MarSurf M 310 / M 310 C2 for transverse measurement / M 310 with printer

Mobile roughness measuring instrument

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 Bluetooth adapter or the USB/Bluetooth printer
- Wireless transmission of measurement results via Bluetooth stick to the free MarCom software
- Remote start of measurement via cable or Bluetooth
- 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 Bluetooth or cable
- 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 and 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
- **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.





Applications:

- 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

Order no.		6910260	6910264	6910265	6910267	6910268
Type		M 310	M 310 C2 for Transverse measurement	M 310	M 310 with printer	
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				
Stylus		2 µm		5 µm	2 µm	5 µm
Calibration function		Dynamic; Ra, Rz, Rsm				
Storage capacity		Min. 3900 profiles, min. 500,000 results, min. 1500 PDF measuring records, expandable to 32 GB with microSD card (320x memory capacity)				
Languages		German, English, French, Italian, Spanish, Portugese, Dutch, Swedish, Russian, Polish, Czech, Japanese, Chinese, Korean, Hungarian, Turkish, Romanian				
Other		Lock/password protected, date/time				
Data interface		USB A, USB B, MarConnect (bidirectional), Micro SD slot for SD / SDHC cards up to 32 GB				
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				
H x W x D	mm	160 mm x 77 mm x 50 mm				
Measuring principle		Stylus method				
Probe		Inductive skidded probe				
Measuring range		0.350				
Profile resolution		8 nm				
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)				
Cutoff lc according to ISO/JIS		0.25 mm, 0.8 mm, 2.5 mm, automatic filter detection, variable				
Number n of sampling length according to ISO/JIS		Selectable: 1 to 16				
Short stroke under ISO/JIS		Selectable				
Traversing length Lt according ISO/JIS		1.5 mm, 4.8 mm, 15 mm, N x Lc, variable, automatic				
Traversing length according ISO 12085 (MOTIF)		1 mm, 2 mm, 4 mm, 8 mm, 12 mm, 16 mm				
Evaluation length ln according to ISO/JIS		1.25 mm, 4.0 mm, 12.5 mm				
Measuring force	N	.00075				
Positioning speed		0.5; 1.0				

Package contents:

- MarSurf M 310 basic device
- Drive unit (detachable)
- 1 standard probe PHT6–350, conforming to standards
- Built-in rechargeable battery
- Roughness standard integrated into housing (detachable), including Mahr calibration certificate
- Probe protection / V-block holder
- Charger / 3 adapters
- Height adjustment (integrated)
- Carry case with shoulder strap
- USB cable
- Hand-held support with height adjustment (pair)
- Roughness standard integrated into housing (detachable), including Mahr calibration certificate
- Extension cable for drive unit (length 1.2 m)
- Operating instructions