

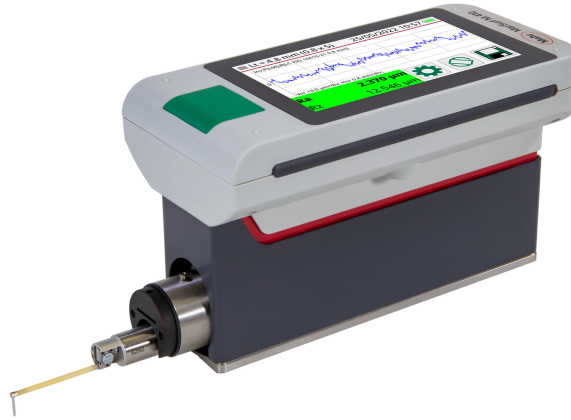
# 제품 정보

## 모바일 표면 거칠기 측정기기 MarSurf M 410

### 제품 특징

Simple, innovative, flexible – modern surface metrology for handheld use

- Handy roughness tester for mobile use
- Simple and intuitive operation: As easy as operating a smartphone
- Large, backlit 4.3" TFT touch display
- Rotatable display
- Magnetic probe holder: Fast probe arm change without tools
- Thanks to skidless probe: measurements of roughness as well as waviness – no extra measuring station required, determination of R, W and P parameters
- Simple alignment of the probe system: The inclination can be easily corrected using the menu-guided graphic instructions.
- Process and material safety thanks to automatic zeroing
- Micro USB interface for remote control via ASCII commands, e.g. via software for statistical process control
- USB-A interface for connecting 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 profile section label C in  $\mu\text{m}$  or in % of Rz for the characteristic values Rmr and tp
- Data backup as TXT, X3P, CSV and PDF file
- Transmission of measurement protocols and data optionally via cable or wireless
- IATF 16949 compliant - secure traceability with MarConnect.
- Print directly to the mobile printer (as an option or directly in the set with printer)
- Creation of finished PDF protocols directly in the measuring device



품목 번호: 6910290

### 기술 데이터

측정 길이	26 mm
측정 원리	Tactile stylus method
측정 단위	metric/inch
측정력(N)	0.00075
Probe tip radius	2 $\mu\text{m}$
ISO/JIS에 따른 필터	Gaussian filter according to DIN EN ISO 16610-21, robust Gaussian filter according to DIN EN ISO 16610-31, special filter according to DIN EN ISO 13565-1, ls filter according to DIN EN ISO 3274 (can be switched off)
ISO/JIS에 따른 컷오프 lc	0,08 mm, 0.25 mm, 0.8 mm, 2.5 mm, 자동 필터 탐지, 변수
ISO/JIS 하의 짧은 왕복운동	selectable
ISO/JIS에 따른 샘플링 길이의 n 수	selectable: 1 to 16
측정 속도	0.1 mm/s - 1 mm/s
positioning speed X-axis max.	3 mm/s
위치 이동 속도(mm/s), X축	till 3 mm/s
표면 파라미터	Über 55 Kennwerte für R-, P-, W-Profil gemäß aktueller Normung ISO/JIS/ASME/Motif
데이터 인터페이스	USB A, MarConnect(RS-232), SD용 Micro SD 슬롯 SD / 최대 to 32 GB의 SDHC 카드
언어	독일어, 영어, 프랑스어, 이탈리아어, 스페인어, 포르투갈어, 네덜란드어, 스웨덴어, 러시아어, 폴란드어, 체코어, 일본어, 중국어, 한국어, 헝가리어, 터키어, 루마니아어
보관 용량	min. 3900 profiles, min. 500,000 results, min. 1500 PDF logs, expandable with microSD card up to 32 GB (increases storage capacity by a factor of 320)
프로브	inductive skidless probe system
IP 보호 범주	IP 40
상대 습도	30 % to 85 %, non-condensing!
무게	1.42 KG
무게 측정기기	300 g
중량 드라이브 유닛	1120 g
치수 (mm)	198 mm x 77 mm x 97 mm
측정기기의 치수(L x W x H) (mm)	162 mm x 77 mm x 35 mm
드라이브 유닛의 치수 (L x W x H) (mm)	194 mm x 38 mm x 72 mm
기타	Lock/code word protection, date/time

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- Customer-specific comments for the PDF log are entered directly on the MarSurf M 410
- MRK and ADK curve display and printing
- Measuring programs are saved (Quick & Easy)
- Mains-independent operation: over 1200 measurements without having to recharge the device
- Everything in the palm of your hand. Small size and low weight (approx. 500 g)
- Flexible device: Removable drive unit
- More than 50 parameters: Offer a performance range like a laboratory instrument.
- Quick access to your desired functions through favorites storage in the display
- Automatic cutoff selection: ensures correct measurement results even for the non-measuring technician
- Free software "MarWin Easy Roughness Viewer" for further documentation (statistics, multiple profiles and results on one page etc.) available for download on the Mahr website.

### 응용 분야

Mechanical engineering  
Bearings, shafts, racks, valves, various components from the engineering and precision mechanics industries

### Automotive

Steering, brake systems, transmissions, crankshafts, camshafts, cylinder heads, cylinder blocks, turbochargers

### Medical

Roughness measurement on hip and knee endoprostheses

### Aerospace

Turbine components

### Optics

Diverse optical components

### 기술 데이터

스타일러스	2 µm; 5 µm
파라미터	Ra, Rq, Rz, Rz (JIS), Rz (Ry (JIS)는 Rz와 같음), Rmax, Rp, Rp (ASME), Rpm (ASME), Rv, R3z, Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, RPc, Rmr (tp (JIS, ASME)는 Rmr과 같음), RSm, RS, Rdq, RSk, Rku, Rdc, RHtp, Pdc, Pa, Pt, PMr, Wa, Wq, WSm, WSk, Wt, CR, CF, CL, R, Ar, Rx, W, AW (MOTIF), Wx (MOTIF), Wte (MOTIF), NW (MOTIF), NR (MOTIF), NCRX (MOTIF), CPM (MOTIF)
보호 시스템	IP 40
충전식 배터리	Li-Ion battery, 3.7 V, nominal capacity 11.6 Wh, min. 500 measurements
광범위한 전원 공급장치	100 to 264 V
측정 범위 mm	500 µm (±250 µm) for probe arm length 45 mm to 1500 µm (±750 µm) for probe arm length 135 mm

### 치수

치수 (mm)	198 mm x 77 mm x 97 mm
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### 부속품

주문 번호	명칭	제품 타입
4102603	데이터 케이블 USB 양방향	DK-U1
6852403	Probe arm	BFW
6710803	측정 스탠드 300 mm(주철 베이스 포함)	ST-D
6710806	화강암 플레이트를 포함한 측정 스탠드 300 mm	ST-F
6710807	화강암 플레이트 및 T-슬롯을 포함한 측정 스탠드 300 mm	ST-G
6710401	V-블록	PP
6710604	평행 바이스	PPS
6710529	XY 테이블	CT 120
4246819	미니어처 정밀 바이스 세트	109 PS
6820420	Mahr 교정 인증서를 포함한 거칠기 표준, 프로파일 깊이 10 µm	PRN 10