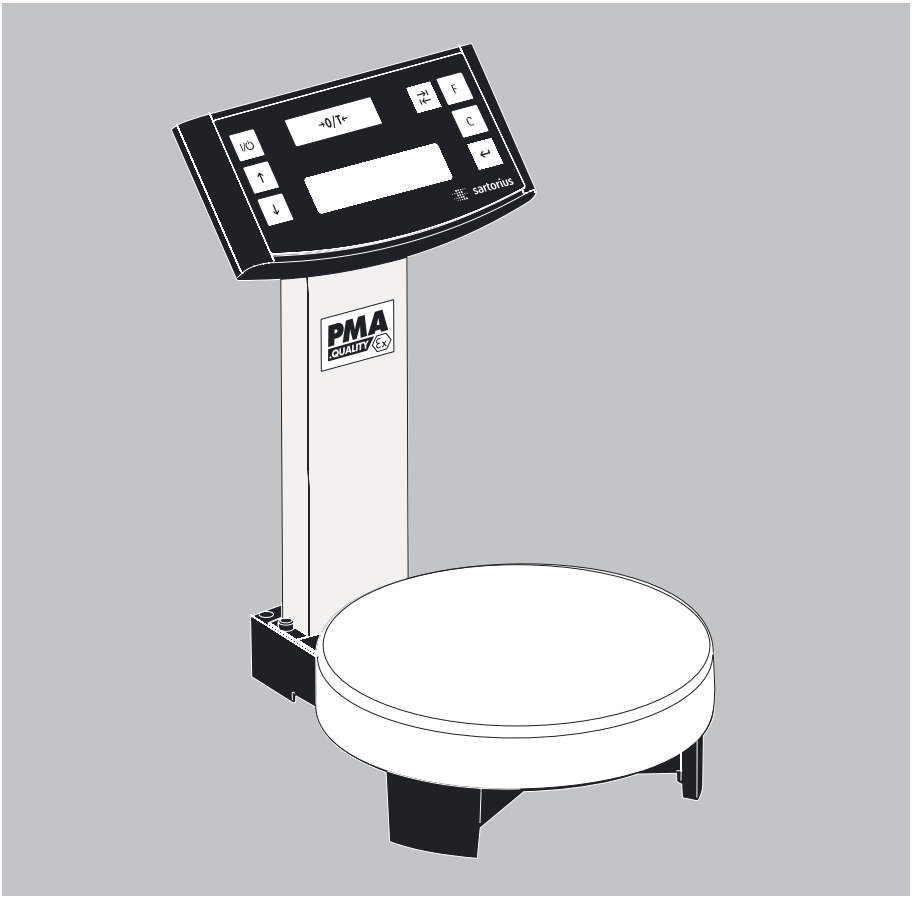
Installation Instructions

Sartorius PMA.Quality
Model PMA7501-Y | -Y00W | -Y00U

Electronic Paint-mixing Scale for Use in Zone 2
Potentially Explosive Atmospheres



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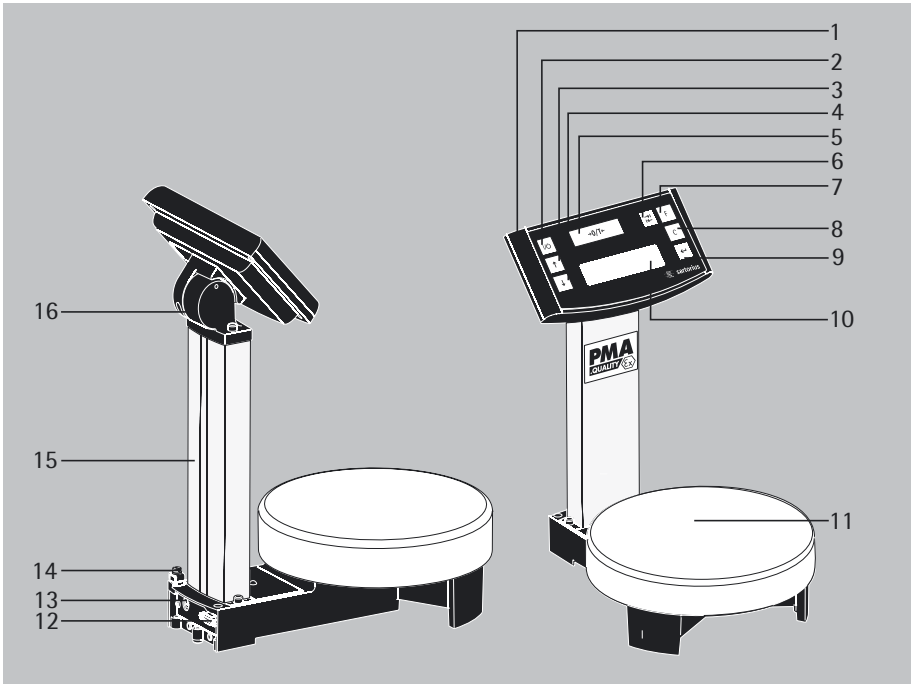
General View of the Equipment



1 Display and control unit
2 [I/⏻] key (On/Standby)
3 [↑] key: Upwards
4 [↓] key: Downwards
5 [→0/T←] key: Zero/Tare
6 [⇄] key (TOGGLE)
With the PMA 7501-Y, you can toggle to two decimal places – from 0.05 g to 999.95 g – or toggle between – "**g**" and "**p**" – parts per pound, depending on the menu settings
7 [F] factor key (FORMULATION) for paint-mixing applications
8 [C] key (Clear) and [REC] key for paint-mixing applications
9 [↵] key [ENTER] and [MEM] key for paint-mixing applications
10 Display
11 Weighing pan
12 Interfaces (D-Sub plug, 9-contact)
13 Connection to AC power
14 Grounding terminal
15 Column
16 Joint

The following symbols are used in these instructions:

● Indicates required steps
○ Indicates steps required only under certain conditions
> Describes what happens after you have performed a particular step
– Indicates an item in a list
⚠ Indicates a hazard

Contents

Intended Use

The PMA7501-Y... (PMA.Quality series) is a scale designed specifically for use in paint-mixing applications. The scale can be operated via the keypad as a stand-alone device or using application software (such as a paint-mixing program from a paint manufacturer) installed on a connected PC. If you wish to create your own application software, Sartorius can supply the required drivers for DOS or Windows® operating systems.

Note:

- Before installing and operating the PMA7501-Y... and the YPS04-Y.., make sure that you read the Warnings and Safety Precautions carefully.

- The application examples and menu settings described in these operating instructions are not possible with the PMA7501-Y00W device.

Warnings and Safety Precautions

Note:
Improper use or handling can result in property damage and/or personal injury. Only qualified personnel may install and operate the equipment. When operating the equipment in potentially explosive atmospheres (Zones 2 and 22), make sure you observe the warning and safety information in its entirety during installation and operation, as well as while performing maintenance and repair work on the equipment (e.g.: EN60079-14).
The standards, regulations, occupational safety requirements and environmental protection laws valid in your country must be observed. It is important that all personnel using the equipment understand this warning and safety information, and have access to the relevant documents at all times. Furthermore, the warning and safety information supplied with any electrical equipment connected, such as peripheral devices, must be observed as well.
The warnings and safety precautions may have to be supplemented by the equipment operator. All operating personnel must be informed of any additions to these instructions. Make sure the equipment is accessible at all times.

General Provisions for Installing
The PMA7501-Y models with power supply YPS04-Y.. meet the requirements defined in EC Directive 94/9/EC for Class II, Category 3D equipment and can be operated in potentially explosive atmospheres (Zone 2) in accordance with the KEMA05ATEX1248X EC type-examination certificate. Strictly observe the Safety Precautions in accordance with the diagram 36457-751-16 (refer to “Safety Instructions,” page 34).
Furthermore, PMA7501-Y model meets the EC Directives for electromagnetic compatibility and electrical safety (please see the Declaration of Conformity in these installation instructions).

- The area of use for the PMA7501-Y model is defined in the type-examination certificate. All restrictions listed in the type-examination certificate must be strictly observed. Operating the PMA7501-Y model beyond the restrictions indicated is not permitted, and is considered use of the equipment for other than its intended purpose.
- Unless performed by an authorized Sartorius technician, any installation work that does not conform to the instructions in this manual will result in forfeiture of all claims under the manufacturer's warranty.
- Installation of the PMA7501-Y in a potentially explosive atmosphere must be performed by a certified electrician who is familiar with the assembly, start-up and operation of both the system and the relevant guidelines and regulations, and has the required qualifications for performing the installation. If you need assistance, contact your Sartorius dealer or the Sartorius Service Center.
- Avoid static electricity. Connect an equipotential bonding conductor. Disconnecting equipotential bonding conductors is not permitted. The bore hole is marked by a "ground" symbol. If a bore hole is provided, use a stainless steel screw and nut to connect the grounding conductor. The wire used for the grounding conductor should have a cross-sectional diameter of at least 4 mm^2 and have a suitable ring lug attached. Connect all equipment, including peripheral devices, to the equipotential bonding conductor.
- Do not expose the scale to extreme temperatures, aggressive chemical vapors, moisture, shocks or vibrations.
- The equipment must be used indoors.
- To ensure safety, disconnect the equipment from power before connecting or disconnecting the cables or electronic peripheral devices.
- If you use cables purchased from another manufacturer, check the pin assignments in the cable against those specified by Sartorius before connecting the cable to Sartorius equipment, and disconnect any wires that are assigned differently. The operator shall be solely responsible for any damage or injuries that occur when using cables not supplied by Sartorius.
- When connecting the scale to the power supply, the laws valid in your country must be observed. If you should have any questions, please contact your supplier or Sartorius Customer Service for information on the legal regulations applicable in your country. The scale must be installed by a certified technician to avoid forfeiture of all claims under the manufacturer's warranty.
- To avoid generating static electricity (e.g., when using the in-use dust cover), connect the equipotential bonding conductor.
- The equipment is protected against the penetration of solid foreign objects.

For the User

- Always make sure the equipment is disconnected from AC power before performing any installation, cleaning, maintenance or repair work on the scale.
- If you see any indication that the scale cannot be operated safely (for example, due to damage), turn it off and lock it in a secure place or otherwise prevent use of the equipment for the time being.
- Chemicals (e.g., gases or dusts) that can corrode and damage the inside or outside of the device must be kept away from the equipment.

IP Protection

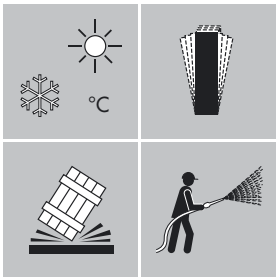
- Handle the equipment and any accessories in accordance with the IP rating (EN 60529).
- The casing on all connecting cables, as well as the casing on wires inside the equipment housing, is made of PVC. The casing of the power cable is made of rubber.
- Do not expose the scale to aggressive chemical vapors or to extreme temperatures, moisture, shocks, or vibration. The allowable operating temperature range during operation is 0°C to +40°C (32°F to 104°F). Make sure the place of installation is adequately ventilated to prevent build-up of excessive heat.
- Use original Sartorius spare parts, only!
- Never use a hammer to close the lid of a paint can while it is still on the weighing pan. Otherwise, you will damage the weighing system!

Getting Started

● Remove the scale from its packaging.

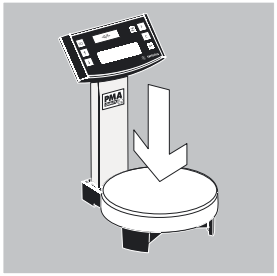
● After unpacking the scale, check it immediately for any visible damage as a result of rough handling during shipment.

Equipment Supplied
- Scale
- Weighing pan
- Power supply YPS04-Y..



Setting Up the Scale
Choose a suitable place to set up the scale. Avoid exposure to drafts, heat, moisture and vibration. Make sure to read the instructions carefully before connecting the scale to AC power.

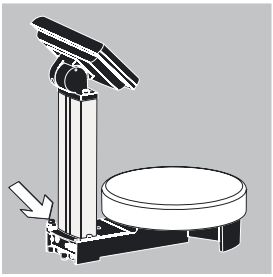
⚠ Observe the safety instructions and warnings in this manual.



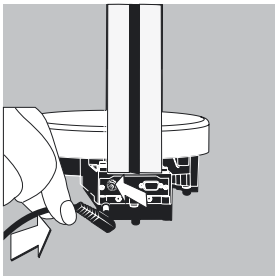
● Place the weighing pan on the scale.

Connection to AC Power

The equipment is powered through the AC adapter provided. Make sure that the voltage rating printed on the power supply is identical to your local AC power rating. When connecting the scale to the power supply, the laws valid in your country must be observed. If you should have any questions, please contact your supplier or Sartorius Customer Service for information on the legal regulations applicable in your country. Use only genuine Sartorius power supplies. The use of power supplies from other manufacturers, even if these units have a registered approval rating from a national testing laboratory, requires the approval of a certified technician.



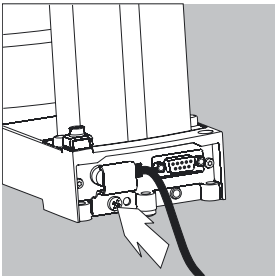
- Ground the scale.
  Connect the cable to the grounding terminal (14).



- Insert the right-angle plug into the IEC jack (13) on the scale

  Note:

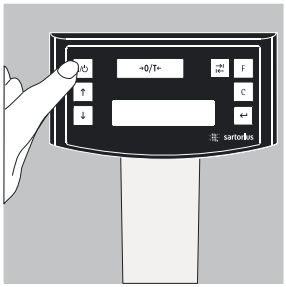
  When installing the scale in Zone 2 potentially explosive atmospheres, connectors may only be plugged in or disconnected when the power is switched off. You must disconnect the scale from the power line before connecting the AC adapter or peripheral devices (printer, PC) to the data interface of the device.



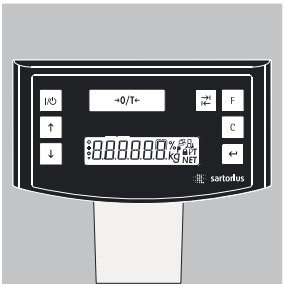
- Secure the right-angle plug in place with the safety retainer provided. Operate the equipment only when this plug is secured!
- When connecting peripheral devices (printer, PC) to the scale's data interface, make sure that the screws on the data plug are securely tightened.
- Plug the power supply into an electrical AC power outlet

⚠ Observe the safety instructions and warnings in this manual

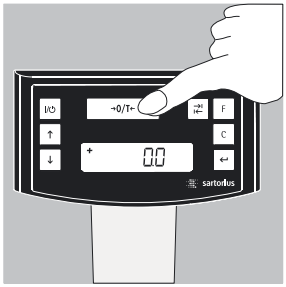
Operating the Equipment



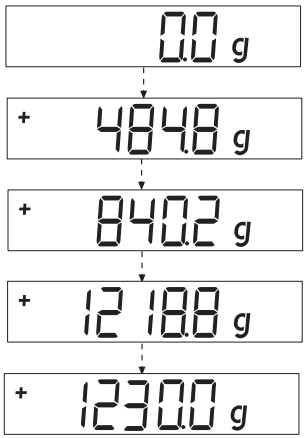
Turn on the scale using the I/⏻ key (2).



After the scale has been turned on, it will automatically run a self-test.
At the end of this test, 0.0 g is displayed.



If a different readout is displayed, zero or tare the scale using the →0/T← key (5).



Weighing with One Decimal Place
Pour in the first component, and read off the weight as soon as the stability symbol appears; in this case, "**g**."

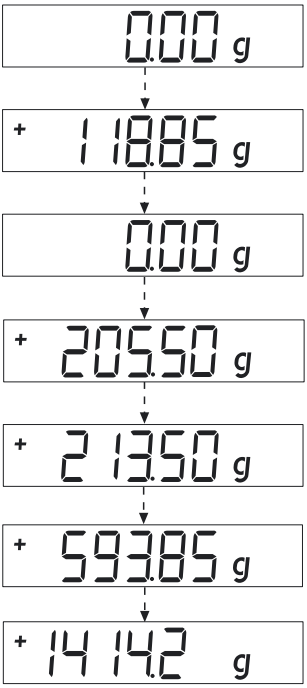
Pour in additional components until the desired weight of your formula is reached.

Remove the filled paint can from the weighing pan.

Never use a hammer to close the lid of a paint can while it is still on the weighing pan.
Otherwise, you will damage the weighing system.

Weighing with Two Decimal Places

Note:
To weigh using two decimal places, you must first adapt the settings (refer to the chapter entitled “Menu Settings”.)



Press the ⇄ key (6). The display shows “0.00 g.”

Place an empty paint can on the weighing pan (11).

Press the →0/T← key (5). The display shows “0.00 g.”

Pour in the first component: 205.50 g.
Read off the weight as soon as the stability symbol appears; in this case, “g.”

Pour in additional components until the desired weight of your formula is reached.
Remove the filled paint can from the weighing pan.

Important Note:
If you zero the display by pressing the tare key, and then press the ⇄ key (6) to toggle to the second decimal place with a resolution of 0.05 g, you can continue weighing up to 999.95 g.
For weights exceeding 999.95 g, only one decimal place will be displayed.

Never use a hammer to close the lid of a paint can while it is still on the weighing pan.
Otherwise, you will damage the weighing system.

Applications

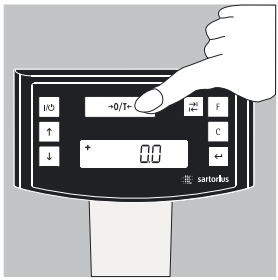
Formulation Mode (Calculation by a Factor)
This mode enables you to weigh in amounts that are smaller or larger than that of your basic formula for a specific paint color (e.g., 250 ml of a 1-l formula).
You can select various factors (amounts) by pressing the [F] formulation key (7):
0.25 0.5 0.75 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0.

By pressing the [↑] key (3): upwards
or [↓] key (4): downwards,
you can alter the value – in 0.1 increments, as of factor 1.0
or – 0.01 increments, from factor 0.25 to 1.0.

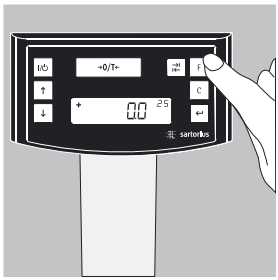
Important Note:
The flashing arrow ▼ on the display means that the weight shown is not verified for use in legal metrology (not legal for trade).

Example:
As you pour in the components of your formula, the weight is displayed in "g."
Let's suppose you want to weigh only 250 ml of a basic formula that is for a total amount of 1 L. With the recalculation mode, you do not need to manually recalculate the individual components.
The basic formula for 1 liter is:

	250 g	green paint
+	250 g	red paint
+	500 g	blue paint
Total:	**1000 g**	



1. Place the empty paint can on the weighing pan and tare (zero the display).



2. Press the [F] formulation key (7) several times to select the conversion factor ".25" used in this example.

3. ".25" is displayed next to the weight

4. Slowly pour in the first component, "250 g" of green paint, until the display shows "250 g."

5. Pour in the second component, "**250 g**" of red paint, until the display shows "**500 g**."

6. Pour in the last component, "500 g" of blue, until "**1000 g**" is displayed.

We have come to the end of our example. According to the display, exactly 1,000 g was poured in, but the paint can actually contains only 250 g by weight according to the factor you selected, .25. Follow the same procedure for any other conversion factor or to convert a 1-gallon formula into quarts.

Weighing Using the Recalculation Mode
Let's suppose that you poured in too much of one color component for a given formula (e.g., one consisting of 4 components).
In addition, let's assume that you previously poured in all of the other amounts exactly according to each of the values you entered and stored by pressing the ↵ key [MEM] (9). Press the ↓ key (4) to start the recalculation program. "C" will begin flashing on the display. To correct the weight displayed to the same value you entered for the given formula, either scroll upwards using the ↑ key (3), or downwards using the ↓ key (4). When you then press the ↵ key [MEM] (9), the scale will automatically calculate and display the amounts of paint in "g" to add for each of the other components that you already poured in. This mode thus ensures that the total result of your formula for these components will be correct.
After pouring in these amounts, you can continue to add the remaining components of your formula.

Important Note:
You can correct an incorrect amount any number of times. However, the total (liter) quantity in the paint can will increase each time you correct a component. Therefore, press the C key (8) to check how much the total quantity (in liters) will be. ("C" = correction factor.)

The flashing arrow ▼ in the display means that the weight shown is not verified for use in legal metrology (not legal for trade).

Example (kumulativ):

1. Place an empty paint can on the weighing pan (11).
+ 118.0 g

2. Press the →0/T← key (5)
0.0 g

3. Pour in the first component.
+ 50.0 g

4. Press the ↵ key [MEM] (9).
STO 01

5. Pour in the 2nd component.
+ 110.0 g

6. Press the ↵ key [MEM] (9).
STO 02

7. Pour in the 3rd component.
+ 203.0 g
Oops!
You poured in too much!
The correct weight for the formula is 200.0 g.

8. Press the ⌄ key (4) to start the recalculation mode.
A "C" = correct flashes on the display = Correct will flash on the display.

9. Press the ⌄ key (4) several times to correct the value to:
+ 200.0 g

10. Press the ↵ key [MEM] (9)
COR 01

11. 1. Add the first component.
"C1" is displayed –1.5 g

12. Pour in paint until 0.0 g is displayed.
0.0 g

13. Press the ↵ key [MEM] (9)
COR 02

14. Add the second component. "C2" is displayed.
–2.0 g

15. Pour in paint until the value 0.0 g is obtained
0.0 g

16. Press the ↵ key [MEM].
The scale will automatically return to the formulation program "C" disappears.
+ 200.0 g

17. To check the total weight, press the C key (8) [REC]
"C" = Correction factor, in this example 1.03.
(Total formulation weight × correction factor)

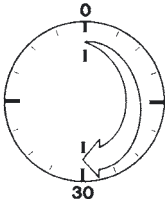
18. Add the fourth component
+1000.0 g

We have come to the end of our example.

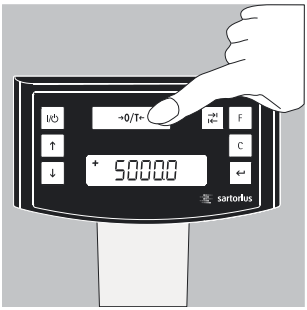
Calibration/Adjustment

You can calibrate/adjust the scale by pressing the →0/T← key (5).

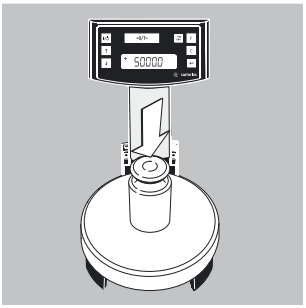
Calibration weight: 5,000 g; accuracy: + 0.075 g.



After connection to AC power and before each calibration/adjustment, allow the scale to warm up for approx. 30 min.

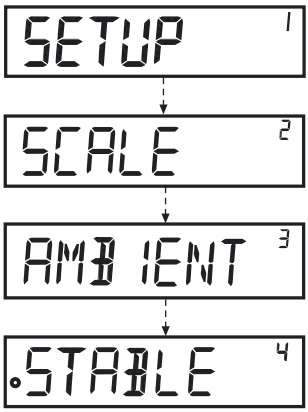


Hold down the →0/T← key (5) for 2 sec.
When 5000 is displayed, release the key.



Center the calibration weight on the weighing pan (11).
Calibration/adjustment is performed automatically.
After calibration and adjustment, remove the weight.

Menu Settings



Navigating the SETUP Menu
Example:
Menu Item: Adaptation to ambient conditions

- Hold down the ↵ key [ENTER] for approx. 2 sec. "SETUP" will appear on the display (Level 1). Use the ↑ ↓ keys to select the desired menu item in the first level.
- Press the ↵ key [ENTER] to select the second level (Level 2).
- Call up the menu item desired in the fourth level. Use the ↑ ↓ keys to select the desired menu item in the second level.
- Press the ↵ key [ENTER] to select the third level (Level 3). The menu items in the third level (Level 3) will be displayed Use the ↑ ↓ keys to select the desired menu item.
- Press the ↵ key [ENTER] to select the fourth level (Level 4).
- Call up the menu item desired in the fourth level. Use the ↑ ↓ keys to select the desired menu item. (We have come to the end of our example.)
- Press the ↵ key [ENTER]. "**o**" will appear. The new code is stored.
- Press the C key (Clear) several times to exit the menu.

Note:
To obtain a detailed list of the menu codes, please ask your nearest Sartorius office.

Important Menu Settings

- Hold down the ↵ key [ENTER] for approx. 2 sec. "SETUP" will appear on the display (Level 1).

Level 1

SETUP

Language Settings

Level 1	Level 2	Level 3	Level 4	
LANGUAGE				● ↑ key: select "LANGUAGE"
				● ↵ key: press [ENTER]
	o GERMAN			● ↑ ↓ keys: select a language
	ENGLISH			● ↵ key: [ENTER]: "o" will appear,
	FRENCH			the desired setting is defined.
	ITALIAN			● C key (Clear): press several times to
	etc.			exit the menu.

⇄ – Activating the Toggle Key; Configuring (Basic Setting)

After the toggle key, 1, has been activated, you can individually configure it with either 1 or 2 decimal places, as well as with grams or PT./PD.

Level 1	Level 2	Level 3	Level 4	
SETUP				● Press the ↵ key [ENTER]
	APPLICATION			● ↑ ↓ keys: select "APPLICATION"
				● ↵ key: press [ENTER]
		PROGRAM		● ↑ ↓ keys: select "PROGRAM"
			WEIGH.	● ↵ key: [ENTER],
			o TOGGLE	↑ ↓ keys: select "TOGGLE".
				● Press the ↵ key [ENTER]; "o" appears;
				the desired setting is defined.
				● Press the C key (Clear) several times to
				exit the menu

Assigning a Function to the ⇄ Toggle Key: 0.0 g / 0.00 g, or g / PT./PD.

Level 1	Level 2	Level 3	Level 4	
SETUP				● Press the ↵ key: [ENTER]
	APPLICATION			● ↑ ↓ keys: select "APPLICATION"
		UNIT		● ↵ key [ENTER]: select the ↓ key
				"UNIT," press ↵ key [ENTER].
			PT./PD.	● ↑ ↓ keys: select "GRAMS"
			o GRAMS	● Press the ↵ key [ENTER]; "o" appears:
				the desired setting is defined.
		DECIMALS		● ↑ ↓ keys, select "DECIMALS"
			STANDARD	● Press the ↵ key, select setting
			o POLYRANGE	● Press the ↵ key [ENTER]; "o" appears
				Press the C key (Clear) to exit the menu

Toggling Decimal Places **(Standard = 1 decimal place PolyRange = 2 decimal places)**

Toggling Units **(Grams or PT./PD.)**

These settings are active when the scale is switched on.

Level 1	Level 2	Level 3	Level 4	
SETUP				● Press the ↵ key [ENTER]
	SCALE			● Press the ↵ key [ENTER]
		DECIMALS		● ↑↓ keys: select “DECIMALS”
				● Press the ↵ key [ENTER]
			o STANDARD	● ↑↓ keys: select “STANDARD”
			POLYRANGE	● Press the ↵ key [ENTER]; “o” appears:
		UNIT		the new code has been set.
			o GRAMS	● Press the c key (Clear) several times
			PT./PD.	to exit the menu

Activating the “LOCK” Function

By activating the “LOCK” function, you can protect the scale from unauthorized use. When the scale is connected to a PC, the two devices are in constant communication. If the “LOCK” function is activated under “EXTRAS,” and data transmission to the PC is interrupted, the lock symbol will be displayed. The scale will automatically be locked, preventing further weighing operations.

Level 1	Level 2	Level 3	Level 4	
SETUP				● Press the ↵ key [ENTER]
	EXTRAS			● ↑↓ keys: select “EXTRAS”
				● Press the ↵ key [ENTER]
		LOCK		● ↑↓ keys: select “LOCK”
				● Press the ↵ key [ENTER]
			OFF	● Select “ON” using the ↑↓ keys
			o ON	Confirm with the ↵ key
				● Press the c key (Clear) several times
				to exit the menu

Entering a Password

In addition to activating the “LOCK” function, the user may also enter a password.
Should the user wish to deactivate the “LOCK” function by pressing the “OFF” key, he must first enter the valid password. The password is comprised of a 6-character numeric code.
Use the ↑↓ keys to call up numbers (0 to 9).
Six dashes (------) will appear in the display. The first dash will “blink” in the display.
Select a number (0 to 9) using the ↑↓ keys, press the ↵ key [ENTER] to save the number.
The second dash will start to “blink.” Repeat the aforementioned process. Should you wish to assign a “blank space” to one of the six characters, simply press the ↵ key [ENTER] when the dash begins to blink.

Note:
Keep the numeric code in a safe place.
The scale can only be accessed by entering the correct code.

Level 1	Level 2	Level 3	Level 4	
INPUT				● ↑↓ keys: select “INPUT”
	PASSWORD			● Press the ↵ key [ENTER]
				● Press the ↵ key [ENTER]
		PW.NEW		● ↑↓ keys: select “PW.NEW”
		--------		● Enter the numeric code: press the ↵ key [ENTER].
				● Press the c key (Clear) several times to exit the menu

Changing the Password
Should you wish to change the password, you must first correctly enter the old password under “Password.” “PW.OLD” will be displayed. Following the correct input, “PW.NEW” will automatically appear. You can now enter a new password, or confirm each blinking dash by pressing the ↵ key [ENTER]. Blank spaces are then displayed.

Level 1	Level 2	Level 3	Level 4	
INPUT				● ↑↓ keys: select “INPUT”
	PASSWORD			● Press the ↵ key [ENTER]
		PW.OLD		● Press the ↵ key [ENTER]
		--------		● Enter the old password “PW.OLD”
		PW.NEW		● “PW.NEW” will appear when the old password is correctly entered
		--------		● Enter the numeric code: press the ↵ key [ENTER]
				● Press the c key (Clear): reset the menu

You can now deactivate the “LOCK” function.

Level 1	Level 2	Level 3	Level 4	
SETUP				● Press the ↵ key [ENTER]
	EXTRAS			● ↑↓ keys: select “EXTRAS”
				● Press the ↵ key [ENTER]
		LOCK		● ↑↓ keys: select “LOCK”
				● Press the ↵ key [ENTER]
			o OFF ON	● ↑↓ keys: select “OFF”, confirm with the ↵ key [ENTER]
				● Press the c key (Clear) several times to exit the menu

Setting "TEXTS" in the Display, "LONG" or "SHORT"

Either short or long display prompts for operator guidance can be shown.

Level 1	Level 2	Level 3	Level 4	
SETUP				● Press the ↵ key [ENTER]
	EXTRAS			● ↑↓ keys: select "EXTRAS"
				● Press the ↵ key [ENTER]
		TEXTS		● ↑↓ keys: select "TEXTS"
				● Press the ↵ key [ENTER]
			LONG	● ↑↓ keys: select "SHORT",
			o SHORT	confirm by pressing the ↵ key.
				● Press the c key (Clear) several times to exit the menu

Resetting the Scale: "RESET"

If necessary, you can reset the scale to factory settings.

Note:

If a password was activated, the correct password must first be entered.

Level 1	Level 2	Level 3	Level 4	
SETUP				● Press the ↵ key [ENTER]
	RESET			● ↑↓ keys: select "RESET"
				● Press the ↵ key [ENTER]
		MENU		● ↑↓ keys: select "MENU".
				● Press the ↵ key [ENTER]
			YES	● Use the ↑↓ keys to select "YES"
			o NO	● Press the ↵ key [ENTER]; "o" will appear: the new code is set
				● Press the c key (Clear) several times to exit the menu

Setting Codes

Under the setting "CODES," the menu items are displayed in code 1.1.1.1.

Level 1	Level 2	Level 3	Level 4	
LANGUAGE				● ↑ key: select "LANGUAGE"
				● Press the ↵ key [ENTER]
	GERMAN			● ↑↓ keys: select "CODES"
	etc.			● Press the ↵ key [ENTER]; "o" will appear: the new code is set
o	CODES			● Press the c key (Clear) several times to exit the menu.

Note:

To obtain a detailed list of the menu codes, please ask your nearest Sartorius office.

Troubleshooting

Problem	Cause	Solution
No segments appear on the weight display	– No AC power available	– Check the AC power supply
Weight display shows “Low”	– The weighing pan is is not in place	– Position the weighing pan
Weight display shows “High”	– The load on the pan exceeds the scale’s capacity	– Unload the scale
The weight readout changes constantly	– Unstable ambient conditions – Too much vibration or the scale is exposed to draft	– Set up the scale in another area – Access the menu to select the appropriate code to adapt the scale to the particular weighing environment (refer to “Menu Settings”)
The weight readout is obviously wrong	– The paint component does not have a stable weight – The scale was not tared before weighing	– Tare prior to weighing
The lock symbol is active 🔒	– The display is locked – A password has been defined – PC connection to the scale is interrupted	– Access the menu settings to deactive the “Lock” function – Enter the correct password – Check the connection

Care and Maintenance

Cleaning

⚠ Do not use any aggressive cleaning agents (solvents or similar agents), concentrated acids or pure alcohol.

○ Make sure that no liquid penetrates the scale housing

○ Clean the scale using either a paint brush or a dry, soft and lint-free cloth.

Storage and Shipping Conditions

○ To ensure safe shipment, your scale has been packaged using environmentally-friendly materials.
You should retain these materials in case you need to package your scale for storage or return shipment.

○ Storage temperature: –20°C to +75°C

○ Permissible moisture level for storage of the packaged scale: 90% max.

○ Read and follow the instructions given in the section entitled “Safety Inspection.”

Safety Inspection

Safe operation is no longer ensured when:

- There is visible damage to the AC adapter/power supply
- The equipment no longer functions properly
- The equipment has been stored for a relatively long period under unfavorable conditions
- The equipment has been exposed to rough handling during shipment

● Observe the Warning and Safety Information
In this case, notify your nearest Sartorius Service Center or the International Technical Support Unit based in Goettingen, Germany. Maintenance and repair work may only be performed by service technicians who are authorized by Sartorius and who have access to the required service and maintenance manuals and have attended the relevant service training courses.

⚠ The seals affixed to this equipment indicate that only authorized service technicians are allowed to open the equipment and perform maintenance work so that safe and trouble-free operation of the equipment is ensured and the warranty remains in effect.

Recycling

The packaging is made from environmentally-friendly materials that can be used as secondary raw materials. If you no longer need this packaging, bring it to your local recycling and waste disposal facility according to the regulations applicable in your country.
In Germany, you can dispose of this material using the VfW dual system (contract number D-59101-2009-1129).
The equipment, including accessories and batteries, must not be disposed of in general household waste, and must be recycled similar to electrical and electronic devices. For further information about disposal and recycling options, please contact your local service staff. The partners listed on the following website can be used for disposals within the EU:

1) Go to http://www.sartorius.com.

2) Select the summary under “Service.”

3) Then select “Information on Disposal.”

4) Addresses for local Sartorius disposal contacts can be found in the PDF files given on this webpage.

Sartorius will not take back equipment contaminated with hazardous materials (ABC contamination) either for repair or disposal.

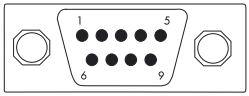
Insert heading:
“Service Address for Disposal”
Please refer to our website (www.sartorius.com) or contact the Sartorius Service Department for more detailed information regarding repair service addresses or the disposal of your device.

Specifications and Interface Ports

PMA 7501-Y | PMA 7501-Y 00W

Weighing range	g	999.95/7500
Readability	g	0.05/0.1
Tare range (subtractive)	g	–999.95/–7500
Max. linearity	g	≤ ±0.2
Stability range	digit	0.25 to 4
Moisture-proof rating	F	Non-condensing
Allowable ambient operating temperature range	°C	0 to +40
Weighing pan	∅ mm	233
Scale housing (W × D × H)	mm	233 × 329 × 391
Net weight, approx.	kg	3.3
Calibration weight	kg	5, class F2 or better
Power Supply YPS04-Y..	Input	100 – 240 Vac / 50 – 60 Hz / 18 V A (max.)
Interface		RS-232C
– Format		7-bit ASCII, 1 start bit, 1 or 2 stop bits
– Parity		Even, odd or no parity
– Transmission rates		1200 to 38,400 bit/s
– Handshake mode		Software or hardware

9-contact interface port



Pin Assignment

Pin 2: (RXD) Receive Data
Pin 3: (TXD) Transmit Data
Pin 4: (DTR) Data Terminal Ready
Pin 5: (GND) Ground
Pin 6: BPI bridge
Pin 8: (CTS) Clear to Send

PMA 7501-Y00U

Weighing range	g	999.95/7500
Readability	g	0.05/0.1
Tare range (subtractive)	g	–999.95/–7500
Max. linearity	g	≤ ±0.2
Stability range	digit	0.25 to 4
Moisture-proof rating	F	Non-condensing
Allowable ambient operating temperature range	°C	0 to +40
Weighing pan	∅ mm	233
Scale housing (W × D × H)	mm	233 × 329 × 391
Net weight, approx.	kg	3.3
Calibration weight	kg	5, class F2 or better
Power Supply YPS04-Y..	Input	100 – 240 Vac / 50 – 60 Hz / 18 V A (max.)
Interface – Format – Parity – Transmission rates – Handshake mode		USB (virtual serial interface) 7-bit ASCII, 1 start bit, 1 or 2 stop bits Even, odd or no parity 1200 to 38,400 bit/s Software or hardware For more information, see the section entitled “USB Port”

USB Type B

Pin	Name	Description
1	VCC	+5 V
2	D –	Data –
3	D +	Data +
4	GND	Ground

Accessories

		Order no.:
In-use dust cover		**YDC01PMA**
RS-232 Data cable (SBI)	(2 m)	**YCC01-0027M2**
RS-232 Data cable (BPI)	(2 m)	**YCC01-0028M2**
RS-232 Data cable (BPI)	(20 m)	**YCC01-0028M20**
USB/RS-232 Data cable (SBI)	(1.80 m)	**YCO12**
USB/RS-232 data cable (BPI)	(1.80 m)	**YCO13**
USB data cable		**YCC01-0040M3**

Note:

⚠ Only connect or disconnect the data cable (YCO12 | YCO13) if the devices at both ends of the cable are switched off. Screw the D-SUB plug on to the PMA7501-Y... to secure it in place. Only use the data cable (YCO12 | YCO13) indoors, and make sure that foreign bodies and liquids cannot penetrate it. Only use the USB plug for the data cable (YCO12 | YCO13) outside of the potentially explosive atmosphere!

USB Port (PC)

Purpose
Any PMA7501-000U can be connected to a PC equipped with a USB port. A virtual serial interface (virtual COM port) is set up as a device type at the USB port. This virtual serial interface is identified und operated by the application program.
The protocols xBPI and SBI can be transmitted via the USB port.

System Requirements
- Computer (PC) with Windows 98SE®, Windows ME®, Windows 2000®, Windows XP®, Windows Vista® or Windows 7®
- Available USB port on the PC
- USB cable

Connecting the Balance via USB

The current USB port for the computer is established when the software driver is being installed. The driver must be re-installed every time you wish to change the port.
Therefore, choose one USB port that can permanently or regularly be used to connect the balance.

- Switch off the balance.
- Unplug the balance from the mains.
- Connect the USB cable to the balance and to the USB port on the computer.
- Plug the balance into the mains again and switch it on.
- Windows detects the device connected to the USB port.
  If the device is being connected for the first time, the Windows Installation Wizard will run.

Installing Software Drivers
- Run the Installation Wizard for the driver.
- Follow the instructions that appear.
- To complete the installation, click on Finish.
- The virtual interface is now ready for operation.

Windows® usually adds the virtual port in the position following your highest-numbered COM port.

Example:
For a PC with up to 4 COM ports, the new virtual port would then be COM5 (see Device Manager).

Installation Guides for Windows XP®, Windows Vista® and Windows 7®

Changing the Port Number
If you use the USB interface with a program that limits the number of COM port designations (e. g., only COM1, 2, 3, 4), you may have to assign one of these port numbers to the new virtual port.

- Open the setting for the USB serial port in the Windows® Control Panel:
  - START > My Computer > Control Panel
  - System > Hardware > Device Manager
- Open the Connections submenu.
- Double-click on USB Serial Port.
- Select Port Settings > Advanced.

Changing Latency Time
- Open the settings for the USB serial port, following the above instructions.
- For a faster rate of communication, change the setting for the latency timer to 1msec.

Plug & Play Mode in Autoprint (SBI)
- Open the settings for the USB serial port, following the above instructions.
- Stop the Plug & Play mode from running.

Uninstalling the Driver
The software driver for the USB connection can be uninstalled with the Windows® Uninstaller.

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EG-/EU-Konformitätserklärung
EC / EU Declaration of Conformity

Hersteller *Manufacturer*	**Sartorius Lab Instruments GmbH & Co. KG** **Weender Landstrasse 94 – 108, D-37075 Goettingen, Germany**

erklärt in alleiniger Verantwortung, dass das Betriebsmittel
declares under sole responsibility that the equipment

Geräteart *Device type*	**Farbmischwaage + Netzgerät** *Paint mixing scale + power supply*
Baureihe *Type series*	**PMA7501-Y, PMA7501-YE, PMA7501-Y00G, PMA7501-Y00GL, PMA7501-Y00U, PMA7501-Y00W + YPS04-Y..**

in der von uns in Verkehr gebrachten Ausführung mit den grundlegenden Anforderungen der folgenden Europäischen Richtlinien übereinstimmt und die anwendbaren Anforderungen der im Anhang 1 aufgelisteten harmonisierten Europäischen Normen erfüllt:
in the form as delivered complies with the essential requirements of the following European Directives and meets the applicable requirements of the harmonized European Standards listed in the Annex 1:

2004/108/EG *2004/108/EC*	Elektromagnetische Verträglichkeit *Electromagnetic compatibility*
2006/95/EG *2006/95/EC*	Elektrische Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen *Electrical equipment designed for use within certain voltage limits*
2011/65/EU *2011/65/EU*	Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten (RoHS) *Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)*
94/9/EG *94/9/EC*	Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen *Equipment and protective systems intended for use in potentially explosive atmospheres*

Jahreszahl der CE-Kennzeichenvergabe / *Year of the CE mark assignment:* **14**

Sartorius Lab Instruments GmbH & Co. KG
Goettingen, 2014-06-02

i.V. Dr. Baumfalk

Dr. Reinhard Baumfalk
Vice President R&D

i.V. Klausgrete

Dr. Dieter Klausgrete
Head of International Certification Management

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EG- und EU-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten.

This declaration certifies conformity with the above mentioned EC and EU Directives, but does not guarantee product attributes. Unauthorised product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.

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EU-Konformitätserklärung
EU Declaration of Conformity

Hersteller
Manufacturer

Sartorius Lab Instruments GmbH & Co. KG
37070 Goettingen, Germany

erklärt in alleiniger Verantwortung, dass das Betriebsmittel
declares under sole responsibility that the equipment

Geräteart
Device type

Netzgerät
Power supply

Modell
Model

YPS04-YEU, YPS04-YGB, YPS04-YUS, YPS04-YAU

in der von uns in Verkehr gebrachten Ausführung allen einschlägigen Bestimmungen der folgenden Europäischen Richtlinien - einschließlich deren zum Zeitpunkt der Erklärung geltenden Änderungen - entspricht und die anwendbaren Anforderungen folgender harmonisierter Europäischer Normen erfüllt:

in the form as delivered fulfils all the relevant provisions of the following European Directives - including any amendments valid at the time this declaration was signed - and meets the applicable requirements of the harmonized European Standards listed below:

2014/30/EU — Elektromagnetische Verträglichkeit
Electromagnetic compatibility
EN 61326-1:2013

2011/65/EU — Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten (RoHS)
Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
EN 50581:2012

2014/34/EU — Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen
Equipment and protective systems intended for use in potentially explosive atmospheres
EN 60079-0:2012, EN 60079-15:2010, EN 61010-1:2010

Kennzeichnung — II 3G Ex nC IIB T4
Marking

EG-Baumusterprüfbescheinigung Nummer — KEMA 09ATEX0121X
EC-Type Examination Certificate number

Jahreszahl der CE-Kennzeichenvergabe / *Year of the CE mark assignment:* **16**

Sartorius Lab Instruments GmbH & Co. KG
Goettingen, 2016-04-20

i.V. Dr. Reinhard Baumfalk
Vice President R&D

i.V. Dr. Dieter Klausgrete
Head of International Certification Management

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EU-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten.

This declaration certifies conformity with the above mentioned EU Directives, but does not guarantee product attributes. Unauthorised product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.

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EG-/EU-Konformitätserklärung
EC / EU Declaration of Conformity

Anhang 1 / *Annex 1*

Liste der angewendeten harmonisierten Europäischen Normen
List of the applied harmonized European Standards

2004/108/EG *2004/108/EC*	EN 61326-1:2013 Elektrische Mess-, Steuer-, Regel- und Laborgeräte - EMV- Anforderungen – Teil 1: Allgemeine Anforderungen *Electrical equipment for measurement, control and laboratory use - EMC requirements – Part 1: General requirements*
2006/95/EG *2006/95/EC*	EN 61010-1:2010 Sicherheitsbestimmungen für elektrische Mess-, Steuer-, Regel- und Laborgeräte – Teil 1: Allgemeine Anforderungen *Safety requirements for electrical equipment for measurement, control, and laboratory use – Part 1: General requirements*
2011/65/EU *2011/65/EU*	EN 50581:2012 Technische Dokumentation zur Beurteilung von Elektro- und Elektronikgeräten hinsichtlich der Beschränkung gefährlicher Stoffe *Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances*
94/9/EG *94/9/EC*	EN 60079-0:2012 Explosionsfähige Atmosphäre – Teil 0: Geräte - Allgemeine Anforderungen *Explosive atmospheres - Part 0: Equipment - General requirements* EN 60079-11:2012 Explosionsfähige Atmosphäre - Teil 11: Geräteschutz durch Eigensicherheit „i" *Explosive atmospheres – Part 11: Equipment protection by intrinsic safety „i"* EN 60079-15:2010 Explosionsfähige Atmosphäre - Teil 15: Geräteschutz durch Zündschutzart „n" *Explosive atmospheres – Part 15: Equipment protection by type of protection „n"*

Anhang 2 / *Annex 2*

Angaben zur Richtlinie 94/9/EG
Specifications regarding Directive 94/9/EC

PMA7501-Y....

Kennzeichnung *Marking*	II 3G Ex nA ic IIB T4 Gc	
Zertifizierung *Certification*	Baumusterprüfbescheinigung Nummer: *Type Examination Certificate number:*	KEMA 09ATEX0128X, Issue No. 2

YPS04-Y..

Kennzeichnung *Marking*	II 3G Ex nC IIB T4	
Zertifizierung *Certification*	Baumusterprüfbescheinigung Nummer: *Type Examination Certificate numb*	KEMA 09ATEX0121X, Issue No. 1

CERTIFICATE

Type Examination

(1)

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) Type Examination Certificate Number: **KEMA 09ATEX0128 X** Issue Number: **2**

(4) Equipment: **Electronic Weighing Unit, Type PMA7501.-Y.....**

(5) Manufacturer: **Sartorius Weighing Technology GmbH**

(6) Address: **Weender Landstr. 94-108, 37075 Goetingen, Germany**

(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report no. NL/KEM/ExTR09.0050/01.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2009 **EN 60079-15 : 2010** **EN 60079-11 : 2007**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design, examination and tests of the specified equipment and not to the manufacturing process and supply of this equipment.

(12) The marking of the equipment shall include the following:

II 3 G **Ex nA ic IIB T4 Gc**

This certificate is issued on 17 November 2011 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

R. Schuller
Certification Manager

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All testing, inspection, auditing and certification activities of the former KEMA Quality are an integral part of the DEKRA Certification Group

DEKRA Certification B.V. Utrechtseweg 310, 6812 AR Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 26 3 56 20 00 F +31 26 3 52 58 00 www.dekra-certification.com Registered Arnhem 09085396

DEKRA

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 09ATEX0128 X** Issue No. **2**

(15) **Description**

The electronic Weighing Unit Type PMA7501.-Y..... is an assembly of a weighing platform and a display/keyboard mounted on a pivot or remotely mounted.
The degree of protection is at least IP4X.

Ambient temperature range 0 °C to +40 °C.

Electrical data

Supply circuit (Socket):	U max = 30 Vdc, I max = 1 A
RS232 circuit (SUB-D socket):	U max = +/- 15 V
USB circuit:	U max = 6 V

Power Supply Type YPS04-Y.. (KEMA 09ATEX0121 X) may be applied for the supply of electronic Weighing Unit Type PMA7501.-Y..... .

Installation instructions

The instructions, provided by the manufacturer, shall be followed in detail to assure safe operation of the equipment.

(16) **Test Report**

No. NL/KEM/ExTR09.0050/01.

(17) **Special conditions for safe use**

The Weighing Unit shall be installed in such a way that it is protected against the entry of solid foreign objects or water capable of impairing the safety of the apparatus.

The Weighing Unit shall be installed in such a way that the risk for mechanical damage is low.

The Weighing Unit shall be installed in such a way that it can not be subjected to UV light.

A transient protection device shall be set at a level not exceeding 140 % of the peak rated voltage value of 85 V.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. NL/KEM/ExTR09.0050/01.

KEMA

(1) # TYPE EXAMINATION CERTIFICATE

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) Type Examination Certificate Number: **KEMA 09ATEX0121 X** Issue Number: **1**

(4) Equipment: **Power Supply, Type YPS04-Y..**

(5) Manufacturer: **Sartorius AG**

(6) Address: **Weender Landstraße 94-108, 37075 Göttingen, Germany**

(7) This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) KEMA Quality B.V. certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in KEMA test report no. NL/KEM/EXTR/09.0047/00.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2006 **EN 60079-15 : 2005**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This Type Examination Certificate relates only to the design, examination and tests of the specified equipment and not to the manufacturing process and supply of this equipment.

(12) The marking of the equipment shall include the following:

II 3 G Ex nC IIB T4

This certificate is issued on December 10, 2009 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.

C.G. van Es
Certification Manager

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PRODUCTS RvAC 001

KEMA Quality B.V. Utrechtseweg 310, 6812 AR Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 26 3 56 20 00 F +31 26 3 52 58 00 customer@kema.com www.kema.com Registered Arnhem 09085396

KEMA

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 09ATEX0121 X** Issue No. **1**

(15) **Description**

Power Supply, Type YPS04-Y.. serves for the supply of Weighing Units.

Ambient temperature range: 0 °C to +40 °C.

Electrical data

Mains Input: U = 100 ... 240 Vac ± 10 %
Power Output: U = 15,0 V ± 5 %; I max = 530 mA
(with a transient protection device set at a level not exceeding 40 % of the rated voltage)

Installation instructions

The instructions, provided by the manufacturer, shall be followed in detail to assure safe operation of the equipment.

(16) **Test Report**

KEMA no. NL/KEM/EXTR/09.0047/00.

(17) **Special conditions for safe use**

It has to be assured that the mains connection is installed in accordance with the requirements for category 3 equipment.

Electrostatic charges on the plastic enclosure shall be avoided.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in test report no. NL/KEM/EXTR/09.0047/00.

TÜV NORD

Zertifikat

Certificate

Registrier-Nr.
Registered No.

44 203 06 553419

Zeichen des Auftraggebers *Customer's reference*	**Auftragsdatum** *Date of order*	**Aktenzeichen** *File reference*	**Prüfbericht Nr.** *Test report no.*
	12.10.2006	**8000553419**	**06203553419**

Name und Anschrift des Auftraggebers — *Name and address of the customer*

Sartorius AG
Weender Landstraße 94-108
D-37075 Göttingen

Geprüft nach: — *Tested in accordance with*

DIN VDE 0100-482:2003

Beschreibung des Produktes — *Description of product*

Die elektronischen Waagen Typ PMA7501.-……. dürfen in feuergefährdeten Bereichen eingesetzt werden.

The electronic balances type PMA7501.-……. may be used in areas exposed to the risk of fire.

Bemerkung — *Remark*

Die besonderen Bedingungen aus der Betriebsanleitung müssen beachtet werden.

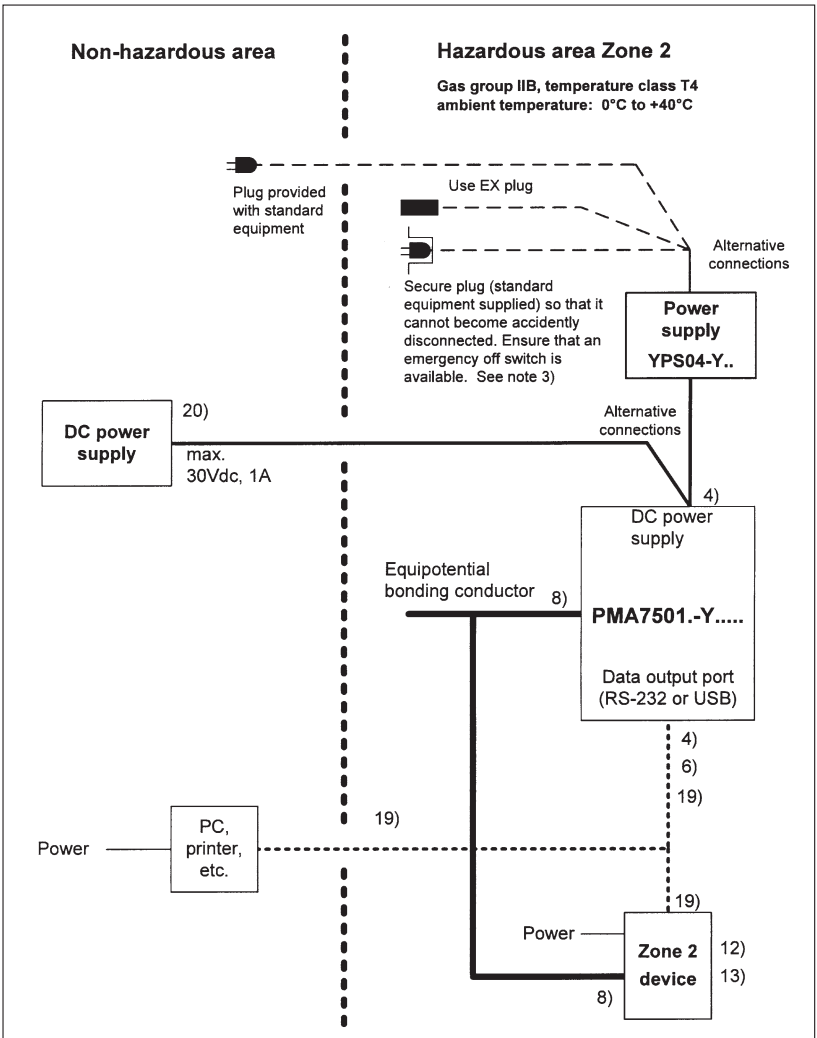
The special conditions from the operating instructions must be considered.

Dieses Zertifikat bescheinigt das Ergebnis der Prüfung an dem vorgestellten Prüfgegenstand. Eine allgemein gültige Aussage über die Qualität der Produkte aus der laufenden Fertigung kann hieraus nicht abgeleitet werden.
This certifies the result of the examination of the product sample submitted by the manufacturer. A general statement concerning the quality of the products from the series manufacture cannot be derived there from.

TÜV NORD CERT GmbH
Zertifizierungsstelle für Produktsicherheit
Certification body for product safety

Hannover, 15.12.2006

Geschäftsstelle Hannover, Am TÜV 1, 30519 Hannover, Fon +49 (0)511 986 1455, Fax +49 (0)511 986 1590



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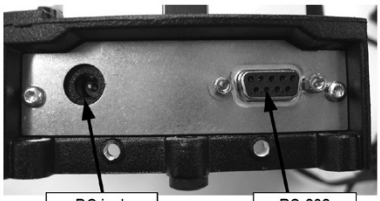

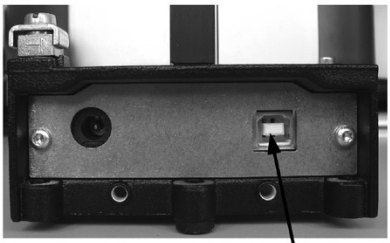

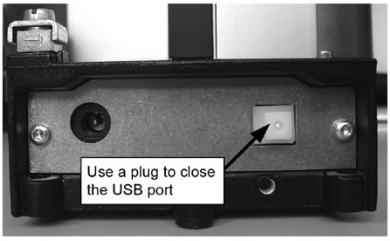

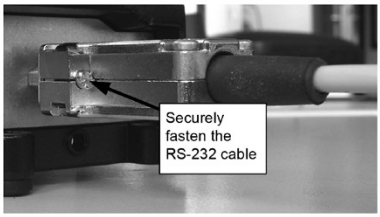

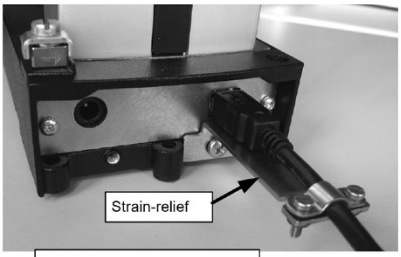

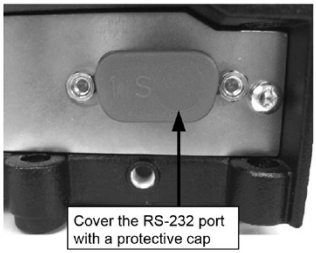

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	Dr. Klausgrete		Drawing No. **36941-751-16**	**Revision 00**

Safety Instructions

These safety instructions apply to the installation, operation, maintenance and repair of the equipment

1) Install the equipment in compliance with applicable laws, rules and regulations, ordinances and standards. In particular, be sure to conform to the European Standards EN 60079-14 (Electrical apparatus for use in potentially explosive gas atmospheres).
2) Be sure to follow the installation, operating, maintenance and servicing instructions given in the manuals supplied.
3) The PMA7501.-Y..... shall be installed In such a way that it is protected against the entry of solid foreign objects or water capable of impairing the safety of the apparatus. Reduce the risk of mechanical damage to a minimum. Connections not in use must be sealed by appropriate sealing caps (do not remove using pressure). Exposure to UV radiation is not allowed!
4) The external connecting cables must be installed in a protective tube and secured to prevent damage and stress caused by strain. The cable glands must be secured to prevent them from working loose.
5) Prior to opening the equipment, disconnect the power supply or make sure that there is no potentially explosive atmosphere or any other explosion hazard in the surrounding area! Never connect or disconnect cables while the power is on in a hazardous area!
6) Use the plates supplied to protect the USB connection from being pulled out. The RS232 connector must be attached securely by the screws. If the connections are not to be used, then seal them with the caps provided (IP40 protection rating).
7) If the equipment does not operate properly, unplug it immediately from line power (mains supply)!
8) All metal parts (housing, column, load plate, drive-on ramp, bench, etc.) must be electrically connected to the terminal for the equipotential bonding conductor (PA). The equipment operator is obligated to connect a lead with a gauge of at least 4 mm² (cross section) to the PA terminal located on the side of the housing. The low resistance of this connection to the PA busbar must be checked when the system is installed at the intended place of use. The shielding of the connecting cables may only be used for grounding when no impermissible difference in voltage is generated and, if necessary, the shielding is able to conduct the equipotential current.
9) Avoid generating static electricity. Use only a damp cloth to wipe down the equipment. The equipment operator shall be responsible for preventing any risks caused by static electricity.
10) Keep chemicals and other agents, which can corrode the housing seals and cable sheaths, away from the equipment. These agents include oil, grease, benzene, acetone and ozone. If you are not sure about the safety of a certain substance, please contact the manufacturer.
11) Use equipment only in the temperature ranges indicated. Avoid exposing the equipment to heat.
12) If you wish to use other category 3 equipment in a zone 2 hazardous area, be sure that it has the required group for gases and temperature class. The outputs must have Ex nA electrical circuits.
13) The equipment operator is responsible for any non-Sartorius cables used.
14) Check the EX approval marking (particularly the group for gases and temperature class) on all equipment in the hazardous area before operation to ensure that this category 3 EX-approved equipment is permitted to be operated in this area.
15) At reasonable intervals, have your equipment installation checked for proper functioning and safety by a trained and certified technician.
16) If your equipment needs to be repaired, use only genuine replacement parts supplied by the manufacturer!
17) Any tampering with the equipment by anyone, other than repair work done by authorized Sartorius service technicians, will result in the loss of EX conformity for zones 2 and and in the forfeiture of all claims under the manufacturer's warranty. Only authorized specialists may open the equipment.
18) Modifications, including those to be carried out by Sartorius employees, may be permitted only after the express written authorization has been obtained from Sartorius.
19) The data cables connected to the equipment are considered non-incendive Ex nA circuits. The connections are secured against accidental disconnection and may only be plugged in or disconnected when the power is switched completely off. Outputs not used must be safeguarded so that the IP40 protection rating is maintained.
20) The connected power supply shall have a SELV output and a transient protection device set at a level not exceeding 40% of the rated value. Observe the polarity when connecting the PMA7501-Y... !

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The information and figures contained in these instructions correspond to the version date specified below.
Sartorius reserves the right to make changes to the technology, features, specifications and design of the equipment without notice.
Masculine or feminine forms are used to facilitate legibility in these instructions and always simultaneously denote the other gender as well.

Last updated:
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