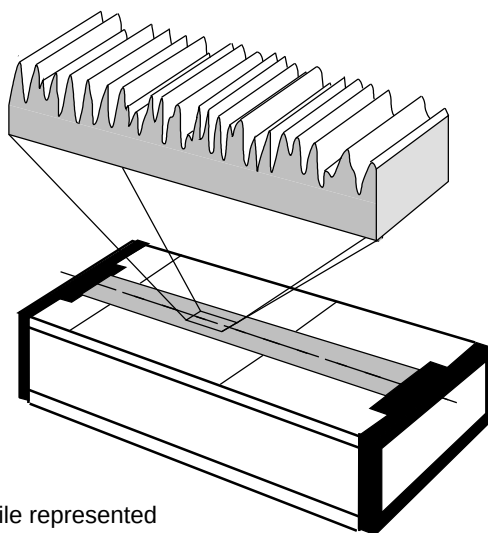


Roughness measurement standards

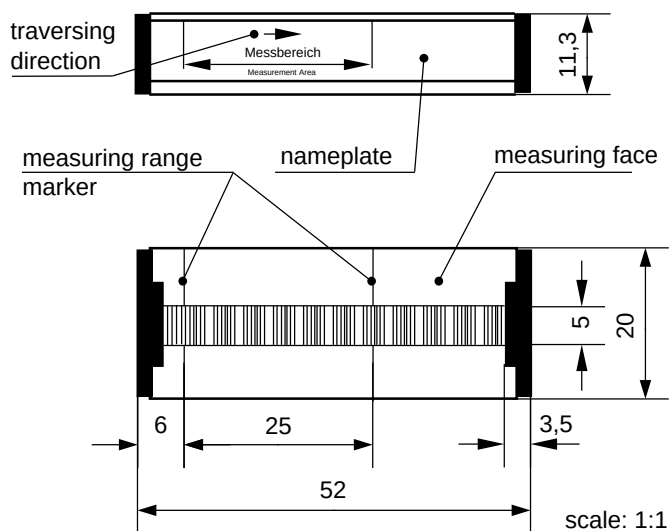
line of products KNT 4058/02 (for the determination of roughness of sheet metal surfaces accord. to SEP No. 1940)

corresponding to Physikalisch-Technische Bundesanstalt (PTB)-measurement standards 2B

for calibrating and checking of the complete contact stylus instrument from the stylus to the read-out display.



(Profile represented with vertical exaggeration)



The roughness measurement standards are made of hardened stainless steel of dimensions 52 x 20 x 11,3 mm. They have an irregular ground surface profile which repeated every 2 mm in longitudinal direction of the specimen. Crosswise to the measuring direction of the specimen, the production grooves on the measuring face have constant profile form (details regarding the profile characteristics: see also page 2.0).

A set consists of 3 roughness standards with the following nominal values (in μm):

Grade	Ra	Rz	c1	c2
1	(deleted provisionally)			
2	1,25	6,1	+0,5	-0,5
3	1,9	9,0	+0,5	-0,5

The peak count is approximately 63 - 65 1/cm

The exact values of the roughness parameters Rz according to ISO 4287, Ra and R_{Pc} according to EN 10049, SEP 1940 with a contact stylus instrument in conformity with ISO 3274 using a phase correct profile filter specified to ISO 11562.

The measurements are carried out by means of the two pick-ups with two skids specified in EN 10049 (pendulum-type pick-up with spherical resp. cylindrical skids). The taper angle of the stylus tip is 90°, the radius is approx. 5 μm and the static measuring force approx. 1 mN.

A variant of the calibration:

1. Physikalisch-Technische Bundesanstalt (PTB), Braunschweig.
Amount of the measurements: n = 30, relative uncertainty of measurement: 2 - 4 %
2. Accredited calibration laboratory (DKD-Calibration):
At present, a DKD-Calibration can not be offered yet for this production series !

Calibration certificates are given with the following details:

Ra = (1,88) μm Rz = (8,9) μm R_{Pc} = (65)/cm λ_c = 2,5 mm λ_s = 8 μm l_m = 12,5 mm c1 = +0,5 μm c2 = -0,5 μm
(values in brackets: Result of the respective calibration)

Other arithmetical mean deviation (Ra) are available as special design.

Measurement standards are available also as single standards as well as without calibration.

Laterally, the standards are provided with nameplates.

A special wooden case for the safe storage of the measurement standard belongs to the scope of delivery.

Price list (with times of delivery, article No. ...etc): see page No.: 14.1

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