

TAPAS mobile



**Flexible Modular Miniature
Roughness Measurement System**

Technical Data

ISO 3274	measurement system with reference datum
Measurement principle	stylus
Reference datum	flat glass
Straightness of drive [µm]	0.1
Class	1
Meas. uncertainty [%]	0.5
ISO, DIN 4287	Pt; Pc; Pv; Py; Pa; Pp; Pmr
Profile parameters	Wt; Wc; Wv; Wy; Wa; Wp
Waviness parameters	Rt; Rv; Ry; Ra; Rmr; Rp;
Roughness parameters	Rq
ISO, DIN 13565	Rk, Rpk, Rpk*, Rvk, Rvk*,
Core roughness parameters	Mr1, Mr2
ISO, DIN 12085	R; Ar; Rx; W
Motif parameters	
JIS B-0601	Rz; Rmax; RzISO
Daimler N 31007	R3z; R3max
Filters	Gauss, M50, M75, 4776, 4777, 11562, FPRRG
Measurement ranges [µm]	100; 1000
Resolution [Bit]	16
Stylus tip radius [µm]	2-5
Stylus angle [°]	90
Evaluation length [mm]	max. 12.5
Sampling speed [mm/s]	0.5 - 10
Stylus protection	lift off actuator
Internal memory	pick up + service data, measurement programs
Quick exchange components	pick up, stylus
Orientation	arbitrary
Operating temperature [°C]	5 - 35
Weight [g]	100
Dimensions L x W x H [mm]	47 x 27 x 30
Accu charging cycle [h]	2.5
discharging and overcharging protection	
No. of meas. programs	256
USB data interfaces	RS 232; QDAS; Excel

In-line Quality Control

Combining this new intelligent profilometer with reference datum with a software controlled robot, CMM or standard measurement set up provides a universal surface measurement capability for in-line use and also for workpieces with irregularly shaped surfaces.

This measurement system is very small and light and features a reference datum. Due to this feature it cannot be compared with similar small devices having a skid pick up.

The instrument lends itself for the measurement of waviness and roughness according to the ISO standards. Optionally a range exceeding 1 mm is available and a resolution of 20 Bit.

This new miniature pick up design enables higher scanning speeds than usual. Check of calibration and stylus geometry is initiated in preset time intervals.

Beneficial features

- due to its flexible design it can be adapted to various measurement tasks and workpiece shapes
- modular design with easy supplement of optional components
- fast measurement possible
- Stylus and pick up can be exchanged quickly and easily
- workpiece specific support of the measurement system provided

