TESA UP – Software Programme for Value Processing

TESA UP programme for processing measured values suitable for both TESA gauge block comparators UPD and UPC as well as for comparators from other manufacturers.

– Choice of 10 languages.
– On-line processing of length and temperature values as transferred.
– Measurement cycles and result outputs according to EN ISO 3650.
– Flexible architecture for optimum adaptation to specific user's needs.
– Possible entry of limit values and accuracy grades peculiar to users.
– Surveillance of value dispersion or value drift throughout length and temperature measurements.
– Automatic execution of all relevant corrections. The programme makes allowances for actual sizes of the reference standards, flattening due to different materials used (steel, tungsten carbide, ceramic), compensation of temperature variations with reference to 20°C according to the varying coefficients of linear expansion – as typical examples.
– Assignment of gauge blocks to their relevant grade.
– Possible storage of gauge block set related data.
– Inch or metric value processing.
– Calibration certificate in several formats.

05960025	TESA UP software programme for gauge block calibration		1 CD-ROM plus 1 USB key of protection

EN ISO 3650

Minimum profile requirements for the computer needed to run the TESA UP software programme Personal Computer
• Configuration without heat source to avoid disturbing the ambient temperature at the measurement spot
• Operating system: Windows 7 or earlier versions (32 bits)
• Processor: 650 MHz
• 1 Hard disc (6 GB)
• RAM capacity: 64 MB
• CD-ROM drive (24x)
• RS232 serial port 1 for length values 1 for temperature values
• 3 USB ports

Gauge Blocks for the Calibration of Comparators

To calibrate both TESA gauge block comparators UPD and UPC, we recommend the use of the gauge block set described hereafter. The 9-piece set is alsoy required for calibrating TESA UPD.
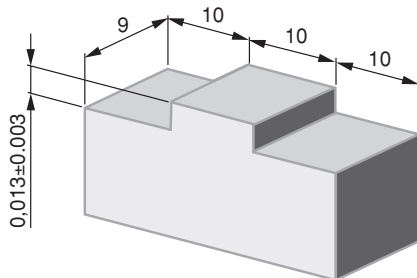
Set composition including 11 steel gauge blocks, class K

Each pair is in full compliance with:

– EAL-G21 – Calibration of gauge block comparators – European cooperation for Accreditation of Laboratories
– DKD-R 4-1 – Guidelines of the German Calibration Service (DKD) for the calibration of gauge block comparators.

EN ISO 3650

Special high-alloy steel, wear resistant and stable.Exception: 6 mm special carbide gauge blocks.

The given expanded uncertainty k = 3 refers to the difference of central length of both gauge blocks A and B forming the pairs 1 to 5 as well as to the deviations f_o and f_u from the central length of gauge blocks forming both pairs 2 and 3. No need to calibrate those of pair No. 6.

		μm
S59110152	Set of 11 gauge blocks with PTB (Physikalisch Technische Budesanstalt) certificate	± 0,015
S59110489	Set of 11 gauge blocks with DAkkS certificate	± 0,030

Full tungsten carbide set also available on request

Pairs N°	Nominal length A mm	B mm
1	0,5	0,5
2	1,0	1,005
3	1,0	1,01
4	4,5	4,5
5	100,0	100,0
6	6,0	6,0 *

* Special bridge-shaped gauge blocks (see drawing) used for establishing the measuring deviations of lower probe B.

Additional Gauge Block Set for Calibration of the TESA UPD System

In order to achieve the lowest uncertainty of measurement, we recommend the use of grade K gauge blocks which have been measured directly by interferometry and are supplied with a calibration certificate, irrespective of any other requirement such as the ambient conditions.

S59300103	Set 9 gauge blocks with METAS certificate (Swiss)	$\pm\, 0{,}02 + 0{,}2 \cdot L$ µm (L in m)
S59300107	Set 9 gauge blocks with PTB certificate (Germany)	$\pm\, 0{,}02 + 0{,}2 \cdot L$ µm (L in m)
S59300104	Set 9 gauge blocks with SCS certificate	$\pm\, 0{,}05 + 0{,}5 \cdot L$ µm (L in m)

	Set composition (mm) 1 / 5 / 10 / 15 / 20 / 25 / 50 / 75 / 100
	Steel
	Accuracy grade K

Other set composition or carbide gauge blocks also available on request.

TESA UPT

Fully calibrated for the measuring ranges from 19°C up to 24°C with a numerical interval to 0,001°C.

Supplied with a calibration certificate issued by the Swiss Calibration Service (SCS). Uncertainty of measurement achieved during calibration U = ± 0,03°C.

05930011	Temperature measurement device
CONSISTING OF:	
05960018	Set of 4 temperature sensors PT 100
05960038	Meausring unit for temperature, FLUKE 1529
05960012	Interface Box 4 x PT 100
05960011	Connecting cable for adapter No. 05960012 to measuring unit No. 05960038
05960026	Connecting cable from UPC to computer (9-pin/m and 9-pin/f connector)