



# Calibration & Verification Materials for Polarimeters - Quartz Control Plates



Bellingham + Stanley Ltd. offer a choice of Quartz Control Plates (QCP) for verifying and calibrating polarimeters. QCP's are made to the highest standard and may be supplied with an optional Certificate of Calibration, showing traceability to PTB. When used with an ADP polarimeter manufactured by Bellingham + Stanley, a thermal block may be used to provide mechanical contact to the instrument's external temperature sensor, allowing the use of *quartz temperature compensation* for added accuracy.

Quartz Control Plates are supplied as standard items and require an additional order code for Certification as indicated in the table below.



Order Code	Nominal Value		Description
34-20	+100 °Z	+34.6 °A	Standard Quartz Control Plate supplied in soft protective cover, Certificate of Conformity and packed in a rigid case for transit and storage.
34-21	+15 °Z	+5.2 °A	
34-22*	-30 °Z	-10.4 °A	
34-241			Thermal Block for use with ADP/S

Uncertainty:  $\pm 0.05$  °Z and  $\pm 0.02$  °A

\* Available Autumn 2006

## Certification Service

Quartz Control Plates may be supplied from new with a traceable certificate, as an optional service. Additionally, as part of GLP, it is often required to have existing Quartz Control Plates recalibrated at regular intervals.



Bellingham + Stanley Ltd., a UKAS accredited Calibration Laboratory number 0834, offer a service whereby plates within the following ranges may be issued with a Certificate of Calibration, traceable to PTB:

Range	ISS	Angular
1	13 to 17 °Z	4.5 to 5.9 °A
2	95 to 105 °Z	32.9 to 36.4 °A
3*	-26 to -34 °Z	-9.0 to -11.8 °A

\* Available Autumn 2006



Order Code	Description
90-803	Calibration, quartz control plate (15 or 100 °Z nominal), at 20.0 °C & 589.44nm.

Uncertainty:  $\pm 0.05$  °Z and  $\pm 0.02$  °A

## Uncertainties:

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement in units of °Z multiplied by the coverage factor  $k = 2$ , which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with publication EA-4/02.



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



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