Product information

Mobile roughness measuring instrument MarSurf M 310 with printer

Product features

Mobile roughness measurement – guaranteed success!

- Compact roughness measuring instrument for mobile use
- Simple and intuitive to use: as easy as using a smartphone
- Large, illuminated 4.3" TFT touch display
- Adjustable display
- Micro USB interface for remote control using ASCII commands, e.g. using software for statistical process control
- USB-A interface - for connection of e.g. a USB Wireless adapter or the USB/ wireless printer
- Wireless transmission of measurement results via wireless stick to the free MarCom software
- Remote start of measurement via cable or wireless
- Connection of a scanner for automatic start of the measuring programs or reading of protocol texts via barcode or QR code
- Specification of the intersection line C in µm or in % of Rz for the parameters Rmr and tp
- Data backup as TXT, X3P, CSV or PDF file
- Transfer of measuring records and data optionally via cable or wireless
- IATF 16949 compliant – safe traceability with MarConnect
- Print directly on mobile printer (as option or directly in set with printer)
- Create complete PDF measuring records directly in the measuring instrument
- Customer-specific comments for the PDF measuring record can be entered directly into MarSurf M 310
- Display and printout of the MRC and ADC diagram
- Storage of measuring programs (quick & easy)
- Mains-independent operation: Over 1200 measurements without having to recharge the instrument
- An all-in-one solution. Small and lightweight (approx. 500 g)
- Instrument flexibility: removable drive unit

Item no.: **6910267**

Technical data

Traversing length (Lt)	till 15 mm
Measuring principle	tactile stylus method, tactile skidded probe
Unit of measurement	metric/inch
Measuring force (N)	.00075
Probe tip radius	2 µm
Filter according to ISO/JIS	Gaussian filter as per ISO 16610-21 (formerly ISO 11562), special filter as per DIN EN ISO 13565-1, Lambda s filter as per DIN EN ISO 3274 (can be switched off), DIN EN ISO 4287, 4288, 21920
Cutoff lc according to ISO/JIS	0,25 mm, 0,8 mm, 2,5 mm, automatic filter detection, variable
Short stroke under ISO/JIS	Selectable
Number n of sampling length according to ISO/JIS	Selectable: 1 to 16
Measuring speed	0.5 mm/s to 1 mm/s
Positioning speed X axis	0.5 - 1 mm/s
Surface parameters	Over 30 characteristic values for R-profile in accordance with current ISO/JIS/ASME/Motif standardization
Energy supply	Integrated rechargeable battery (min. 1200 measurements) or via charging unit
Data interface	USB A, USB, Duplex, Micro SD slot for SD / SDHC cards up to 32 GB
Languages	German, English, French, Italian, Spanish, Portugese, Dutch, Swedish, Russian, Polish, Czech, Japanese, Chinese, Korean, Hungarian, Turkish, Romanian
Storage capacity	Min. 3900 profiles, min. 500,000 results, min. 1500 PDF measuring records, expandable to 32 GB with microSD card (320x memory capacity)
Probe	Inductive skidded probe
Calibration function	Dynamic; Ra, Rz, Rsm
IP protection category	IP 40
Operating temperature	10 °C to 45 °C
Lagertemperatur	-10 °C to 60 °C
Dimensions in mm	160 mm x 77 mm x 50 mm
Other functions	Lock/password protected, date/time
Traversing length according ISO 12085 (MOTIF)	1 mm, 2 mm, 4 mm, 8 mm, 12 mm, 16 mm
Evaluation lenth ln according to ISO/JIS	1.25 mm, 4.0 mm, 12.5 mm
Stylus	2 µm
Parameters	A1, A2, Ar, CF, CL, CR, Mr1, Mr2, R, R3z, RPc, RS, RSk, RSm, Ra, Rk, Rmax, Rmr (tp (JIS, ASME) is equivalent to Rmr), Rp, RpA (ASME), Rpk, Rpm, Rpm (ASME), Rq, Rt, Rvk, Rx, Rz, Rz (JIS), Rz (Ry (JIS) is equivalent to Rz), Vo

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- 31 thread parameters: offer the same range of functions as a laboratory instrument.
- Roughness standard stored within housing aids in reducing errors
- Quick access to your frequently used functions via the Favorites list in the display
- Automatic cutoff selection, so even non-specialists can be sure of getting the correct measuring results

- Additional versions with transverse drive unit available as MarSurf M 310 C2 or MarSurf M 310 set without probe
- Free software "MarWin Easy Roughness Viewer" for further documentation (statisics, multiple profiles and results on one page etc.) available for download on the Mahr website.

Application

- For shafts and housing components
- For large machines
- For large workpieces
- For milled and turned parts
- For ground and honed workpieces
- On the production line or directly on the machine, ideal for rapid testing of the surface roughness of a workpiece in or on the machine.

Technical data

System of protection	IP 40
Rechargeable batteries	Lithium-ion battery, 3.7 V, nominal capacity 11.6 Wh, min. 1200 measurements
Wide range power supply	100 to 264 V
Measuring range mm	0.350
Profile resolution	8 nm
Traversing length Lt according ISO/JIS	1.5 mm, 4.8 mm, 15 mm, N x Lc, variable, automatic

Dimensions

Dimensions in mm	160 mm x 77 mm x 50 mm

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Accessories

Order no.	Designation	Product type
4102603	Data cable USB bidirectional	DK-U1
6850540	PHT pick-up extension 80 mm	PHT (80 mm)
6111520	Standard probe 2 µm	PHT 6-350
6111526	Standard probe 5 µm	PHT 6-350/ 5µm
6111527	Standard probe 10 µm	PHT 6-350/ 10µm
6111521	Probe for bores with a dia. larger than 3 mm	PHT 3-350
6111524	Probe for grooves	PHT 11-100
6111525	Probe for concave and convex surfaces	PHTR-100
6111522	Probe for gear tooth flanks	PHTF 0.5-100
6111523	Probe for metal sheets	PT 150
6710803	Measuring stand 300 mm with cast iron base	ST-D
6710806	Measuring stand 300 mm with granite plate	ST-F
6710807	Measuring stand 300 mm with granite plate and T-slot	ST-G
2247086	Adjustable mounting bracket to connect to 814 SR	814 Sh
4426100	Digital height gage	814 SR
4426101	Digital height gage	814 SR
6710401	V-block	PP
6710604	Parallel vice	PPS
6710529	XY table	CT 120
4246819	Set of miniature precision vises	109 PS
6820420	Roughness standard with Mahr calibration certificate, profile depth 10 µm	PRN 10
4413000	Measuring tripod with	815 GN