

CERTIFICATE OF CONFORMITY**QUARTZ CONTROL PLATE - OPTICAL ROTATION (°Z / °A)**

Date: 17 October 2025
Type: Quartz Control Plate 34-21
Serial Number: 25311820
Certificate Number: CN 25031

SPECIFICATIONS

Light Wavelength (nm)	°Z	°A
589.44 (Sodium)	14.94 ± 0.15	5.17 ± 0.05
850.0 (NIR)	14.97 ± 0.15	2.40 ± 0.02

This quartz control plate consists of a tubular holder, with a quartz plate mounted at both ends.

The product code and serial number have been engraved on the tube of the mount.

The angular rotation of this plate has been measured as detailed in the table above at 20°C.

Temperature dependence of rotation:

$$\text{VIS: } \alpha_{t^{\circ}\text{C}} / \alpha_{20^{\circ}\text{C}} = 1.0 + 0.000144(t - 20)$$

$$\text{NIR: } \alpha_{t^{\circ}\text{C}} / \alpha_{20^{\circ}\text{C}} = 1.0 + 0.000139(t - 20)$$

The manufacturing specification of the plate complies with the requirements of the 'International Commission for Uniform Methods of Sugar Analysis'. The clear aperture of the plate is 12mm.

For the quartz control plate to continue to give the precision specified in this certificate, it should be kept in a clean condition. If it is damaged in any way it should be replaced.

Measurements were performed by Bellingham + Stanley, a Xylem brand, on behalf of Xylem Analytics Germany.

For and on behalf of
Bellingham + Stanley



John Wright

Xylem accepts no responsibility with regard to the accuracy of the mentioned quartz control plate after the date of examination indicated above.