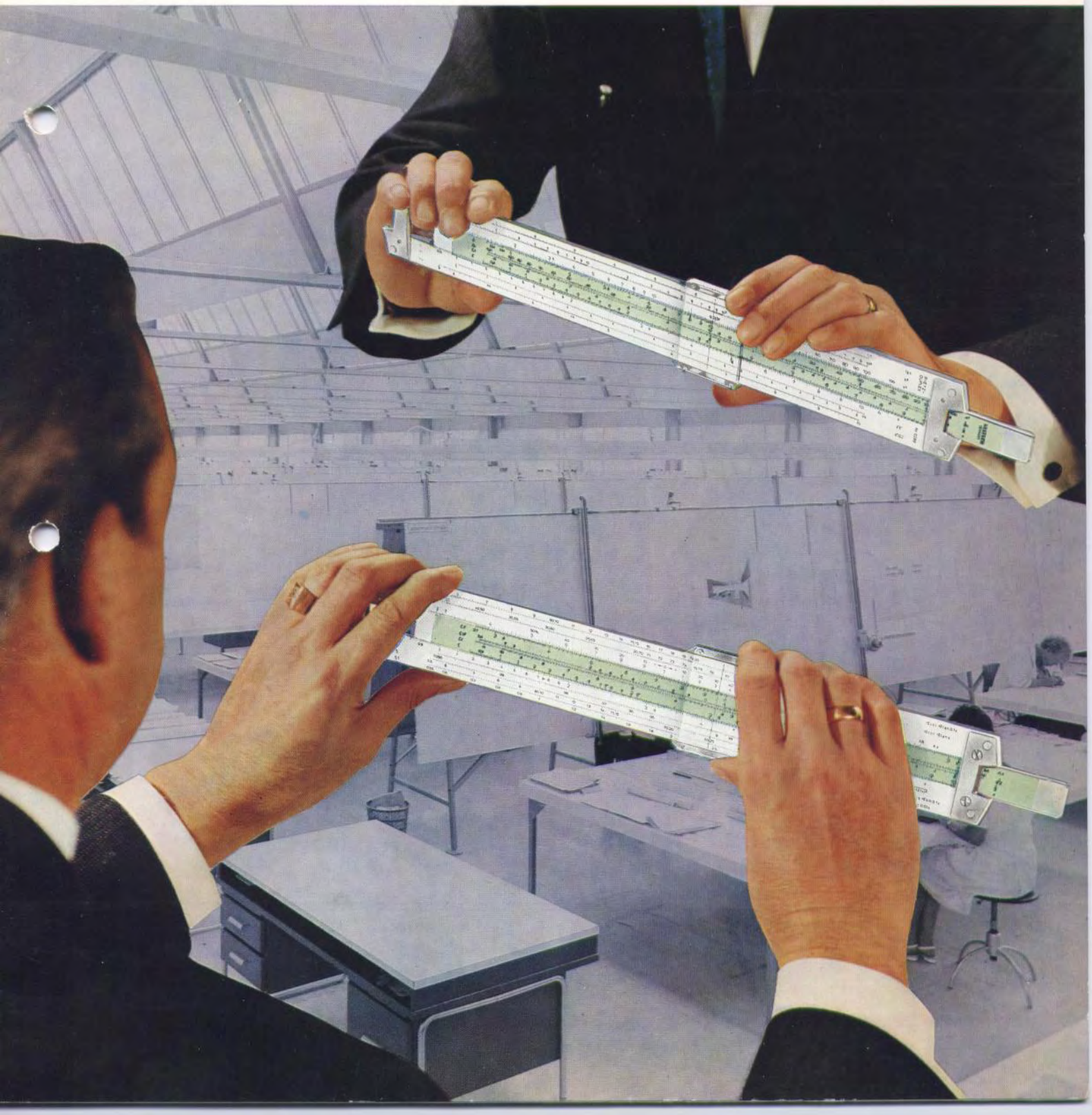
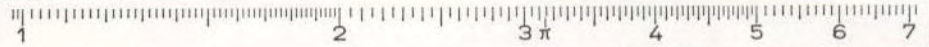
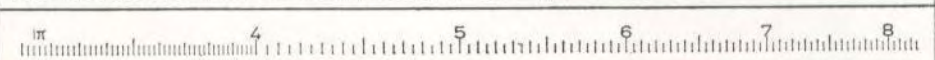
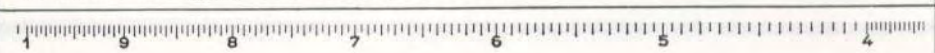
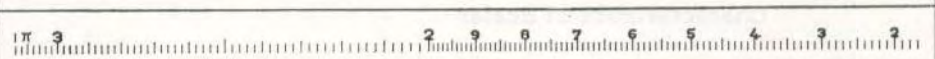
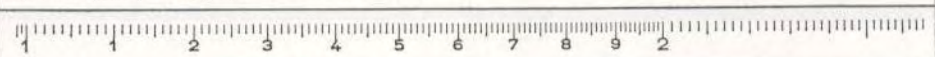
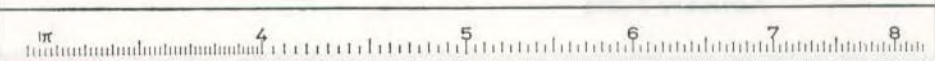
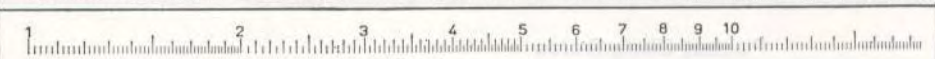
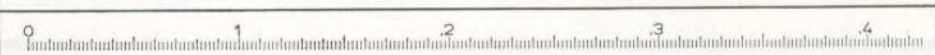
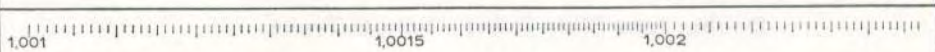
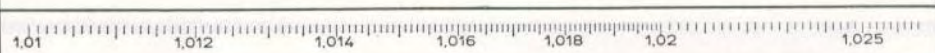
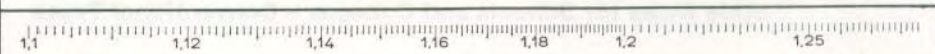
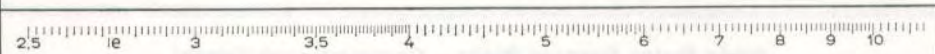
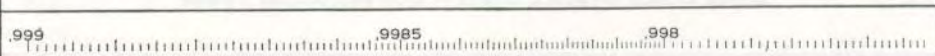
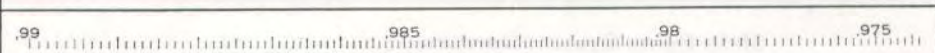
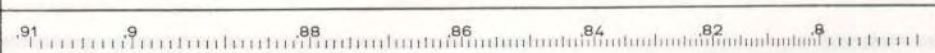
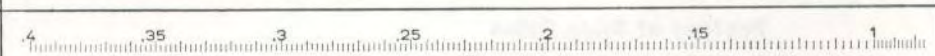
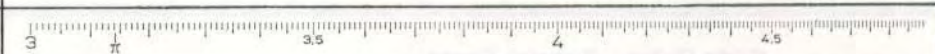
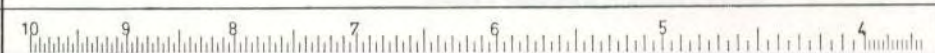
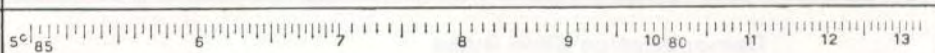
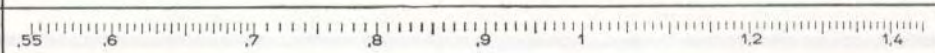
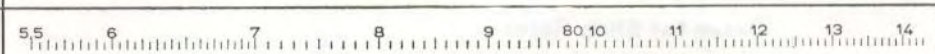
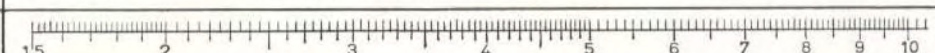
NESTLER

SLIDE RULES



NESTLER Characteristics of Scales

Signification of the scales:	Designation of scales:	Characteristics of divisions:	Mathematical designation of the scales
Squares to scale D on the stock	A		x^2
Squares to C on the slide	B		x^2
Reciprocal squares on the slide	BI		$\frac{1}{x^2}$
Basic scale, one log. unit on the slide	C		x
Basic scale folded, beginning with π on the slide	CF		$\pi \cdot x$
Reciprocal or Inverse scale on the slide	CI		$\frac{1}{x}$
Reciprocal scale folded, beginning with π at the right on the slide	CIF		$\frac{1}{\pi \cdot x}$
Basic scale, one log. unit on the stock	D		x
Basic scale folded, beginning with π on the stock	DF		$\pi \cdot x$
Cubes to scale D	K		x^3
Mantissae scale for determining common logarithms of all numbers	L		$\lg x$
Log Log scale range 1.001–1.011	LL0		$e^{0.001x}$
Log Log scale range 1.01–1.11	LL1		$e^{0.01x}$
Log Log scale range 1.1–3.0	LL2		$e^{0.1x}$
Log Log scale range 2.5–10^5	LL3		e^x
Log Log scale range 0.999–0.989	LL00		$e^{-0.001x}$
Log Log scale range 0.99–0.9	LL01		$e^{-0.01x}$
Log Log scale range 0.91–0.35	LL02		$e^{-0.1x}$
Log Log scale range 0.4–10^{-5}	LL03		e^{-x}
Pythagorean scale	P		$\sqrt{1-x^2}$
Root scale 1—3.16 ($\sqrt{10}$)	R1		$\sqrt{x}$
Root scale 3.16–10	R2		$\sqrt{10x}$
Percentages %	%		%
Scale of Sines 5.5°–90° Cosines 0°–84.5°	S		$\sphericalangle \sin \sphericalangle \cos$
Scale of small angles 0.55–6° 84.0–89.45°	ST		$\sphericalangle$ arc
Tangents 5.5°–45° Cotangents 45°–84.5°	T1		$\sphericalangle \tan \sphericalangle \cot$
Tangents 45°–84.5° Cotangents 5.5°–45°	T2		$\sphericalangle \tan \sphericalangle \cot$
Peripherical velocities	U		
Scale for drop of voltage & resistance	V		

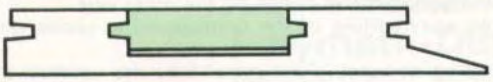
NESTLER

NESTLER ADVISORY TABLE

	No.	Length of scales	Material	Case Material	Div. on Bevel	Scales of front side: Stock upper part 1	2	3	4	5	Slide 1	2	3	4	Stock lower part 1	2	3	4	5	Scales on straight edge 1	2	Scales of reverse side: Stock upper part 1	2	3	4	5	Slide 1	2	3	4	Stock lower part 1	2	3	4	5	Number of scales
POCKET SLIDE RULES																																				
Technician	0115	12,5	Anagit	Leather	cm	A					B	C			D							S	ST	T												8
Rietz	0123	12,5	Anagit	Leather	cm	K	A				B	CI	C		D	L						S	ST	T												11
Darmstadt	0121	12,5	Anagit	Leather	cm	P	K	A			B	CI	C		D	S	T					LL_1	LL_2	LL_3												13
Polymath-Duplex	0129	12,5	Anagit	Leather		LL_{01}	LL_{02}	LL_{03}	A		B	L	K	C	D	LL_3	LL_2	LL_1				T	ST	DF			CF	CIF	CI	C	D	P	S				22
Electro	0137	12,5	Anagit	Leather	cm	V	A				B	CI	C		D	U	cos φ					S	ST	T												12
Steel-Concrete "Maarschalk"	0149	12,5	Anagit	Leather	cm	k_x	A				B	C			D	table							table				S	ST	T			table				10
International	0127	12,5	Anagit	Leather	cm	inch	mm	A			B	CI	C		D	Umr.											°F	°C								12
Commerce	0140	12,5	Anagit	Leather	cm	DF					CF	CI	C		D												LL_1	LL_2	LL_3							9
10″ SLIDE RULES SCHOOL TYPES																																				
Rietz	0239	25	Anagit	Plastic	cm	K	A				B	CI	C		D	L						S	ST	T												11
Alpha	0251	25	Anagit	Plastic		K	A				B	CI	C		D	L											Greek alphabet									8
Beta	0252	25	Anagit	Plastic		K	A				B	CI	C		D	L						cm	DF				CF	CIF	CI	C	D	inch				15
Gamma	0253	25	Anagit	Plastic		K	A				B	CI	C		D	L						T_1	T_2	DF			CF	CIF	CI	C	D	S	ST				17
Delta	0254	25	Anagit	Plastic		L	K	A			B	CI	C		D	LL_3	LL_2	LL_1				T_1	T_2	DF			CF	CIF	CI	C	D	S	ST				20
Commerce	0409	25	Anagit	Plastic	cm	DF					CF	CI	C		D												LL_1	LL_2	LL_3							9
10″ SLIDE RULES FOR ENGINEERS																																				
Rietz	0232	25	Wood	Leather	cm	K	A				B	CI	C		D	L				inch							S	ST	T							12
Rietz	0235	50	Wood	Cardboard	cm	K	A				B	CI	C		D	L				inch							S	ST	T							12
Rietz	0238	25	Anagit	Leather	cm	K	A				B	CI	C		D	L											S	ST	T							11
Darmstadt	0210	25	Wood	Leather	cm L	K	A				B	CI	C		D	P				S	T						LL_1	LL_2	LL_3							14
Darmstadt	0215	50	Wood	Cardboard	cm L	K	A				B	CI	C		D	P				S	T						LL_1	LL_2	LL_3							14
Darmstadt	0218	25	Anagit	Leather	cm	L	K	A			B	CI	C		D	P	S	T									LL_1	LL_2	LL_3							14
Rietz-Duplex	0289	25	Astralon	Leather		L	K	A			B	BI	CI	C	D	R_1	R_2					T_1	T_2	DF			CF	CIF	CI	C	D	P	S	ST			21
Polymath-Duplex	0291	25	Astralon	Leather		LL_{01}	LL_{02}	LL_{03}	A		B	L	K	C	D	LL_3	LL_2	LL_1				T	ST	DF			CF	CIF	CI	C	D	P	S				22
Multimath-Duplex	0292	25	Astralon	Leather		LL_{04}	LL_{03}	LL_{02}	LL_{01}	DF	CF	CIF	CI	C	D	LL_3	LL_2	LL_1	LL_0			P	S	T_1	T_2	A	B	K	CI	C	D	R_1	R_2	L	ST		28
10″ SLIDE RULES SPECIAL TYPES																																				
Mecanica	0260	25	Wood	Leather	cm Tube	a m/s	DH min	T_r/ min			m/ min	s/U mm		A	B	t_h min				L	T S		table			Length	thick-ness				table					
Surveyor	0281	25	Wood	Leather	cm	L	D				sin, cos	$\cos^2$	C		D	A				K	BI		table			S	ST	T			table					
Chemist	0330	25	Anagit	Leather	cm	gravities					gravities CI	C			D	L							table			gravities CI	C			table					
Elektro	0370	25	Wood	Leather	cm	V	A				B	CI	C		D	U				LL	K		table			S	ST	T			table					
Electronic	0297	25	Astralon	Leather		20 log U_1/U_2	U_2/U_1	$\sqrt{Z_2/Z_1}$			R Z	G Y	U		J	ln U_1/U_2						P_I					U_I	U_{II}	Z_2		Zges	P_{II}					
Steel-Concrete "Maarschalk"	0440	25	Astralon	Leather		k_x	K	A			B	k_h	CI	C	D	k_z	L					T_1	T_2	DF			CF	CIF	CI	C	D	P	S	ST			
Commerce	0401	25	Anagit	Leather	cm	%	DF				CF	CI	C		D	Umr.											LL_1	LL_2	LL_3							
DEMONSTRATION SLIDE RULES																																				
Alpha	0203	150	Wood			K	A				B	CI	C		D	L	S	ST	T																10
Rietz	0206	100	Wood			K	A				B	CI	C		D	L											S	ST	T							10
Commerce	0207	100	Wood			DF					CF	CI	C		D												LL_1	LL_2	LL_3							8
Delta	0208	150	Wood			L	K	A			B	CI	C		D	LL_3	LL_2	LL_1				T_1	T_2	DF			CF	CIF	CI	C	D	S	ST				20
Darmstadt	0205	100	Wood			L	K	A			B	CI	C		D	P	S	T									LL_1	LL_2	LL_3							13
Polymath-Duplex	0204	150	Wood			LL_{01}	LL_{02}	LL_{03}	A		B	L	K	C	D	LL_3	LL_2	LL_1				T	ST	DF			CF	CIF	CI	C	D	P	S				22
Multimath-Duplex	0202	150	Wood			LL_{04}	LL_{03}	LL_{02}	LL_{01}	DF	CF	CIF	CI	C	D	LL_3	LL_2	LL_1	LL_0			P	S	T_1	T_2	A	B	K	CI	C	D	R_1	R_2	L	ST		28

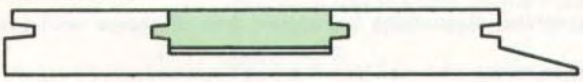
NESTLER Profiles of the Slide Rules

Pocket types



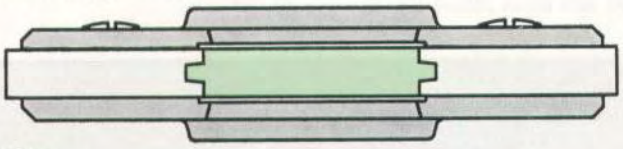
0115, 0123, 0140, 0149

Pocket types



0121, 0127, 0137

Pocket type Duplex

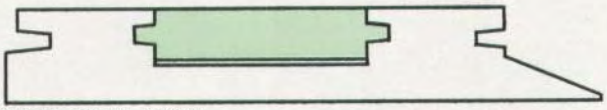


0129

Alpha

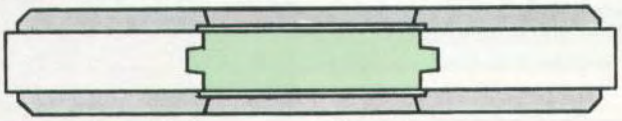
0251

Rietz



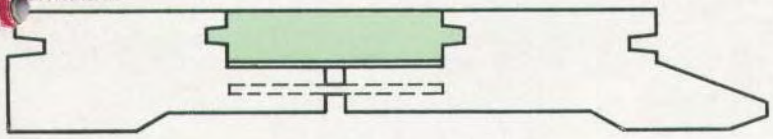
0238, 0239, 0330

Double face school types



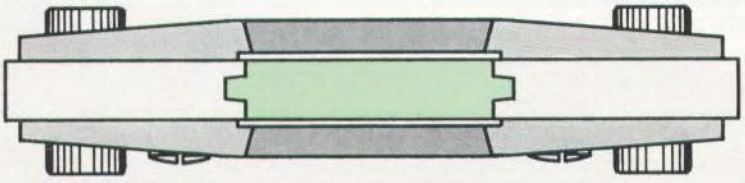
0252, 0253, 0254

Darmstadt



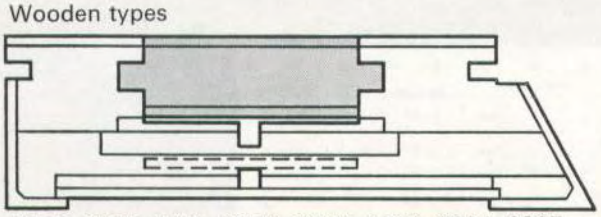
0218

Duplex types



0289, 0291, 0292, 0297, 0440

Wooden types



0210, 0232, 0281, 0370, 0260, 0215, 0234, 0235

Slide rules made of ANAGIT
a very resistant white plastic material, dimensionally stable, colour-fast, light-proof, not inflammable.
The smooth gliding of the slide may be improved by applying a little Silicon oil in the grooves of the rule (Silicon oil can be obtained in any pharmacy or drugstore).

Slide rules of wood with white plastic facings
The selected wood used for the Nestler Slide Rules is well seasoned in a special process of several years. If after long use or due to influences of climate or temperature the slide should not move evenly along the whole length, you may use some talcum which is applied at the edges of the slide or in the grooves of the stock.

For cleaning slide rules use lukewarm soap water with a sponge or a soft cloth. Do not use any chemicals, solvents, or a plastic rubber!

It is recommended not to expose slide rules to extreme temperatures!

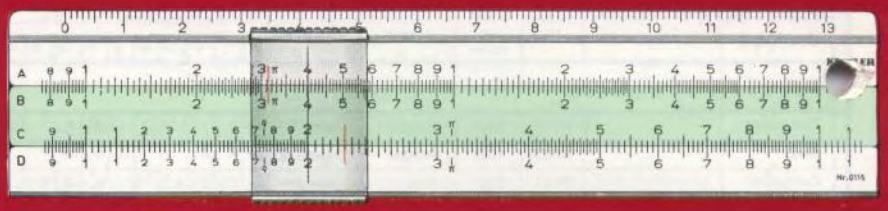
All materials used for the NESTLER slide rules are of first-class quality. They guarantee a long durability and the maximum of accuracy.

NESTLER

Pocket Slide Rules

made of white dimensionally stable material ANAGIT, length of scales 12.5 cms (5″), delivered in a genuine leather case, with instruction leaflet.
Pocket Slide Rules are often used as a second type because they are very handy to carry about.
The NESTLER Pocket Slide Rules are highly appreciated as an advertising gift with any advertising text or trade-mark which remembers the person to whom the present has been made for many years to the donor.
10″ Slide Rules for the desk are available of nearly all types.

No.
0115 Technician
for multiplications and divisions with S, ST and T-scales on the reverse side of the slide



0123 Rietz
Conventional scales for all current calculations with S, ST and T-scales on the reverse side of the slide

0121 Darmstadt
for all technical calculations.
On the reverse side of the slide =
Log Log-scales: LL_1, LL_2, LL_3

0129 Polymath-Duplex
for engineers of all branches, scientists, Technical High Schools, etc.
Reverse side:
Upper part of stock = Scales CT (cot), T, ST, DF
Slide = Scales CF, CIF, CI, C
Lower part of stock = Scales D, P, S, CS (cos)

Front side

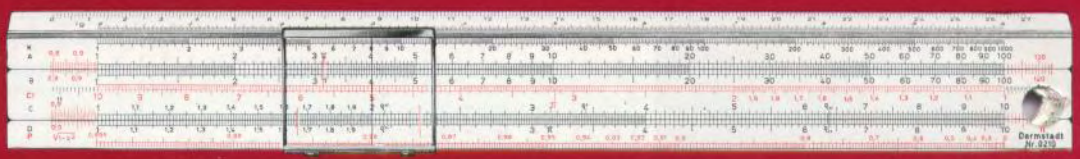
NESTLER Slide Rules
System „Darmstadt"

Conventional type for engineers, mathematicians and physicists.

No.

0210 Darmstadt

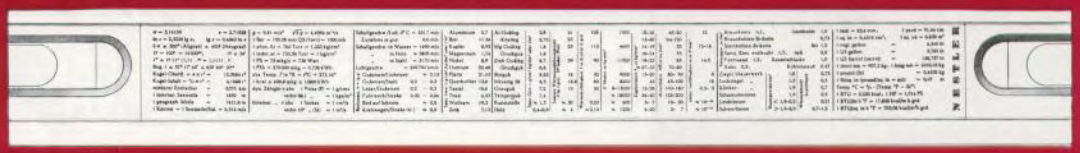
25 cm (10")



0215 Darmstadt

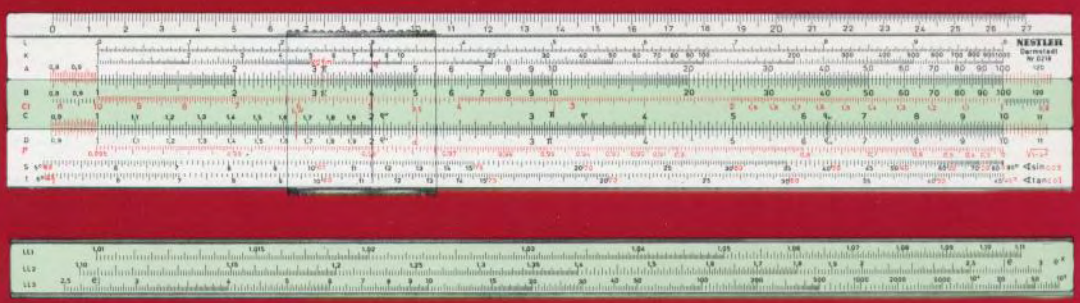
50 cm (20")
made of wood with
white plastic facings

Reverse side of No. 0210
with plastic strip inlaid with a
number of most important
constant values.

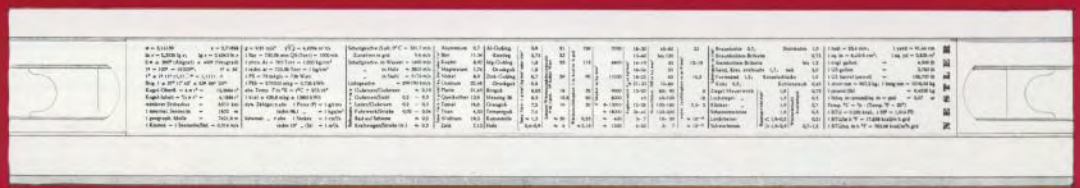


0218 Darmstadt

25 cm (10")
made of white dimensionally
stable material ANAGIT



Reverse side of No. 0218

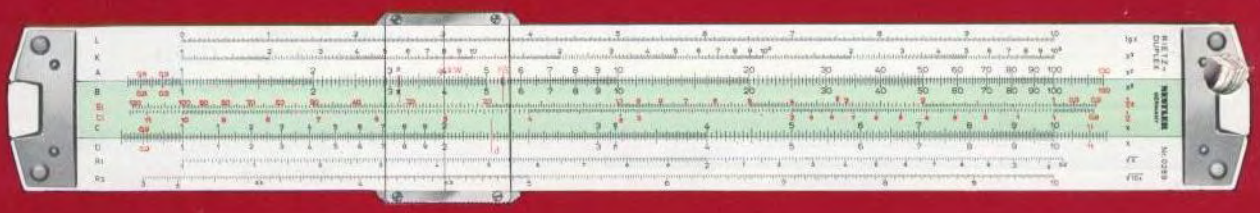


Double Face Slide Rules

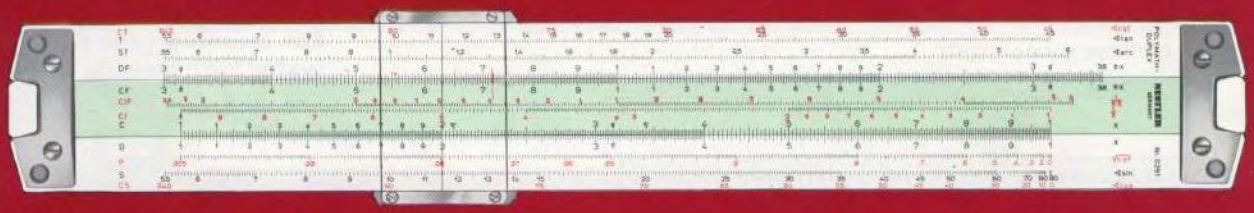
Advantages of the Double Face Slide Rules Duplex:
The clear graduations of the scales allow an easy setting and reading.
The convenient arrangement of scales on both sides assures universal application and quick operations.
The power scales are grouped together on one side, and the trigonometrical scales on the other side.
The light green colour of the slide avoids eye-strain, allows easy setting of the corresponding scales thus eliminating errors.
The robust construction guarantees a long duration and lasting accuracy. Four metal brackets connect the two parts of the stock and give it a diagonal stability without danger of deformation.
Four rubber props on each side allow manipulation with one hand only without damaging the table. This permits easy reading of results in form of tables.
The frameless clearview cursor can easily be replaced.
The slide rule is delivered in a genuine leather case.
A handy leaflet with full instructions and many graphical illustrations is included free of charge with each slide rule.

Front side

No.
0289
Rietz-Duplex
25 cm (10")

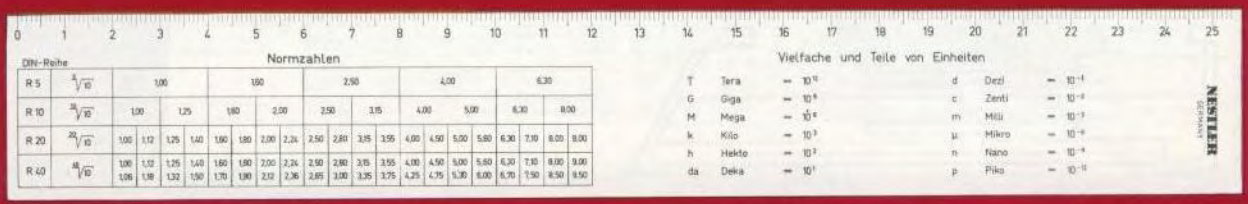


0291
Polymath-Duplex
25 cm (10")



0292
Multimath-Duplex
25 cm (10")

Plastic strip
delivered with each slide free of charge.



DIN-Reihe — Normzahlen

R 5	$\sqrt[5]{10}$	1,00				1,60				2,50				4,00				6,30						
R 10	$\sqrt[10]{10}$	1,00		1,25		1,60		2,00		2,50		3,15		4,00		5,00		6,30		8,00				
R 20	$\sqrt[20]{10}$	1,00	1,12	1,25	1,40	1,60	1,80	2,00	2,24	2,50	2,80	3,15	3,55	4,00	4,50	5,00	5,60	6,30	7,10	8,00	9,00			
R 40	$\sqrt[40]{10}$	1,00	1,12	1,25	1,40	1,60	1,80	2,00	2,24	2,50	2,80	3,15	3,55	4,00	4,50	5,00	5,60	6,30	7,10	8,00	9,00			
		1,06	1,18	1,32	1,50	1,70	1,90	2,12	2,36	2,65	3,00	3,35	3,75	4,25	4,75	5,30	6,00	6,70	7,50	8,50	9,50			

Vielfache und Teile von Einheiten

T	Tera	$= 10^{12}$		d	Dezi	$= 10^{-1}$
G	Giga	$= 10^{9}$		c	Zenti	$= 10^{-2}$
M	Mega	$= 10^{6}$		m	Milli	$= 10^{-3}$
k	Kilo	$= 10^{3}$		µ	Mikro	$= 10^{-6}$
h	Hekto	$= 10^{2}$		n	Nano	$= 10^{-9}$
da	Deka	$= 10^{1}$		p	Piko	$= 10^{-12}$

Rietz-Duplex No. 0289

For all current technical calculations where no power functions are required.
Ideal type for graduate students of all technical lines, especially for mechanical engineers, public contractors, etc.
The reciprocal square scale BI ($y = \frac{1}{x^2}$) allows easy and rapid calculations often required with steel-concrete construction.

The root-scales R_1 and R_2 form a basic-scale of 50 cms (20″) length, placed on two scales. Reading of squares and square roots in combination with C/D. R_1 and R_2 combined with A/B give the fourth power or inversely the fourth root.

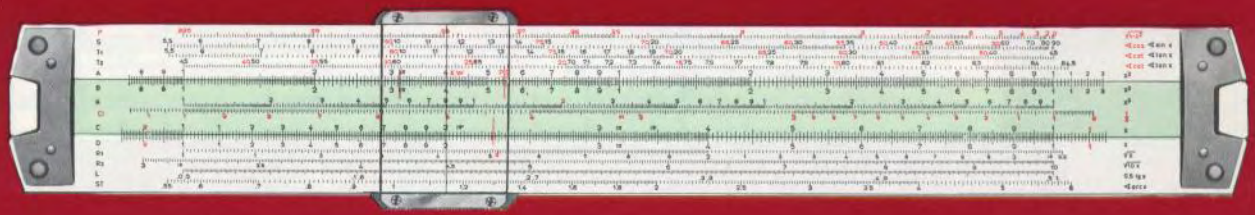
Polymath-Duplex No. 0291

This slide rule is a completion of the Darmstadt type, completed by the negativ power scales. Suitable for graduate technical students in all lines of Technical High Schools, Engineering Schools, etc.
This slide rule is also available as a pocket type of 12,5 cms. (5″) length of scales, (total length 7½″).

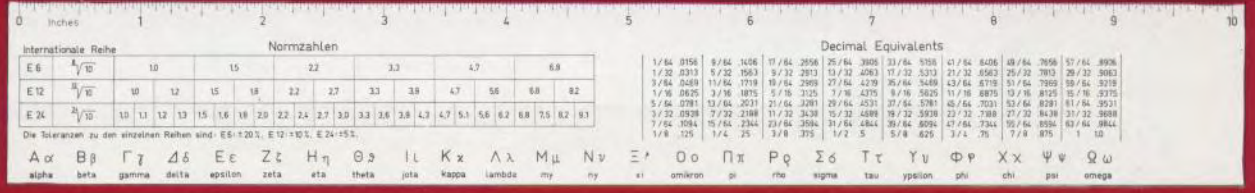
Multimath-Duplex No. 0292

This slide rule is based on the Polymath Duplex No. 0291, compared to the 22 scales of the 0291, the new MULTIMATH-DUPLEX No. 0292 has a total of 28 scales. These additional scales are of great importance in all fields of Science and Engineering.
The additional Log-Log-scales LL_0 and LL_{00} allow calculations of numbers near 1.
The two part Tangent-scale T_1 and T_2 allows direct reading of tangent values up to 84,5°. Thus the use of co-functions and reciprocal scales for large angles can be avoided. Hence a frequent source of error can be eliminated.
The Root-scales R_1 and R_2, each 10″ long, form together a 20″ scale. When used in combination with the scales C/D, one obtains squares and square roots with considerably greater reading accuracy.
Fourth powers and fourth roots can be obtained by using R_1 and R_2 along with A/B, and along with K sixth powers and sixth roots.

Reverse side



Plastic strip delivered with each slide rule free of charge.



Internationale Reihe — Normzahlen

E 6	$\sqrt[6]{10}$	1.0			1.5			2.2			3.3			4.7			6.8				
E 12	$\sqrt[12]{10}$	1.0		1.2		1.5		1.8		2.2		2.7		3.3		3.9		4.7		5.6		6.8		8.2	
E 24	$\sqrt[24]{10}$	1.0	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.2	2.4	2.7	3.0	3.3	3.6	3.9	4.3	4.7	5.1	5.6	6.2	6.8	7.5	8.2	9.1

Die Toleranzen zu den einzelnen Reihen sind: E6: ±20 %, E12: ±10 %, E24: ±5 %.

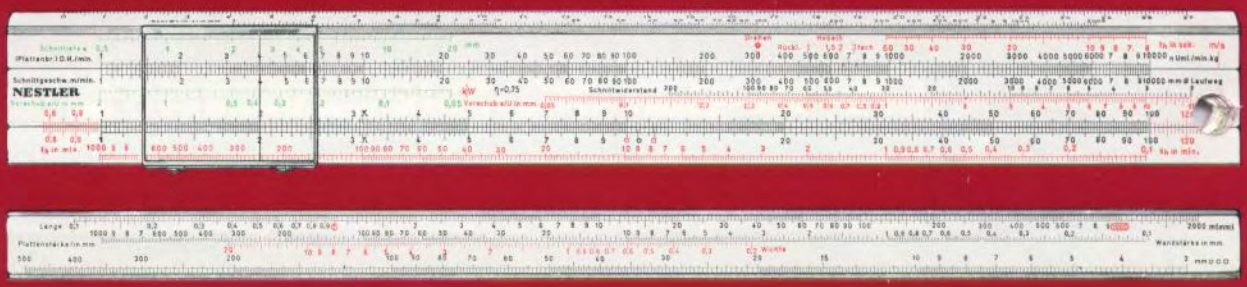
Decimal Equivalents

1/64 .0156	9/64 .1406	17/64 .2656	25/64 .3906	33/64 .5156	41/64 .6406	49/64 .7656	57/64 .8906
1/32 .0313	5/32 .1563	9/32 .2813	13/32 .4063	17/32 .5313	21/32 .6562	25/32 .7813	29/32 .9063
3/64 .0469	11/64 .1719	19/64 .2969	27/64 .4219	35/64 .5469	43/64 .6719	51/64 .7969	59/64 .9219
1/16 .0625	3/16 .1875	5/16 .3125	7/16 .4375	9/16 .5625	11/16 .6875	13/16 .8125	15/16 .9375
5/64 .0781	13/64 .2031	21/64 .3281	29/64 .4531	37/64 .5781	45/64 .7031	53/64 .8281	61/64 .9531
3/32 .0938	7/32 .2188	11/32 .3438	15/32 .4688	19/32 .5938	23/32 .7188	27/32 .8438	31/32 .9688
7/64 .1094	15/64 .2344	23/64 .3594	31/64 .4844	39/64 .6094	47/64 .7344	55/64 .8594	63/64 .9844
1/8 .125	1/4 .25	3/8 .375	1/2 .5	5/8 .625	3/4 .75	7/8 .875	1 1.0

Aα	Bβ	Γγ	Δδ	Eε	Zζ	Hη	Θϑ	Iι	Kκ	Λλ	Mμ	Nν	Ξξ	Oo	Ππ	Pϱ	Σσ	Tτ	Yυ	Φφ	Χχ	Ψψ	Ωω
alpha	beta	gamma	delta	epsilon	zeta	eta	theta	jota	kappa	lambda	my	ny	xi	omikron	pi	rho	sigma	tau	ypsilon	phi	chi	psi	omega

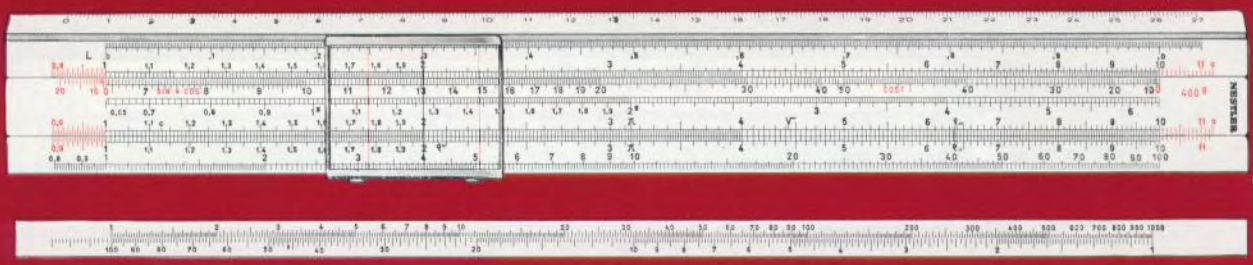
NESTLER Slide Rules Special Types

No. 0260
25 cm (10″) for Mechanical and Industrial Engineers,
Time study experts
(metric system only)

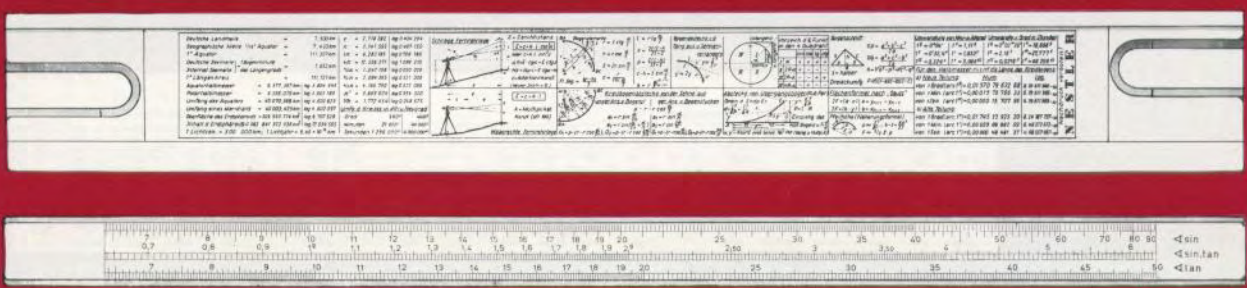


Reverse side of No. 0260

0281
25 cm (10″) for Surveyors and related professions



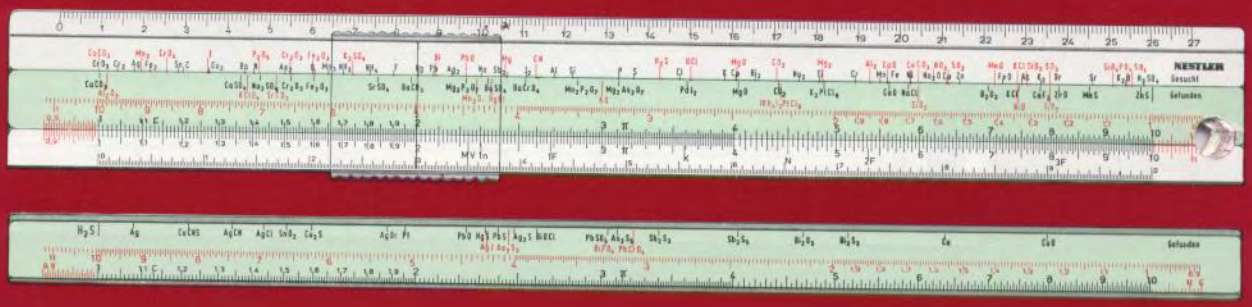
Reverse side of No. 0281



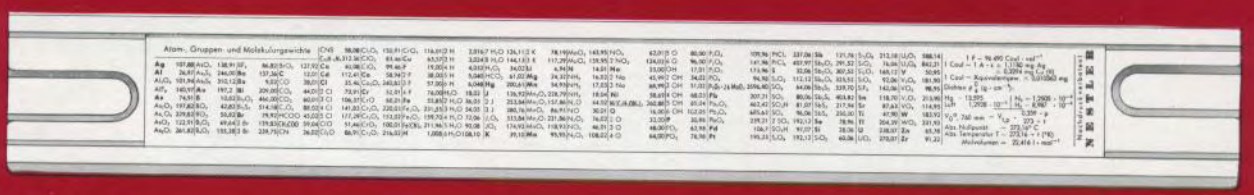
NESTLER Slide Rules Special Types

No.
0330
Chemist

for quantity analysis calculations, Titrations, Determination of gas volumes, gas weights etc.

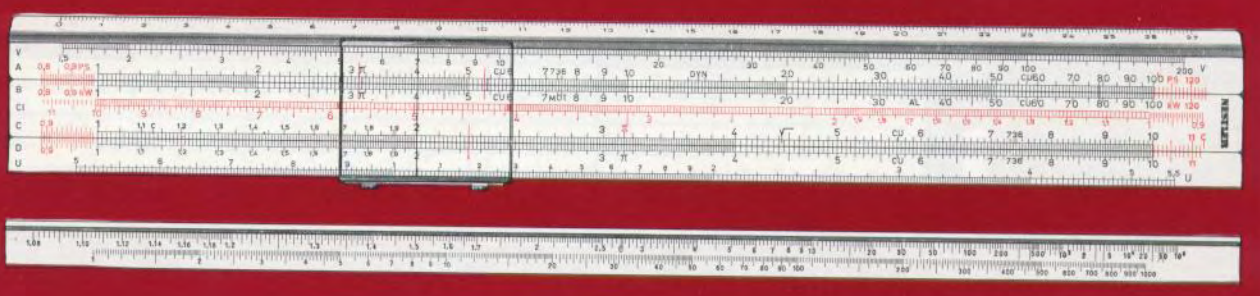


Reverse side of 0330

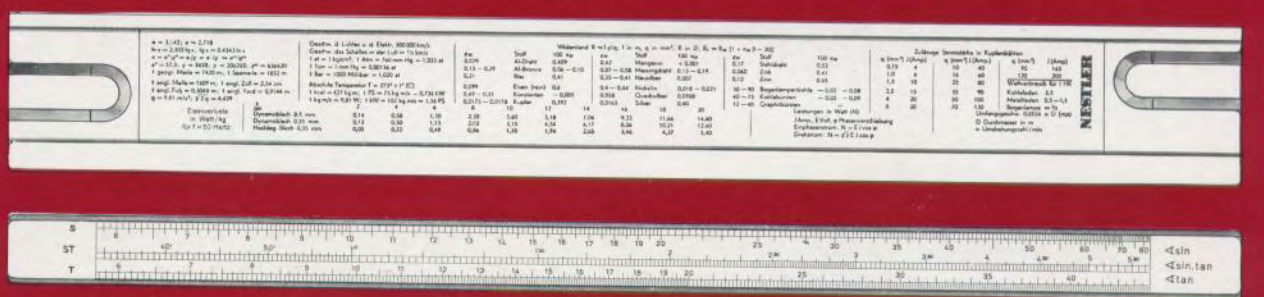


0370
Electro

for electro-engineers and related professions

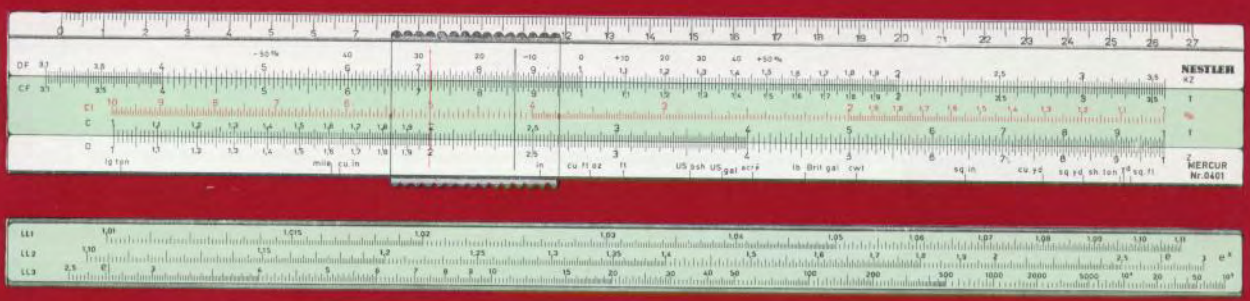


Reverse side of 0370

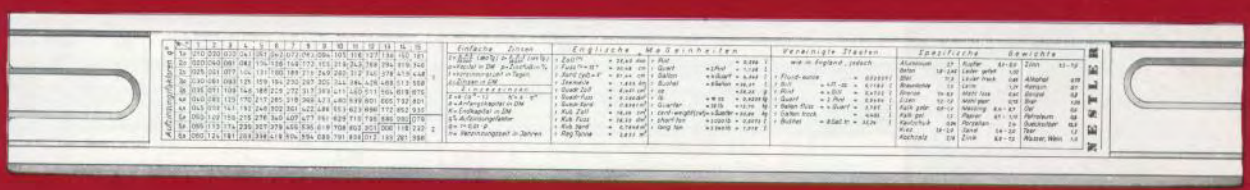


NESTLER Slide Rules Special Types

No.
0401 Merkur
for commerce, bankers and insurance commissioners



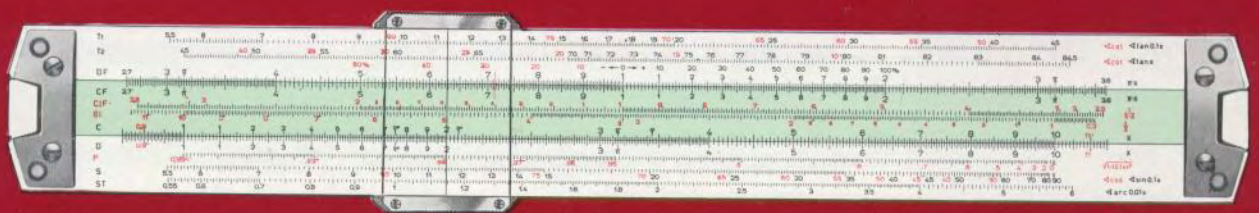
Reverse side of 0401



0440 Steel Concrete
based upon the anelastic method (metric system) for architects, architectural engineers, public constructions etc.

Front side

For all calculations related with steel-concrete constructions.



Reverse side

NESTLER