Operating instructions and installation information

METTLER TOLEDO MultiRange
ID7-Form [2000] **application software**

METTLER TOLEDO
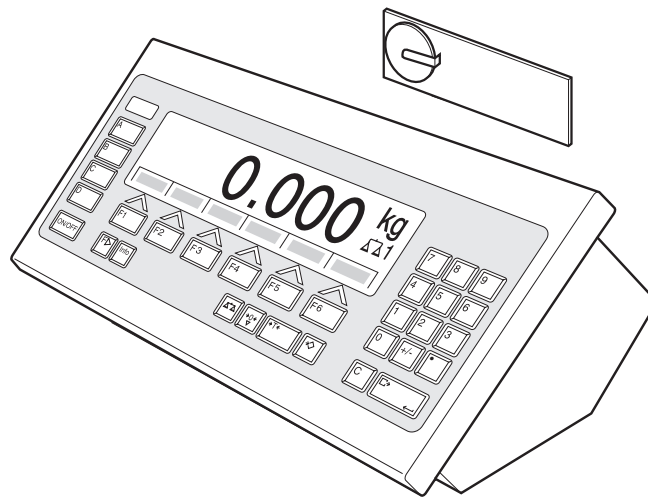
Contents

1   Introduction and assembly

1.1   Introduction

ID7-Form is an application software for the METTLER TOLEDO ID7-… weighing terminal. The functions of the ID7-Form can be used after replacing the memory module.

Documentation

The ID7-… weighing terminal is provided with operating instructions and installation information for the original configuration of the weighing terminal. Please see these operating instructions and installation information for basic information on working with the ID7-… weighing terminal.

These operating instructions and installation information contain additional information on installing and using the ID7-Form application software.

1.2   Safety precautions

1.2.1   Installation in explosion protected ID7xx-… weighing terminal

EXPLOSION HAZARD

The ID7xx-… weighing terminal may only be opened by METTLER TOLEDO service technicians.

➜ To install the ID7-Form application software, please contact METTLER TOLEDO Service.

1.2.2   Installing in ID7-… weighing terminal

▲ Only authorized personnel may open the weighing terminal and install the ID7-Form application software.

▲ Before opening the terminal, pull the power plug or switch off the power supply for terminals with a fixed connection.

1.3   Installing ID7-Form

1.3.1   Opening ID7-… weighing terminal

Desk unit

1. Unscrew the screws on the underside of the cover.

2. Lay down the cover toward the front. In doing so, make sure that the cables are not damaged.

Wall unit

1. Unscrew the screws on the underside of the cover and fold the cover toward the front. When doing so, make sure that the cables are not damaged.

2. Fold open the mounting plate.

Panel unit

1. Unscrew the 10 hex bolts on cut-out on the inside of the switch cabinet.

2. Remove the cover from the switch cabinet and fold toward the front. When doing so, make sure that the cables are not damaged.

3. Fold open the mounting plate.

1.3.2   Mounting ID7-Form
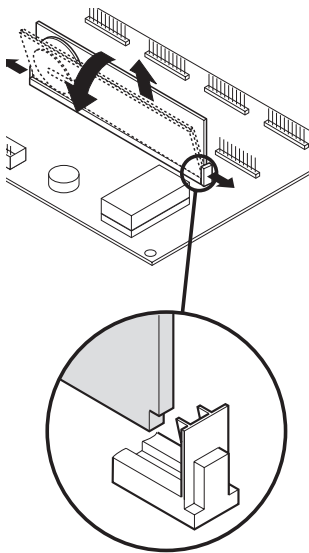
1. Bend the bracket of the memory module outward on both sides, tilt the memory module forward and remove.

2. Insert the ID7-Form memory module tilted slightly toward the front and move it into the vertical position until it engages. The empty space of the module must be on the bottom right.

1.3.3   Closing ID7-… weighing terminal

Closing desk unit

1. Lay device on cover and fix slightly in place with 3 screws.

2. Press unit into cover so that 3 engaging springs engage.

3. Tighten screws.

CAUTION

The IP68 protection type can only be guaranteed when the weighing terminal is closed again properly.

➜ The 3 engaging springs must be completely engaged.

➜ Make sure that the keypad cable is not pinched.

Closing wall unit

1. Fold in the mounting plate.

2. Position the cover and screw on again. When doing so, make sure that no cables are pinched.

Closing panel unit

1. Fold in the mounting plate and position the cover on the cut-out again.

2. Secure the cover on the switch cabinet from the inside with 10 screws. When doing so, make sure that no cables are pinched.

2   Formulation functions

The ID7-Form offers 4 different formulation applications, which you can select in the master mode:
FORMULATION, PHARMA FORMULATION, TOTALIZING and STORED FORMULATION.

2.1   FORMULATION application
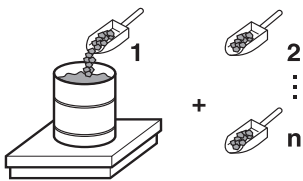
In this application, you can measure out several components into a container one after the other. Each recipe and each component can be provided with an identification.

Prerequisite

In the master mode, the FORMULATION application is selected.

Function keys   With the FORMULATION application the function keys are allocated as follows:

MAN	SUM	CONT	PLUS	–	–
Enter weight values manually	Display net sum and print out	Subtotal for current container	Add weight values	–	–

→ Press the relevant function key, in order to select the function.

Example   → Press the MAN key.
Then you can enter the known weight values manually via the keyboard.

When the function keys have a different allocation
→ Press the FUNCTION CHANGE key until the function keys allocation displayed above appears.

2.1.1   Formulation

1. Press CODE A key and enter the identification for the recipe.

2. Place the empty container on the weighing platform and tare.

3. Press CODE C key and enter the identification for the first component.

4. Add first component.
   The display indicates the net weight of the current component.

5. Press PLUS key.
   The weighing platform tares automatically and the display registers 0.000 kg.
   The current net sum in the container is determined and the component counter is increased by 1.

6. In order to add further components in the container, repeat steps 3 to 5.
   Max. 15 components per container are possible.

Change the container 7. If more than 15 components are filled into a container or the container is overfilled: Press CONT key and place a new container on the weighing platform. The container counter is increased by 1, the component counter is set back to zero for the new container and the tare weight is deleted.

End formulation 8. When fewer than 15 components have been dispensed into container, press CONT key.

9. Clear weighing platform.

10. Press SUM key.
The net sum is displayed and automatically printed out.

11. If the net sum is to be placed into temporary storage, press the ENTER key.

12. Press CLEAR key.
The net sum is deleted and the component counter and the container counter are reset.

2.1.2 Carry over the known weight value to the sum

1. Press MAN key.

2. Enter the weight value and confirm with ENTER.
The weight value is stored in the sum memory and the component counter is increased by 1.

Note
With the FUNCTION CHANGE key you can select the weight unit for entering known weight values.

2.1.3 Tolerance control with DeltaTrac
Using DeltaTrac in the application FILLING you can monitor on weighing in the compliance of the tolerances with the target weight, see chapter "Additional functions" in the operating instructions and installation information ID7... weighing terminal.
The weight value is only added to the sum when the weight value lies within the tolerance limits.

1. Preset the DeltaTrac target values for the current component.

2. Add the component.
If there is an addition beyond the tolerance limits, remove the container and fill again or delete the target value.

3. Press PLUS key.
The components are only carried over to the sum when they lie within the tolerance limits.

Note
With the FUNCTION CHANGE key you can select the weight unit for entering the DeltaTrac target values.

2.1.4 FORMULATION on multiple weighing platforms

Up to 3 weighing platforms can be connected to the ID7-Form, see chapter "Basic functions" in the operating instructions and installation information ID7… weighing terminal.

**Note for formulation on multiple weighing platforms**

→ Use a separate container on each weighing platform.

2.1.5 Recall information regarding the FORMULATION application

Using the key sequence INFO, FUNCTION key you can recall information regarding the FORMULATION application.

INFO, MAN	Display last entered weight value.
INFO, CONT	Display number and subtotal for the current container.
INFO, PLUS	Display the last weighed components.

2.2 PHARMA FORMULATION application
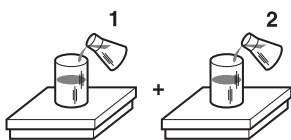
In this application, you can fill each component of a recipe in a separate container. Each recipe and each component can be individually provided with an identification.

Prerequisite

In master mode, the PHARMA FORMULATION application is selected.

Function keys With the PHARMA FORMULATION application the function keys are allocated as follows:

MANUAL	SUM	CONTAINER
Enter weight value manually	Display net sum and print out	Close container

→ Press the relevant function key, in order to choose the functions.

Example → Press the MANUAL key.
Then you can enter the known weight values manually via the keyboard.

If the function keys have a different allocation

→ Press the FUNCTION CHANGE key until the function keys allocation displayed above appears.

2.2.1 Pharma formulation

1. Press CODE A key and enter the identification for the recipe.

2. Place the conatiner on the weighing platform and tare.
   The container counter is increased by 1.

3. Press CODE C key and enter the identification of the first component.

4. Add the components.
   The display shows the net weight of the current component.

5. Press CONTAINER key.
   The tare weight of the container is deleted.

6. In order to add further components, repeat steps 2 to 5.

End pharma formulation

7. Press SUM key.
   The net sum is displayed and automatically printed out.

8. If the net sum is to be placed into temporary storage, press the ENTER key.

9. Press CLEAR key.
   The net sum is deleted, and the component and container counters are reset.

2.2.2 Carry over the weight values to the sum

1. Press MANUAL key.

2. Enter the weight value and confirm with ENTER.
   The weight value is stored in the sum memory and the item counter is increased by 1.

Note
With the FUNCTION CHANGE key you can select the weight unit for entering known weight values.

2.2.3 Tolerance control with DeltaTrac

With DeltaTrac in the application FILLING you can monitor on weighing in the compliance of the tolerances with a target value, see chapter "Additional functions" in the operating instructions and installation information ID7... weighing terminal.
The weight value is only added to the sum when the weight value lies within the tolerance limits. Possible settings in the master mode:

- FILL – A target value applicable to all fillings.

- COMPOUNDING – A target value for each container or each component.

Fill

1. Preset DeltaTrac target values.

2. Add component.
   If there is an addition beyond the tolerance limits, remove the container and fill again or delete the target value.

3. Press CONTAINER key.
   The components are only then carried over to the sum if they lie within the tolerance limits.

4. For the additional components, repeat steps 2 and 3.
   The DeltaTrac target values remain stored until new values are entered or the values are deleted.

Compounding

1. Preset the DeltaTrac target values for the components.

2. Add component.
   If there is an addition beyond the tolerance limits, remove the container and fill again or delete the target value.

3. Press CONTAINER key.
   The component is only then carried over to the sum if it lies within the tolerance limits.

4. For additional components, repeat steps 1 to 3.
   The DeltaTrac target values are deleted after each component.

Note
With the FUNCTION CHANGE key you can select the weight unit for entering the DeltaTrac target values.

2.2.4 PHARMA FORMULATION on multiple weighing platforms
Up to 3 weighing platforms can be connected to the ID7-Form, see chapter "Basic functions" in the operating instructions and installation information ID7… weighing terminal.

Note formulation on multiple weighing platforms

➜ Use a separate container on each weighing platform.

2.2.5 Recall information regarding the PHARMA FORMULATION application
Using the key sequence INFO, FUNCTION key you can recall information regarding the PHARMA FORMULATION application.

INFO, MANUAL   Display the last entered weight value.
INFO, CONTAINER   Display the sum for the current container.

2.3 **TOTALIZING application**
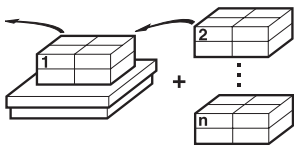
In this application, you can determine the total weight of several items. Each sum and each item can be provided with an identification.

Prerequisite

In the master mode the TOTALIZING application is selected.

Function keys   With the TOTALIZING application the function keys are allocated as follows:

MANUAL	SUM	PLUS
Enter weight values manually	Display gross sum and print out	Add weight values

→ Press the relevant function key in order to select the function.

Example   → Press the MANUAL key.
Then you can enter the weight values manually via the keyboard.

If the function keys have a different allocation

→ Press the FUNCTION CHANGE key until the function keys allocation displayed above appears.

2.3.1 **Totalizing**

1. Press CODE A key and enter the identification for the sum.

2. Press CODE C key and enter the identification for the first item.

3. Put the first item on.

4. Press PLUS key.
   The item counter is increased by 1 and displayed with the gross sum.

5. Place the additional items on and repeat steps 2 to 4.

End totalizing 6. Press SUM key.
   The gross sum is displayed and printed out automatically.

7. In order to place the gross sum into temporay storage, press the ENTER key.

8. In order to delete the gross sum, press the CLEAR key.
   The item counter is reset.

2.3.2 **Transfer the weight value to the sum**

1. Press MANUAL key.

2. Enter the weight value and confirm with ENTER.
   The weight value is stored in the sum memory and the item counter is increased by 1.

Note

With the FUNCTION CHANGE key you can select the weight unit for entering known weight values.

2.3.3   **TOTALIZING on multiple weighing platforms**

Up to 3 weighing platforms can be connected to the ID7-Form, see chapter "Basic functions" in the operating insructions and installation information ID7… weighing terminal.

Changing the weighing platform is always possible when using the TOTALIZING application.

2.3.4   **Recall information regarding the TOTALIZING application**

Using the key sequence INFO, FUNCTION key you can recall information regarding the TOTALIZING application.

INFO, MANUAL   Display the last entered weight value.
INFO, PLUS   Display the number of items weighed until now.

Formula 100

Formula 3

Formula 2

Formula 1

2.4   STORED FORMULATION application
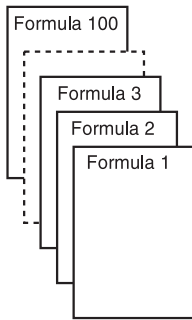
In this application you can call up the stored formulas and use them as the basis for the new formulation. A maximum of 100 formulas can be stored.

Depending on the settings in the master mode,

- you can fill several components into a container consecutively or fill each component of a formula into a separate container, see section 2.4.1 and 2.4.2,
- the target weight of the stored formula is adopted or you are asked to enter a target weight,
- an automatic target value correction is offered for a component that was filled outside the tolerance, see section 2.4.3,
- you can monitor the adherence of the tolerances with the DELTATRAC when weighing in to a target weight.

Prerequisite
The STORED FORMULATION application is set in the master mode.

Function keys   With the STORED FORMULATION application the function keys have the following assignment at the start:

START STORED FORMULATION
Starts the application

➜ Press any function key to start the application.

If the function keys have a different assignment

➜ Press the CHANGE FUNCTION key repeatedly until the function key assignment shown above appears.

Assignment of the function keys when working through stored formulas
The assignment of the function keys adjusts to the operating sequence.

Select formula

← F	F →	SELECT	← C	C →	CANCEL
View formulas: Descending	View formulas: Ascending	Select formula	View components of formula: Descending	View components of formula: Ascending	Cancel application

Select component

← C	C →	SELECT	–	SUM	CANCEL
View components: Descending	View components: Ascending	Select component	–	Shows the accumulated sum for a formula	Cancel application

Weigh in component

–	–	PLUS	MANUAL	–	CANCEL
–	–	Add weight values	Enter weight values manually	–	Return to selection of component

Finish formula

FORMULA	COMPONENT
Call up the actual value for the formula and the deviation from the target weight	Call up the actual value for the components and the deviation from the target weight

Call up information on selected formula

COMPONENT	K TOTAL	R TOTAL
Call up actual weights of components	Call up accumulated sum of the components	Call up accumulated sum of the formula

Messages   Depending on the setting in the master mode, messages with the ID MES: appear during formulation … on the display.

➜ To confirm the message and continue with the formulation, press the ENTER key.

2.4.1 Fill all components into a common container

Prerequisite

VERTICAL FILLING is set in the master mode.

Select formula

1. Start the application with the START STORED FORMULATION key.

2. Press CODE C and enter identification.

3. Place container on the weighing platform and tare.

4. Select formula with <-F and F-> keys and confirm with SELECT.
   – or –
   Enter the number of the stored formula (1 … 100) with the number block and confirm with SELECT.

5. When TARGET WEIGHING ON is set in the master mode, enter the target weight of the formula and confirm with the ENTER key.

The target value and the name of the formula are printed.

Select and dispense component

1. Select component with <-C and C-> keys and confirm with SELECT.

2. Fill component.

3. Press PLUS key.
   Target value, tolerance and actual value of the component are printed.

4. To fill the remaining components into the container, repeat steps 1 to 3.

Notes

- If the weight of a component lies within the tolerance, the value for the deviation is shown in brackets < … >.

- Components with the unit Pcs do not contribute to the weight sum of the formula.

Finish formula

1. When the message CLEAR SCALE appears, remove weighing sample from the weighing platform.
   The name, actual weight and deviation from the target weight for the formula are printed.

Display information   2. Display the actual weight and deviation from the target weight for the formula with the FORMULA key.

3. Display the actual weight and deviation from the target weight for the first component with the COMPONENT key.

4. Press the COMPONENT key again for each additional component.

End formula   5. End formulation process with the CLEAR key; the formula selection appears again.

2.4.2 Fill each component into separate container

Prerequisite

BATCH FILLING is set in the master mode.

Select formula

1. Start the application with the START STORED FORMULATION key.

2. Press CODE C and enter identification.

3. Select formula with <-F and F-> keys and confirm with SELECT.
   – or –
   Enter the number of the stored formula (1 … 100) with the number block and confirm with SELECT.

4. When TARGET WEIGHING ON is set in the master mode, enter the target weight of the formula and confirm with the ENTER key.

The target value and the name of the formula are printed.

Select and dispense component

1. Select component with <-C and C-> keys and confirm with SELECT.

2. Place container on the weighing platform and press ENTER.
   The container is automatically tared.

3. Fill component.

4. Press PLUS key.
   Target value, tolerance and actual value of the component are printed.

5. Remove container from weighing platform.

6. To fill the remaining components, repeat steps 1 to 5.

Notes

- If the weight of a component lies within the tolerance, the value for the deviation is shown in brackets < … >.

- Components with the unit Pcs do not contribute to the weight sum of the formula.

Finish formula

1. When the message CLEAR SCALE appears, remove weighing sample from the weighing platform. The name, actual weight and deviation from the target weight for the formula are printed.

Display information

2. Display the actual weight and deviation from the target weight for the selected component with the COMPONENT key.

3. Display the actual weight and deviation from the target weight for the formula with the FORMULA key.

4. Press the COMPONENT key again for each additional component.

End formula

5. End formulation process with the CLEAR key, the formula selection appears again.

2.4.3 Correct target value

When a component has been filled above tolerance, all remaining components of the formula can be adjusted accordingly with the target value correction.

Prerequisite

RESCALING ON is selected in the master mode and the dispensed component has exceeded the upper tolerance by a maximum of 50 %.

➔ When the message RESCALING ? appears, press the ENTER key. This automatically adjusts the target values of the remaining components.

Notes

- If the actual values of components already worked through lie outside the new tolerance, you will be requested to redispense or reenter these components manually.

- A rescaling is only possible once during a formulation process.

- If after rescaling the newly rounded target value for a component with the unit Pcs lies outside the tolerance, this will result in cancelling.

- With a component that has to be redispensed, a lower and upper limit will be displayed and printed in place of the tolerance.

2.4.4 Accept known weight value for the formula

1. Press MANUAL key.

2. Enter weight value and confirm with ENTER.
   The weight value is stored in the formula memory and the component counter is increased by 1.

Note

With the CHANGE FUNCTION key the weight unit for entering known weight values can be selected.

2.4.5 Enter known pieces

1. Press MANUAL key.

2. Enter pieces and confirm with ENTER.
   The component counter is increased by 1. The weight of the formula remains unchanged.

2.4.6 Display, save or delete accumulated sum for current formula

1. Press SUM key.

2. To save the sum and return to the formula, press the SAVE function key.
   – or –
   To clear the accumulated sum and return to the formula, press the CLEAR function key.

2.4.7 Formulation of STORED FORMULATION on multiple weighing platforms

Up to 3 weighing platforms can be connected to the ID7-Form, see chapter "Basic functions" in the operating instructions and installation information ID7… weighing terminal.

Note for formulation of saved formulas on multiple weighing platforms

→ Use a separate container on each weighing platform.

2.4.8 Display information on the STORED FORMULATION application

With the following key combinations you can display information on the selected formula:

INFO, COMPONENT	Display actual weights of components already dispensed for the current formula.
	Display additional components with the ENTER key.
INFO, C TOTAL	Display the accumulated sum of the components over all dispensing processes of the current formula up until now.
	Display additional components with the ENTER key.
INFO, R TOTAL	Display the accumulated sum over all dispensing processes of the current formula up until now.

Notes

• No information can be displayed during the dispensing process.

• C TOTAL and R TOTAL are updated after completion of a dispensing process.

3 Settings in the master mode

3.1 PAC master mode block

3.1.1 Overview of the PAC master mode block
In this block, the following settings are possible:

```
APPLICATION ────── FORMULATION │ PHARMA      │ TOTALIZING │ STORED
                                │ FORMULATION │            │ FORMULATION

ITEM COUNTER ····· START VALUE │ STOP VALUE

UNIT MAN. INPUT ── UNIT │ FACTOR

DETAILED ········· DETAILED     │ DETAILED
DISPLAY            DISPLAY ON   │ DISPLAY OFF

SUBTRACTIVE ······ SUBTRACTIVE  │ SUBTRACTIVE
WEIGHING          WEIGHING ON   │ WEIGHING OFF

RESET PAC
```
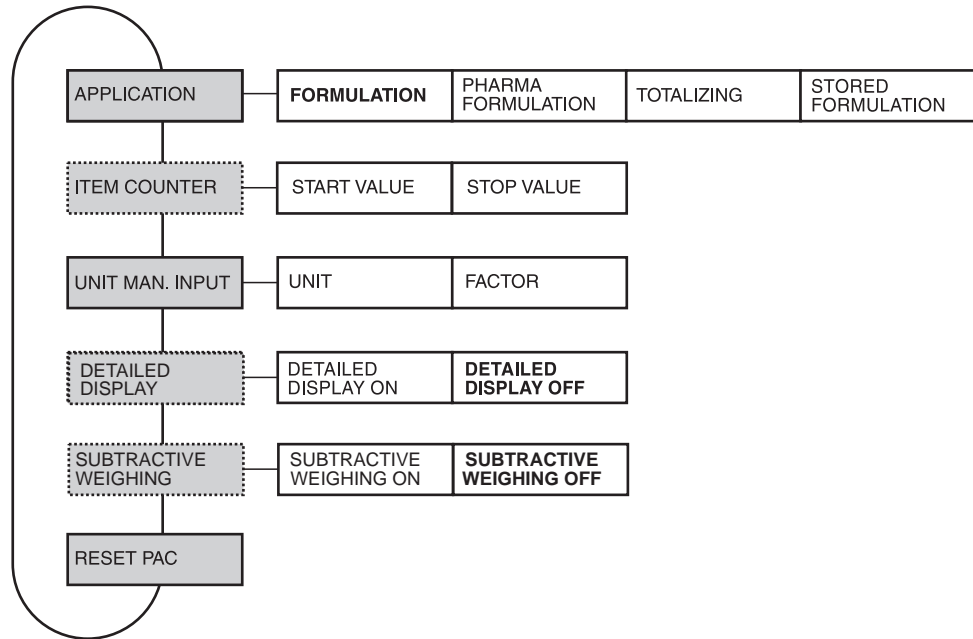
Legend
- Blocks on a **grey** background are described extensively in the following.
- Factory settings are printed in **bold** type.
- Blocks that appear only under specific conditions are **dotted**.

3.1.2 Settings in the PAC master mode block

APPLICATION	Select application
FORMULATION	Fill the recipe components one after the other into the container.
PHARMA FORMULATION	Fill the recipe components one after the other into separate containers. Possible settings: • FILL – Fill all components to the same target value. • COMPOUNDING – Fill each component to a different target value.
TOTALIZING	Totalize several items.

APPLICATION	Select application
STORED FORMULATION	Store formulas and use as basis for the new formulation. A maximum of 100 formulas with a maximum of 15 components each can be stored.
EDIT FORMULAS	Entry mask for creating formulas, see section 3.1.3 and 3.1.4.
PRINT FORMULA	Printout of formulas using GA46 printer. • FORMULA START… – Enter the number of the first formula to be printed • FORMULA END… – Enter the number of the last formula to be printed
OPERATING MODE	Dispensing of the components in a common or a separate container: • VERTICAL FILLING – Fill all components into a common container • BATCH FILLING – Fill each component into a separate container
TARGET WEIGHING	Adjust formula target weight: • ON – The formula target weight can be adjusted before each new formulation process • OFF – The stored formula target weight is accepted as the formula target weight
RESCALING	Correct component target value following incorrect dispensing: • ON – If the actual value exceeds the upper tolerance by less than 50 % , a rescaling can be carried out by the operator. The target values and tolerances will be corrected by the same percentage for the remaining components. If the actual value of components already filled lies outside their new tolerance limits, the operator will be asked to redispense these components. • OFF – The actual value is only accepted when it lies within the tolerance.
DELTATRAC	Possible settings: • ON – During weighing in the adherence to the tolerances is monitored. • OFF – Only the weight value is shown in the display.
CLEAR ALL FORMULAE	All stored formulas are cleared.
MESSAGES	Up to 5 messages can be assigned to each formula – one to each component. A total of 500 messages with a maximum of 24 characters can be stored. • EDIT MESSAGES Edit messages, see section 3.1.5 • MESSAGES ON/OFF Switch messages on/off centrally • CLEAR MESSAGES Clear all stored messages

ITEM COUNTER	Set the item counter with the application TOTALIZING
START VALUE	Possible values: 1 … 9999 (factory setting: 1)
STOP VALUE	Possible values: 1 … 9999 (factory setting: 9999)

UNIT MANUAL ENTRY	Select preferred unit for weight values, which are entered with the MANUAL key
UNIT	Possible units: g, kg, lb, ozt, dwt, oz, Stk, Pcs, neutral unit Factory setting: kg
FACTOR	Enter the conversion factor for the neutral unit. **Example:** For determining the weight of liquids, enter the density of the liquid as the factor. In weighing operation, enter the volume of the liquid, the weight of the liquid is displayed.

DETAILED DISPLAY	Switch on/off additional info line in display
	If DETAILED DISPLAY ON is set, an additional line for info appears in the display, e. g. "Item: 2/9999" For FORMULATION, PHARMA FORMULATION und TOTALIZING only. Factory setting: DETAILED DISPLAY OFF.

SUBTRACTIVE WEIGHING	Totalising with subtractive weighing
	If SUBTRACTIVE WEIGHING ON is selected, totalising can also occur with subtractive weighing. For the TOTALISING application only. Factory setting: SUBTRACTIVE WEIGHING OFF.

RESET PAC	Reset all functions to the factory settings
	APPLICATION Formulation ITEM COUNTER Start value = 1, final value = 9999 UNIT MANUAL ENTRY kg DETAILED DISPLAY Off SUBTRACTIVE WEIGHING Off OPERATING MODE Vertical filling TARGET WEIGHING Off RESCALING On DELTATRAC Off MESSAGES On

3.1.3   Edit formulas

Formula parameters   A formula has the following parameters (example):

```
R001: COLA                                          MAX: 100

MES: 001   002   003   000   000

COMPONENT: 01/03 (WATER)


```

R001: COLA	Formula number (001) and name
MAX: 100	Note that a maximum of 100 formulas can be stored
MES: 001 002 003 000 000	Numbers of the messages that are displayed in this sequence after this formula is selected. 000 means that no message is displayed.
COMPONENT: 01/03 (…)	Component number (01), Number of all components of the formula (03) and name of the component (water)

Function keys   The function keys are assigned as follows:

<->	<	>	F▶	**ADD**	↑
Select parameters	Display previous entry	Display next entry	Select function of function key F5: ADD, INS etc.	ADD INS DEL EDIT	Return to next highest level; Settings are accepted as displayed

ADD	Adds a new component after the last component.
INSERT	Adds a new component before the displayed component.
EDIT	Changes to EDIT mode for selected parameters. The parameter can be edited, see 3.1.4.
CLEAR	Clears the displayed component.

3.1.4   Edit components

Component parameters   A component has the following parameters (example):

ROO1: COLA	MAX: 15
KO3: WATER	MES: O12
WEIGHT : 1.5 KG	
TOLERANCE : 0.05 KG	

ROO1: COLA	Formula number (OO1) and name
MAX: 15	Note that a maximum of 15 components are possible per formula
KO3: WATER	Component number (O3) and name of component
MES: O12	Number of message displayed when dispensing this component
WEIGHT	Target weight of the component. With the change function key you can change the unit during the entry. The tolerance unit adjusts automatically.
TOLERANCE	Tolerance of the component

Function keys   The function keys are assigned as follows:

<->				**EDIT**	↑
Select parameters				Configure selected parameter	Return to next highest level; Settings are accepted as displayed

3.1.5   Edit messages

Message parameters   A message has the following parameters (example):

```
MESSAGE: 012                                             MAX: 500


MES: CONTAINER RED


```

MESSAGE: 012	Message number (012)
MAX: 500	Note that a maximum of 500 messages can be stored
CONTAINER RED	Contents of the message (maximum of 24 characters)

Function keys   The function keys are assigned as follows:

<->	<	>	F▶	ADD	↑
Select parameters	Display previous entry	Display next entry	Select function of function key F5: ADD, EDIT etc.	EDIT SEARCH GO LOCK UNLOCK	Return to next highest level; Settings are accepted as displayed

ADD	Creates another message
EDIT	Switches into the EDIT mode; the contents of the message can be changed
SEARCH	Searches for the first message that contains the character string to be entered. The search is carried out in ascending order from the displayed message to the message with the number 500.
GO	Searches for a message based on the message number
LOCK	Activates the write protection for this message
UNLOCK	Deactivates the write protection for this message

3.1.6   Example: Creating new formula

Create Formula No. 5 "Fanta".

Entering formula number and name

1. Select Formula No. 5 (R005) with the key < or >.
2. Press the EDIT key and enter the name "Fanta".

Configuring messages

After displaying the formula, up to 5 messages can be displayed.

3. Change to the parameter MLD with the key <->.
4. Press the EDIT key and enter the number of the first message.
5. Change to the next message with the key <->.
6. Press the EDIT key and enter the number of the next message.
7. Repeat steps 5 and 6 for additional messages.

Defining components

Component name

8. Change to the parameter Component with the key <->.
9. Press the ADD key; the input mask for the components appears.
10. Press the EDIT key and enter the component name, e.g. Sugar.

Message for this component

11. Change to the parameter MLD with the key <->.
12. Press the EDIT key and enter the number of the message that is to be displayed when dosing this component.

Weight and tolerance

13. Change to the parameter WEIGHT with the key <->.
14. Press the EDIT key and enter the target value of the component.
15. Change to the parameter TOLERANCE with the key <->.
16. Press the EDIT key and enter the tolerance of the component.

Selecting next component

17. Change to the formula mask with the key ↑.
18. Repeat the steps 9 to 16 for the next component.

Closing formula

19. Press the key ↑ in the Formula mask.

4   Application blocks

In the following description, the application blocks are shown in the syntax for the MMR command set. When used with the SICS command set, please observe the SICS conventions, see Operating instructions and installation information for ID7-… weighing terminal.

4.1   PAC application blocks

No.	Content	Format	
301	Pac version	Response:	`A B _ I D / FormPac _ V x . x x`
302	Program number	Response:	`A B _ I P 7 2 - 0 - 0 x x x _`
310	Counter	Response: Comment:	`A B _ Number_4` Application FORMULATION, PHARMA FORMULATION: Component counter Application TOTALIZING: Item counter
311	Container counter	Response: Comment:	`A B _ Number_4` only with the application FORMULATION, PHARMA FORMULATION
312	Component counter current container	Response: Comment:	`A B _ Number_4` only with the application FORMULATION
313	Sum net weight	Response:	`A B _ Weight value _ Unit`
314	Sum gross weight	Response: Comment:	`A B _ Weight value _ Unit` only with the application TOTALIZING
315	Manual entry	Response:	`A B _ Weight value _ Unit`
316	Unit manual entry	Response: Write:	`A B _ Unit` `A W 3 1 6 _ Unit`

317	Start value item counter	Response:
		Write:
		Comment:
			`A B _ Number_4`
			`A W 3 1 7 _ Number_4`
			only with the application TOTALIZING

318 …
321
	Identification data Code A … Code D	Response:
		Write:
		Comment:
			`A B _ Name (text_20) _ _ Identification (text_20)`
			`A W 3 x x _ Name (text_20) $ $ Identification (text_20)`
			xx = 18 … 21;
			the blocks 318 … 321 contain the same information as blocks 094 … 097.

322	Sum net weight current container	Response: Comment:	`A B _ Weight value _ Unit` only with the application FORMULATION
323	Net weight last start weight	Response:	`A B _ Weight value _ Unit`

No.	Content	Format
324 … 338	Net weight component 1 …15	Response: `A¸B` `_` `Identification (text_20)` `_¸_` `Weight value` `_` `Unit` Comment: only with the application FORMULATION
339	Tare weight current container	Response: `A¸B` `_` `Weight value` `_` `Unit` Comment: only with the application FORMULATION, PHARMA FORMULATION
340	Stop value item counter	Response: `A¸B` `_` `Number_4` Write: `A¸W¸3¸4¸0` `_` `Number_4` Comment: only with the application TOTALIZING
341	Conversion factor for the neutral unit with manual entry	Response: `A¸B` `_` `Weight value` `_` `Unit` Write: `A¸W¸3¸4¸1` `_` `Weight value` `_` `Unit`
342	Gross weight last totalizing procedure	Response: `A¸B` `_` `Weight value` `_` `Unit`
343	Tare weight last totalizing procedure	Response: `A¸B` `_` `Weight value` `_` `Unit` Write: `A¸W¸3¸4¸3` `_` `Weight value` `_` `Unit`
344_001 … 344_500	Messages, write protection	Response: `A¸B` `_` `Contents (Text_24)` `_` `Write protection (Number_1)` Write: `A¸W¸3¸4¸4` `_` `x¸x¸x` `_` `Contents (Text_24)` `$¸$` `Write protection (Number_1)` Note: Only for the application STORED FORMULATION 0: Unlock, no write protection (factory setting) 1: Lock, with write protection xxx = 001 … 500
345	Target value, current formula	Response: `A¸B` `_` `Formula No. (Number_3)` `_` `Name (Text_20)` `_¸_` `Target weight (weight value)` `_` `Unit` `_¸_` `Tolerance (weight value)` `_` `Unit` `_¸_` `No. of comp. (Number_2)` `_` `Flag (Number_1)` Write: `A¸W¸3¸4¸5` `_` `Formula No. (Number_3)` `$¸$` `Target weight (weight value)` `_` `Unit` Note: Only for the application STORED FORMULATION The target weight can be changed by the operator when TARGET WEIGHING ON is selected in the master mode. The target weight can only be described while the formula is available for selection. Formula No.: 001 … 100 No. of components: 01 … 15 Flag: 0: Target values as stored 1: Target values corrected

No.	Content	Format

346	Actual values, current component	Response: `A͵B｜_｜Component No. (Number_2)｜_｜Name (Text_20)｜_͵_｜`
		`Weight (weight value)｜_｜Unit｜_͵_｜`
		`Deviation_1 (weight value)｜_｜Unit｜_͵_｜`
		`Deviation_2 (weight value)｜_｜Unit｜_͵_｜`
		`Message No. (Number_3)｜`
		Note: Only for the application STORED FORMULATION
		Deviation_2 is not determined until after rescaling.
		The target weight can only be described while the component is available for selection.
		Component No.: 01 … 15
		Message No.: 001 … 500

347	Status, Components 1…15, current formula	Response: `A͵B｜_｜Status｜` Status=xxxxxxxxxxxxxxx (15 places) Note: Only for the application STORED FORMULATION Status: x=0 Component already filled x=1 Component not yet filled

348 … 362	Current target values, Components 1…15, current formula	Response: `A͵B｜_｜Component No. (Number_2)｜_｜Name (Text_20)｜_͵_｜`
		`Target weight (weight value)｜_｜Unit｜_͵_｜`
		`Tolerance (weight value)｜_｜Unit｜_͵_｜`
		`Message No. (Number_3)｜`
		Note: Only for the application STORED FORMULATION
		Component No.: 01 … 15
		Message No.: 001 … 500

363_001 … 363_100	Status, Formulas 1…100	Response: `A͵B｜_｜Status (Number_1)｜` Write: `A͵W｜3͵6͵3͵_͵x͵x͵x｜_｜Status (Number_1)｜` Note: Only for the application STORED FORMULATION xxx = 001 … 100 Status: 0: Formula does not exist 1: Formula stored 2: Formula is being edited 3: Formula is being worked through

No.	Content	Format	
364_001 ... 364_100	Formulas 1...100	Response:	`A,B _` Name (Text_20) `_,_` Target weight (weight value) `_` Unit `_,_` Tolerance (weight value) `_` Unit `_,_` No. Message_1 (Number_3) `_,_` No. Message_2 (Number_3) `_,_` No. Message_3 (Number_3) `_,_` No. Message_4 (Number_3) `_,_` No. Message_5 (Number_3)
		Write:	`A,W,3,6,4,_,x,x,x,_` Name (Text_20) `$,$,$,$,$,$` No. Message_1 (Number_3) `$,$` No. Message_2 (Number_3) `$,$` No. Message_3 (Number_3) `$,$` No. Message_4 (Number_3) `$,$` No. Message_5 (Number_3)
		Note:	Only for the application STORED FORMULATION xxx = 001 ... 100 Writing is only possible when the formula has been set to Status = 2, see Block 363 `Target weight` and `Tolerance` are written by the system as soon as Status=2 is ended, see Block 363
365_001 ... 365_100 to 379_001 ... 379_100	Components 1...15 of the formulas 1...100	Response:	`A,B _` Name (Text_20) `_,_` Target weight (weight value) `_` Unit `_,_` Tolerance (weight value) `_` Unit `_,_` Message Number (Number_3)
		Write:	`A,W,3,x,x,_,y,y,y,_` Name (Text_20) `$,$` Target weight (weight value) `_` Unit `$,$` Tolerance (weight value) `_` Unit `$,$` Message No. (Number_3)
		Note:	Only for the application STORED FORMULATION xx = 65 ... 79 Components 1 to 15 yyy = 001 ... 100 Formulas 1 to 100 Writing is only possible when the formula has been set to Status = 2, see Block 363
380 ... 394	Accumulated sum, components 1...15, current formula	Response: Note:	`A,B _` accumulated sum (weight value) `_` Unit Only for the application STORED FORMULATION
395	Accumulated sum, current formula	Response: Note:	`A,B _` Number of cycles (Number_4) `_,_` Accumulated sum (weight value) `_` Unit `_,_` Deviation (weight value) `_` Unit Only for the application STORED FORMULATION
396	Total weight, current formula	Response: Note:	`A,B _` Total weight (weight value) `_` Unit `_,_` Deviation (weight value) `_` Unit Only for the application STORED FORMULATION

5 What to do if …?

Error / Display	Possible causes	Remedy
OVERFLOW SUM GROSS OVERFLOW SUM NET	• Capacity of buffer for gross sum or for net sum exceeded	➜ Delete sum and form sub-sum
OVERFLOW CONTAINER	• Capacity of buffer for container counter exceeded	➜ Reset counter by deleting sum ➜ Suitably divide sum or recipe
OVERFLOW ITEMCOUNTER	• Item counter or component counter has reached stop value	➜ Reset counter by deleting sum ➜ Select suitable start and stop value
OVERFLOW MAN. INPUT	• Manual entry would exceed capacity of sum buffer	➜ Check value of manual entry ➜ Check value of FACTOR FOR NEUTRAL UNIT
WEIGHT TOO LOW	• Totalizing or formulation with weight which is too low	➜ Place item on platform or fill component; watch 10 d weight threshold.
NEGATIVE COMPONENT	• Current component negative	➜ Place component removed last on scale again until second display is positive
NO VALUE	• Manual entry: No value or zero entered	➜ Enter permissible value
CONT. NOT FINISHED	• Sum key pressed without having formed container sum for all scales used beforehand	➜ Form all container sums
CLEAR SUM	• Sum not cleared	➜ Clear sum

6   Technical data

Formulation functions	
Sum memory	Up to 8 places including decimal point
Manual entry memory	Up to 6 places including decimal point
Item counter	Up to 9,999 with freely selectable start and stop value, only for TOTALIZING application
Component counter	Up to 9,999, only for FORMULATION and PHARMA FORMULATION applications
Container counter	Up to 9,999, only for FORMULATION and PHARMA FORMULATION applications
Formula memory	A maximum of 100 formulas with a maximum of 15 components per formula, only with STORED FORMULATION application
Target weighing	The stored formula target value can be adjusted before the start of formulation, only for STORED FORMULATION application
Rescaling	If a component has been dispensed over tolerance, the remaining components can be recalculated for the higher formula weight, only for STORED FORMULATION application
Messages	A maximum of 500 messages that can be assigned to components and formulas, only for STORED FORMULATION application

7 Index

22004140D