

# KALIBRACIJSKI CERTIFIKAT

## Calibration certificate

NAROČNIK  
Customer 5Labs d.o.o.  
Legen 112, 2380 Slovenj Gradec

LASTNIK  
Owner 5Labs d.o.o.  
Legen 112, 2380 Slovenj Gradec

MERILO  
Object Kotnik 90° • Square 90°

IDENTIFIKACIJA  
Identification 23704 PROIZVAJALEC  
Manufacturer WENZEL

TIP  
Type Granitni kotnik • Granite square MERILNI OBSEG  
Meas. range (250 - 400) mm

Razred  
Class 00 OBLIKA  
Form /



**SLOVENSKA  
AKREDITACIJA**  
SIST EN ISO/IEC 17025  
**LK-034**

Slovenska akreditacija je podpisnica večstrankarskih sporazumov o priznavanju akreditacijskih organov z Evropsko akreditacijo (EA - MLA) in Mednarodnim združenjem za akreditacijo laboratorijev (ILAC - MRA). Slovenian Accreditation is signatory to the multilateral agreements on recognition of accreditation bodies with the European Accreditation (EA - MLA) and International Laboratory Accreditation Cooperation (ILAC - MRA).

KRAJ KALIBRACIJE  
Place of calibration Slovenj Gradec

DATUM KALIBRACIJE  
Date of calibration 22. 02. 2023

DATUM PREJEMA  
Date of receipt 22. 02. 2023

OPOMBE  
Notes

ODOBRIL  
Approved by Petra Oprešnik

Dovoljeno je razmnoževanje le celotnega certifikata. Verodostojnost podpisa je mogoče preveriti v elektronski obliki certifikata. Only the reproduction of the complete certificate is allowed. Signature validity can be verified in electronic version of certificate

## 1. KALIBRACIJSKI POSTOPEK • Calibration procedure

Kalibracija obsega določitev pogreškov pravokotnosti kotnika v skladu z internim postopkom KL-5Labs-19, ki temelji na DIN 875-2:2008.

Calibration comprise determination of the perpendicularity of the granite square in accordance with the internal procedure KL-5Labs-19 which is based on DIN 875-2:2008.

## 2. KALIBRACIJSKI POGOJI • Calibration conditions

Temperatura • Temperature (20 ± 1) °C

## 3. SLEDLJIVOST • Traceability

Identifikacije pri kalibraciji uporabljenih etalonov  
Standards identification used at calibration

0598-3603			
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Ta kalibracijski certifikat dokumentira sledljivost do (inter) nacionalnih etalonov v skladu z mednarodnim sistemom merskih enot (SI).

This calibration certificate documents the traceability to (inter) national standards, which realize the units of measurement according to the International System of Units (SI).

Kalibracijski certifikati zgoraj navedene opreme uporabljene pri kalibraciji so javno objavljeni na naši spletni strani pod [https://www.5labs.si/index.php/open\\_documents](https://www.5labs.si/index.php/open_documents)  
The calibration certificates of the above mentioned equipment used at calibration are publicly available on our website at [https://www.5labs.si/index.php/open\\_documents](https://www.5labs.si/index.php/open_documents)

## 4. MERILNA NEGOTOVOST • Measuring uncertainty

Pravokotnost • Perpendicularity:  $1 \mu\text{m} + 7,3 \cdot 10\text{E}-6 \cdot L$

Premost • Straightness: 1,5  $\mu\text{m}$

Kot • Angle: 1,7"

Merilna negotovost je podana kot standardna negotovost meritve pomnožena s faktorjem  $k = 2$ , ki pri normalni porazdelitvi ustrza verjetnosti 95%. Standardna merilna negotovost je določena v skladu s publikacijo EA-4/02.

The specification indicates the expanded measuring uncertainty resulting from multiplication of standard measuring uncertainty by the factor  $k = 2$ . It was determined in conformity with EA-4/02. The values of the measurement parameter lie within the specified range with a probability of 95%.

## 5. RAZLAGA REZULTATOV • Result explanation

Pogrešek = Izmerjena vrednost - Referenčna vrednost

Error = Measured value - Reference value

Podani merilni rezultati in pripadajoča merilna negotovost se nanašajo samo na to kalibrirano merilo. Izmerjene vrednosti veljajo v času meritev in ne zagotavljajo dolgotrajne stabilnosti.

The measurement results and uncertainties quoted refer only to this calibrated gauge. The measurement results are valid at the time of measurement and do not guarantee long-term stability.

**6. MERILNI REZULTATI ZA PRAVOKOTNOST • Measurement results for perpendicularity**

		Izmerjena vrednost • Measured value
Pravokotnost • Perpendicularity		1,9 μm
Kot • Angle	90°	90,0001°
Premost • Straightness	A	1,1 μm
Premost • Straightness	B	1,7 μm
UGOTOVITEV / Findings		