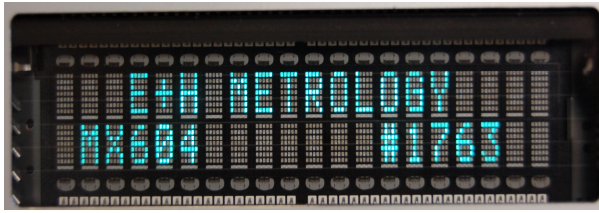




MX 604

Resistivity Gauge for Silicon Blocks

1 Description



The redesigned new version of the **MX 604** now includes an alphanumeric VFD display and a RS232 serial interface.

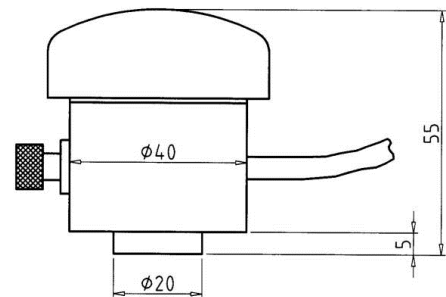
The instrument can be used in stand-alone mode or alternatively in conjunction with a PC. The Windows

software EHMaster allows further evaluation of the measurements and configuration of the tool.

The **MX 604** uses the well known eddy current method. The magnetic field lines of an open high frequency coil penetrate the silicon material and generate eddy currents which increase the power loss of the oscillator. If all field lines go through the material, this power absorption is proportional to the conductivity of the sample and the resistivity can be computed.

As the power absorption is also a function of the distance between measuring probe and semiconductor sample, the surface should be even and of always similar quality.

The new **MX 604** allows connecting up to 4 different sensor probes (alternatively) to measure different resistivity ranges. The coding pins inside the probe connector are used to auto-detect the selected range.



2 Technical Specifications

Standard measuring range (one sensor)

0.25 Ω cm - 25 Ω cm

Additional sensors as option:

S3

0.001 – 0.1 Ω cm

S2

0.05 - 5 Ω cm

S1

2 – 200 Ω cm

Custom made sensor

2 decades of resistivity

Accuracy

\pm 3%

Dimensions

Active coil diameter

18 mm

Probe

\varnothing 40 x 35 mm

Case

250 x 140 x 260 mm