Comparator Balances

# Determine Magnetic Characteristics

## Without Doubt

### Unrivalled performance

The S-50K Susceptometer outperforms requirements of mass calibration according to OIML R111 and ensures accurate measurements.

### Guided workflow

The user guided Susceptometer Software calculates magnetic properties of artifacts according to OIML R111.

### Detailed report

The well structured report lists final results including all data to be exported for further data processing.


### Complete traceability

Recalibratable gauge blocks and susceptibility reference secure the traceability to international standards anytime.

### Intelligent SmartGeo

Select OIML standard shapes or define specific weights geometries for automatic calculation of geometry correction factors.

## S-50K Susceptometer

### Determination of magnetic characteristics

Determination of magnetic characteristics is an important precondition to ensure quality of high end materials. The S50-K Susceptometer measures susceptibility and permanent magnetization of materials with highest readabilities for loads up to 50 kg at highest accuracy to ensure precise characterization.

With the recalibratable references and the free designable weight geometry correction factors, accuracy is granted at highest resolutions even for E1.

The Susceptometer is the complete reference solution for the determination of magnetic characteristics.

- Straightforward workflow with user guided software
- Highest readability for highest precision
- SmartGeo for easy shape correction
- Outperforms requirements of OIML R111 and ASTM E67

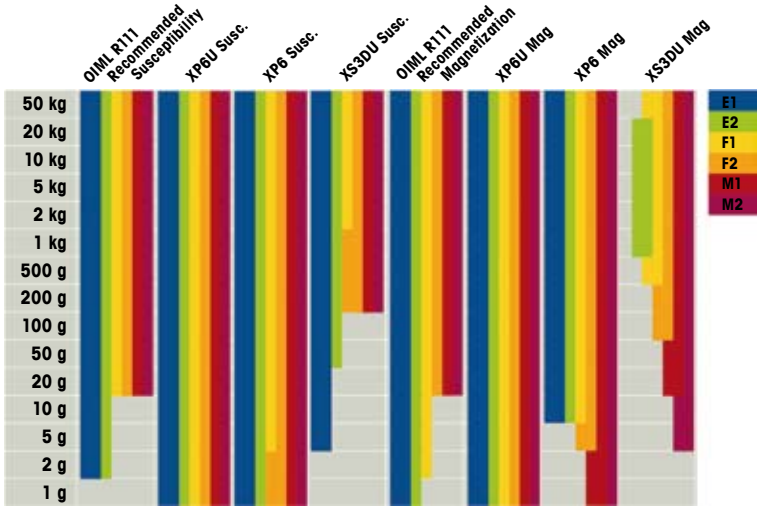
METTLER TOLEDO

# Measure Without Doubt

## Determine Magnetic Characteristics at Highest Accuracy

| Technical Data | | | |
|---|---|---|---|
| **Susceptometer S50-K Hardware** | | | |
| Load | 1g … 50 kg | | |
| Load plate diameter | 200 mm | | |
| Object diameter (D, mm) [1] | ≤ 260 mm | | |
| Dipole moment of magnets | 0.085 $Am^2$ | | |
| Distance platform / center of magnet $Z_0$ | 18.8 – 60.0 mm, variable and calibratable | | |
| Magnetizing field strength (max.) | 2000, 800, 200 A/m | | |
| Dimensions (W x D x H) | 270 x 360 x 160 mm | | |
| | | | |
| **Susceptometer Comparator** | **XP6U** | **XP6** | **XS3DU** |
| Readability of balance (mg) | 0.0001 | 0.001 | 0.01 |
| Res. magnetization for 1 digit µT (E1) | ≥ 0.001 | ≥ 0.01 | ≥ 0.1 |
| Res. susceptibility x for 1 digit (E1) | ≥0.000001 | ≥0.00001 | ≥0.0001 |
| | | | |
| **Susceptometer S-50K Software** | | | |
| User guidance | Yes | | |
| Multiweight process flow | Yes | | |
| Automatic data reading | Yes | | |
| Absolute results and limit check | Yes | | |
| Combination with standard BIPM bridge | Included | | |
| Weight geometries database | Yes | | |
| Protocol format | Word, Excel | | |
| Compatible with | MT5, UMT5, MX5, UMX5, XP6U, XP6, XS3DU | | |
| | | | |
| **Susceptometer S-50K Reference** | | | |
| Low permeability / susceptibility reference | Acrylic ferrite compound µ = 1.005 A/m | | |
| Diameter x height | 40 x 25 mm | | |

1) 200 mm in lowest position, 260 mm in highest position




### System Equipment

**Susceptometer Hardware**

- Bridge with adjustment and level indicator
- Centering aid
- Gauge blocks 5 and 20 mm for calibration of magnetic field
- Lightweight pedestal for magnet
- Strong NdFeB magnets for high magnetic fields
- Caliper to measure magnet to platform distance accurately
- Installation instruction

**Susceptometer Comparator**

- Select according accuracy requirements
- XP6U, XP6 or XS3DU

**Susceptometer Software**

- CD ROM including installation files and database of weights geometries
- Manual including theoretical formulas

**Susceptometer Reference**

- Low permeability reference 1.005 H/m
- Iron acrylic material for highest stability
- Calibration certificate UKAS / NPL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ISO 14001 registered
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Tailored Services

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For more information