with low transmittance and should a sample be too dark or has entrapped air, the instrument will display an error message. Results are continually measured and displayed allowing easy assessment of stability. With an accuracy to  $\pm 0.03$  °Z, the ADS420 is compliant to the minimum requirements of ICUMSA for sodium wavelength analysis of clarified sugar cane juice and processed sugar.

### For Further Interest:

For applications requiring additional interfacing or instruments with integral purity software, contact B+S or a recognised distributor.



### Features:

- Single Sugar Scale (ISS)
- Temperature display
- Optical density display
- Temperature compensation
- LED/Interference filter
- RS232 port
- Bright LED display
- Easy operation
- Low maintenance
- Span facility

### Optional Extras:

- Serial printer
- Serial printer with date/time
- Interface cables
- Polarimeter tubes
- Flow tubes
- Low volume tubes
- Water-jacketed tubes
- Waterbaths
- Slotted lids
- Quartz control plates
- Refractometers
- Touch sensitive LCD VDU
- PC for purity system

Specifications	ISS (°Z)
Range	-225 to +225
Resolution	0.01
Reproducibility	0.02
Accuracy	$\pm 0.03$

Light Source	LED/Interference filter (589.3nm)
Beam Diameter	4 mm
Maximum Tube Length	220 mm
Reading Time	20 seconds
Temperature	5-40 °C
Temperature Compensation	None, sugar, quartz to 20 °C
Optical Density Range	0.0 to 3.0 OD
Interfaces	1 x RS232 (print or csv format)
Power Supply	External 90-250V~, 50-60 Hz. Supplied with instrument

Order Code	Description
37-20	Standard package, including: ADS420 Saccharimeter, 200mm centre filling glass sample tube, standard lid, instruction manual, CD ROM and certificate of conformity.
37-22	Flow Package, including: ADS420 Saccharimeter, 200mm water jacketed funnel flow cell, slotted lid, instruction manual, CD ROM and certificate of conformity. <sup>2</sup>
34-20	Quartz Control Plate: 100 °Z (34.6 °A)
34-21	Quartz Control Plate: 15 °Z (5.2 °A)
34-22	Quartz Control Plate: -30 °Z (-10.4 °A)
34-241	Temperature sensor saddle for QCP
55-31	Touch sensitive LCD VDU for purity system <sup>1</sup>

<sup>1</sup> Optional Extra <sup>2</sup> 100mm Funnel flow tubes & slotted lids available, details on request



Bellingham+Stanley Ltd operates a Quality Management System complying with BS EN ISO 9001:2000 (Certificate No. LRQ 0963791).

Bellingham+Stanley Ltd pursues a policy of continuous product development and improvement and as such, information given on this Data Sheet may be updated or withdrawn without notice.

CE These products comply with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC



## Bellingham + Stanley Inc.

1000 Hurricane Shoals Road, Building D, Suite 300, Lawrenceville, GA 30043 USA  
Phone: 770 822 6898. Fax: 770 822 9165. www.bellinghamandstanley.com sales@bs-rfm-inc.com