

# Weigh Modules

## WXS/WXT



**METTLER TOLEDO**



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# 1 Safety Information

## 1.1 Intended use

- Use the product only for weighing in accordance with this User manual.
- The weigh module is intended for indoor use only.
- Any other type of use and operation beyond the limits of technical specifications is considered as not intended.

## 1.2 Definitions of signal warnings and warning symbols

Safety notes contain important information on safety issues. Ignoring the safety notes may lead to personal injury, damage to the instrument, malfunctions and false results. Safety notes are marked with the following signal words and warning symbols:

### Signal words

<b>DANGER</b>	A hazardous situation with high risk, resulting in death or severe injury if not avoided.
<b>WARNING</b>	A hazardous situation with medium risk, possibly resulting in death or severe injury if not avoided.
<b>CAUTION</b>	A hazardous situation with low risk, resulting in minor or moderate injury if not avoided.
<b>NOTICE</b>	A hazardous situation with low risk, resulting in damage to the instrument, other material damage, malfunctions and erroneous results, or loss of data.

### Warning symbols



General hazard: read the User Manual or the Reference Manual for information about the hazards and the resulting measures.



Electrical shock

## 1.3 Product specific safety notes

Your weigh module meets the state of the art technology and complies with all recognized safety rules, however, certain hazards can arise.

Do not open the weigh module: It does not contain any parts which can be maintained, repaired or replaced by the user. If you ever have problems with your weigh module, contact your authorized METTLER TOLEDO dealer or service representative.

### Observe instructions

Always operate and use your weigh module only in accordance with the instructions contained in the product documentation. The instructions for setting up your weigh module must be strictly observed.

**If the weigh module is not used according to the product manuals, protection of the weigh module may be impaired and METTLER TOLEDO assumes no liability.**

### Staff safety

Use only METTLER TOLEDO accessories and peripheral devices, these items are designed to work optimally with your weigh module.

### Explosion hazard

It is not permitted to use the weigh module in explosive atmospheres of gases, steam, fog, dust and flammable dust (hazardous environments).

## Safety notes



### **CAUTION**

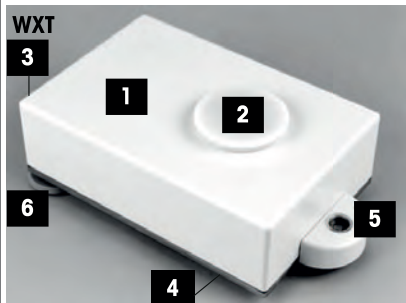
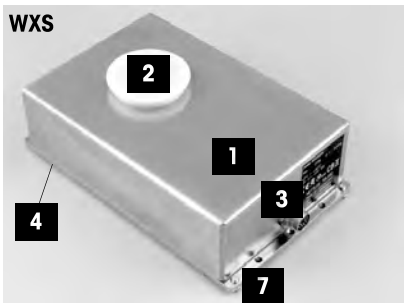
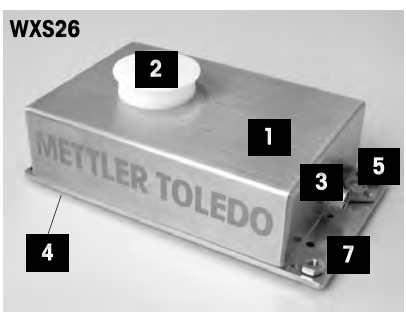
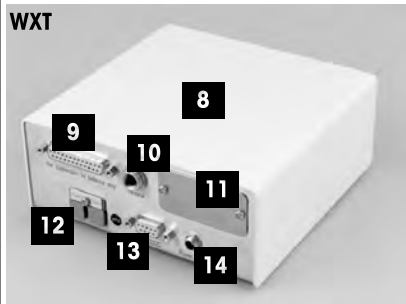
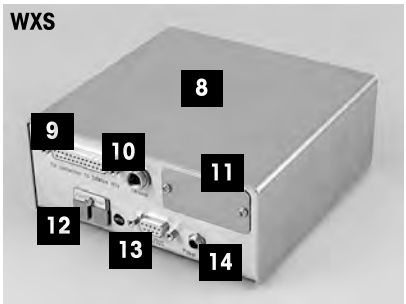


#### **Risk of electric shock**






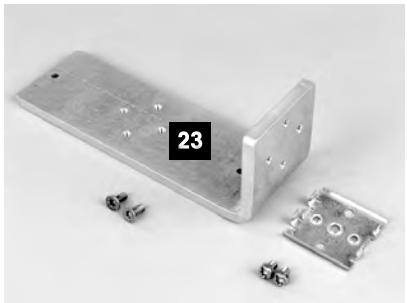
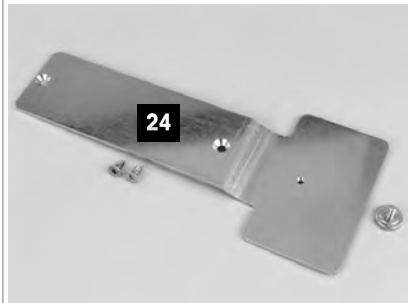
The weigh modules may only be connected to DC power sources that meet the 12VDC +/-3% at all times.

The power supply must be approved by the respective national test center of the country in which the weigh module will be used.

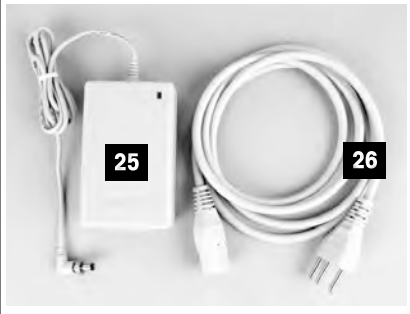

## 2 Installation

### 2.1 Overview

Load Cells		
<p><b>WXT</b></p>  <p>Diagram of the WXT load cell. It is a white rectangular unit with a weighing pan retainer (2) on top, a connector (3) on the right side, and adjustable feet (6) on the bottom. A hanger opening (4) is visible on the bottom side, and a level bubble (5) is on the right side.</p>	<p><b>WXS</b></p>  <p>Diagram of the WXS load cell. It is a stainless steel rectangular unit with a weighing pan retainer (2) on top, a connector (3) on the right side, and a hanger opening (4) on the bottom side. A base plate with a mounting flange (7) is attached to the bottom.</p>	<p><b>1</b> Housing (WXT: white powder-coated, WXS: stainless steel)</p> <p><b>2</b> Weighing pan retainer with plastic cover</p> <p><b>3</b> Connector for electronic unit</p> <p><b>4</b> Hanger opening for weighing below (on bottom side)</p> <p><b>5</b> Level bubble</p> <p><b>6</b> Adjustable feet (WXT only)</p> <p><b>7</b> Base plate with mounting flange (WXS only)</p>
	<p><b>WXS26</b></p>  <p>Diagram of the WXS26 load cell. It is a stainless steel rectangular unit with a weighing pan retainer (2) on top, a connector (3) on the right side, and a hanger opening (4) on the bottom side. A level bubble (5) is on the right side. The brand name 'METTLER TOLEDO' is visible on the front.</p>	
Electronic units		
<p><b>WXT</b></p>  <p>Diagram of the WXT electronic unit. It is a white rectangular unit with a load cell connector (9), terminal connector (10), optional interface plug-in (11), "Aux" connectors (12), RS232-C standard interface (13), and connector for AC adapter (14) on the front panel.</p>	<p><b>WXS</b></p>  <p>Diagram of the WXS electronic unit. It is a stainless steel rectangular unit with a load cell connector (9), terminal connector (10), optional interface plug-in (11), "Aux" connectors (12), RS232-C standard interface (13), and connector for AC adapter (14) on the front panel.</p>	<p><b>8</b> Housing (WXT: white powder-coated, WXS: stainless steel)</p> <p><b>9</b> Load cell connector</p> <p><b>10</b> Terminal connector</p> <p><b>11</b> Optional interface plug-in</p> <p><b>12</b> "Aux" connectors (for "ErgoSens," hand or foot-operated buttons)</p> <p><b>13</b> RS232-C standard interface</p> <p><b>14</b> Connector for AC adapter</p>
Terminals		
<p><b>PWT</b></p>  <p>Diagram of the PWT terminal. It features a color display (15), a keyboard (16), and "SmartSens" sensors (17) on the top surface.</p>	<p><b>SWT</b></p>  <p>Diagram of the SWT terminal. It features a monochrome display (15), a keyboard (16), and "SmartSens" sensors (17) on the top surface.</p>	<p><b>15</b> Display (PWT: color, SWT: monochrome)</p> <p><b>16</b> Keyboard</p> <p><b>17</b> "SmartSens" sensors (PWT only)</p>

Connecting cables		
		<p><b>18</b> Electronic unit – load cell connector cable (0.5 m, 1.5 m or 5 m)  <b>Note</b>  Maximum allowable cable length: 5 m.</p> <p><b>19</b> Terminal – electronic unit connector cable (0.5 m, 1 m or 2 m)  <b>Note</b>  Maximum allowable cable length: 2 m.</p>
Weighing pans		
		<p><b>20</b> Standard weighing pan</p> <p><b>21</b> Adapter weighing pan (not for WXTS3DU)</p>
Wind ring		
		<p><b>22</b> Wind ring</p>
Mounting materials		
		<p><b>23</b> Mounting bracket for WXS electronic unit, including DIN clip and screws (not for WXTS3DU)</p> <p><b>24</b> Terminal holder for SWT terminal, including screws (not for WXTS3DU)</p>



Power supply	
	<b>25</b> AC adapter
	<b>26</b> Power cable (country-specific)
Wind shield	
	<b>27</b> WXTS3 wind shield (only for WXTS3DU)

## 2.2 Assembling the WXS weigh module

The WXS (component version) weigh modules can be integrated into higher-level systems (machines, systems, etc.). Be sure to follow the tips in the following sections to select the optimal installation method.

### 2.2.1 Load cell installation

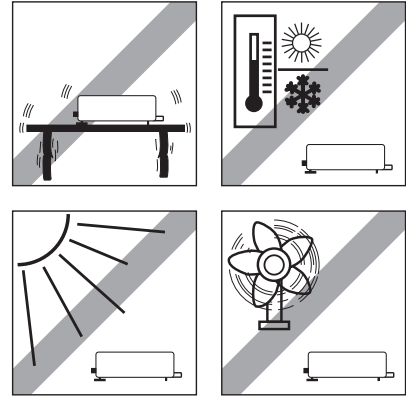
The weigh modules were designed to record weights very quickly and accurately under normal conditions and communicate the result using the integrated interface and/or display the result on a terminal. In practice, ambient conditions (vibration, oscillations, shocks, air movements and temperature changes) affect weighing time and achievable accuracy as well as the repeatability.

You can adjust various parameters on your weigh module. We recommend that you adjust the settings to the levels needed for your application; higher requirements increase the weighing time (period between the placement of the weight and the availability of a stable result). Filter settings must be stricter to compensate for unfavorable ambient conditions, this also has a negative impact on weighing time. See [Configuring weigh module ▶ Page 22].

Therefore, be sure to note the following:

**Note**

- The location of the load cell should not be in areas that are exposed to drafts, direct sunlight, or severe temperature fluctuations.  
Make sure that any vibrations in the building are not transferred through the floor and to the load cell.
- Make sure that the load cell is as perfectly horizontal as possible.
  - 1 Mount the load cell on a base that is mechanically decoupled from the system and therefore free of shocks and vibration.  
If a mechanical decoupling is not possible, place appropriate cushioning between the system and the load cell mount.
  - 2 Use the built-in precision level to achieve exact leveling.  
It is acceptable to have a unit that is not perfectly horizontal if its position is not altered after it has been adjusted (e.g., if it is mounted in a fixed position in the system). If a weigh module is installed permanently (not moveable), it can be approved even without having an integrated level bubble.

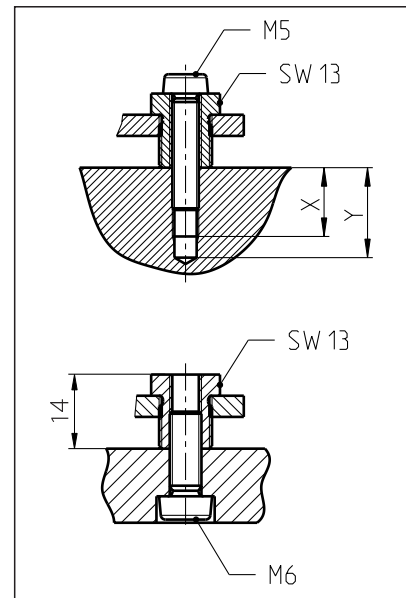


**Weighing module WXS204/205 and WXT204/205**

- 1 Attach the load cell to the base across as wide an area as possible.
- 2 Use the appropriate bores in the front part of the cell's base plate (4 × M5 screws, tightening torque 4 – 6 Nm).  
The base must be perfectly planar to avoid putting tension on the load cell base plate.
- 3 Make sure that vibrations cannot be transferred across the connector cable between the load cell and the electronic unit.
- 4 Make sure that the load cell housing is connected in an electrically conductive manner with the machine structure.

**Weighing module WXS26, WXT26, WXTS3DU**

- 1 Place the weigh module on a flat surface.
- 2 Levelling the module with the three leveling nuts (SW13).
- 3 Fix the weigh module from above by means of screws M5 × 22 or from below with M6 screws.
- 4 Make sure that vibrations cannot be transferred across the connector cable between the load cell and the electronic unit.
- 5 Make sure that the load cell housing is connected in an electrically conductive manner with the machine structure.



If your requirements are extremely demanding (short weighing time, high accuracy), we recommend that you try a test setup first and test the entire system under real-world conditions using various settings. This will allow you to tweak the system and optimize it bit by bit.

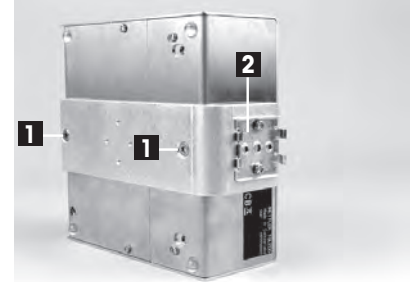
## 2.2.2 Electronic unit assembly and mounting

The electronic unit can be mounted in any position you wish. A mounting bracket and clip for attaching the unit to a DIN standardized rail are provided. Proceed as follows for mounting:

### Note

The electronic unit meets the requirements for protection class IP40. If required, appropriate protective measures must be taken to protect the unit from dirt.

- 1 Remove the two existing screws from the bottom side of the electronic unit (Torx T-20).
- 2 Use the provided Torx T-20 countersunk head screws (1) to secure the mounting bracket.
- 3 Secure the clip (2) to the front face or underside of the mounting bracket.
- 4 Use the two provided M4 pan head screws (Torx T-20) to do so.



### Note

The electronic unit can also be attached directly to a support (without the clip) via the M4 threads of the mounting bracket.

## 2.3 Weigh module WXT setup

The WXT weigh module (benchtop version) does not require any assembly work. Note the information in the following sections about choosing an optimal location and leveling the load cell.

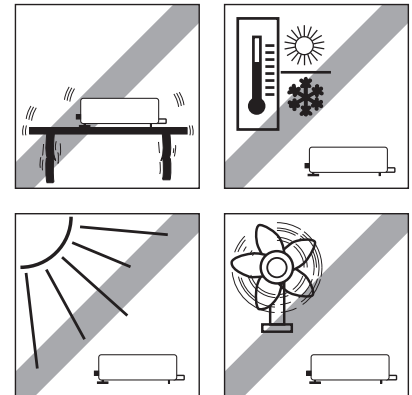
### 2.3.1 Choosing a location

An optimal location will ensure accurate and reliable operation of the weigh module. The surface must be able to safely take the weight of the weigh module when fully loaded. The following local conditions must be observed:

### Note

If the weigh module is not horizontal at the outset, it must be leveled during commissioning.

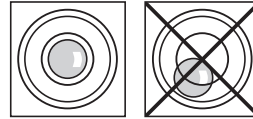
- The weigh module must only be used indoors and up to a maximum altitude of 4000 m above sea level.
- Before switching on the weigh module, wait until all parts are at room temperature (+5 to 40 °C).  
The humidity must be between 10% and 80% non-condensing.
- The power plug must be accessible at all times.
- Firm, horizontal and vibration-free location.
- Avoid direct sunlight.
- No excessive temperature fluctuations.
- No strong drafts.



### 2.3.2 Levelling load cell

Once the load cell has been set up at the desired location, the load cell must be horizontally aligned (leveled). The load cell has a level (level bubble) and two adjustable leveling feet to compensate for slight irregularities in the surface of the weighing bench.

- The load cell is exactly horizontal when the air bubble is in the middle of the level glass.
- 1 Adjust the two leveling feet appropriately until the air bubble comes to rest exactly in the middle of the glass:
    - Air bubble at "12 o'clock" turn both feet counterclockwise.
    - Air bubble at "3 o'clock" turn left foot clockwise, right foot counterclockwise.
    - Air bubble at "6 o'clock" turn both feet clockwise. Air bubble at "9 o'clock" turn left foot counterclockwise, right foot clockwise.
  - 2 The load cell must be leveled and adjusted each time it is moved to a new location.



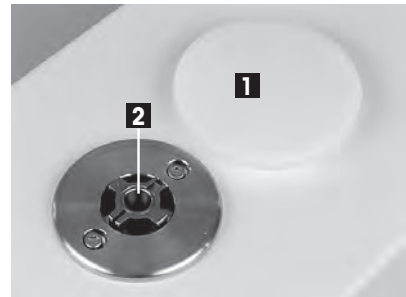
## 2.4 Installing the weighing pan

The WXS and WXT weigh modules come with two weighing pans: a standard weighing pan and an adapter weighing pan for users to create their own setups.

### 2.4.1 Installing standard weighing pan

#### Weighing module WXS204/205 and WXT204/205

- 1 Remove the white plastic cover (1) from the load cell. This cover protects the weighing pan retainer (2) from damage during transport and keeps liquid out of the load cell during cleaning.
- 2 Make sure you keep the cover in a safe place!



- Place the standard weighing pan into the weighing pan retainer. No specific position needed; the standard weighing pan turns freely.



#### Weighing module WXS26, WXT26, WXTS3DU

- 1 Remove the white plastic cover (1) from the load cell. This cover protects the weighing pan retainer (2) from damage during transport and keeps liquid out of the load cell during cleaning.
- 2 Make sure you keep the cover in a safe place!

#### Note

Do not remove any spacers (3)!



- Place the wind ring.



- Install the standard weighing pan. Turn it until it snaps into place.

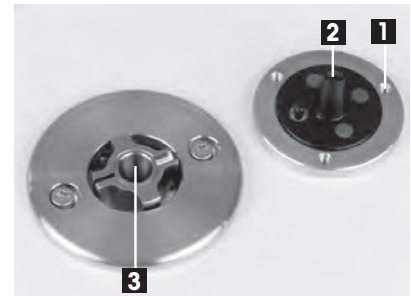


## 2.4.2 Installing adapter weighing pan

The adapter weighing pan is used for customer-specific setups to hold the object to be weighed.

### Weighing module WXS204/205 and WXT204/205

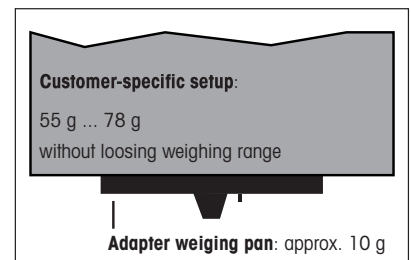
- 1 Attach the customer-specific setup to the adapter weighing pan using the three 120° offset M3 threaded holes (1).  
For the exact dimensions of the adapter weighing pan, see [WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 adapter weighing pan ▶ Page 41].
- 2 Keep in mind that your setup must weigh **at least 55 g**. Ensure that the required dead load of 65 g (adapter weighing pan + setup) is reached.  
⇒ If the required dead load is not reached, the weigh module will output an underload error message upon startup.
- 3 To preserve the full weighing range, the total preload (adapter weighing pan + setup) **may not exceed 88 g**.  
Heavier preloads will take away from the available weighing range.



Because customer-specific setups generally remain in a fixed position, the adapter weighing pan has a positioning pin (2). This pin fits perfectly in the two grooves in the weighing pan retainer (3) and prevents the weighing pan from turning freely. However, this anti-displacement measure works only up to a certain torque. If this torque is exceeded, the weighing pan turns to prevent damage to the load cell. At the same time, the weighing pan retainer serves a protection from lateral forces.

#### Note

Legal-for-trade weigh modules have a start-up dead load range from 65 g to 88 g (adapter weighing pan + setup). After power up the available zero setting range is 20 g.



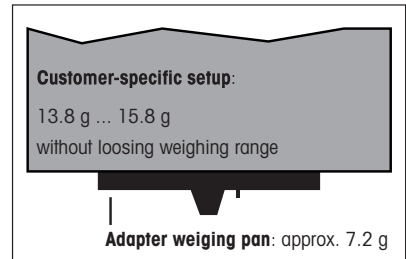
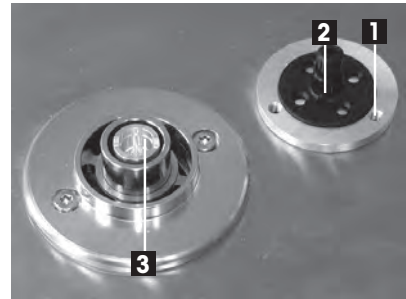
## Weighing module WXS26, WXT26, WXTS3DU

- 1 Attach the customer-specific setup to the adapter weighing pan using the three 120° offset M3 threaded holes (1).  
For the exact dimensions of the adapter weighing pan, see [WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 adapter weighing pan ▶ Page 41].
- 2 Keep in mind that your setup must weigh **at least 13.8 g**. Ensure that the required dead load of 21 g (adapter weighing pan + setup) is reached.
  - ⇒ If the required dead load is not reached, the weigh module will output an underload error message upon startup.
- 3 To preserve the full weighing range, the total preload (adapter weighing pan + setup) **may not exceed 23 g**.  
Heavier preloads will take away from the available weighing range.

Because customer-specific setups generally remain in a fixed position, the adapter weighing pan has a positioning pin (2). This pin fits perfectly in the two grooves in the weighing pan retainer (3) and prevents the weighing pan from turning freely. However, this anti-displacement measure works only up to a certain torque. If this torque is exceeded, the weighing pan turns to prevent damage to the load cell. At the same time, the weighing pan retainer serves a protection from lateral forces.

### Note

Legal-for-trade weigh modules have a start-up dead load range from 21 g to 23 g (adapter weighing pan + setup). After power up the available zero setting range is 2 g.



## 2.5 Installing the wind shield (only for WXTS3DU)

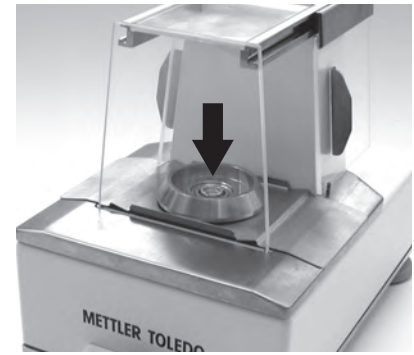
- 1 Remove the plastic cover from the pan retainer.
- 2 Install the wind shield on the load cell.



3 Install the wind ring in the weighing chamber.

 **Note**

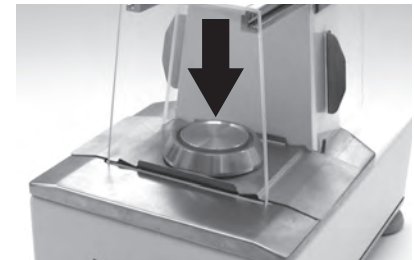
Place the wind ring around the pan retainer and turn on the wind ring until it snaps into place.



4 Install the standard weighing pan.

 **Note**

Place the weighing pan into the pan retainer and turn on the weighing pan until it snaps into place.



## 2.6 Weighing below the balance

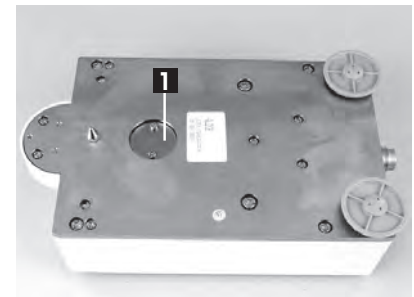
For weighing beneath the work area (weighing below), the load cell is equipped with a hanger opening. For weighing below, the item to be weighed is not placed on the weighing pan; it is placed on an application-specific receptacle attached beneath the load cell. For weighing below, the standard weighing pan is removed, and the weighing pan retainer is closed up using the plastic cover so that dirt and foreign matter cannot penetrate the load cell.

Here are some examples of when weighing below is used:

- when it is difficult or impossible to put the material to be weighed on the weighing pan
- when space will not allow for items to be weighed from above
- when weighing from above might soil or contaminate the load cell

 **Note**

Weighing below is not allowed when using legal-for-trade versions. The hanger opening is on the bottom of the cell under a round cover (1).



You'll need the optional weighing below adapter, which should be installed by a METTLER TOLEDO service technician if possible, to attach the customer-specific receptacle. For information on how to order, see [Accessories ► Page 48].

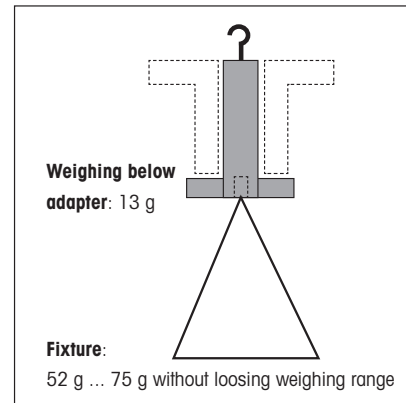


## Weighing module WXS204/205 and WXT204/205

Please keep the following in mind when planning a weighing below receptacle for objects to be weighed:

The fixture must weigh **at least 52 g**.

- 1 Ensure that the required dead load of 65 g (weighing below adapter + fixture).
  - ⇒ If the required dead load is not reached, the weighing module will output an underload error message upon startup.
- 2 To preserve the full weighing range, the total weight of the weighing below adapter and fixture **may not exceed 88 g**.
- 3 Take heavier preloads away from the available weighing range.
- 4 Secure the fixture to the M4 thread of the weighing below adapter (max. penetration depth: 8 mm, max. tightening torque: 1 Nm).
- 5 Position the fixture's center of gravity as close to and vertically beneath the attachment point as possible.
  - ⇒ The weighing receptacle must hang freely from the attachment point of the weighing below adapter without touching non-moving parts of the load cell or the system. The maximum diameter or cross-section of the fixture at the attachment point is 8 mm.
- 6 Limit the vertical and horizontal movement and/or torsion of the fixture by using mechanical stops to prevent overload of the load cell.
- 7 To minimize weighing time, avoid vibrations and shocks to the fixtures and the objects to be weighed.

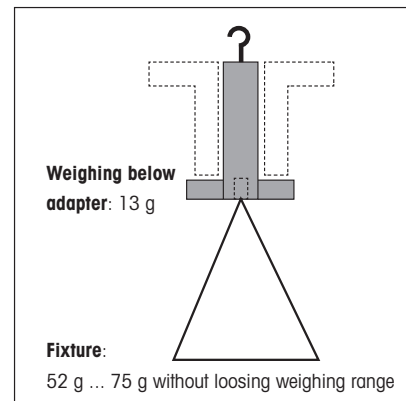


## Weighing module WXS26, WXT26, WXTS3DU

Please keep the following in mind when planning a weighing below receptacle for objects to be weighed:

The fixture must weigh **at least 8 g**.

- 1 Ensure that the required dead load of 21 g (weighing below adapter + fixture).
  - ⇒ If the required dead load is not reached, the weighing module will output an underload error message upon startup.
- 2 To preserve the full weighing range, the total weight of the weighing below adapter and fixture **may not exceed 23 g**.
- 3 Take heavier preloads away from the available weighing range.
- 4 Secure the fixture to the M4 thread of the weighing below adapter (max. penetration depth: 8 mm, max. tightening torque: 1 Nm).
- 5 Position the fixture's center of gravity as close to and vertically beneath the attachment point as possible.
  - ⇒ The weighing receptacle must hang freely from the attachment point of the weighing below adapter without touching non-moving parts of the load cell or the system. The maximum diameter or cross-section of the fixture at the attachment point is 8 mm.
- 6 Limit the vertical and horizontal movement and/or torsion of the fixture by using mechanical stops to prevent overload of the load cell.
- 7 To minimize weighing time, avoid vibrations and shocks to the fixtures and the objects to be weighed.





## 2.7 Overload protection

The WXS/WXT weigh modules have overload protection that is effective in all directions up to the following limit values:

### Weighing module WXS204/205 and WXT204/205

Vertical load:	5 kg * (all types; centered load)
Lateral load:	1 kg (protected by torsion protection; see [WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 adapter weighing pan ▶ Page 41].
Torsion:	Protected by torsion protection, see [WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 adapter weighing pan ▶ Page 41].

### Weighing module WXS26, WXT26, WXTS3DU

Vertical load:	1 kg * (all types; centered load)
Lateral load:	0.1 kg (protected by torsion protection; see [WXS26/WXT26 adapter weighing pan ▶ Page 42].
Torsion:	Protected by torsion protection, see [WXS26/WXT26 adapter weighing pan ▶ Page 42].
Weighing below "push":	0.1 kg
Weighing below "pull":	0.1 kg
Weighing below "torsion":	No overload protection

\* if wind ring and weighing pan are mounted properly.

## 2.8 Connect load cell and electronic unit

### Legal-for-trade

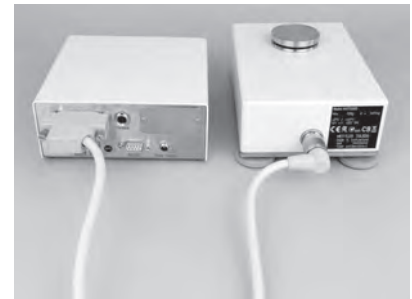
With the exception of legal-for-trade weigh modules the load cell and the electronic unit can be replaced independently of each other if necessary.

- 1 Use the provided cable (0.5 m or 1.5 m) to connect the load cell to the electronic unit.
- 2 Tighten the plugs on both devices.

A 5 m cable is available as an accessory.

### Note

Lay the cable so that no one will trip over it and so that no vibrations can travel up the cable and be transferred to the load cell.



## 2.9 Connect terminal and adjust settings

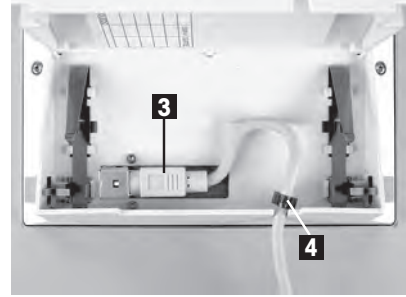
You'll need this section only if your weigh module was delivered with a terminal.

### 2.9.1 SWT terminal

- 1 Place the terminal on a flat surface with the display face down.
- 2 Press the two tabs (1) on the back of the terminal to open it.
- 3 Open the bottom of the terminal (2).

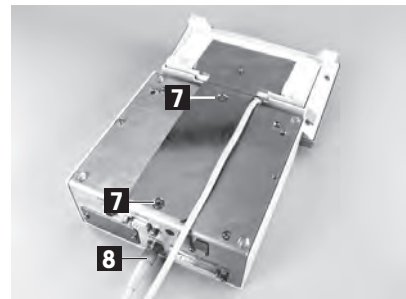
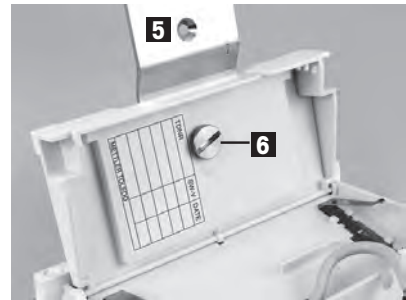


- 4 Feed the terminal cable through the cutout in the back of the terminal and plug in the jack (3).
- 5 Make sure that the strain relief (4) is inside the terminal.



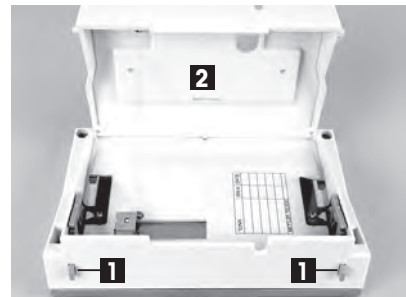
If you want to permanently affix the terminal to the electronic unit, you can also attach the terminal holder now:

- 6 Place the terminal holder (5) into the corresponding cutout on the bottom of the terminal.
- 7 Use the knurled screw (6) provided to secure it from the inside of the terminal.
- 8 Close the bottom of the terminal.
- 9 Push in the two side tabs to completely close the terminal.
  - ⇒ You can also use the two side tabs to adjust the viewing angle of the terminal while it is in operation.
- 10 Press both buttons simultaneously and pull the top of the terminal gently upwards, or press it down until it clicks into the desired position.
- 11 You can choose from three different positions.
- 12 Remove the two screws (Torx T-20) in the bottom of the electronic unit and store them in a safe place.
- 13 Align the terminal holder exactly with the two bores and secure it with the Torx T-20 countersunk head screws (7).
- 14 Plug the terminal cable plug (8) into the appropriate jack on the back of the electronic unit and screw in to tighten.
- 15 Try to run the terminal cable as close as parallel as possible to the terminal holder.

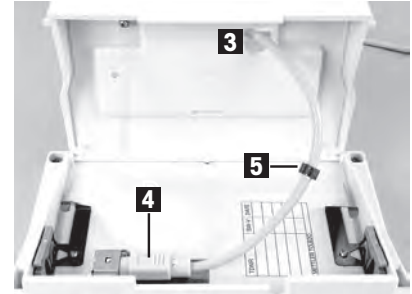


## 2.9.2 PWT terminal

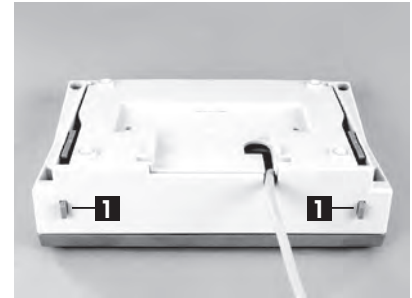
- 1 Place the terminal on a flat surface with the display face down.
- 2 Press the two tabs (1) on the back of the terminal to open it.
- 3 Open the bottom of the terminal (2).



- 1 Feed the terminal cable through the cutout (3) in the bottom of the terminal and plug in the jack (4).
- 2 Make sure that the strain relief (5) is inside the terminal.



- 1 Close the bottom of the terminal.
- 2 Press the two tabs (1) on the back of the terminal to completely close the terminal.
  - ⇒ You can also use the two tabs on the back side to adjust the viewing angle of the terminal while it is in operation.
- 3 Press both buttons simultaneously and pull the top of the terminal gently upwards, or press it down until it clicks into the desired position.
- 4 You can choose from three different positions.
- 5 Plug the terminal plug into the appropriate jack on the back of the electronic unit and screw in to tighten.



## 2.10 Connect unit to the power supply



### **WARNING**

#### **Risk of electric shock**

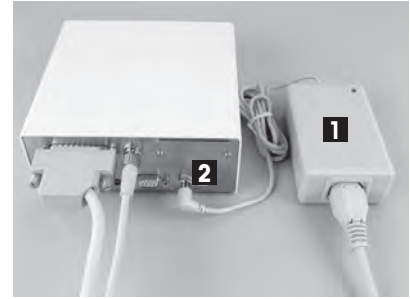
- 1 To connect the electronic unit, only use the supplied three-core power cable with equipment grounding conductor.
- 2 Only connect the electronic unit to a three-pin power socket with earthing contact.
- 3 Only standardized extension cable with equipment grounding conductor must be used for operation of the electronic unit.
- 4 Intentional disconnection of the equipment grounding conductor is forbidden.

The electronic unit for your weighing module is supplied with an AC adapter and a country-specific power cable. The AC adapter is suitable for use with the following voltage range:  
100 – 240 VAC, 50 – 60 Hz.

#### **Note**

- Check whether your local power supply falls within this range. If this is not the case, under no circumstances connect the electronic unit or the AC adapter to the power supply, but contact a METTLER TOLEDO representative.
- The power plug must be accessible at all times.
- Prior to use, check the power cable for damage.
- Route the cable in such a way that it cannot be damaged or cause a hindrance when working.
- Ensure that no liquid comes into contact with the AC adapter.

- Electronic unit is at the final location.
  - 1 Connect the AC adapter (1) to the connection socket (2) at the rear of the electronic unit.
  - 2 Tighten the connector to ensure a good connection to the electronic unit.
  - 3 Connect the AC adapter (1) to the power supply.
- ⇒ The weighing module performs a self-test after connection to the power supply and is then ready to use.








### 3 Configuring the Weigh Module

Once the weigh modules have been installed, they must be configured, i.e., prepared for operation. For weigh modules with a terminal connected, nearly all configuration work can be performed via the terminal. Weigh modules without a terminal are configured using MT-SICS commands issued from a host computer. An expansion of the MT-SICS command set is available for product-specific configuration work.

All weigh modules come from the factory with a built-in RS232C interface. In addition, the modules can be equipped with a second optional interface that is inserted into the electronic unit, see [Accessories ▶ Page 48].

The procedure for configuring the weigh modules and interface functionality depends on how the individual weigh module is equipped. There are four possible configurations:

#### Configurations

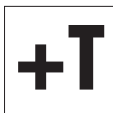
	Weigh module with RS232C	Weigh module with RS232C and optional interface	Weigh module with terminal and RS232C	Weigh module with terminal, RS232C, and optional interface
<b>Interface/commands</b>				
<b>HOST interface</b>	Built-in RS232C	Optional interface	Built-in RS232C (can be configured via the terminal for "host")	Choice of built-in RS232C or optional interface (the terminal can be used to configure one of the interfaces for the "host").
<b>Setting interface parameters</b>	via MT-SICS <code>COM</code> command	interface: Configured using SICS command <code>COPT</code> via the built-in RS232C. Built-in RS232C: via MT-SICS <code>COM</code> command.	Via terminal	Via terminal
<b>FastHost commands</b> (as per MT-SICS reference manual)	Available on host interface	Available on host interface	Available on built-in RS232C, assuming it is configured as host interface	Available on built-in RS232C, assuming it is configured as host interface
 <b>Note</b>			When the terminal is removed, the system behaves like a weigh module without a terminal, with a RS232C standard interface (Configuration 1)	When the terminal is removed, the system behaves like a weigh module without a terminal, with a RS232C standard interface and additional optional interface (Configuration 2)

### 3.1 Extended SICS command set for WXS/WXT weigh modules without terminal

The following commands were added to the MT-SICS command set specifically for the configuration of WXS/WXT weigh modules and are only applicable if no terminal is connected:

Command	Meaning	Note
C4	Start initial adjustment (initial calibration)	These commands can only be used if NO terminal is connected.
FCUT	Set filter characteristics (limit frequency)	
FSET	Restore factory settings	
I50	Inquiry of the remaining weighing ranges	
LST	List user settings	
M67	Query or set timeout	
RDB	Set readability	
SC	Send stable weight value or dynamic value after timeout	
TC	Tare or tare immediately after timeout	
USTB	Set stability criteria	
ZC	Zero or zero immediately after timeout	

### 3.2 Preparatory steps for configuration



For **weigh modules with terminal**, the configuration tasks described in the following sections are performed using the terminal. Therefore, no preparatory work is required; however, it is assumed that you have already familiar with how to operate the terminal and use the menu structure.

On **SWT terminals**, the menu options for configuring the weighing module are with the system settings.

On **PWT terminals**, part of the configuration menu is also with the system settings. Because the PWT terminal supports multiple users, additional configuration options are located with the user-specific settings.

The configuration tasks described in the following section are for weighing modules without a terminal. At the end of each section, you will see a note for users of weighing modules with terminals telling you where the equivalent settings can be found on the terminal.



**Weighing modules without a terminal** are configured via the interface with MT-SICS commands. You'll need a host computer (PC) and a terminal program to do this. Under Microsoft Windows XP®, you can use HyperTerminal, which is included with Windows. Microsoft Windows Vista® does not come with a terminal program. In this case, you can use the "WM\_term\_disp" program ("WM Terminal Display") provided on the CD-ROM. You can use this program to configure the PC interface and transmit SICS commands, among other things. Please read the help file on the CD-ROM before you install "WM\_term\_disp."

Connect the host computer with the built-in RS232C standard interface to the weighing module. Set the communications parameters of the terminal program as follows:

Baud rate:	9600
Data bits:	8
Stop bits:	1
Parity:	None
End of line:	<CR><LF>
Handshake:	Xon/Xoff

These are the factory settings for the built-in RS232C standard interface on the weighing module.

**The communication parameters of the RS232C standard interface** can be changed with the command `COM`. Once you have made your changes, you must adjust the terminal program's communications parameters accordingly so that you can continue to communicate with the weighing module.

**For weighing modules that have an additional optional interface**, you can configure them using the `COPT` command. Only the RS232C standard interface supports the `COPT` command; therefore, for this configuration, the weighing module must first be connected with the host computer via the standard interface. Once you have configured your system, you can connect the host computer with the optional interface.

 **Note**

If you have a terminal, you can connect it temporarily and configure the optional interface using the terminal. This is easier and faster than configuring it with the `COPT` command. Once you've configured the optional interface, you can disconnect and remove the terminal.

The next section describes the most important configuration task (user settings) with special consideration given to the expanded MT-SICS command set for WXS/WXT weighing modules without a terminal see [Extended SICS command set for WXS/WXT weigh modules without terminal ▶ Page 20].

For more information refer to the Reference Manual for MT-SICS Interface Commands, #11781363 (English). This can be downloaded from:

Documentation WXS

▶ [www.mt.com/ind-wxs-support](http://www.mt.com/ind-wxs-support)

or

Documentation WXT



▶ [www.mt.com/ind-wxt-support](http://www.mt.com/ind-wxt-support)

### 3.3 Configuring weigh module

It is recommended that the weigh modules are configured before they are used in order to achieve best weighing performance. The following sections provide information on the most important configuration tasks.

#### 3.3.1 Adjusting weigh module

Following initial startup, the weighing module must be adjusted using the built-in weight or an external weight. Various parameters can be set for the adjustment. The WXS/WXT weigh modules have the ProFACT fully automatic adjustment function. During operation, ProFACT adjusts the module automatically on the basis of specified criteria.

Weighing modul	MT-SICS command	Description
	C0, C1, C2, C3	Use these commands for the adjustment and the corresponding settings.
	M19	Use an external adjustment weight, you can set its weight.
	M17, M18	Configure the fully automatic ProFACT adjustment function.
	None	The settings for manual adjustment and the ProFACT fully automatic adjustment function are part of the system settings. See the description of the "Weighing" application for how to perform the adjustment.

#### Note

##### Weighing module WXS204/205 and WXT204/205




The internal adjustment can be initiated as long as the weight applied on the standard weighing pan is smaller than 60 g.

##### Weighing module WXS26, WXT26, WXTS3DU

The internal adjustment can be initiated as long as the weight applied on the standard weighing pan is smaller than 6 g.

#### 3.3.2 Set readability



Readability refers to the smallest difference in weight that the weighing module can still measure and transmit via the interface and/or show on the display. The factory-set readability (= maximum possible number of places after the decimal point) can be reduced if necessary to shorten weighing time.

Weighing modul	MT-SICS command	Description
	RDB	Use this command to set readability.
	M23	Use this command to set how many digits of the weighing result should be displayed.
	None	Use the <b>1/10d</b> function key to set readability.  <b>Note</b> Depending on your particular weighing module, you may have several of these function keys available, such as <b>1/100d</b> and <b>1/1000d</b> .





### 3.3.3 Set stability criteria

The stability criterion specifies when a weighing result is considered stable. A stability criterion must also be fulfilled to perform the zeroing and taring functions. A separate stability criterion can be defined for every mode (weighing, zeroing, and taring). A value is considered to be stable when it moves within a defined bandwidth during a specified observation period. These two parameters (length of observation and bandwidth) define the stability criterion.

Weighing modul	MT-SICS command	Description
	USTB	Use this command to set stability criteria.
	None	Stability criteria settings (reading release) are part of the weighing parameters. On the SWT terminal, you'll find these settings in the system settings. On the PWT terminal, they are under the user-specific settings.

### 3.3.4 Activating and defining fixed filter

Use the `M01` command to set the weighing type and the `M02` command to set the ambient conditions, see [Adjustments to ambient conditions (Filter damping) ▶ Page 24]. These two settings determine the type and strength of signal filtering that will occur. With the `M01` command you can choose out of two weighing types, **Sensor Mode** and **Universal**.

Weighing modul	MT-SICS command	Description
	FCUT	For the <b>Sensor Mode</b> weighing type, the command offers an additional option for defining filter behavior. Filtering in <b>Sensor Mode</b> is chronologically linear (fixed, non-adaptive filter) and is appropriate if the weight readings need to be further processed. <b>Note</b> The command is only available for the <b>Sensor Mode</b> weighing type. The fixed filter is deactivated at the factory.
	None	The weighing type is part of the weighing parameters. On the SWT terminal, you'll find these settings in the system settings. On the PWT terminal, they are under the user-specific settings. The ambient conditions determine filter damping of the weighing signal. These two settings determine the filtering of the weighing signal. When you activate the sensor mode, the weigh module automatically works with a factory-defined fixed filter with 5 selectable levels

The following cut-off frequencies are associated with the `M02` command parameters:

M02 0	10 Hz
M02 1	3 Hz
M02 2	1 Hz

M02 3



0.3 Hz

M02 4

0.1 Hz



### 3.3.5 Adjustments to ambient conditions (Filter damping)

Adjusting filter damping allows for the weigh module to be optimally adapted to ambient conditions. This setting determines how quickly the weigh module will react to a change in weight, but also how sensitive the module will be to outside disturbances. Strong filter damping will cause the module to react more slowly to small changes in weight, but it will also make it less sensitive to ambient conditions such as air movements and vibrations. In general, this also increases the measurement accuracy (repeatability). You can also control the measurement accuracy and the weighing time by changing the settings for stability criteria, see [Activating and defining fixed filter ▶ Page 23].

Weighing modul	MT-SICS command	Description
	M02	Use this command to adjust your system to ambient conditions (filter damping).  <b>Note</b> If the <b>Sensor Mode</b> weighing type is active, and the <code>FCUT</code> command has been used to define a fixed filter, the ambient condition settings for the <b>Sensor Mode</b> will not take effect. In this case, the weigh signal is processed by the fixed filter.
	None	The adjusting the system to ambient conditions is part of the weighing parameters. On the SWT terminal, you'll find these settings in the system settings. On the PWT terminal, they are under the user-specific settings.





### 3.3.6 Setting the update rate for continuous weight transmission

For weighing applications such as dosing to a specified target weight, the weigh module must constantly record weight changes and forward the readings regardless of their stability to the dosing system so that it can control the dosing process. In such cases, you should activate the "send continuous mode" to ensure a continuous flow of weight readings and set the number of weight readings to be transmitted each second via the interface (update rate).

Weighing modul	MT-SICS command	Description
	SIR	Use this command to activate the "send continuous mode" mode.
	UPD	Use this command to set the number of weight readings to be transmitted per second. <b>Note</b> Update rate of up to 92 readings per second are possible (on both interfaces).
	None	Activate the "send continuous mode" and set the update rate as part of the interface definition in the system settings. Update rates of up to 23 readings per second are possible if a terminal is connected.


### 3.3.7 Recording user settings


The current user settings can be sent to the interface using the `LST` command.

Weighing modul	MT-SICS command	Description
	LST	<p>Use this command to output a list of all user-specific settings.</p> <p>The following example shows such a list:</p> <pre>LST B I2 "WXS205S WXA-Bridge 220.00900 g" LST B I3 "1.30 18.6.8.1360.772" LST B I4 "BU0123456789" LST B C0 0 0 "" LST B C4 "0" LST B Cx "1" LST B COM 0 6 3 1 LST B FCUT 0.000 LST B I10 "" LST B M01 0 LST B M02 2 LST B M03 0 LST B M17 00 00 00 0 LST B M18 1 LST B M19 200.00000 g LST B M20 200.00000 g LST B M21 0 0 LST B M22 1 0 1.00000000E+00 "cu1" 1.00000001E-01 LST B M22 2 0 1.00000000E+00 "cu2" 1.00000001E-01 LST B M23 0 LST B M31 0 LST B M32 1 00 00 0 LST B M32 2 00 00 0 LST B M32 3 00 00 0 LST B M33 0 LST B M35 0 LST B M67 50 LST B RDB 5 LST B TST0 0 "" LST B UPD 10.173 LST B USTB 0 2.000 3.000 LST B USTB 1 2.000 5.000 LST A USTB 2 2.000 5.000</pre> <p> <b>Note</b> For reading and restoring the settings, use the "e-Loader" from METTLER TOLEDO.</p>
	None	<p>The system settings and the user-specific settings can be recorded. While viewing the system settings or user-specific settings, simply press the  key on the terminal. The current settings will be output via the interface.</p>

### 3.3.8 Resetting user-specific settings to factory default

The current user-specific settings can be reset to the factory default using the `FSET` command.

Weighing modul	MT-SICS command	Description
	FSET	Use this command to reset

Weighing modul	MT-SICS command	Description
	None	<p>On the SWT and PWT terminal, all settings can be reset in the system settings.</p> <p>On the PWT terminal in the user-specific settings area, you also have the option of resetting only the settings for the current user profile.</p>

## 4 Weighing Operation

This section contains helpful tips for weighing operation and information on possible error messages. Weighing modules with terminals are operated using the terminal, and all error messages are displayed in plain English on the terminal.



Information in this section applies to users with **weighing modules without a terminal**. The MT-SICS commands listed here are only some of the available commands you can use in weighing operations.

For more information refer to the Reference Manual for MT-SICS Interface Commands, #11781363 (English). This can be downloaded from:

Documentation WXS

► [www.mt.com/ind-wxs-support](http://www.mt.com/ind-wxs-support)

or

Documentation WXT

► [www.mt.com/ind-wxt-support](http://www.mt.com/ind-wxt-support)

### 4.1 Operation limits

When operating WXS/WXT weighing module, the following operation limits have to be observed:

- The maximum permissible load on the weighing module is defined by the maximum capacity specification of the weighing module. This range includes the custom weighing platform (preload) plus the weighed object and the container.
- For environmental conditions. The specified metrological performance of the weighing module is ensured for the compensated temperature range (5 ... 40 °C).

### 4.2 Transmission of weight values

The weight values that are transmitted relate either to the zero point or to the point derived from the tare command, depending on whether the previous function executed was a reset to zero or taring.

Commands that are normally only completed when a stability criterion is met respond with an abort if the stability has not been achieved within the defined time limit (Timeout, command M67).

The following MT-SICS commands can be used to request weight results form the weigh module:

MT-SICS command	Descripton
S	Transmit stable weight value
SI	Transmit weight value immediately (stable, not stable)
SNR	Transmit next stable weight value and repeat
SIR	Transmit weight value immediately and repeat (stable, not stable)

### 4.3 Taring function

In taring the weight value that relates to the current zero point is regarded as the tare weight and is transferred to the tare memory. At the same time, the current displayed weight value is reset to zero.

The following MT-SICS commands can be used to execute the tare function:

MT-SICS command	Descripton
T	Adopt current stable weight value as tare weight
TI	Adopt weight value as tare weight immediately

#### Note

The taring functions cannot be executed if the current weight value is negative relative to the current zero point.

## 4.4 Zeroing functions

The reset function defines a new zero point (reference point), the current weight value is reset to zero and the tare memory is cleared. Depending on the configuration, the reset is performed automatically whenever the module is switched on or the stored value is used.

The following MT-SICS commands can be used to execute the reset (zero) function:

MT-SICS command	Description
T	Adopt current stable weight value as zero point
ZI	Adopt the current weight value as the zero point immediately

### Note

Make sure that a new zero point or a stored zero point is used, depending on the setting when the device is switched on.

## 4.5 Troubleshooting weigh module errors and malfunctions

Go through each of the steps offered here and try to remedy the problem yourself – it may be due to system settings. Never open the weighing module housing.

### 4.5.1 If your weigh module doesn't perform correctly until it has been powered up for quite a while

If the weighing module responds to transmission, taring, or zeroing commands with `S_I`, `T_I` or `Z_I` for a long time after being powered up:

- Check ambient conditions.
- Check your zero after power-up by executing an `S_I` command. If the weight reading deviates more than a few increments from zero, the unit was unable to get a stable reading upon being powered up, and was then unable to zero.
- Temporarily change your filter settings and/or your stability criterion for zeroing so that you can successfully zero the system with a `Z` command (response: `Z_A`).
- If necessary, restore the filter settings see [Recording user settings ▶ Page 25].

### 4.5.2 If the weigh module does not transmit the expected weight readings

- Check the weighing module settings by using the `LST` command (inquire user settings).
- Run testing functions with the `TST2` or `TST3` commands (see the MT-SICS reference manual). The difference sent is the adjustment error, also called sensitivity deviation, that has developed as a result of drift since the last adjustment. The result should give you an idea of whether adjustment is needed.

#### Note

If the difference is in the hundreds of increments (digits), you should assume that the weighing module was never adjusted before, handled improperly, dropped, or suffered some other shock or blow. You should have a technician check the unit before you use it again.

- Switch the power off and back on and check the message that the interface sends after the weighing module's startup phase. If you see an error message instead of the serial number, contact your METTLER TOLEDO office.

### 4.5.3 If the weigh module doesn't react to your commands at all

- Check to see that power is being supplied to your unit.
- Check your interfaces and interface parameter settings.

If you, or the person at your company responsible for maintaining the weigh module, cannot remedy the problem, please contact METTLER TOLEDO. Be sure to have the following information ready when contacting us:


- Your weigh module's current settings (`LST` command).
- Size of preload, if you're working with the adapter weighing pan and a custom setup for accepting objects to be weighed.
- Brief description of weighing application and the error or malfunction you are experiencing.



## 5 Technical Data

### 5.1 General data

#### Power supply

AC adapter:	Primary: 100 – 240 V AC, -15%/+10%, 0.8 A, 50 – 60 Hz, 60-80 VA Secondary: 12 V DC $\pm 3\%$ , 2.5 A (with electronic overload protection LPS)
Cable for AC/DC adapter:	3-core, with country-specific plug
Power feed-in at electronic unit:	12 V DC $\pm 3\%$ , 5 W, 0.4 A, maximum ripple: 80 mVpp
Polarity:	

#### Protection and standards

Overvoltage category:	II
Degree of pollution:	2
Protection:	When the plastic cover is attached and the connector cable is hooked up, the load cell achieves an IP45 rating. If you wish to use a sprayer or waterjet to clean the load cell, take appropriate measures to prevent water from building up between the base plate and the support—this could allow water to penetrate the load cell from below. Seal the gap between the support and the load cell base plate with a suitable gasket or sealing agent. In operation, the load cell is rated IP30. The electronic unit meets IP40. The PWT and SWT terminals are rated IP54.
Standards for safety and EMC:	See Declaration of Conformity
Range of application:	For use only in dry interior rooms

#### Environmental conditions

Height above mean sea level:	Up to 4000 m
Ambient temperature:	5 to 40 °C (between 10 and 30 °C for guaranteed weighing specification)
Relative air humidity:	Max. 80% at 31 °C, decreasing linearly to 50% at 40 °C, non-condensing
Warm-up time:	At least 60 minutes after the weigh module has been connected to the power supply; the weigh module can be used immediately if it is turned on from standby mode (when operated with a terminal connected).

#### Materials

Load cell housing:	Component version (WXS): Polished chromium steel, X2CrNiMo17-12 (1.4404 resp. 316L), Benchtop version (WXT): Painted chromium steel
Electronic unit housing:	Component version (WXS): Polished chromium steel, X2CrNiMo17-12 (1.4404 resp. 316L), Benchtop version (WXT): Painted chromium steel
Terminal housing:	Painted die-cast zinc and plastic
Weighing pan:	Chromium steel X2CrNiMo-17-13-2 and plastic
WXTS3 wind shield:	Glas, aluminium (nickel plated/powder-coated), polished chromium steel, X2CrNiMo17-12 (1.4404 resp. 316L)

## Detailed information on your METTLER TOLEDO power supply unit

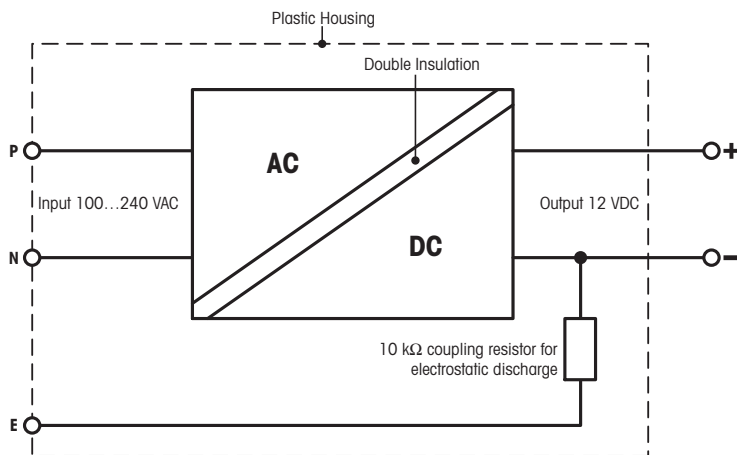
METTLER TOLEDO weigh modules are shipped with an external power supply. In accordance with Class II protection, it is double-insulated and certified. It is equipped with functional grounding to ensure electromagnetic compatibility (EMC). The ground connection has NO safety-related function. For more information on our products' conformity, refer to the Declaration of Conformity shipped with each product or download details from [www.mt.com](http://www.mt.com).

For testing in accordance with Directive 2001/95/EC, the power supply and weigh module should be treated as double-insulated Class II devices.

Therefore, grounding tests are not required. It is also unnecessary to conduct a grounding test between the protective ground of the power supply and a metallic surface on the weigh module housing.

Because precision weigh modules are sensitive to electrostatic discharge, a coupling resistor (typically 10k $\Omega$ ) is installed between the grounding conductor (at the power supply input) and the power supply output. See the equivalent circuit diagram for placement. This resistor is not part of the electrical safety plan; therefore, it does not need to be tested at regular intervals.

### Equivalent circuit diagram



## 5.2 Model-specific Data

### Weighing module WXS204/205 and WXT204/205

Parameter		205	205DU	204
<b>Limit values <sup>1)</sup></b>				
Maximum capacity		220 g	220 g	220 g
Readability		0.01 mg	0.1 mg	0.1 mg
Maximum capacity, fine range		—	111 g	—
Readability, fine range		—	0.01 mg	—
Zero setting range (legal-for-trade versions)		20 g	20 g	20 g
Repeatability (at nominal load)	sd	0.04 mg (200 g)	0.07 mg (200 g)	0.1 mg (200 g)
Repeatability at low load (at nominal load)	sd	0.02 mg (10 g)	—	0.07 mg (10 g)
Repeatability, fine range (at nominal load)	sd	—	0.03 mg (100 g)	—
Repeatability at low load, fine range (measured at)	sd	—	0.02 mg (10 g)	—
Linearity deviation		0.15 mg	0.2 mg	0.25 mg
Eccentric load deviation as per OIML R76 (measured at)		0.3 mg (100 g)	0.3 mg (100 g)	0.4 mg (100 g)
Sensitivity offset		$2.5 \times 10^{-6} \bullet R_{nt}$	$3 \times 10^{-6} \bullet R_{nt}$	$4 \times 10^{-6} \bullet R_{nt}$
Sensitivity temperature drift <sup>1)</sup>		$1.5 \times 10^{-6}/^{\circ}\text{C} \bullet R_{nt}$	$1.5 \times 10^{-6}/^{\circ}\text{C} \bullet R_{nt}$	$1.5 \times 10^{-6}/^{\circ}\text{C} \bullet R_{nt}$
Sensitivity stability <sup>2)</sup>		$2.5 \times 10^{-6}/a \bullet R_{nt}$	$2.5 \times 10^{-6}/a \bullet R_{nt}$	$2.5 \times 10^{-6}/a \bullet R_{nt}$
<b>Typical uncertainties</b>				
Repeatability <sup>1)</sup>		$0.015 \text{ mg} + 8 \times 10^{-8} \bullet R_{gr}$	$0.04 \text{ mg} + 1.2 \times 10^{-7} \bullet R_{gr}$	$0.05 \text{ mg} + 1.5 \times 10^{-7} \bullet R_{gr}$
Repeatability, fine range <sup>1)</sup>		—	$0.025 \text{ mg} + 5 \times 10^{-8} \bullet R_{gr}$	—
Differential linearity deviation		$\sqrt{(5 \times 10^{-12} \text{ g} \bullet R_{nt})}$	$\sqrt{(2 \times 10^{-11} \text{ g} \bullet R_{nt})}$	$\sqrt{(5 \times 10^{-11} \text{ g} \bullet R_{nt})}$
Differential eccentric load deviation		$6 \times 10^{-7} \bullet R_{nt}$	$8 \times 10^{-7} \bullet R_{nt}$	$1 \times 10^{-6} \bullet R_{nt}$
Sensitivity offset <sup>2)</sup>		$5 \times 10^{-7} \bullet R_{nt}$	$7 \times 10^{-7} \bullet R_{nt}$	$1 \times 10^{-6} \bullet R_{nt}$
Minimum weight (according to USP) <sup>1)</sup>		$45 \text{ mg} + 2.4 \times 10^{-4} \bullet R_{gr}$	$120 \text{ mg} + 3.6 \times 10^{-4} \bullet R_{gr}$	$150 \text{ mg} + 4.5 \times 10^{-4} \bullet R_{gr}$
Minimum weight (according to USP), fine range <sup>1)</sup>		—	$75 \text{ mg} + 1.5 \times 10^{-4} \bullet R_{gr}$	—
Minimum weight (@ U=1%, 2) <sup>1)</sup>	sd	$3 \text{ mg} + 1.6 \times 10^{-5} \bullet R_{gr}$	$8 \text{ mg} + 2.4 \times 10^{-5} \bullet R_{gr}$	$10 \text{ mg} + 3 \times 10^{-5} \bullet R_{gr}$
Minimum weight (@ U=1%, 2), fine range <sup>1)</sup>	sd	—	$5 \text{ mg} + 1 \times 10^{-5} \bullet R_{gr}$	—
<b>Dynamics</b>				
Settling time <sup>3)</sup> (typ.)		3 s	2 s	2 s
Settling time, fine range (typ.)		—	3 s	—
Interface update rate (max.)		23/s	23/s	23/s
Interface update rate in "FastHost" mode		92/s	92/s	92/s
Weighing time (including time for opening and closing of standard draft shield)		5 s	3 s	3 s
Weighing time, fine range		—	5 s	—
<b>Dimensions of load cell</b>				
Height x Width x Depth		70 x 127 x 206 mm (WXS)   70 x 127 x 206 mm (WXT)		
Diameter of standard weighing pan		50 mm		
Diameter of adapter weighing pan		36 mm		
Weight (with standard weighing pan)		3.415 kg (WXS)   3.412 kg (WXT)		

### Legend

sd = Standard deviation

Rnt = Net weight (sample weight)

Rgr = Gross weight

a = Year (annum)

<sup>1)</sup> Temperature range 10 ... 30 °C

<sup>2)</sup> Stability of sensitivity as from first installation with FACT

<sup>3)</sup> The settling time is the time between when the object to be weighed is placed on the scale and a stable signal is transmitted – this assumes optimal ambient conditions (including appropriate draft shield) and optimal parameter settings.

## Weighing module WXS26, WXT26, WXTS3DU

Parameter		26	26DU
<b>Limit values <sup>1)</sup></b>			
Maximum capacity		22 g	22 g
Readability		0.001 mg	0.01 mg
Maximum capacity, fine range		—	11 g
Readability, fine range		—	0.001 mg
Zero setting range (legal-for-trade versions)		20 g	20 g
Repeatability (at nominal load)	sd	0.003 mg (20 g)	0.006 mg (20 g)
Repeatability at low load (at nominal load)	sd	0.002 mg (1 g)	—
Repeatability, fine range (at nominal load)	sd	—	0.0035 mg (10 g)
Repeatability at low load, fine range (measured at)	sd	—	0.003 mg (1 g)
Linearity		0.02 mg	0.03 mg
Eccentric load deviation as per OIML R76 (measured at)		0.03 mg (10 g)	0.03 mg (10 g)
Sensitivity offset		$4 \times 10^{-6} \cdot R_{nt}$	$4 \times 10^{-6} \cdot R_{nt}$
Sensitivity temperature drift <sup>1)</sup>		$1.5 \times 10^{-6}/^{\circ}\text{C} \cdot R_{nt}$	$1.5 \times 10^{-6}/^{\circ}\text{C} \cdot R_{nt}$
Sensitivity stability <sup>2)</sup>		$2.5 \times 10^{-6}/\text{a} \cdot R_{nt}$	$2.5 \times 10^{-6}/\text{a} \cdot R_{nt}$
<b>Typical uncertainties</b>			
Repeatability <sup>1)</sup>		$0.0015 \text{ mg} + 2.5 \times 10^{-8} \cdot R_{gr}$	$0.004 \text{ mg} + 0 \cdot R_{gr}$
Repeatability, fine range <sup>1)</sup>		—	$0.002 \text{ mg} + 5 \times 10^{-8} \cdot R_{gr}$
Differential linearity deviation		$\sqrt{(3 \times 10^{-13} \text{ g} \cdot R_{nt})}$	$\sqrt{(3 \times 10^{-13} \text{ g} \cdot R_{nt})}$
Differential eccentric load deviation		$5 \times 10^{-7} \cdot R_{nt}$	$5 \times 10^{-7} \cdot R_{nt}$
Sensitivity offset <sup>2)</sup>		$1.5 \times 10^{-6} \cdot R_{nt}$	$1.5 \times 10^{-6} \cdot R_{nt}$
Minimum weight (according to USP) <sup>1)</sup>		$4.5 \text{ mg} + 7.5 \times 10^{-5} \cdot R_{gr}$	$12 \text{ mg} + 0 \cdot R_{gr}$
Minimum weight (according to USP), fine range <sup>1)</sup>		—	$6 \text{ mg} + 1.5 \times 10^{-4} \cdot R_{gr}$
Minimum weight (@ U=1 %, 2) <sup>1)</sup>	sd	$0.3 \text{ mg} + 5 \times 10^{-6} \cdot R_{gr}$	$0.8 \text{ mg} + 0 \cdot R_{gr}$
Minimum weight (@ U=1 %, 2), fine range <sup>1)</sup>	sd	—	$0.4 \text{ mg} + 1 \times 10^{-5} \cdot R_{gr}$
<b>Dynamics</b>			
Settling time <sup>3)</sup> (typ.)		3 s	3 s
Settling time, fine range (typ.)		—	5 s
Interface update rate (max.)		23/s	23/s
Interface update rate in "FastHost" mode		92/s	92/s
Weighing time (including time for opening and closing of standard draft shield)		7 s	7 s / 3 s
<b>Dimensions of load cell</b>			
Height × Width × Depth		76 × 127 × 236 mm (WXS)   86 × 127 × 224 mm (WXT)	
Diameter of standard weighing pan		32 mm	
Diameter of adapter weighing pan		32 mm	
Weight (with standard weighing pan)		3.415 kg (WXS) / 3.412 kg (WXT)	

### Legend

sd = Standard deviation

R<sub>nt</sub> = Net weight (sample weight)

R<sub>gr</sub> = Gross weight

a = Year (annum)

<sup>1)</sup> Temperature range 10 ... 30 °C

<sup>2)</sup> Stability of sensitivity as from first installation with FACT

<sup>3)</sup> The settling time is the time between when the object to be weighed is placed on the scale and a stable signal is transmitted – this assumes optimal ambient conditions (including appropriate draft shield) and optimal parameter settings.

## Weigh module WXTS3DU

Parameter		3DU
<b>Limit values <sup>1)</sup></b>		
Maximum capacity		3.2 g
Readability		0.01 mg
Maximum capacity, fine range		1.2 g
Readability, fine range		0.001 mg
Zero setting range (legal-for-trade versions)		0.06 g
Repeatability (at nominal load)	sd	0.006 mg (3 g)
Repeatability, fine range (at nominal load)	sd	0.001 mg (1 g)
Repeatability at low load, fine range (measured at)	sd	0.0008 mg (0.2 g)
Linearity		0.02 mg
Eccentric load deviation as per OIML R76 (measured at)		0.01 mg (2 g)
Sensitivity offset		3 g
Sensitivity temperature drift <sup>1)</sup>		1.5 ppm/°C
Sensitivity stability <sup>2)</sup>		0.00025%/a
<b>Typical uncertainties</b>		
Repeatability <sup>1)</sup>		$0.004 \text{ mg} + 3 \times 10^{-7} \cdot R_{gr}$
Repeatability, fine range <sup>1)</sup>		$0.0007 \text{ mg} + 1 \times 10^{-7} \cdot R_{gr}$
Differential linearity deviation		$\sqrt{(1.2 \times 10^{-11}) \text{ g} \cdot R_{nt}}$
Differential eccentric load deviation		$1.5 \times 10^{-6} \cdot R_{nt}$
Sensitivity offset <sup>2)</sup>		$6 \times 10^{-6} \cdot R_{nt}$
Minimum weight (according to USP) <sup>1)</sup>		$8.2 \text{ mg} + 6 \times 10^{-4} \cdot R_{gr}$
Minimum weight (according to USP), fine range <sup>1)</sup>		$1.4 \text{ mg} + 2 \times 10^{-4} \cdot R_{gr}$
Minimum weight (@ U=1%, 2) <sup>1)</sup>	sd	$0.82 \text{ mg} + 6 \times 10^{-5} \cdot R_{gr}$
Minimum weight (@ U=1%, 2), fine range <sup>1)</sup>	sd	$0.14 \text{ mg} + 2 \times 10^{-5} \cdot R_{gr}$
<b>Dynamics</b>		
Settling time <sup>3)</sup> (typ.)		3 s
Settling time, fine range (typ.)		3 s
Interface update rate (max.)		23/s
Interface update rate in "FastHost" mode		92/s
Weighing time (including time for opening and closing of standard draft shield)		7 s / 3 s
<b>Dimensions of load cell</b>		
Height × Width × Depth		86 x 127 x 224 mm
Diameter of standard weighing pan		32 mm
Weight (with standard weighing pan)		3.412 kg

### Legend

sd = Standard deviation

Rnt = Net weight (sample weight)

Rgr = Gross weight

a = Year (annum)

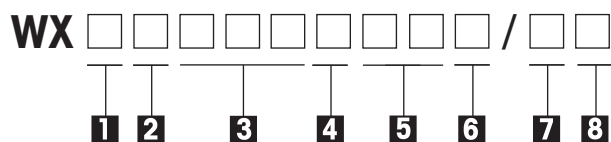
<sup>1)</sup> Temperature range 10 ... 30 °C

<sup>2)</sup> Stability of sensitivity as from first installation with FACT

<sup>3)</sup> The settling time is the time between when the object to be weighed is placed on the scale and a stable signal is transmitted – this assumes optimal ambient conditions (including appropriate draft shield) and optimal parameter settings.

### 5.3 Key to types and list of available models

The type designation allows you to clearly identify your weighing module. The type designation can be found on the name plate for the load cell and the electronic unit.



#	Designation	Configuration
1	Version	<b>S:</b> Component version <b>T:</b> Benchtop version
2	Terminal	<b>S:</b> SWT terminal <b>P:</b> PWT terminal *: Weighing module without terminal
3	Maximum load/readability (display increment)	<b>For examples:</b> <b>204:</b> 220 g / 1 mg (4 places) <b>26:</b> 22 g / 1 µg (6 places)
4	Weighing module without terminal	<b>S:</b> WXS without terminal <b>T:</b> WXT without terminal *: Weighing module with terminal
5	Weighing range	<b>DU:</b> Dual-range module *: Single range module
6	Special versions	<b>V:</b> SI units only (g, mg, ct) *: All units
7	Special versions	<b>A:</b> "Non-EU" calibrated version <b>M:</b> "EU" calibrated version *: not legal for trade
8	Additional information	<b>15:</b> Cable length 1.5 m for versions without terminals

 **Note**

The type designation always refers to the configuration as originally shipped. For example, if a weigh module has a terminal added to it later, the type designation printed on the name plate will no longer be correct. In this case, the terminal will check all weigh module components and use this information to generate a new type designation. This designation can be queried directly at the terminal or by using a software command.

## List of available models

### Weighing module WXS204/205 and WXT204/205

204					
		Standard	SI units (g, mg, ct)	"Non-EU" legal-for-trade version	"EU" legal-for-trade version
Component version <b>WXS</b>	Without terminal	WXS204S/15 #11121023	WXS204SV/15 #11121323		
	With SWT terminal	WXSS204 #11121021	WXSS204V #11121321	WXSS204/A #11121371	WXSS204/M #11121281
Benchtop version <b>WXT</b>	With SWT terminal	WXTS204 #11121026	WXS2WXTS204V #11121326	WXTS204/A #11121376	WXTS204/M #11121286
	With PWT terminal	WXTP204 #11121027	WXTP204V #11121327		
205DU					
		Standard	SI units (g, mg, ct)	"Non-EU" legal-for-trade version	"EU" legal-for-trade version
Component version <b>WXS</b>	Without terminal	WXS205SDU/15 #11121008	WXS205SDUV/15 #11121308		
	With SWT terminal	WXSS205DU #11121006	WXSS205DUV #11121306	WXSS205DU/A #11121356	WXSS205DU/M #11121266
Benchtop version <b>WXT</b>	With SWT terminal	WXTS205DU #11121016	WXTS205DUV #11121316	WXTS205DU/A #11121366	WXTS205DU/M #11121276
	With PWT terminal	WXTP205DU #11121017	WXTP205DUV #11121317		
205					
		Standard	SI units (g, mg, ct)	"Non-EU" legal-for-trade version	"EU" legal-for-trade version
Component version <b>WXS</b>	Without terminal	WXS205S/15 #11121003	WXS205SV/15 #11121303		
	With SWT terminal	WXSS205 #11121001	WXSS205V #11121301	WXSS205/A #11121351	WXSS205/M #11121261
Benchtop version <b>WXT</b>	With SWT terminal	WXTS205 #11121011	WXTS205V #11121311	WXTS205/A #11121361	WXTS205/M #11121271
	With PWT terminal	WXTP205 #11121012	WXTP205V #11121312		

## Weighing module WXS26, WXT26, WXTS3DU

26DU					
		Standard	SI units (g, mg, µg, ct)	"Non-EU" legal-for-trade version	"EU" legal-for-trade version
Component version <b>WXS</b>	Without terminal	WXS26SDU/15 #11121467	WXS26SDUV/15 #11121475		
	With SWT terminal	WXSS26DU #11121465	WXSS26DUV #11121473	WXSS26DU/A #11121490	WXSS26DU/M #11121484
Benchtop version <b>WXT</b>	With SWT terminal	WXTS26DU #11121461	WXTS26DUV #11121469	WXTS26DU/A #11121487	WXTS26DU/M #11121481
	With PWT terminal	WXTP26DU #11121462	WXTP26DUV #11121470		

26					
		Standard	SI units (g, mg, µg, ct)	"Non-EU" legal-for-trade version	"EU" legal-for-trade version
Component version <b>WXS</b>	Without terminal	WXS26S/15 #11121390	WXS26SV/15 #11121398		
	With SWT terminal	WXSS26 #11121388	WXSS26V #11121396	WXSS26/A #11121418	WXSS26/M #11121412
Benchtop version <b>WXT</b>	With SWT terminal	WXTS26 #11121384	WXTS26V #11121392	WXTS26/A #11121409	WXTS26/M #11121409
	With PWT terminal	WXTP26 #11121385	WXTP26V #11121393		

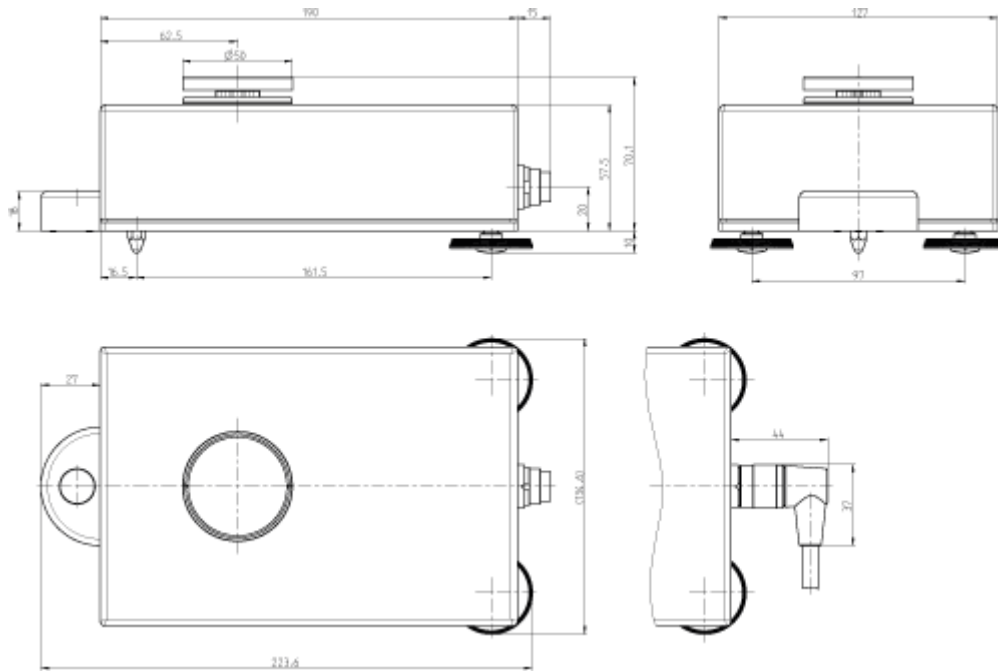
  

3DU					
		Standard	"Non-EU" legal-for-trade version	"EU" legal-for-trade version	
Benchtop version <b>WXT</b>	With SWT terminal	WXTS3DU # 30376748	WXTS3DU/A #30335760	WXTS3DU/M #30335761	

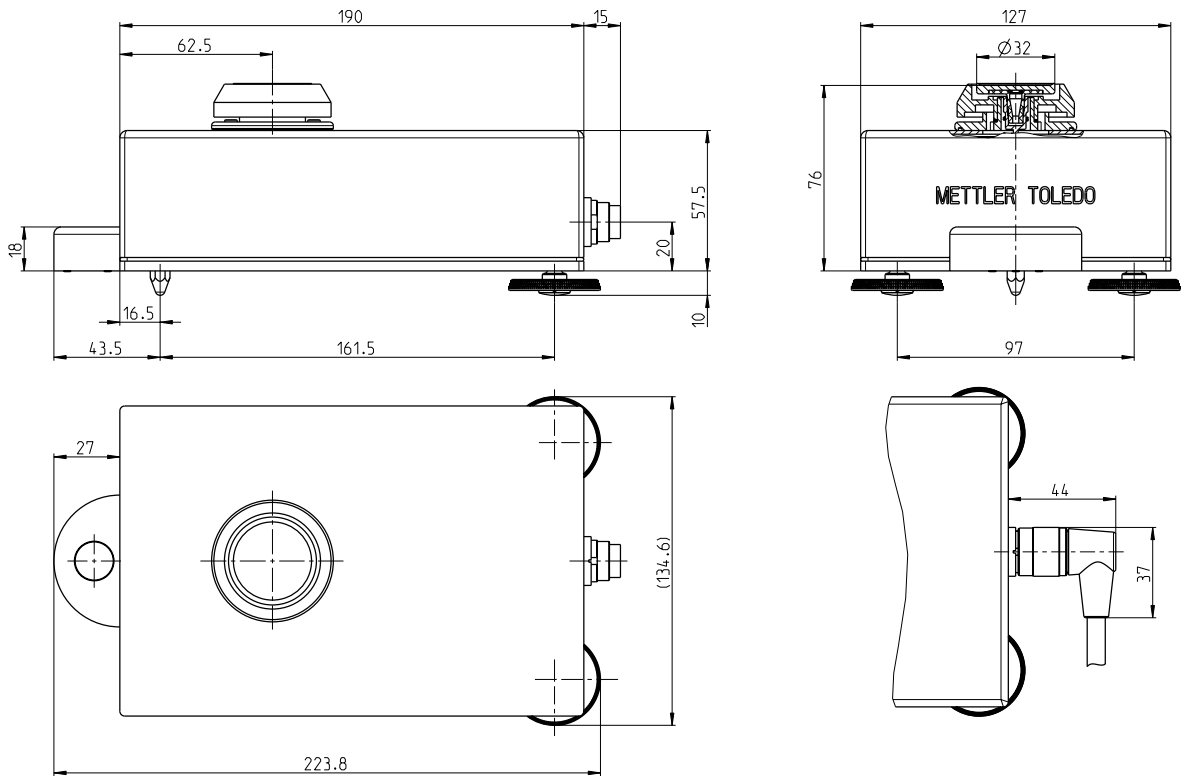




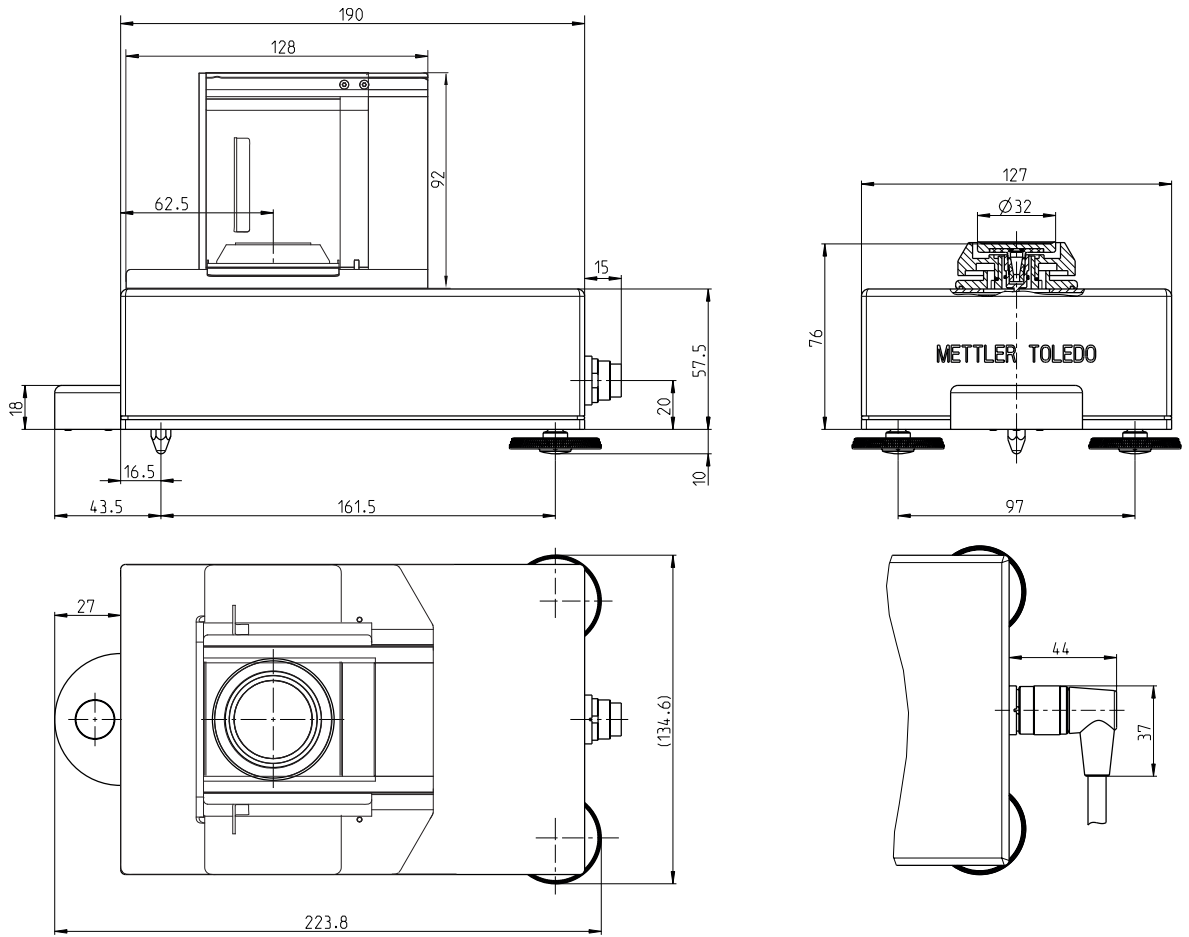
### 5.4.3 WXT204/WXT205DU/WXT205 load cell



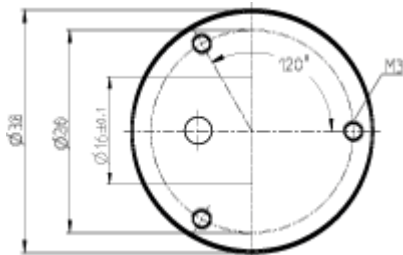
### 5.4.4 WXT26 micro load cell



### 5.4.5 WXTS3DU load cell with wind shield

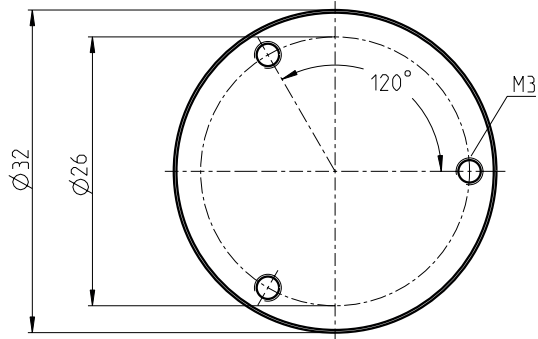


### 5.4.6 WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 adapter weighing pan



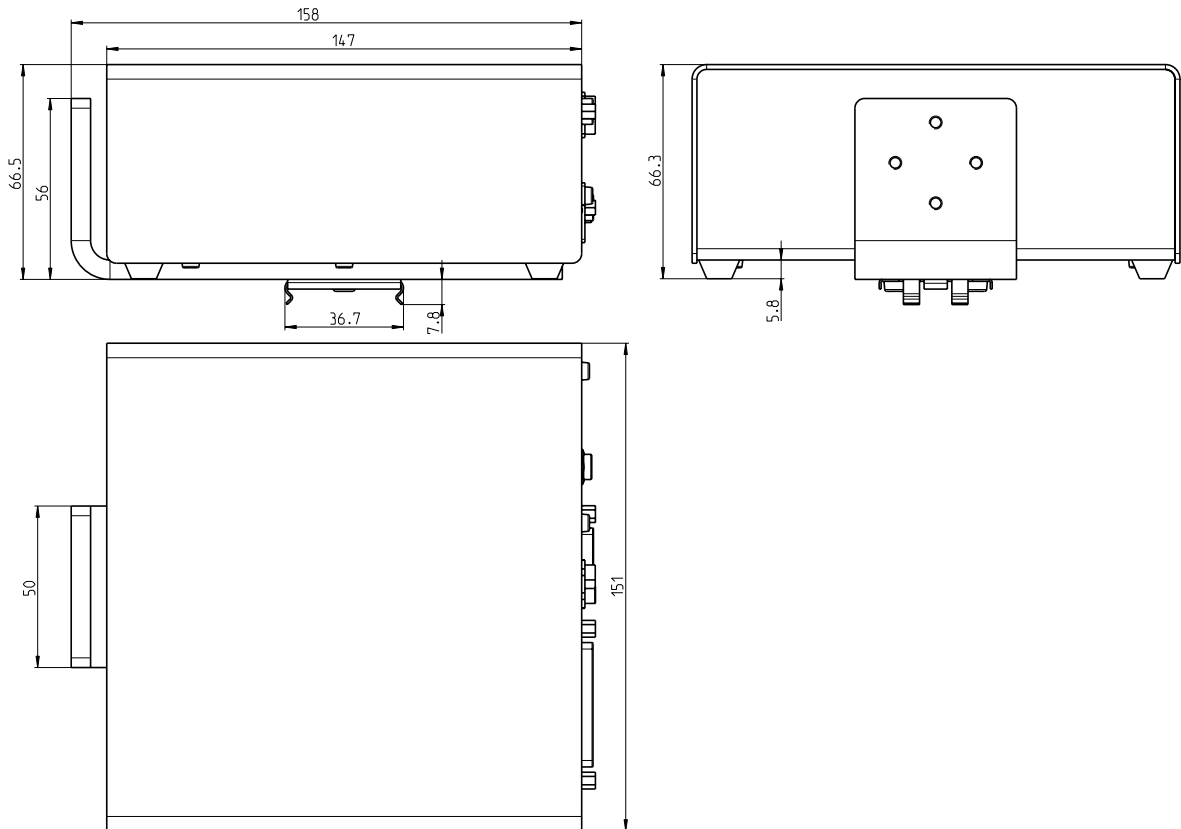
This thickness of the adapter weighing pan (not including the cone) is 3.5 mm (+0.2 mm / 0 mm).

### 5.4.7 WXS26/WXT26 adapter weighing pan

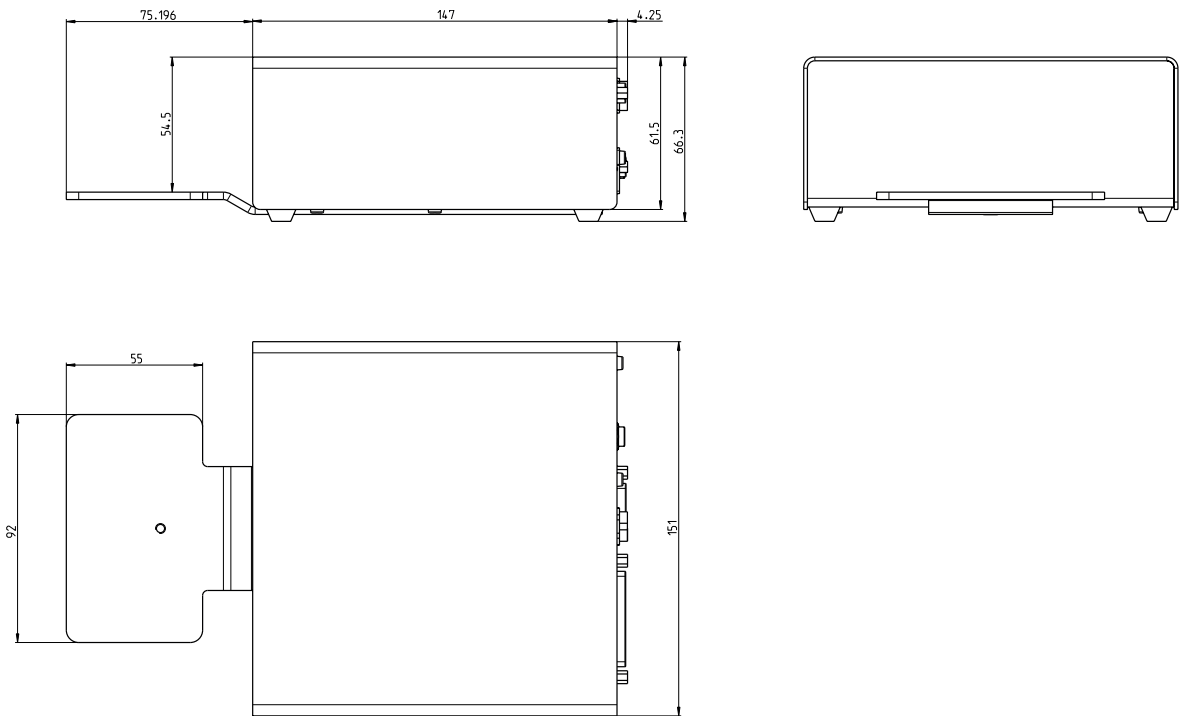


This thickness of the adapter weighing pan (not including the cone) is 3 mm (+0.2 mm / 0 mm).

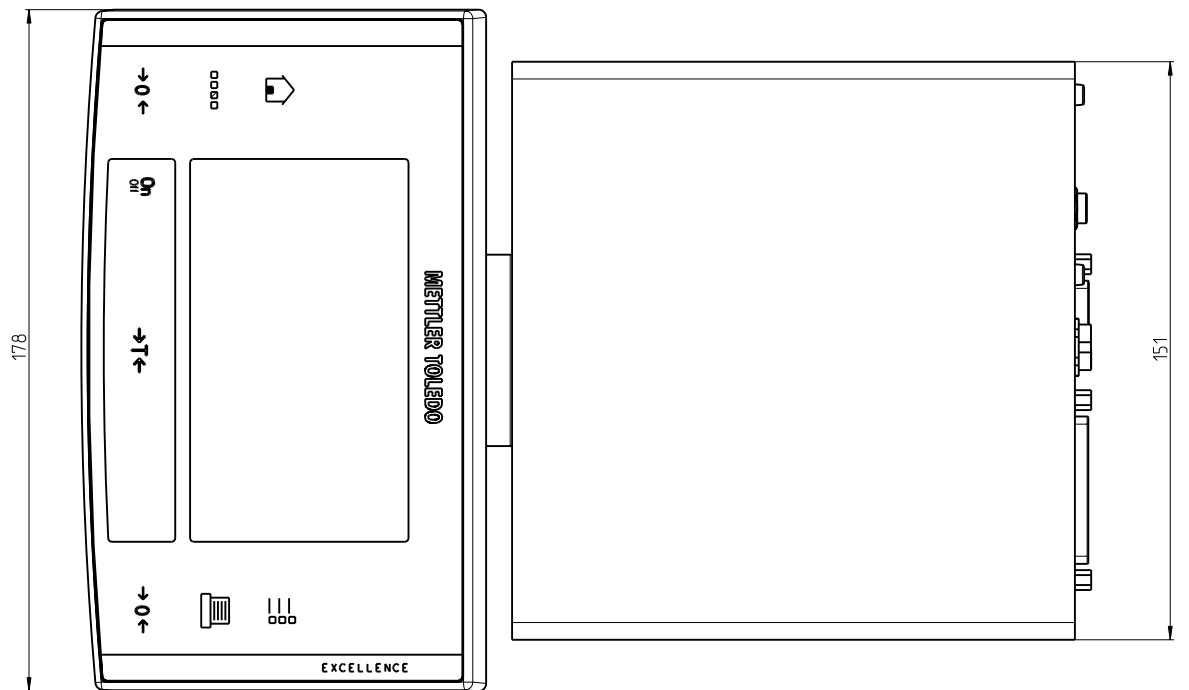
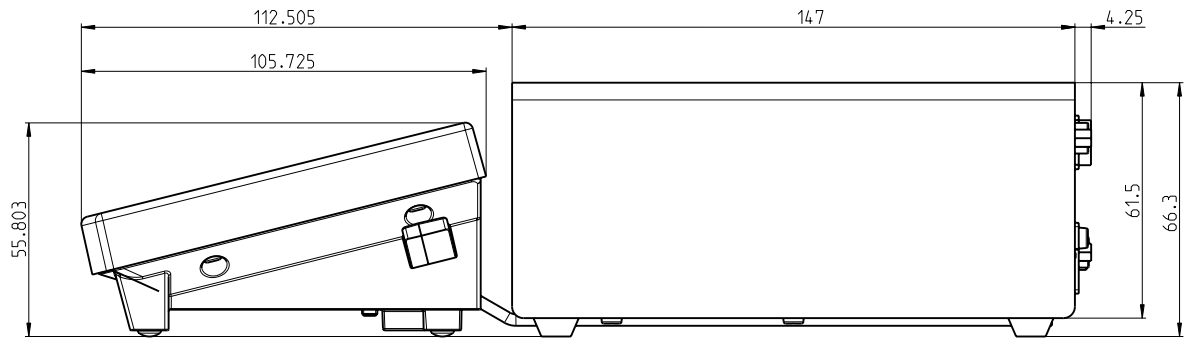
### 5.4.8 WXSE, WXS Electronic Unit (including mounting bracket)



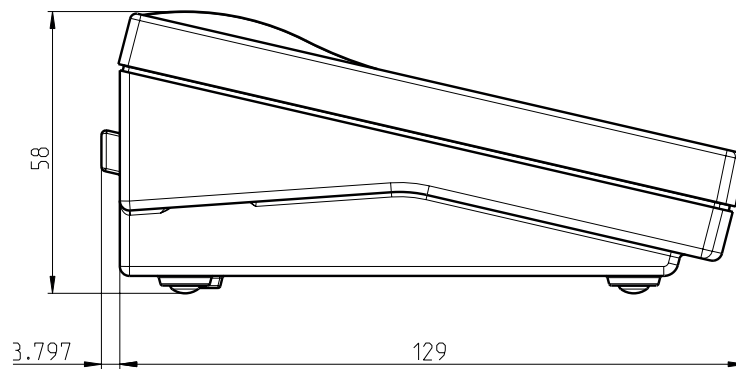
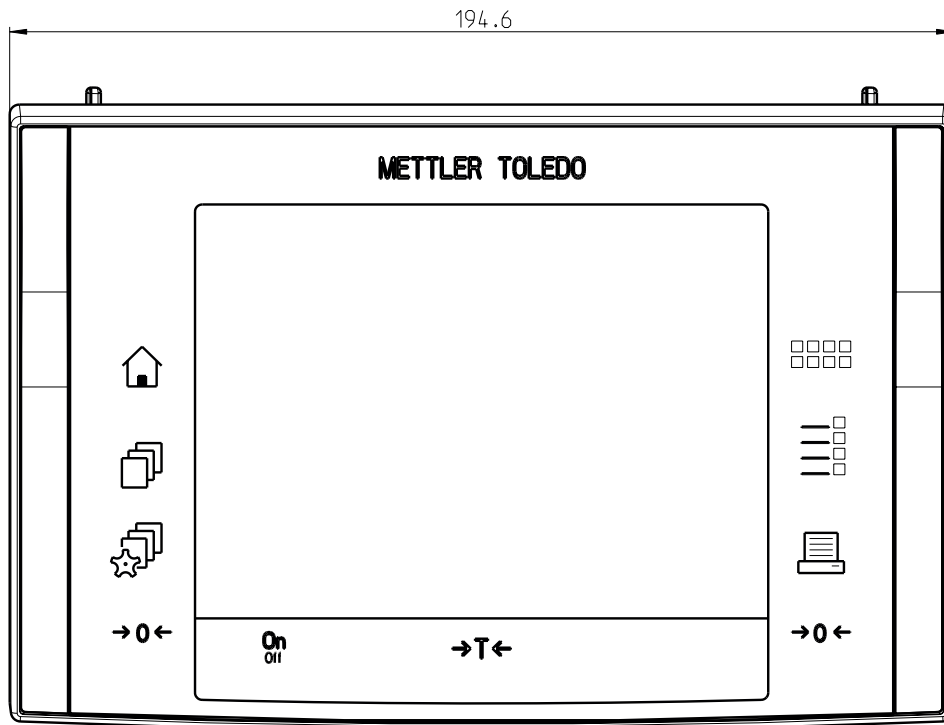
### 5.4.9 WXTE, WXT Electronic Unit (including terminal holder)



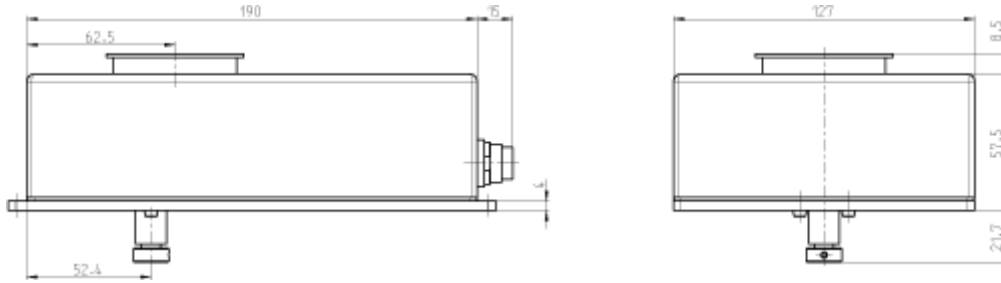
### 5.4.10 SWT Terminal (mounted using terminal holder)



### 5.4.11 PWT Terminal

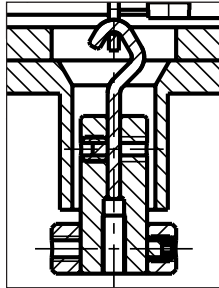


**5.4.12 WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 adapter for weighing below (optional)**

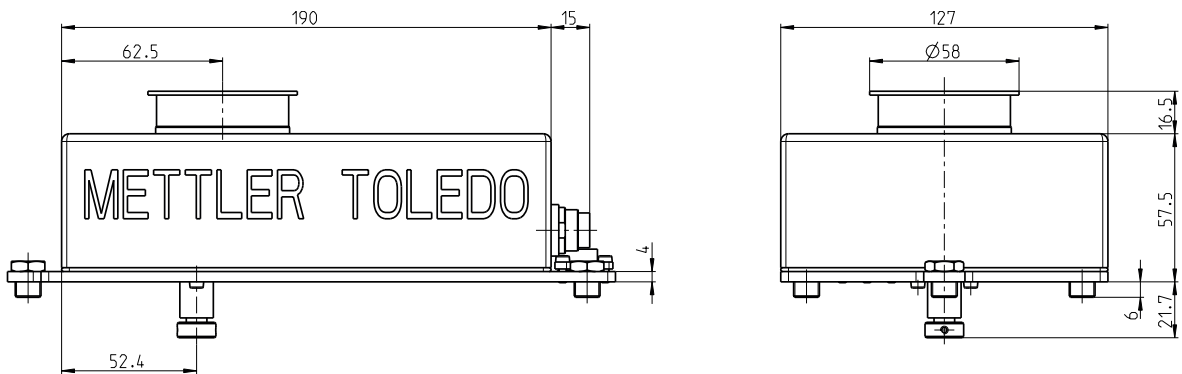


**Weighing below adapter detail**

Thread: M4  
 Max. penetration depth: 8 mm  
 Max. tightening torque: 1 Nm

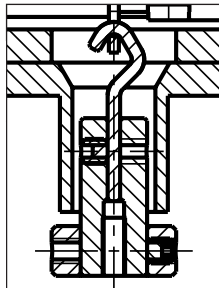


**5.4.13 WXS26/WXT26/WXTS3DU adapter for weighing below (optional)**



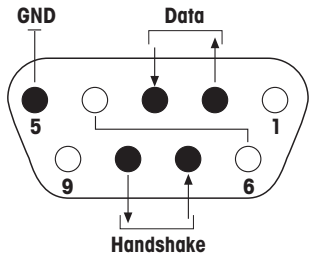
**Weighing below adapter detail**

Thread: M4  
 Max. penetration depth: 8 mm  
 Max. tightening torque: 1 Nm





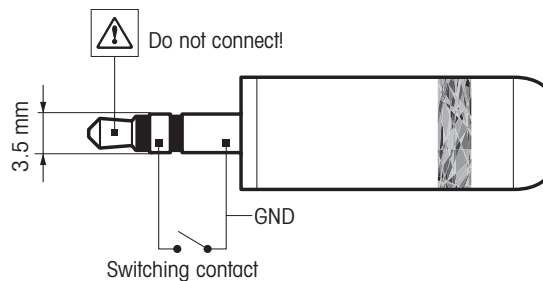
## 5.5 RS232C Interface (Standard Interface) Specifications

Interface type:	Voltage interface as per EIA RS-232C/DIN 66020 (CCITT V.24/V.28)	
Max. cable length:	15 m	
Signal level:	Outputs: +5 V ... +15 V (RL = 3 – 7 kΩ) –5 V ... –15 V (RL = 3 – 7 kΩ)	Inputs: +3 V ... 25 V –3 V ... 25 V
Connection:	D-Sub 9-pin female	
Operating mode:	Full-duplex	
Transmission mode:	asynchronous serial bit	
Transmission code:	ASCII	
Baud rates:	600, 1200, 2400, 4800, <b>9600</b> , 19200, 38400 <sup>1)</sup> (can be selected using interface commands)	
Bits/parity:	7 Bit/Even, 7 Bit/Odd, 7 Bit/None, <b>8 Bit/None</b> (can be selected using interface commands)	
Stop bits:	1 stop bit	
Handshake:	None, <b>XON/XOFF</b> , RTS/CTS (can be selected using interface commands)	
End of line:	<b>&lt;CR&gt;&lt;LF&gt;</b> , <CR>, <LF> (can be selected using interface commands)	
		
<p>Pin 2: Transmission line for scale (TxD)  Pin 3: Receiving line for scale (RxD)  Pin 5: Signal ground (GND)  Pin 7: Clear to send (hardware handshake) (CTS)  Pin 8: Request to send (hardware handshake) (RTS)</p>		

- <sup>1)</sup> 38400 baud only possible:
- Weigh module without terminal, or
  - Weigh module with terminal, only via the optional RS232C interface.

## 5.6 Specification for Aux Connections

You can plug the “ErgoSens” from METTLER TOLEDO or an external optical sensing device into the Aux 1 and Aux 2 jacks. This allows you to perform functions such as taring, zeroing, printing, etc (only together with terminal).




### External wiring:





Connection	3.5 mm stereo jack
Electrical data	Max. voltage: 12 V Max. power: 150 mA

## 6 Accessories and Spare Parts

### 6.1 Accessories




Description	Part No.	
<b>Terminals</b>		
SWT Terminal (touchscreen, monochrome display), including 2 terminal cables (0.5 m and 2 m), including protective covering	11121057	
PWT Terminal (touchscreen, color display), including 2 terminal cables (0.5 m and 2 m), including protective covering	11121058	
<b>Optional interfaces</b>		
Second RS232C Interface	11132500	
Ethernet Interface for connection to an Ethernet network	11132515	
BT2 Option: Bluetooth Interface, single-point connection with other Bluetooth device e.g. computer	30237796	
BT2 Paired Option: Bluetooth Interface for single point connection with RS232 device e.g. RS-P25, P-56RUE, P-58RUE	30237797	
RS232 - USB converter cable – Cable with converter to connect a balance (RS232) to a USB port	64088427	
<b>Connecting cables</b>		
Load cell – electronic unit connecting cable, 6-pin	0.5 m	11121442
	1.5 m	11121440
	5 m	11121441
Terminal-electronic unit connecting cable, 6-pin	0.5 m	11132124
	1 m	11132129
	2 m	11132133
<b>Miscellaneous</b>		
Weighing pan $\varnothing$ 85 mm (only for WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 weighing modules)	00238762	
Weighing below adapter (for weighing below)	11121081	
 <b>Note</b> An authorized service technician must perform the installation.		
Mounting bracket for electronic unit, including DIN clip and mounting screws	11121254	
Terminal holder for SWT terminal, including mounting screws.	11121255	
Flexible glass draft shield with sliding door	11121071	
Universal carrying case for all WXS/WXT weighing modules	11121160	
Pipette calibration set with evaporation trap (6/20 ml) (only for WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 weighing modules)	11138010	
Pipette calibration set with evaporation trap (100 ml) (only for WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 weighing modules)	11138009	
Pipette calibration set complete (6/20 ml) (evaporation trap, suction pump, thermometer, OIML weights, etc.) (only for WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 weighing modules)	11121165	

## 6.2 WXS204/WXS205DU/WXS205, WXT204/WXT205DU/WXT205 spare parts

Description	Part No.	
<b>Load cells</b>		
<p>WXT load cell (benchtop version) with mounted plastic cover, standard and adapter weighing pans, documentation</p> <p> <b>Note</b> Load cells are not available as spare parts for the legal-for-trade versions.</p>	WXT204T	11121025
	WXT204TV	11121325
	WXT205TDU	11121015
	WXT205TDUV	11121315
	WXT205T	11121010
	WXT205TV	11121310
<p>WXS load cell (component version) with mounted plastic cover, standard and adapter weighing pans, documentation</p> <p> <b>Note</b> Load cells are not available as spare parts for the legal-for-trade versions.</p>	WXS204S	11121020
	WXS204SV	11121320
	WXS205SDU	11121005
	WXS205SDUV	11121305
	WXS205S	11121000
	WXS205SV	11121300
<b>Electronic units</b>		
<p>WXT Electronic unit (benchtop version, white powder-coated surface), documentation</p> <p> <b>Note</b> Electronic units are not available as spare parts for the legal-for-trade versions.</p>	WXTE	11121201
<p>WXS electronic unit (component version, chromium steel), documentation</p> <p> <b>Note</b> Electronic units are not available as spare parts for the legal-for-trade versions.</p>	WXSE	11121203
<b>Weighing pans</b>		
Standard weighing pan ø 50 mm		11121257
Adapter weighing pan ø 36 mm		11121256
<b>Miscellaneous</b>		
Weighing pan retainer (with anti-displacement fixture and shock protection from lateral forces)		00238836
POM Plastic cover (to cover the weighing pan retainer)		11121121
Protective covering for the SWT terminal		11106870
Protective covering for the PWT terminal		11132570
Replacement panels for flexible glass draft shield (11121071)	Side panel	00238441
	Top panel	00238443
	Sliding panel	00238910
AC/DC adapter (without power cable) 100 – 240 V AC, 0.8 A, 50 – 60 Hz, 12 V DC 2.5 A		11107909



Description	Part No.	
Country-specific 3-Pin power cable with grounding conductor	Power cable AU	00088751
	Power cable BR	30015268
	Power cable CH	00087920
	Power cable CN	30047293
	Power cable DK	00087452
	Power cable EU	00087925
	Power cable GB	00089405
	Power cable IL	00225297
	Power cable IN	11600569
	Power cable IT	00087457
	Power cable JP	11107881
	Power cable TH, PE	11107880
	Power cable US	00088668
	Power cable ZA	00089728

### 6.3 WXS26/WXT26 spare parts

Description	Part No.	
<b>Load cells</b>		
WXT load cell (benchtop version) with mounted plastic cover, standard and adapter weighing pans, documentation  <b>Note</b> Load cells are not available as spare parts for the legal-for-trade versions.	WXT26TDU	11121460
	WXT26TDUV	11121468
	WXT26T	11121383
	WXT26TV	11121391
WXS load cell (component version) with mounted plastic cover, standard and adapter weighing pans, documentation  <b>Note</b> Load cells are not available as spare parts for the legal-for-trade versions.	WXS26SDU	11121464
	WXS26SDUV	11121472
	WXS26S	11121387
	WXS26SV	11121395
<b>Electronic units</b>		
WXT Electronic unit (benchtop version, white powder-coated surface), documentation  <b>Note</b> Electronic units are not available as spare parts for the legal-for-trade versions.	WXTE	11121201
<b>Weighing pans</b>		
Standard weighing pan ø 32 mm		30005897
Adapter weighing pan ø 32 mm		30005896
Wind ring		11121129
<b>Miscellaneous</b>		
POM Plastic cover (to cover the weighing pan retainer)		11121134
Levelling nut		30004977
Protective covering for the SWT terminal		11106870
Protective covering for the PWT terminal		11132570
Replacement panels for flexible glass draft shield (11121071)	Side panel	00238441
	Top panel	00238443
	Sliding panel	00238910
AC/DC adapter (without power cable) 100 – 240 V AC, 0.8 A, 50 – 60 Hz, 12 V DC 2.5 A		11107909

Description	Part No.	
Country-specific 3-Pin power cable with grounding conductor	Power cable AU	00088751
	Power cable BR	30015268
	Power cable CH	00087920
	Power cable CN	30047293
	Power cable DK	00087452
	Power cable EU	00087925
	Power cable GB	00089405
	Power cable IL	00225297
	Power cable IN	11600569
	Power cable IT	00087457
	Power cable JP	11107881
	Power cable TH, PE	11107880
	Power cable US	00088668
	Power cable ZA	00089728

## 6.4 WXTS3DU spare parts

Description	Part No.	
<b>Load cells</b>		
WXT load cell (benchtop version) with mounted plastic cover, standard and adapter weighing pans, documentation  <b>Note</b> Load cells are not available as spare parts for the legal-for-trade versions.	WXTS3DU	30376748
	WXTS3DU/A	30335760
	WXTS3DU/M	30335761
<b>Electronic units</b>		
WXT Electronic unit, documentation  <b>Note</b> Electronic units are not available as spare parts for the legal-for-trade versions.	WXTE	11121201
<b>Weighing pans</b>		
Weighing pan set (wind ring with weighing pan)		30323318
<b>Miscellaneous</b>		
POM Plastic cover (to cover the weighing pan retainer)		11121134
Levelling nut		30004977
Protective covering for the SWT terminal		11106870
Base plate protection		30323319
Draft shield glasses set		30323320
AC/DC adapter (without power cable) 100 – 240 V AC, 0.8 A, 50 – 60 Hz, 12 V DC 2.5 A		11107909
Country-specific 3-Pin power cable with grounding conductor	Power cable AU	00088751
	Power cable BR	30015268
	Power cable CH	00087920
	Power cable CN	30047293
	Power cable DK	00087452
	Power cable EU	00087925
	Power cable GB	00089405
	Power cable IL	00225297
	Power cable IN	11600569
	Power cable IT	00087457
	Power cable JP	11107881
	Power cable TH, PE	11107880
	Power cable US	00088668
	Power cable ZA	00089728





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- Calibrate and operate your weighing equipment with security
- Comply with quality and compliance standards in laboratory and manufacturing

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