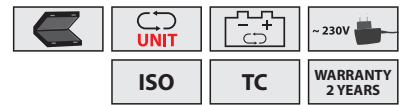


## ★★★★★ DIGI PLUS-LINE® Electr. Digital Surface Roughness Tester

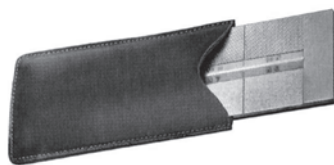
- portable roughness measuring device for the measurement of Rz, Ra, Rq, Rt
- robust aluminium housing, Ra, Rz, Rq, Rt roughness parameters in one gauge
- large OLED display, with switchable backlight, „low-battery“ indicator
- On/Off push button, autom. shutdown after 3 min., with beep (start-test-ready)
- measuring range selectable in  $\mu\text{m}$  /  $\mu\text{inch}$ , parameter Ra (ISO and Rz DIN)
- min. probe tips curvature radius 10 microns  $\pm$  1 microns, angle  $90^\circ +5^\circ / -10^\circ$
- different display values <12%, error indication  $\pm$  15%
- force measurement: 0.016 N, force measurement share: 800 N/m
- working temperature  $-20^\circ\text{C} \sim +40^\circ\text{C}$ , rel. humidity <90%
- tracing length 6 mm, tracing speed 1.0 mm / sec., sensor pressure 0.5 N
- integrated sensor protection, with simple calibration function
- incl. roughness standard plate Ra, accuracy acc. ISO class 3
- with 3.7 V Li-Ion rechargeable battery, incl. charger 9 V AC
- incl. sturdy carrying case and operation manual



<b>ART N°</b>	$\mu\text{m} / \text{inch}$	Ra $\mu\text{m}$	Rz $\mu\text{m}$	tracing length mm	mm	KG
657120	0.01 / 1	0.05 - 10	0.1 - 50	6	70 x 105 x 25	0.200

## ★★★★★ BLUE-LINE® Surface Finish Specimen „RUGOTEST“

- acc. to the norms NF E 05-501, ISO/R 468 and ISO 2632
- for testing surface roughness by sight and touch method (with finger-tip)
- available for all standard machining methods
- wear-resistant and made of stainless steel
- delivery in a handy pouch, with description



ART N° 651101 - 651107



ART N° 651001



ART N°	machining method	quantity of plates	comparison range Ra $\mu\text{m}$	ISO class	mm	KG
651001	general (standard)	27	0.05 - 12.5	N2 - N10	120 x 90	0.150
651002	sand	6	0.8 - 25.0	N6 - N11	120 x 90	0.125
651003	shot / grit (coarse + fine)	18	0.0125 - 25.0	N0 - N11	120 x 90	0.125
651101	planing	6	0.8 - 25.0	N6 - N11	110 x 50	0.125
651102	turning	6	0.4 - 12.5	N5 - N10	110 x 50	0.100
651103	face milling	6	0.4 - 12.5	N5 - N10	110 x 50	0.120
651104	surface grinding	8	0.025 - 3.2	N1 - N8	130 x 50	0.125
651105	cylindrical grinding	8	0.025 - 3.2	N1 - N8	130 x 50	0.110
651107	spark erosion	6	0.4 - 12.5	N5 - N10	110 x 50	0.105

# Surface Roughness Testers, Accessories

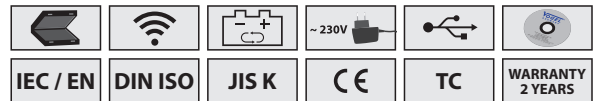
## **Electr. Digital Surface Roughness Tester**







- high performance device, for professional demand
- for measurement of roughness parameters  
Rz, Ra, Rq, Ry, Rt, Rv, R3z, R3y, RzJIS, Rsk, Rku, Rsm, Rmr
- with USB 2.0 data output

- rugged ABS plastic housing, in ergonomic design
- large OLED display with clear reading and with backlight
- comprehensive information and graphic representations
- diamond tracer tip, 90°, radius 5 µm, contact power 4mN (0.4gf)
- standards acc. to ISO, DIN, ANSI, JIS
- digital filter RC, PCRC, Gauss, D-T13565, data memory 2 MB + 2 GB
- with built-in and rechargeable Li-Ion battery, charger 100-240 V / 50/60 Hz
- up to 10 hrs. permanent use, with calendar and RTC
- On/Off button, autom. power off, battery indicator
- selectable languages: english, german, chinese
- reliable software for the electrical motor drive
- connection to PC or printer, incl. interface cable
- incl. software, ground plate, calibration test block, standard tracer (art.-no. 657210) and operation manual, with carrying case



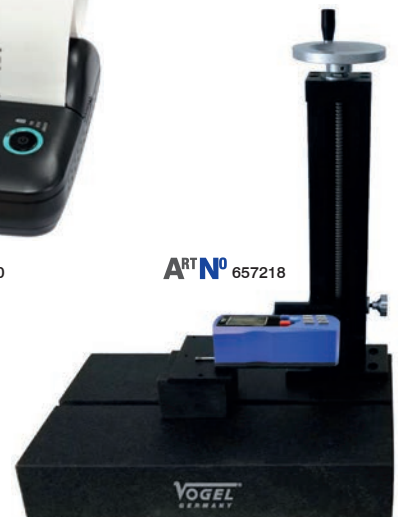
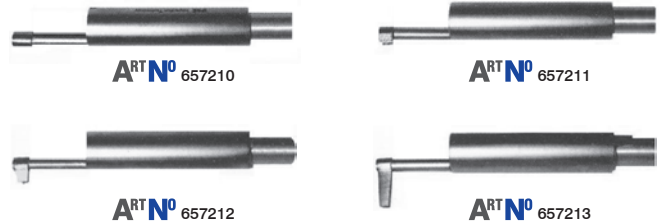
extensive information and graphic representations



ART NO	 Ra / Rq µm	 Rq/Rt/Rp/Rv/R3z/R3y/ RzJIS/Rsk/Rku/Rsm/Rmr µm	 % max.	 %	cut-off length mm	 mm	 KG
657113	Ra 0.005-16 / 0.02 - 160	± 0.6 %	< ±10	< 6	0.25 / 0.8 / 2.5	140 x 55 x 47	0.400

### Accessories for Art. No. 657112 + 657113

- Art. No. 657210 tracer, straight (standard)
- Art. No. 657211 tracer, angled
- Art. No. 657212 tracer, for ø 3 mm bore depth
- Art. No. 657213 tracer, for ø 10 mm bore depth
- Art. No. 657214 Ra test block
- Art. No. 657218 stand
- Art. No. 657219 PC software for wireless data transfer
- Art. No. 657220 bluetooth printer

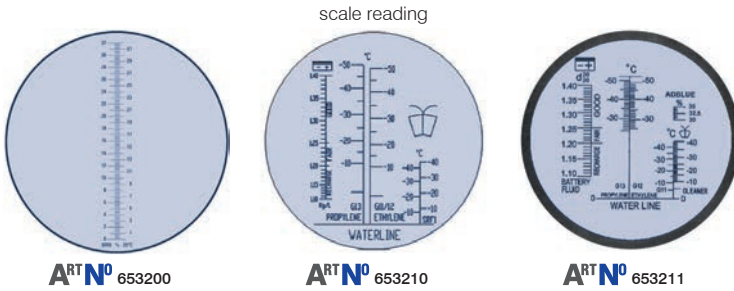


Example for a wireless transmission

1  
2  
3  
4  
5  
6  
7  
8  
9d  
10  
11

★★★★★  
**BLUE-LINE® Hand-Held Refractometer**

- refractometers are optical precision instruments for measuring the optimal concentration of liquids
- rugged stainless steel housing with rubber handle
- with adjusting screw, folding cover, okular with rubber eye cup, quality optic
- delivery in a case, with accessories, operation manual



Further instruments available on request

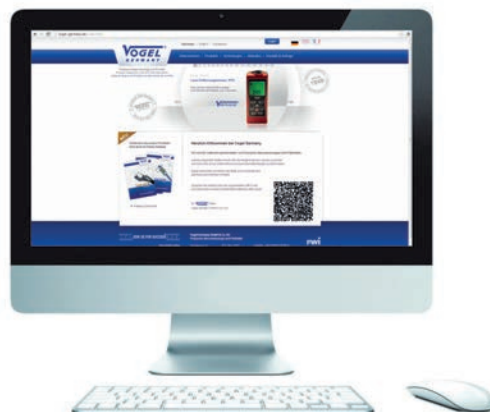


ART No	application range				
653200	lubricants, coolant liquids, fruit, juices, wines, etc.	0 - 32% Brix	± 0.20%	170 x ø-29	0.240
653210	automotive industry (standrad)	E: -40°C – 0°C P: -50°C – 0°C B: 1.10 – 1.40 SG	± 5°C ± 5°C ± 0.01 SG	153 x ø-29	0.230
653211	automotive industry (universal with Adblue) Adblue concentration, coolant liquids, antifreeze, detergents and battery acidity	Adblue: 30 - 35% E: -40°C – 0°C P: -50°C – 0°C B: 1.10 - 1.40 SG	5°C 5°C 0.01 SG	170 x ø 29	0.260

## Explore our website!

On our website you will find many features and informations, which make cooperation with us very well. For more dealer information, ask for your personal access code to our login area!

Our **Vmade**®-team is happy to help.



Any questions?  
 We are pleased to advise!

1  
2  
3  
4  
5  
6  
7  
8  
9e  
10  
11