

SM Susceptometer

Maximum accuracy of the measurement of mass standard and weight magnetization



Features

Effective and Excellent Measurement

The SM susceptometer measures susceptibility and permanent magnetization of weights ranging from 2 g to 50 kg with the highest accuracy. The susceptometer is a complete reference solution for specifying the magnetic characteristics even for weights of class E1.

Intuitive Operation and Large Touch Screen

5.7" colour touch screen enables intuitive operation and easy access to numerous applications and functions of the weighing instrument.

Versatile Weighing Platform

The device, due to its modular design, operates as a balance or a mass comparator, and upon assembling respective module it may also operate as a susceptometer.

Design and Functionality

The device features three different heights, from the mass standard base to the centre of the magnet.

Dedicated Software

Specially designed RMCS computer software enables comprehensive realisation of calibration procedures in laboratory. The system manages the whole calibration process, starting from the moment the order is placed, through procedure performance, to the moment of issuing the calibration certificate.

Technical Specifications

| | SM-UYA-6.4Y | SM-MYA-5.4Y | SM-MYA-11.4Y |
|--------------------------------------|--|------------------------------------|--|
| OIML calibration range E1 | 2 g ÷ 50 kg | 2 g ÷ 50 kg | 2 g ÷ 50 kg |
| OIML calibration range E2 | 2 g ÷ 50 kg | 2 g ÷ 50 kg | 2 g ÷ 50 kg |
| OIML calibration range F1 | 2 g ÷ 50 kg | 2 g ÷ 50 kg | 2 g ÷ 50 kg |
| OIML calibration range F2 | 2 g ÷ 50 kg | 2 g ÷ 50 kg | 2 g ÷ 50 kg |
| OIML calibration range M1 | _ | _ | _ |
| OIML calibration range M2 | _ | _ | _ |
| Maximum capacity [Max] | 50 kg | 50 kg | 50 kg |
| Readability [d] | 0.1 μg | 1 μg | 1 μg |
| Stabilization time | 10 s | 10 s | 10 s |
| Adjustment | internal | internal | internal |
| Dipole moment of magnets | ≤ 0.1 Am ² | ≤ 0.1 Am ² | $\leq 0.1 \text{ Am}^2$ |
| Platform-magnet centre distance | 20; 27; 43 mm | 20; 27; 43 mm | 20; 27; 43 mm |
| Magnetic field | 2000, 800, 200 A/m | 2000, 800, 200 A/m | 2000, 800, 200 A/m |
| Display | 5.7" colour resistive touch screen | 5.7" colour resistive touch screen | 5.7" colour resistive touch screen |
| Keypad | 8 keys | 8 keys | 8 keys |
| Ingress protection - indicator | IP 43 | IP 43 | IP 43 |
| Touch-free operation | 2 programmable sensors | 2 programmable sensors | 2 programmable sensors |
| USB-A | 2 | 2 | 2 |
| Ethernet | 10 / 100 Mbit | 10 / 100 Mbit | 10 / 100 Mbit |
| RS 232 | 2 | 2 | 2 |
| Wireless Connection | 802.11 b/g/n | 802.11 b/g/n | 802.11 b/g/n |
| IN/OUT | $4 \times IN, 4 \times OUT$ | $4 \times IN, 4 \times OUT$ | $4 \times IN, 4 \times OUT$ |
| Power supply | 13.5 ÷ 16 V DC | 13.5 ÷ 16 V DC | 13.5 ÷ 16 V DC |
| Operating temperature | +15 ÷ +30 °C | +15 ÷ +30 °C | +15 ÷ +30 °C |
| Operating temperature change rate | ±0.5 °C / 12 h (±0.3 °C / 4 h) | ±0.5 °C / 12 h (±0.3 °C / 4 h) | ±0.5 °C / 12 h (±0.3 °C / 4 h) |
| Relative humidity variations | ±2% / 4 h | ±2% / 4 h | ±2% / 4 h |
| Relative humidity** | 40 ÷ 60% | 40 ÷ 60% | 40 ÷ 60% |
| Transport and storage temperature | -20 ÷ +50 ℃ | -20 ÷ +50 ℃ | -20 ÷ +50 ℃ |
| Weighing pan dimensions | ø 300 mm | ø 300 mm | ø 300 mm |
| Susceptometer dimensions* | 525 × 246 × 350 mm | 525 × 246 × 350 mm | 525 × 246 × 350 mm |
| Indicator dimensions* | 206 × 140 × 70 mm | 206 × 140 × 70 mm | 206 × 140 × 70 mm |
| Net weight | 27 kg | 27 kg | 27 kg |
| Gross weight | 53 kg | 53 kg | 53 kg |
| Packaging dimensions* | $950 \times 750 \times 760 \text{ mm}$ | 950 × 750 × 760 mm | $950 \times 750 \times 760 \text{ mm}$ |

* ** dimensions: length x width x height

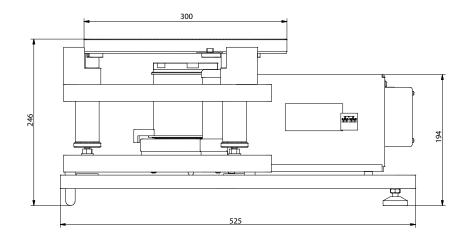
non-condensing conditions

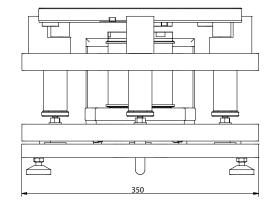
| | SM-UYA-5.4Y.KO |
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| OIML calibration range F1 | 2 g ÷ 50 kg |
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| OIML calibration range M1 | - |
| OIML calibration range M2 | _ |
| Maximum capacity [Max] | 50 kg |
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| Stabilization time | 10 s |
| Adjustment | internal |
| Dipole moment of magnets | ≤ 0,1 Am ² |
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| Magnetic field | 2000, 800, 200 A/m |
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| Keypad | 8 keys |
| Ingress protection - indicator | IP 43 |
| Touch-free operation | 2 programmable sensors |
| USB-A | 2 |
| Ethernet | 10 / 100 Mbit |
| RS 232 | 2 |
| Wireless Connection | 802.11 b/g/n |
| IN/OUT | $4 \times IN, 4 \times OUT$ |
| Power supply | 13,5 ÷ 16 V DC |
| Operating temperature | +15 ÷ +30 ℃ |
| Operating temperature change rate | ±0,5 °C / 12 h (±0,3 °C / 4 h) |
| Relative humidity variations | ±2% / 4 h |
| Relative humidity** | 40 ÷ 60% |
| Transport | -20 ÷ +50 ℃ |
| and storage temperature | 200 |
| Weighing pan dimensions | ø 300 mm |
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dimensions: length x width x height non-condensing conditions *

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Dimensions





SM-UYA

Accessories

Weighing Tables

- granite anti-vibration table
- anti-vibration table for laboratory balances
- professional weighing table

Ambient Conditions

•THB-S or THB-P sensor

Peripheral Devices

- Epson dot matrix printer
- barcode scanner
- WD-5/3Y LCD display (backlit)

Cables, Converters

- RS-232 P0108 computer cable
- RS-232 P0167 computer cable
- RS-232 P0151 Epson printer cable

Electrical Accessories

• power supply with ZR-02 battery

Dedicated Software

RMCS System

- performance of calibration procedures in a laboratory from the moment the order is placed, to the moment of issuing a calibration certificate
- $\boldsymbol{\cdot}$ compatible with THB sensors enabling recording ambient conditions
- export of report results to various files
- archiving calibration protocols, orders, certificates and ambient conditions

R-LAB

- collecting measurements
- carrying out statistical analysis of measurements • customized graphs and reports

E2R Weighing Records

- complete, automated databases synchronization
- fully supported processes of labelling and parts counting
- record of weighings, weighings archiving
- basic and advanced (with graphs) reports

Label Editor R02

- designing label templates
- sending graphics and fonts to label printers
- printing label templates using connected printers

Pipettes

- determining measurement errors of pipettes volume
- accordance with ISO 8655
- calibration of single and multi-channel pipettes
- calibration of pipettes of fixed and adjustable volume

Audit Trail Reader

- support of Audit Trail function available for 3Y, 4Y, HY10, WLY, WPY series weighing instruments
- record of operator's activity from the moment of logging in

Parameters Editor

- remote change of parameters
- remote on-line preview of the display
- displaying current mass indication
- software update
- file loading, editing and saving parameters to a file
- import and export of parameters
- interfaces: RS232, Ethernet and Wireless Connection
- quick and easy edition of balance parameters using computer

RAD KEY

- collecting measurements
- different ways of initializing the process of acquiring data from the weighing instrument and sending it to a computer
- readout of characters transmitted via RS 232 to a computer

R. Barcode

• The basic function software is presentation of the data sent by barcode scanners connected to PC via USB or RS232

Radwag Development Studio

- presentation of functions (and subfunctions) of communication protocol (Common Communication Protocol)
- possibility of connection with weighing equipment on which each function is carried out,
- library with mass control, contained within the development environment
- complete documentation of the communication protocol
- set of user manuals for different solutions addressed for programmers employed in companies using RADWAG-manufactured weighing equipment

LabView Driver

• support of RADWAG-manufactured weighing instruments operating in LabView environment

RADWAG Connect

- establishing communication with all balances, scales and weighing modules using Common Communication Protocol
- communication via local network,
- support of basic functions
- auto searching for devices
- connecting with few devices simultaneously, swapping between them
- clear list of connected platforms
- record of measurements in the program,
- export of carried out measurements to CSV file,
- work performed using freely selected device with Windows 10
 operating system

RADWAG Remote Desktop

- remote control of the mass comparator using computer, telephone or tablet
- sending text messages
- version for Windows 10 and Android systems