MASTER Series 320 XB

Analytical Precision
The Precisa 320 high performance series combines precision and quality, and offers the highest metrological performance and advanced integrated features. The bright vacuum fluorescent display, generously sized weighing pan, easy-operation draft shield, plus all the standard integrated weighing programmes, combine to make the 320 XB series a high performance versatile precision balance.
High Precision technology
The 320 XB series owes its high reliability and durability to the well-known competence of Precisa’s engineering and development. The weighing cell is of the highest mechanical quality, operates extremely precisely; it can also be easily and economically repaired. Adjustable environmental settings provide superior performance in difficult production environments or unstable laboratory conditions.

Easy operation draft shield
The 320 XB series analytical draft shield is designed for easy operation combined with outstanding performance meeting rigid metrological requirements.

Maximum user friendliness
The 5-button keyboard enables the user to organize and structure the various weighing programmes & weight unit options and to optimize the features offered by the Precisa 320XB series balance.

Vacuum fluorescent display
The bright fluorescent display is attractive and easy to view. Application programme prompts and information are shown on the display as required.
Life-long reliability
The balances offer a high degree of protection against mechanical and electrical interference and operate with highest levels of precision. The premium workmanship of our robust die-cast aluminium housing and chemically-resistant sealed keypad offers protection against spills and resistance to the ambient conditions of the surrounding environment. Day after day.

IP65
The 320 XB series is available with IP65 industrial protection as an option. IP65 protects against ingress of dust and water splashes.

State-of-the-art data management
The Precisa 320 XB series balance is equipped with today’s standard weighing applications. All weighing and other information can be captured for further data processing via the built-in interface (RS232).

SmartBox®
The SmartBox® offers extended applications in such areas as advanced parts-counting, check-weighing finished goods in the production process, establishing under or over filling, defining filling capacities and much more.

Bus connections
The following can be connected and used simultaneously:
• Bar-code reader for product identification
• Additional display (free-standing, attached or wall-ounted)
• SmartBox with alpha-numerical data input
• Input/output box with 8 relays and 4 input contacts
• Additional interface 20 mA current loop
• Analogue data output
Support IQ/OQ/PQ
Counting program
Swiss made
% weighing
Units g, mg, ozt, lb, tael, etc.
Net total application
Add-up summation
Dosage program
Below balance weighing
Units g, mg, ozt, lb, tael, etc.
Calibration Warning System
Counting program
Animal Weighing
Density determination
Clock (Printout GLP/GMP , Auto-Cal etc.) (optional)
SCS: Self Calibration System without clock, automatic on temperature change
and real-time programmable if clock installed)
SCS fully: Self Calibration System with clock,
automatic on temperature change and real-time programmable
Clock

BUS Accessories

Remote / secondary display free-standing with cable 1.5 m 350-8504
Remote / secondary display mounted to the balance 350-8505
Remote / secondary display mounted to the wall with cable 3 m 350-8516
Interface 20mA current loop passive 350-8526
Interface RS232 for data transmission: - to PC, Printer or Barcode-Printer
- from Barcode Reader (150-8856) or Reference-Balance 350-8506
Analog output -10V...+10V (Resolution 10mV) 350-8508
Ethernet Interface, Wired 350-8513
Ethernet Interface, Wireless 350-8558
Signal Lamp, indicator with 3 lamps, green / red / yellow 350-8510
Horn for Signal Lamp 350-8533
Input / Output module with 6 TTL Inputs / 8 Relay Outputs 350-8509
CCE-Bar code scanner BCS5040 with push button and plug
to be connected to the Interface RS232 350-8506 (Connector DB25) 350-8554

SmartBox® Applications

SmartBox® Counting 350-8511-011
SmartBox® Finished Goods Packing Control, FPV0 350-8511-012
CCE-Bar code scanner BCS5040 with push button and plug
to be connected to the SmartBox® (Connector RJ45) 350-8531

Options

Protection IP65: protection against ingress of dust and low-pressure water jets,
filmed at factory, not available for all types 350-8649
Set for EC / OIML verification, filmed at factory, not verified,
available only for balances with EC / OIML Type approval 350-8528
EC-Verification according to 90/384/EC by Precisa (initial verification)
available only for balances with EC / OIML Type approval and SCS or SCS fully
Self Calibration System without clock, automatic on temperature change
and real-time programmable if clock installed 350-8587
SCS fully: Self Calibration System with clock,
automatic on temperature change and real-time programmable
Clock

Accessories

Draft shield 320 XB, height 180 mm 350-8519
Draft shield mg, glass with cover 320-8504
Hook for weighing below the balance 320-8527
Density kit for 0.01mg and 0.1mg balances
Container size Ø= 75 mm, h= 100mm 350-8515
Density kit for solids only (w/o Glass body and Hook) for 0.01mg and 0.1mg balances
Container size Ø= 75 mm, h= 100mm 350-8566
Glass body 100ccm for density determination of liquids 350-7054
Downholder for samples with density < 1 g/cm3 350-7194
Animal weighing bowl complete for 0.01g 350-8550
Animal weighing bowl complete for 0.1 g and 1 g balances 350-8551
Diamond weighing pan 350-8322
Printer CBM910 230V - with cable and paper roll 350-8363
Printer CBM910 115V - with cable and paper roll 350-8370
Paper roll for Printer CBM910 350-8366
Ribbon for Printer CBM910 350-8367
Data cable RJ45 / DB9 Female 1.5 m (PC) 350-8506
Data cable RJ45 / DB25 Male 1.5 m (Printer) 350-8556
Cable for balance 320 used as reference balance 350-8534
External USB accus power pack for continuous operation 350-8662
Power supply / Adapter with Euro plug for balances with IP65 protection (80V - 240V) 350-8372
Draft cover 320 over display, set of 20 pieces 350-8596
Draft cover 320 for the whole balance, set of 20 pieces 350-8589
Night cover 320 for balance without draft shield 350-4107
Night cover 320 for balance with draft shield 350-4107

Features and Applications

- Swiss made
- Vacuum Fluorescent Display
- Fully automatic internal calibration system SCS (optional)
- Support IQ/OQ/PQ
- Below balance weighing
- Clock (Printout GLP/GMP, Auto-Cal etc.) (optional)
- % weighing
- Units g, mg, ozt, lb, tael, etc.
- Calibration Warning System
- Animal Weighing
- Density determination
- Net total application
- Add-up summation
- Dosage program
# Precisa XB Series: Technical Specifications

## Analytical Balances 0.1 mg

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Readability</th>
<th>Repeatability</th>
<th>Linearity</th>
<th>Pan Size (mm)</th>
<th>Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>XB 120A</td>
<td>120 g</td>
<td>0.1 mg</td>
<td>0.1 mg</td>
<td>0.2 mg</td>
<td>Ø 80 x 3.1</td>
<td>4 s</td>
</tr>
<tr>
<td>XB 220A</td>
<td>220 g</td>
<td>0.1 mg</td>
<td>0.1 mg</td>
<td>0.2 mg</td>
<td>Ø 80 x 3.1</td>
<td>4 s</td>
</tr>
</tbody>
</table>

Dimensions: (WxLxH) 210x340x345 mm  
Draft shield inside dimensions: (WxLxH) 170x170x230 mm  
Net weight: 5.9 kg  
Sensitivity drift: (10...30°C) 2 ppm / °C

## Precision Balances 1 mg

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Readability</th>
<th>Repeatability</th>
<th>Linearity</th>
<th>Pan Size (mm)</th>
<th>Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>XB 160M</td>
<td>320 g</td>
<td>1 mg</td>
<td>1 mg</td>
<td>1.5 mg</td>
<td>135 x 135</td>
<td>3 s</td>
</tr>
<tr>
<td>XB 320M</td>
<td>320 g</td>
<td>1 mg</td>
<td>1 mg</td>
<td>1.5 mg</td>
<td>135 x 135</td>
<td>3 s</td>
</tr>
<tr>
<td>XB 620M*</td>
<td>620 g</td>
<td>1 mg</td>
<td>1 mg</td>
<td>1.5 mg</td>
<td>135 x 135</td>
<td>3 s</td>
</tr>
</tbody>
</table>

Dimensions: (WxLxH) 210x340x124 mm  
Sensitivity drift: (10...30°C) 2 ppm / °C

## Precision Balances 0.01 g

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Readability</th>
<th>Repeatability</th>
<th>Linearity</th>
<th>Pan Size (mm)</th>
<th>Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>XB 320C</td>
<td>320 g</td>
<td>0.01 g</td>
<td>5 mg</td>
<td>0.01 g</td>
<td>170 x 170</td>
<td>2 s</td>
</tr>
<tr>
<td>XB 620C</td>
<td>620 g</td>
<td>0.01 g</td>
<td>5 mg</td>
<td>0.01 g</td>
<td>170 x 170</td>
<td>2 s</td>
</tr>
<tr>
<td>XB 120C*</td>
<td>1200 g</td>
<td>0.01 g</td>
<td>5 mg</td>
<td>0.01 g</td>
<td>170 x 170</td>
<td>2 s</td>
</tr>
<tr>
<td>XB 220C*</td>
<td>2200 g</td>
<td>0.01 g</td>
<td>5 mg</td>
<td>0.01 g</td>
<td>170 x 170</td>
<td>2 s</td>
</tr>
</tbody>
</table>

Dimensions: (WxLxH) 210x340x91 mm  
Sensitivity drift: (10...30°C) 2 ppm / °C

## Precision Balances 0.1 - 1 g

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Readability</th>
<th>Repeatability</th>
<th>Linearity</th>
<th>Pan Size (mm)</th>
<th>Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>XB 320D</td>
<td>320 g</td>
<td>0.1 g</td>
<td>0.05 g</td>
<td>0.1 g</td>
<td>200 x 200</td>
<td>2 s</td>
</tr>
<tr>
<td>XB 620D</td>
<td>620 g</td>
<td>0.1 g</td>
<td>0.05 g</td>
<td>0.1 g</td>
<td>200 x 200</td>
<td>2 s</td>
</tr>
<tr>
<td>XB 10200D</td>
<td>10200 g</td>
<td>0.1 g</td>
<td>0.5 g</td>
<td>1 g</td>
<td>200 x 200</td>
<td>2 s</td>
</tr>
</tbody>
</table>

Dimensions: (WxLxH) 210x340x91 mm  
Sensitivity drift: (10...30°C) 2 ppm / °C

## Common Specifications

<table>
<thead>
<tr>
<th>Floating display</th>
<th>Temperature range</th>
<th>Line voltage, Tolerance</th>
<th>Stability settings</th>
<th>Power consumption</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjustable</td>
<td>0 ... 40 °C</td>
<td>115V / 230V +15%/-20%</td>
<td>Adjustable</td>
<td>12 VA</td>
<td>50 - 60 Hz</td>
</tr>
</tbody>
</table>

* * models available with EC/OIML type approval, requires SCS fully

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