

Series 320 XB / XT / XR
Series 460 / 490 IS

Precisa
■ The Balance of Quality ■

Smartbox FPVO
Short description

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1. General

The smartbox-FPVO program offers several possibilities to determine the filling quantity of solid and liquid goods in accordance with FPVO (Finished Packaging Regulations).

Article numbers, product names, reference densities, tare weights etc. can be stored in a permanent memory and later be activated as required.

In case of liquid goods the density can be entered additionally, then the output follows in ml.

The automatic capturing of measuring-values can be activated at any time (the values will then be recorded on standstill of the balance).

2. Scope of delivery

Standard-configuration : Balance with smartbox FPVO (BUS) and printer or PC (CH1)

Optional : Barcode-scanner (CH2), barcode-printer, signallamp (BUS), secondary display (BUS) etc.

3. Standard applications

3.1 Smartbox FPVO with tare mean value

In this application the weight of the packages must be in a certain range (mean tare).

The program checks if the net-weight of the good (packed good minus the mean tare) lies within a prescribed tolerance-range. The tolerance may consist of two levels (TU1+TU2).

3.1.1 Statistics-printout of FPVO with mean tare

Begin Date 04.11.2004 Time 07:52:31 -> date and time is on series 320 XB optional

Art.No. 2569

Prod. SOAP

5 Measured Values

1	:	+	113.15	g
2	:	+	114.22	g
3	:	+	115.26	g
4	:	+	116.32	g
5	:	+	114.44	g

Total + 573.39 g

Mean + 114.68 g

Stde + 1.19 g

Stde % + 1.04 %

% Overfill - 0.28 %

Max + 116.32 g

Min + 113.15 g

Nom.Value + 115.00 g

0 < TU1 + 109.83 g 0.0 %

0 < TU2 + 104.65 g 0.0 %

Tare + 10.00 g (=mean tare)

End Date 04.11.2004 Time 07:53:02

3.2 Smartbox FPVO with individual tare first

In this application the empty packages (individual tares) of a series of samples will be taken up first. After packaging the good, the weights (gross) of the same series of samples will be taken up again. The smartbox calculates the fill quantity of the individual goods (net) and prints out the FPVO-required data.

The program checks if the net-weight of the good (packed good minus individual tare) lies within a prescribed tolerance-range. The tolerance may consist of two levels (TU1+TU2).

3.2.1 Statistics-printout FPVO with individual tare first

Begin Date 11.11.2004 Time 07:47:24 -> date and time on series 320 XB optional

Art.No. 7610235000015
Prod. MINERAL WATER

5 Measured Values

Tare	1	:	+	609.70	g
Tare	2	:	+	609.78	g
Tare	3	:	+	609.93	g
Tare	4	:	+	610.05	g
Tare	5	:	+	609.97	g

End Date 11.11.2004 Time 07:47:54

Begin Date 11.11.2004 Time 07:48:12

Art.No. 7610235000015
Prod. MINERAL WATER

4 Measured Values

Gross	1	:	+	1633.06	g
Gross	2	:	+	1633.14	g
Gross	3	:	+	1633.29	g
Gross	4	:		----	
Gross	5	:	+	1633.41	g

-> possibility: lost values can be left empty

	1	:	+	1021.39	ml
	2	:	+	1021.39	ml
	3	:	+	1021.39	ml
	5	:	+	1021.47	ml

Total	+	4085.63	ml
Mean	+	1021.41	ml
Stde	+	0.04	ml
Stde %		0.00	%
% Overfill	+	2.14	%
Max	+	1021.47	ml
Min	+	1021.39	ml

Density	+	0.9989	g/ml
Nom.Value	+	1000.00	ml
0 < TU1	+	985.00	ml 0.0 %
0 < TU2	+	970.00	ml 0.0 %
Tare	+	3.10	g

End Date 11.11.2004 Time 07:48:53

3.3 Smartbox FPVO with individual tare after

In this application the filled packages (gross) of a series of samples will be taken up first. After emptying the good, the weights (tare) of the same series of samples will be taken up again. The smartbox calculates the fill quantity of the individual goods (net) and prints out the FPVO-required data.

The program checks if the net-weight of the good (packed good minus individual tare) lies within a prescribed tolerance-range. The tolerance may consist of two levels (TU1+TU2).

3.3.1 Statistics-printout FPVO with individual tare after

Begin Date 11.11.2004 Time 07:36:26 -> date and time on series 320 XB optional

Art.No. 7610800019138
Prod. FULL-CREAM MILK

5 Measured Values

Gross	1	:	+	1059.76	g
Gross	2	:	+	1059.90	g
Gross	3	:	+	1059.89	g
Gross	4	:	+	1059.97	g
Gross	5	:	+	1060.03	g

End Date 11.11.2004 Time 07:36:57

Begin Date 11.11.2004 Time 07:37:10

Art.No. 7610800019138
Prod. FULL-CREAM MILK

4 Measured Values

Tare	1	:	+	37.45	g
Tare	2	:		----	
Tare	3	:	+	37.58	g
Tare	4	:	+	37.56	g
Tare	5	:	+	37.77	g

-> possibility: lost values can be left empty

	1	:	+	1000.01	ml
	3	:	+	1000.01	ml
	4	:	+	1000.11	ml
	5	:	+	999.96	ml

Total	+	4000.09	ml
Mean	+	1000.02	ml
Stde	+	0.06	ml
Stde %	+	0.01	%
% Overfill		0.00	%
Max	+	1000.11	ml
Min	+	999.96	ml

Density	+	1.0223	g/ml
Nom.Value	+	1000.00	ml
0 < TU1	+	984.70	ml 0.0 %
0 < TU2	+	969.40	ml 0.0 %

End Date 11.11.2004 Time 07:37:46

3.4 Auxiliary application: Determining the tare mean value

In this application a series of empty packages (tares) can be taken up.

The smartbox calculates the tare mean value of these packages. This mean value then can be applied in application „FPVO with tare mean value“.

3.4.1 Statistics-printout determining tare mean value

Begin Date 11.11.2004 Time 07:45:50 -> date and time on series 320 XB optional

Art.No. 25
Prod. TARE FOR THE SOAP

5 Measured Values

1	:	+	9.91	g
2	:	+	10.06	g
3	:	+	10.18	g
4	:	+	10.03	g
5	:	+	10.09	g

Total	+	50.27	g
Mean	+	10.05	g
Stde	+	0.10	g
Stde %	+	1.00	%
% Overfill	+	0.54	%
Max	+	10.18	g
Min	+	9.91	g

Nom.Value + 10.00 g

End Date 11.11.2004 Time 07:46:24

3.5 Daily and weekly statistics

3.5.1 Printout of daily and weekly statistics

1.Statistic (daily) or 2.Statistic (weekly)

Begin Date 04.11.2004 Time 07:52:31 -> date and time on series 320 XB optional

Art.No. 7610095113009
Prod. POP CORN

2 Series of Measurements

6 Measured Values

Total	+	603.8	g
Mean	+	100.6	g
Stde	+	0.1	g
Stde %	+	0.06	%
% Overfill	+	0.63	%
Max	+	100.7	g
Min	+	100.6	g
Nom.Value	+	100.0	g
0 < TU1	+	95.5	g 0.0 %
0 < TU2	+	91.0	g 0.0 %
Tare	+	6.3	g

End Date 04.11.2004 Time 07:53:02

4. Technical data

Dimensions: Width x Length x Height: 125 x 150 x 33 mm (Series 320 XB,XT,XR)

Weight: 265 g (Series 320 XB,XT,XR)

Language options: German, English, French (can be set on balance side)

Maximum memory space:

500 articles with daily and weekly statistic

250 tare-registers

Number of samples per series: 255 (application with tare mean value)

25 (application with individual tare)

The elements of the article:

max. 20 characters for identification of the articles (ART.NO.)

max. 3 characters for short identification of the articles (SHORT CODE)

max. 20 characters for description of the articles (PROD.)

max. 20 characters for identification of the lot number (LOT.NO.)

max. 20 characters for identification of the user (NAME)

a real number for nominal value in the statistic (NOM.VALUE)

a real number for density reference [g/ml] (DENSITY)

a real number for the first lower limit of the statistic (TU1), when desired automatically memorised

a real number for the second lower limit for the statistic (TU2), when desired automatically memorised

an integer number to identify the bottling machine (MA-NO.)

Interfaces:

Standard: 2 x RS232 (CH1, CH2)

Option: 4 x RS232 (additional accessory RS232-Interfacebox)

The smartbox supports up to 6 interfaces

Print formats:

15 free definable text-lines

85 pre-defined text-lines (measured values, results etc.)

Remote control:

The smartbox can be controlled through the RS232 interface

Software-Update:

Software-updates can be downloaded from the Precisa-homepage.