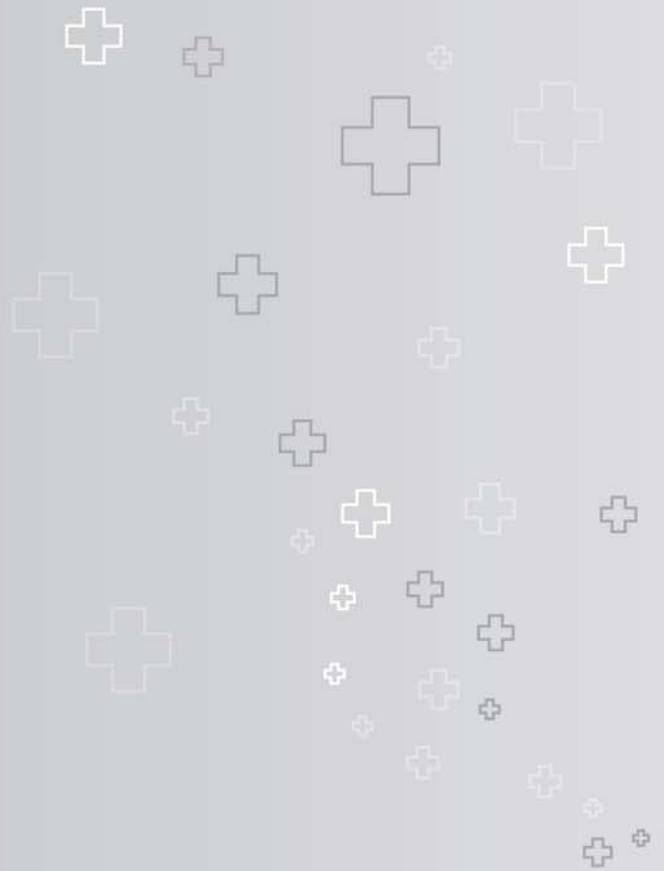


# GENERAL CATALOG





# ICONS

The following symbols stand for the most important features and applications of Precisa scales and provide a fast overview of each product.

## FEATURES

- Swiss made
- Swiss technology
- Liquid crystal display
- RS232 interface for PC / printer
- Backlit LCD
- USB device
- Backlit graphic LCD
- Communication options (USB host, bluetooth, wireless etc.)
- LC touch screen
- Support IQ/OQ/PQ
- Colour touch screen
- Anti-theft protection with password plus mechanical security
- Vacuum fluorescent display
- Direct tare and reference weight entry (manually)
- Self Linearization System
- Clock (printout GLP/GMP, auto-cal etc.)
- Fully automatic built-in self calibration system
- Below balance weighing
- Automatic calibration warning
- Easy alphanumeric input
- External calibration
- Internal calibration
- Touchless sensors to operate draft shield, tare, print, ...
- Ambient Observation System
- Electrostatic Cancellation System
- Optional evaporation trap for pipette calibration

## APPLICATIONS

- Units g, mg, ozt, lb, tael, etc.
- Statistics
- Percent weighing
- Recorder
- Piece counting
- Minimum sample weight
- Animal weighing
- Automatic repeatability test
- Density determination
- Multilevel backweighing
- Checkweighing
- Dynamic difference weighing
- Net total application: Add up summation (Dosing program)
- Pipette calibration, optionally with evaporation trap
- Free conversion Area conversion (Paper program)
- Buoyancy error suppression technology
- Maintenance Service Package

## RANGE OF PRECISA BALANCES AND SCALES

Models with\* are Dual Ranges

Models with \*\* are Floating Ranges

Models in *Italic*: Not EC type approved

- Balances PRECISA
- Scales PRECISA (Industrial)

## Readability

	0.01 mg SM	0.1 mg A	1 mg M	0.01 g C	0.1 g D	1 g G
100 g			BJ			
120 g		H_ EP ES LT LX LS XB <sup>®</sup>				
125 g	H_ H_** EP ES					
160 g			LT LS			
220 g		H_ EP ES LT LX LS XB <sup>®</sup> IM	BC			
225 g	H_ H_** EP ES					
320 g		H_ EP ES LT LX LS	EP ES LT LX LS XB <sup>®</sup>	LT LS		
410 g				BJ		
420 g		EP ES IM	EP** ES**			
520 g		H_ EP ES				
610 g				BJ		
620 g			EP** ES** LT LX LS XB <sup>®</sup>	EP** ES** LT LX LS		
920 g			EP ES LT LX LS			
1200 g				EP ES LT LX LS BJ		
1220 g			EP ES LT LX LS IM	EP** ES**		
2100 g					BJ	
2200 g				EP ES LT LX LS XB <sup>®</sup> BJ		
2220 g			EP ES			
3200 g				LT LS XB <sup>®</sup> BC	EP** ES** LT LX LS XB <sup>®</sup>	
4100 g					BJ	
4200 g				EP ES LT LX LS XB <sup>®</sup>		
6100 g					BJ	BJ
6200 g				EP ES LT LX LS XB <sup>®</sup> IM	EP/EP** ES/ES** LT LX LS XB <sup>®</sup>	
8100 g					BJ	
8200 g				EP ES	EP/EP* EP/ES*	
10200 g					LT LX LS	LT LX LS
12100 g					IBK	BJ
12200 g					EP ES	EP ES
18100 g					IBK	
20100 g						IBK
24100 g					IBK	
30100 g						IBK
34100 g					IBK	IBK*/IBK**
40100 g						IBK
60100 g						IBK

Capacity



## PRECISA DNA: ZERO TOLERANCE.

Laboratory and industrial technicians are aware of the significance of the results they provide. That is why they are unwilling to accept any compromise in their field of work. And that is precisely why leading specialists around the world place their trust in Precisa. And have done for decades.

## PRECISA DNA: SWISS PRECISION.

Precisa products are prime examples of Swiss perfection and reliability. They are tried and tested in both demanding laboratory environments and industrial applications, and are subject to rigorous quality controls throughout the entire manufacturing process. Precisa invests continuously in developing new technologies and employs a highly qualified team. The result is a state-of-the-art range of precision instruments for the most exacting demands.



Semi-micro Balances



Analytical Balances



Precision Balances



Standard Balances



Moisture Analyzers



Automatic Moisture & Ash Analyzers



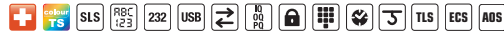
Industrial Scales



Special Products

# SEMI-MICRO BALANCES 0.01 mg

## SERIES 390 HF



Optional



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
HF 125SM	125 g	0.01 mg	0.010 mg	2.0 mg*	0.06 mg	Ø 80	1 / 1 mg	8 s	390-9104-009
HF 125SM-FR	61 g / 125 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.1 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9106-009
HF 225SM-DR	102 g / 225 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.2 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9107-009
HF 225SM-FR	61 g / 225 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.2 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9108-009

## SERIES 390 HA



ECS ADS Optional

Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
HA 125SM	125 g	0.01 mg	0.010 mg	2.0 mg*	0.06 mg	Ø 80	1 / 1 mg	8 s	390-9104-003
HA 125SM-FR	61 g / 125 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.1 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9106-003
HA 225SM-DR	102 g / 225 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.2 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9107-003
HA 225SM-FR	61 g / 225 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.2 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9108-003

## SERIES 390 HE



TLS ECS ADS Optional



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
HE 125SM	125 g	0.01 mg	0.010 mg	2.0 mg*	0.06 mg	Ø 80	1 / 1 mg	8 s	390-9104-002
HE 125SM-FR	61 g / 125 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.1 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9106-002
HE 225SM-DR	102 g / 225 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.2 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9107-002
HE 225SM-FR	61 g / 225 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.2 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9108-002

## SERIES 390 HM



Optional

Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
HM 125SM	125 g	0.01 mg	0.010 mg	2.0 mg*	0.06 mg	Ø 80	1 / 1 mg	8 s	390-9104-001
HM 125SM-FR	61 g / 125 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.1 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9106-001
HM 225SM-DR	102 g / 225 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.2 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9107-001
HM 225SM-FR	61 g / 225 g	0.01 mg / 0.1 mg	0.010 mg / 0.040 mg	2.0 mg*	0.06 mg / 0.2 mg	Ø 80	1 / 1 mg	8 / 2 s	390-9108-001

\* USP Min. weight (0.1%, k=2, load > 50%) = Min. weight x 10

# ANALYTICAL BALANCES 0.1 mg

## SERIES 390 HF

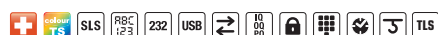


Optional



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
HF 120A	120 g	0.1 mg	0.04 mg	8.2 mg*	0.1 mg	Ø 90	1 / 1 mg	2 s	390-9257-009
HF 220A	220 g	0.1 mg	0.04 mg	8.2 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	390-9258-009
HF 320A	320 g	0.1 mg	0.04 mg	8.2 mg*	0.2 mg	Ø 90	1 / 1 mg	3 s	390-9259-009
HF 520A	520 g	0.1 mg	0.06 mg	12 mg*	0.4 mg	Ø 90	1 / 1 mg	4 s	390-9260-009

## SERIES 390 HA



ECS ADS Optional

Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
HA 120A	120 g	0.1 mg	0.04 mg	8.2 mg*	0.1 mg	Ø 90	1 / 1 mg	2 s	390-9257-003
HA 220A	220 g	0.1 mg	0.04 mg	8.2 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	390-9258-003
HA 320A	320 g	0.1 mg	0.04 mg	8.2 mg*	0.2 mg	Ø 90	1 / 1 mg	3 s	390-9259-003
HA 520A	520 g	0.1 mg	0.06 mg	12 mg*	0.4 mg	Ø 90	1 / 1 mg	4 s	390-9260-003

## SERIES 390 HE



TLS ECS ADS Optional

BEST Optional



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
HE 120A	120 g	0.1 mg	0.04 mg	8.2 mg*	0.1 mg	Ø 90	1 / 1 mg	2 s	390-9257-002
HE 220A	220 g	0.1 mg	0.04 mg	8.2 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	390-9258-002
HE 320A	320 g	0.1 mg	0.04 mg	8.2 mg*	0.2 mg	Ø 90	1 / 1 mg	3 s	390-9259-002
HE 520A	520 g	0.1 mg	0.06 mg	12 mg*	0.4 mg	Ø 90	1 / 1 mg	4 s	390-9260-002

## SERIES 390 HM



Optional

BEST Optional

Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
HM 120A	120 g	0.1 mg	0.04 mg	8.2 mg*	0.1 mg	Ø 90	1 / 1 mg	2 s	390-9257-001
HM 220A	220 g	0.1 mg	0.04 mg	8.2 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	390-9258-001
HM 320A	320 g	0.1 mg	0.04 mg	8.2 mg*	0.2 mg	Ø 90	1 / 1 mg	3 s	390-9259-001
HM 520A	520 g	0.1 mg	0.06 mg	12 mg*	0.4 mg	Ø 90	1 / 1 mg	4 s	390-9260-001

\* USP Min. weight (0.1%, k=2, load > 50%) = Min. weight x 10

# SEMI-MICRO & ANALYTICAL BALANCES 0.01 - 0.1 mg

Options	HF	HA	HE	HM
Initially verified according to 2014/31/EU by Precisa, available for balances with EC (OIML) type approval	350-8930	350-8930	350-8930	350-8930
TLS Touchless sensors to operate draft shield, tare, print, ...	✓	✓	350-8047	-
ECS Electrostatic Cancellation System & AOS Ambient Observation System all-round care package	✓	390-8500-000	390-8500-000	-
ECS Electrostatic Cancellation System	✓	390-8500-001	390-8500-001	-
AOS Ambient Observation System	✓	390-8500-002	390-8500-002	-
Extension cable Ethernet only	390-8501-001	390-8501-001	390-8501-001	390-8501-001
Extension cable USB host (type A) only	390-8501-002	390-8501-002	390-8501-002	390-8501-002
Extension cable USB device (type B) only	390-8501-003	390-8501-003	390-8501-003	390-8501-003
Extension cable USB host double (2 type A) only	390-8501-004	390-8501-004	390-8501-004	390-8501-004
Extension cable Ethernet + USB host (type A)	390-8501-021	390-8501-021	390-8501-021	390-8501-021
Extension cable Ethernet + USB device (type B)	390-8501-031	390-8501-031	390-8501-031	390-8501-031
Extension cable Ethernet + USB host double (2 type A)	390-8501-041	390-8501-041	390-8501-041	390-8501-041
Extension cable USB host (type A) + USB host (type A)	390-8501-022	390-8501-022	390-8501-022	390-8501-022
Extension cable USB host (type A) + USB device (type B)	390-8501-032	390-8501-032	390-8501-032	390-8501-032
Extension cable USB device (type B) + USB host double (2 type A)	390-8501-043	390-8501-043	390-8501-043	390-8501-043

Applications	HF	HA	HE	HM
Density determination	✓	✓	390-8609	390-8609
BEST Buoyancy error suppression technology	✓	✓	390-8611	390-8611

Accessories	HF	HA	HE	HM
Hook for weighing below the balance	350-8527	350-8527	350-8527	350-8527
Density kit, for 0.01mg and 0.1mg balances, container size: $\varnothing = 75\text{mm}$ , $h = 100\text{mm}$	350-8719	350-8719	350-8719	350-8719
Density kit solids only (without glass body and hook), for 0.01mg and 0.1 mg balances, container size: $\varnothing = 75\text{mm}$ , $h = 100\text{mm}$	350-8720	350-8720	350-8720	350-8720
Glass body for density determination of liquids, $V = 10\text{cm}^3$	350-7054	350-7054	350-7054	350-7054
Downholder for samples with $\rho < 1\text{g/cm}^3$	350-7194	350-7194	350-7194	350-7194
Evaporation trap for pipette calibration, for 0.01mg and 0.1mg balances	350-8717	350-8717	350-8717	350-8717
Adapter for Eppendorf evaporation trap, for 0.01mg and 0.1mg balances	350-8718	350-8718	350-8718	350-8718



# SEMI-MICRO & ANALYTICAL BALANCES 0.01 - 0.1 mg



TOUCHSCREEN



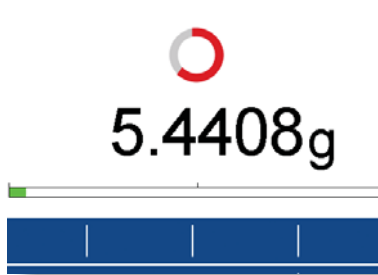
HELP



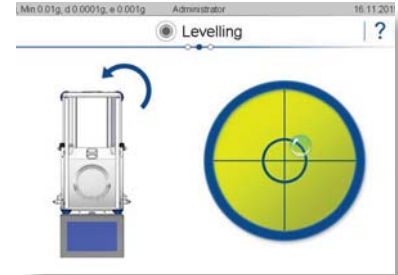
DRAFT SHIELD PERFECTION



SLS - SELF LINEARIZATION SYSTEM



STABILITY-INDICATOR VISUALLY PREDICTIVE



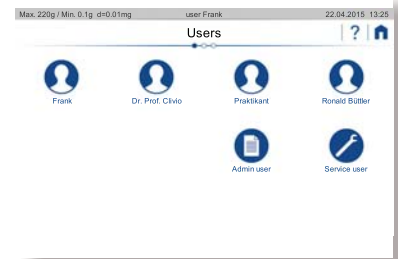
ELECTRONIC LEVELLING IMPROVES PRECISION



COMMUNICATION & INTERFACES



APPS



USER MANAGEMENT



TLS - TOUCHLESS SENSORS



ECS - ELECTROSTATIC CANCELLATION SYSTEM



AOS - AMBIENT OBSERVATION SYSTEM

# SEMI-MICRO BALANCES 0.01 mg



## SERIES 360 EP



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“ <sup>14</sup>	Response Time	Item No.
EP 125SM	125 g	0.01 mg	0.02 mg	4.0 mg*	0.03 mg	Ø 80	1 / 1 mg	8 s	360-9100-001
EP 225SM-DR	102 g / 225 g	0.01 mg / 0.1 mg	0.02 mg	4.0 mg*	0.03 / 0.1 mg	Ø 80	1 / 1 mg	8 s / 3 s	360-9101-001



## SERIES 360 ES



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“ <sup>14</sup>	Response Time	Item No.
ES 125SM	125 g	0.01 mg	0.02 mg	4.0 mg*	0.03 mg	Ø 80	1 / 1 mg	8 s	360-9102-001
ES 225SM-DR	102 g / 225 g	0.01 mg / 0.1 mg	0.02 mg	4.0 mg*	0.03 / 0.1 mg	Ø 80	1 / 1 mg	8 s / 3 s	360-9103-001

\* USP Min. weight (0.1%, k=2, load > 50%) = Min. weight x 10

# SEMI-MICRO BALANCES 0.01 mg



360 EP: Sensor-controlled automatic draft shield; offers convenient hands-free operation on both sides



360 ES: Sophisticatedly designed draft shield; provides optimum draft suppression inside the weighing chamber

Options	360 EP	360 ES
Initially verified according to 2014/31/EU by Precisa, available for balances with EC/(OIML) type approval and SCS only	350-8679	350-8679
SCS (self calibration system) with clock, automatic on temperature change and real-time programmable	standard	standard

Accessories	360 EP	360 ES
Draft shield 360 automatic, height 26mm	standard	350-8657
Draft shield 360 manual, height 260 mm	350-8659	standard
Podest for draft shield 360	350-8678	350-8678
Draft shield 320 XB, height 260mm	350-8519	350-8519
Hook for weighing below the balance	350-8527	350-8527
Desk power adapter with EU plug, 80V - 240V, for balances with IP65 (protection against ingress of dust and low pressure water jets)	350-8372	350-8372
Density kit, for 0.01mg and 0.1mg balances, container size: $\varnothing = 75\text{mm}$ , $h = 100\text{mm}$	350-8636	350-8636
Density kit solids only (without glass body and hook), for 0.01mg and 0.1mg balances, container size: $\varnothing = 75\text{mm}$ , $h = 100\text{mm}$	350-8637	350-8637
Glass body for density determination of liquids, $V = 10\text{cm}^3$	350-7054	350-7054
Downholder for samples with $\rho < 1\text{g/cm}^3$	350-7194	350-7194
Evaporation trap for pipette calibration, for 0.01mg and 0.1mg balances	350-8633	350-8633
Adapter for Eppendorf evaporation trap, for 0.01mg and 0.1mg balances	350-8634	350-8634
Dust cover for the whole balance, set of 20 pieces	350-8676	350-8676

Slide-in Modules	360 EP	360 ES
PrecisaBUS converter, enables connection to almost all PrecisaBUS accessories	—	350-8664
USB host	350-8665	—
Ethernet wired	350-8666	—
Ethernet wireless	350-8667	—
Bluetooth	350-8668	—
PS/2 f & RS232 DB9 f	350-8670	—

## Additional Accessories & Applications

- PrecisaBUS accessories, see Special Products on page 28/29
- SmartBox® applications, see Special Products on page 28/29
- Further accessories, see Special Products on page 28/29

# ANALYTICAL BALANCES 0.1 mg



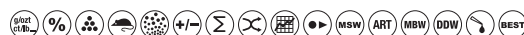
## SERIES 360 EP



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“ <sup>4</sup>	Response Time	Item No.
EP 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	360-9231-001
EP 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	360-9232-001
EP 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	3 s	360-9233-001
EP 420A	420 g	0.1 mg	0.15 mg	30.0 mg*	0.4 mg	Ø 90	1 / 1 mg	3 s	360-9234-001
EP 520A	520 g	0.1 mg	0.15 mg	30.0 mg*	0.4 mg	Ø 90	—	4 s	360-9236-001
EP 420A-FR	120 g - 420 g	0.1 mg / 1 mg	0.15 / 1 mg	30.0 mg*	0.3 / 1 mg	Ø 90	1 / 1 mg	3 s	360-9235-001



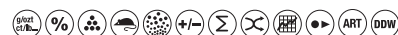
## SERIES 360 ES



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“ <sup>4</sup>	Response Time	Item No.
ES 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	360-9237-001
ES 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	360-9238-001
ES 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	3 s	360-9239-001
ES 420A	420 g	0.1 mg	0.15 mg	30.0 mg*	0.4 mg	Ø 90	1 / 1 mg	3 s	360-9240-001
ES 520A	520 g	0.1 mg	0.15 mg	30.0 mg*	0.4 mg	Ø 90	—	4 s	360-9242-001
ES 420A-FR	120 g - 420 g	0.1 mg / 1 mg	0.15 / 1 mg	30.0 mg*	0.3 / 1 mg	Ø 90	1 / 1 mg	3 s	360-9241-001



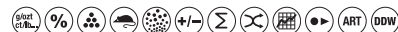
## SERIES 321 LT



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“ <sup>4</sup>	Response Time	Item No.
LT 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	321-9252-001
LT 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	2 s	321-9253-001
LT 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg	3 s	321-9254-001



## SERIES 321 LX



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“ <sup>4</sup>	Response Time	Item No.
LX 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg**	2 s	321-9246-002
LX 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg**	2 s	321-9247-002
LX 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg**	3 s	321-9248-002



## SERIES 321 LS



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“ <sup>4</sup>	Response Time	Item No.
LS 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg**	2 s	321-9249-002
LS 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg**	2 s	321-9250-002
LS 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	Ø 90	1 / 1 mg**	3 s	321-9251-002

\* USP Min. weight (0.1%, k=2, load > 50%) = Min. weight x 10

\*\* Initially verified with SCS (-001) only

# ANALYTICAL BALANCES 0.1 mg



360 EP: Sensor-controlled automatic draft shield; offers convenient hands-free operation on both sides



360 ES: Sophisticatedly designed draft shield; provides optimum draft suppression inside the weighing chamber



321 LX: Ergonomically designed draft shield; provides optimal user control



320 XB: Well-trying all-round basic draft shield

Options	360 EP	360 ES	321 LX	321 LT/LS
Initially verified according to 2014/31/EU by Precisa, available for balances with EC/(OIML) type approval and SCS only	350-8679	350-8679	350-8685	350-8685
SCS (self calibration system), built-in, with clock, automatic on temperature change and real-time programmable	standard	standard	321-xxxx-001	LT: standard LS: 321-xxxx-001

Accessories	360 EP	360 ES	321 LX	321 LT/LS
Draft shield 360 automatic, height 260mm	standard	350-8657	—	—
Draft shield 360 manual, height 260mm	350-8659	standard	—	—
Podest for draft shield 360	350-8678	350-8678	—	—
Draft shield 320 XB, height 260mm	350-8519	350-8519	350-8519	standard
Pedal for tare or print function	—	—	350-8814	350-8814
Hook for weighing below the balance	350-8527	350-8527	350-8527	350-8527
Desk power adapter with EU plug, 80V - 240V, for balances with IP65 (protection against ingress of dust and low pressure water jets)	350-8372	350-8372	350-8372	350-8372
Density kit for 0.01 mg and 0.1 mg balances, container size: $\varnothing = 75\text{mm}$ , $h = 100\text{mm}$	350-8636	350-8636	350-8636	350-8636
Density kit for solids only (without glass body and hook), for 0.01mg and 0.1 mg balances, container size: $\varnothing = 75\text{mm}$ , $h = 100\text{mm}$	350-8637	350-8637	350-8637	350-8637
Glass body for density determination of liquids, $V = 10\text{cm}^3$	350-7054	350-7054	350-7054	350-7054
Downholder for samples with $\rho < 1\text{g/cm}^3$	350-7194	350-7194	350-7194	350-7194
Evaporation trap for pipette calibration, for 0.01mg and 0.1mg balances	350-8633	350-8633	350-8633	350-8633
Adapter for Eppendorf evaporation trap, for 0.01mg and 0.1mg balances	350-8634	350-8634	350-8634	350-8634
Dust cover for the whole balance, set of 20 pieces	350-8676	350-8676	350-8686	350-8686

Slide-in Modules	360 EP	360 ES
PrecisaBUS converter, enables connection to almost all PrecisaBUS accessories	—	350-8664
USB host	350-8665	—
Ethernet wired	350-8666	—
Ethernet wireless	350-8667	—
Bluetooth	350-8668	—
PS/2 f & RS232 DB9 f	350-8670	—

Additional Accessories & Applications
- PrecisaBUS accessories, see Special Products on page 28/29
- SmartBox® applications, see Special Products on page 28/29
- Further accessories, see Special Products on page 28/29











# PRECISION BALANCES 0.001 – 1 g



EP: excellently readable bright, high-resolution graphic display



ES: easy to read display with sealed keypad resistant to chemicals



RS232 and USB interfaces are standard - wireless, Bluetooth, USB host etc are optional



Bubble level located at the front; provides easier adjustment

Options	360 EP	360 ES	321 LX	321 LT/LS
Initially verified according to 2014/31/EU by Precisa, available for balances with EC(/OIML) type approval and SCS only	350-8679	350-8679	350-8685	350-8685
SCS (self calibration system) with clock, automatic on temperature change and real-time programmable	standard	standard	321-xxxx-001	LT: standard LS: 321-xxxx-001
IP65 (protection against ingress of dust and low pressure water jets), fitted at factory, for 0.01g, 0.1g and 1g balances only (others on request)	350-8694	350-8694	350-8695	350-8695

Accessories	360 EP	360 ES	321 LX	321 LT/LS
Draft shield 320 XB, height 260mm	350-8519	350-8519	350-8519	standard
Draft shield easy (glass with cover)	320-8504	320-8504	320-8504	320-8504
Pedal for tare or print function	—	—	350-8814	350-8814
Hook for weighing below the balance	350-8527	350-8527	350-8527	350-8527
Desk power adapter with EU plug, 80V - 240V, for balances with IP65 (protection against ingress of dust and low pressure water jets)	350-8372	350-8372	350-8372	350-8372
Glass body for density determination of liquids, V = 10cm <sup>3</sup>	350-7054	350-7054	350-7054	350-7054
Animal weighing bowl complete, for 0.01g, 0.1g and 1g balances	350-8551	350-8551	350-8551	350-8551
Dust cover for the whole balance, set of 20 pieces	350-8663	350-8663	350-8686	350-8686

Slide-in Modules	360 EP	360 ES
PrecisaBUS converter, enables connection to almost all PrecisaBUS accessories	—	350-8664
USB host	350-8665	—
Ethernet wired	350-8666	—
Ethernet wireless	350-8667	—
Bluetooth	350-8668	—
PS/2 f & RS232 DB9 f	350-8670	—

Additional Accessories & Applications
- PrecisaBUS accessories, see Special Products on page 28/29
- SmartBox <sup>®</sup> applications, see Special Products on page 28/29
- Further accessories, see Special Products on page 28/29

# ANALYTICAL BALANCES 0.1 mg PRECISION BALANCES 0.001 – 0.1 g



## SERIES 320 XB<sup>BB</sup>



Model	Capacity	Readability	Repeatability (load > 50%)	Min. weight (1%, k = 2, load > 50%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
XB <sup>BB</sup> 120A	120 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	Ø 80	—	4 s	320-9203X-003
XB <sup>BB</sup> 220A	220 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	Ø 80	—	4 s	320-9204X-003



## SERIES 320 XB<sup>BB</sup>



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
XB <sup>BB</sup> 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	—	3 s	320-9307X-003
XB <sup>BB</sup> 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	—	3 s	320-9308X-003



## SERIES 320 XB<sup>BB</sup>



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
XB <sup>BB</sup> 2200C	2 200 g	0.01 g	0.01 g	15 mg	170 x 170	—	2 s	320-9409X-003
XB <sup>BB</sup> 3200C	3 200 g	0.01 g	0.01 g	15 mg	170 x 170	—	3 s	320-9412X-003
XB <sup>BB</sup> 4200C	4 200 g	0.01 g	0.01 g	15 mg	170 x 170	—	3 s	320-9410X-003
XB <sup>BB</sup> 6200C	6 200 g	0.01 g	0.01 g	15 mg	170 x 170	—	3 s	320-9413X-003



## SERIES 320 XB<sup>BB</sup>



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
XB <sup>BB</sup> 3200D	3 200 g	0.1 g	0.05 g	0.1 g	200 x 200	—	2 s	320-9506X-003
XB <sup>BB</sup> 6200D	6 200 g	0.1 g	0.05 g	0.1 g	200 x 200	—	2 s	320-9507X-003

\* USP Min. weight (0.1%, k=2, load > 50%) = Min. weight x 10

# ANALYTICAL BALANCES 0.1 mg PRECISION BALANCES 0.001 – 0.1 g



320 XB: Well-ried all-round basic draft shield

Accessories	320 XB <sup>BB</sup>
Draft shield 320 XB, height 260mm for 0.1mg balances	standard
Draft shield 320 XB, height 260mm	350-8519
Draft shield easy (glass with cover)	320-8504
Animal weighing bowl complete, for 0.01g balances	350-8550
Animal weighing bowl complete, for 0.1g and 1g balances	350-8551
Hook for weighing below the balance	350-8527
Desk power adapter with EU plug, 80V - 240V, for balances with IP65 (protection against ingress of dust and low pressure water jets)	350-8372
Density kit, for 0.01 mg and 0.1mg balances, container size: Ø = 75mm, h = 100mm	350-8636
Density kit for solids only (without glass body and hook), for 0.01mg and 0.1mg balances, container size: Ø = 75mm, h = 100mm	350-8637
Glass body for density determination of liquids, V = 10 cm <sup>3</sup>	350-7054
Downholder for samples with $\rho < 1\text{g/cm}^3$	350-7194
Evaporation trap for pipette calibration, for 0.01mg and 0.1mg balances	350-8633
Adapter for Eppendorf evaporation trap, for 0.01mg and 0.1mg balances	350-8634
Dust cover for the whole balance, set of 20 pieces	350-8589
Dust cover over display and keyboard, set of 20 pieces	350-8590
Protective hood for balance without draft shield	350-4097
Protective hood for balance with draft shield	350-4107

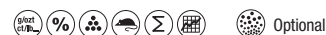
## Additional Accessories & Applications

- PrecisaBUS accessories, see Special Products on page 28/29
- SmartBox® applications, see Special Products on page 28/29
- Further accessories, see Special Products on page 28/29

# STANDARD BALANCES 0.001 – 1 g



## SERIES 165 BJ



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
BJ 100M	102 g	1 mg	1 mg	2 mg	Ø 100	—	4 s	165-9327-050
BJ 410C	410 g	0.01 g	0.01 g	0.02 g	135 x 135	—	2 s	165-9422-050
BJ 610C	610 g	0.01 g	0.01 g	0.02 g	135 x 135	II / 0.1 g	2 s	165-9423-050
BJ 1000C	1 020 g	0.01 g	0.01 g	0.02 g	135 x 135	—	4 s	165-9425-050
BJ 1200C	1 200 g	0.01 g	0.01 g	0.02 g	135 x 135	—	4 s	165-9436-050
BJ 2200C	2 200 g	0.01 g	0.01 g	0.02 g	135 x 135	—	4 s	165-9451-050
BJ 2100D	2 100 g	0.1 g	0.1 g	0.2 g	170 x 140	—	2 s	165-9513-050
BJ 4100D	4 100 g	0.1 g	0.1 g	0.2 g	170 x 140	—	2 s	165-9514-050
BJ 6100D	6 100 g	0.1 g	0.1 g	0.2 g	170 x 140	—	2 s	165-9515-050
BJ 8100D	8 100 g	0.1 g	0.1 g	0.2 g	170 x 140	—	4 s	165-9518-050
BJ 6100G	6 100 g	1 g	1 g	2 g	170 x 140	—	2 s	165-9603-050
BJ 12100G	12 100 g	1 g	1 g	2 g	170 x 140	—	2 s	165-9604-050



165 BJ: Easy-access draft shield

Options	165 BJ
Density application	350-8632
Battery operation with 9V alkaline battery	standard

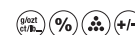
Accessories	165 BJ
Hook for weighing below the balance	350-8561
Dust cover for the whole balance, set of 20 pieces	350-8598



## SERIES 260 BC



IC Optional



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
BC 220M	220 g	1 mg	1 mg	1 mg	Ø 118	II / 0.01 g	4 s	260-9343-001
BC 220M IC*	220 g	1 mg	1 mg	1 mg	Ø 118	II / 0.01 g	4 s	260-9343-002
BC 3200C	3200 g	0.01 g	0.01 g	0.01 g	180 x 160	II / 0.1 g	4 s	260-9467-001
BC 3200C IC*	3200 g	0.01 g	0.01 g	0.01 g	180 x 160	II / 0.1 g	4 s	260-9467-002

Options	260 BC
Initially verified according to 2014/31/EU by Precisa, available for balances with EC/(OIML) type approval and SCS only	350-8922
Hook for weighing below the balance 220M and Carat type balances	350-8925
Hook for weighing below the balance 3200C type balances	350-8926

Further Accessories
- Further accessories, see Special Products on page 28/29

\* Internal calibration

# WEIGHING MODULES

## SERIES 420 IM

High precision weigh modules, tailored for integrated weighing solutions for industrial applications. Easy to interface and to service. The weighing module is based on the appreciated technology of the Precisa series 360. With the stainless steel housing and the IP65 protection, the series 420 IM is the ideal solution for automated weighing processes.



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Response Time	Item No.
IM 220A	220 g	0.1 mg	0.1 mg	0.2 mg	Ø 52	1.6 s	420-9255-001
IM 420A	420 g	0.1 mg	0.15 g	0.4 mg	Ø 52	1.8 s	420-9256-001
IM 1220M	1 220 g	1 mg	1 mg	2 mg	Ø 80	1.6 s	420-9378-001
IM 6200C	6 200 g	0.01 g	0.01 g	15 mg	Ø 80	1.6 s	420-9477-001

### Specifications

Power supply	10 - 26 V
Power consumption	6 W
Electrical connection	RS232: 12-pin Service terminal: 8-pin
Interface	RS232: bidirectional RS422: bidirectional
Data rate	25 values/s
Protection type	IP42: 1 mg and 0.1 mg models IP65: 0.01 g models
Material housing	Stainless steel
Protocols	Precisa command set (further types on request)
Connection cable	Binder Series 423, 12-pin, open leads, 2 m

### Features

- Very short response times
- Various filter profiles for individual customizing to particular ambient conditions and applications
- Integrated torsion protection (not for SMA models)
- High quality and robust stainless steel housing
- Weighing pan with prepared tapped holes for an easy fitting of individual weighing pans
- Integrated overload protection

### Typical Applications

- Automated weighing processes
- Weighing in heavily contaminated environment

# MOISTURE ANALYZERS



## SERIES 365 EM

ready for gypsum analysis

Model	Capacity	Readability	Repeatability	Linearity	Temperature Range	Pan Size (mm)	Response Time
EM 120-HR	124 g	0.1 mg / 0.001%	1 g / 0.1% 10 g / 0.01 %	0.2 mg	30 - 230 °C	Ø 100	4 s



## SERIES 330 XM<sup>BB</sup>

Model	Capacity	Readability	Repeatability	Linearity	Temperature Range	Pan Size (mm)	Response Time
XM <sup>BB</sup> 60-HR	124 g	0.1 mg / 0.001%	1 g / 0.1% 10 g / 0.01 %	0.2 mg	30 - 230 °C	Ø 100	4 s
XM <sup>BB</sup> 60	124 g	1 mg / 0.01 %	1 g / 0.2% 10 g / 0.02 %	1.5 mg	30 - 230 °C	Ø 100	3 s
XM <sup>BB</sup> 66	310 g	1 mg / 0.01 %	1 g / 0.2% 10 g / 0.02 %	1.5 mg	30 - 230 °C	Ø 100	3 s



## SERIES 330 XM

Model	Capacity	Readability	Repeatability	Linearity	Temperature Range	Pan Size (mm)	Response Time
XM 50	52 g	1 mg / 0.01 %	1 g / 0.5 % 10 g / 0.05%	3.0 mg	30 - 170 °C	Ø 100	4 s

Item numbers*	EM 120-HR	XM 60 <sup>BB</sup> -HR	XM 60 <sup>BB</sup>	XM 66 <sup>BB</sup>	XM 50
Halogen radiator, 230 V	365-9245-001	330-9243B-001	330-9324B-001	330-9329B-001	335-9360-001
Halogen radiator, 115 V	365-9245-002	330-9243B-002	330-9324B-002	330-9329B-002	335-9360-002
Infrared radiator, 230 V	365-9245-003	330-9243B-003	330-9324B-003	330-9329B-003	335-9360-003
Infrared radiator, 115 V	365-9245-004	330-9243B-004	330-9324B-004	330-9329B-004	335-9360-004
Infrared dark radiator, 230 V	365-9245-007	330-9243B-007	330-9324B-007	330-9329B-007	335-9360-007
Infrared dark radiator, 115 V	365-9245-008	330-9243B-008	330-9324B-008	330-9329B-008	335-9360-008

\* The item numbers include the moisture analyzer with the corresponding heating source

# MOISTURE ANALYZERS



Various heating sources:  
halogen, quartz infrared or dark infrared



Graphic display for easy user  
guidance and real time results

Accessories	EM 120-HR	XM 60 <sup>BB</sup> -HR	XM 60 <sup>BB</sup>	XM 66 <sup>BB</sup>	XM 50
Aluminum sample pan, Ø 100mm, set of 80 pieces	350-2032	350-2032	350-2032	350-2032	350-2032
Fiberglass filters, Ø 90mm, set of 100 pieces	350-4130	350-4130	350-4130	350-4130	350-4130
Temperature sensor plate, sensor type K	350-8580	350-8580	350-8580	350-8580	350-8580
Temperature calibration kit, sensor type K, with certificate	350-8585	350-8585	350-8585	350-8585	350-8585
Temperature calibration kit, sensor type K, without certificate	350-8584	350-8584	350-8584	350-8584	350-8584
Stainless steel sample pan, reusable, Ø 100mm, 1 piece	330-2018	330-2018	330-2018	330-2018	330-2018
Calibration weight, 50g, E2	350-8241	350-8241	350-8241	350-8241	350-8241
Dust cover over display and keyboard, set of 20 pieces	—	350-8590	350-8590	350-8590	350-8590
Dust filter	350-8687	350-8687	350-8687	350-8687	350-8687

## Additional Accessories

- PrecisaBUS accessories, see Special Products on page 28/29
- Further accessories, see Special Products on page 28/29

## Slide-in Modules

Slide-in Modules	EM 120-HR
USB host	350-8665
Ethernet wired	350-8666
Ethernet wireless	350-8667
Bluetooth	350-8668
PS 2 f & RS 232 DB9 f	350-8670

# AUTOMATIC MOISTURE & ASH ANALYZERS



## SERIES 340



Model	Capacity	Readability	Repeatability		Temp. Range	Crucibles	Response Time	Item No.
prepASH 229	120 g	0.1 mg / 0.01 ‰	1 g / 0.2 ‰	10 g / 0.02 ‰	50 - 1 000 °C	29 pcs. / 35 ml	4 s	340-9220-002
prepASH 219	120 g	0.1 mg / 0.01 ‰	1 g / 0.2 ‰	10 g / 0.02 ‰	50 - 1 000 °C	19 pcs. / 35 ml	4 s	340-9221-002
prepASH 212	120 g	0.1 mg / 0.01 ‰	1 g / 0.2 ‰	10 g / 0.02 ‰	50 - 1 000 °C	12 pcs. / 40 ml	4 s	340-9222-002



prepSTATION  
Sample tray and crucibles are not included in the prepSTATION standard delivery

Options	prepASH 229	prepASH 219	prepASH 212	Recommendations		
				Standard Applications	Sulphuric Acid Applications	Volatiles Determination (Coal, Coke)
3 inputs gas flow control unit for N <sub>2</sub> , O <sub>2</sub> and air	340-8502	340-8502	340-8502	yes	yes	essential
prepSTATION includes: - prepSTATION unit - EP 120A analytical balance - Data cable RJ45, l = 0.7m for the connection between prepSTATION and balance	340-9010	340-9010	340-9010	yes	yes	no
Scrubber K-415 (condensation-neutralization-adsorption unit) for e.g. determination of sulfated ash	340-9001	340-9001	340-9001	optional	essential	no
Connection set for scrubber	340-9002	340-9002	340-9002	yes	essential	no
ECD (enhanced cooling device)	340-8504	340-8504	340-8504	yes	yes	yes
ECD (enhanced cooling device) as retrofit kit	340-8697	340-8697	340-8697	yes	yes	yes



Scrubber K-415 (condensation-neutralization-adsorption unit)

### Further Accessories

- Further accessories, see Special Products on page 28/29



# AUTOMATIC MOISTURE & ASH ANALYZERS



Sample tray for 29 crucibles



Sample tray for 19 crucibles



Sample tray for 12 large crucibles

Accessories	prepASH 229	prepASH 219	prepASH 212	Recommendations		
				Standard Applications	Sulphuric Acid Applications	Volatiles Determination (Coal, Coke)
Sample tray holder	340-8012	340-8012	340-8012	yes	recommended	yes
Crucible tweezers	PN 3950-099	PN 3950-099	PN 3950-099	standard	standard	—
Crucible tweezers for crucible lid handling	340-7090	340-7090	340-7090	—	—	standard
Sample tray for 29/19 crucibles, SiC, for prepASH 229 and prepASH 219	standard	standard	—	standard 229/219	standard 229/219	standard 229/219
Sample tray for 12 large crucibles, SiC, for prepASH 229, 219 and 212	340-4072	340-4072	standard	standard 212	standard 212	no
Crucible, silicate ceramic, set of 5 pieces, for use with sample tray 29/19	340-8030	340-8030	340-8030	standard 229, 219	standard 229, 219	no
Crucible, Al <sub>2</sub> O <sub>3</sub> , set of 5 pieces, for use with sample tray 29/19	340-8031	340-8031	340-8031	yes	yes	no
Crucible, Al <sub>2</sub> O <sub>3</sub> , set of 5 pieces, for use with sample tray 29/19 and crucible lid 340-8033	340-8032	340-8032	340-8032	yes	yes	standard 229/219
Crucible lid, Al <sub>2</sub> O <sub>3</sub> , set of 5 pieces, for use with sample tray 29/19 and crucible 340-8032	340-8033	340-8033	340-8033	yes	yes	standard 229/219
Crucible, 40ml, silicate ceramic, set of 5 pieces, for use with sample tray 12 and adapter 340-8035	340-8034	340-8034	standard	standard 212	standard 212	no
Crucible, 50ml, Al <sub>2</sub> O <sub>3</sub> , set of 5 pieces, for use with sample tray 12 and adapter 340-8035	340-8036	340-8036	340-8036	yes	yes	no
Adapter for crucible, silicate ceramic, set of 5 pieces, for use with sample tray 12 and crucible 340-8034 or other crucible available on the market	340-8035	340-8035	standard	standard 212	standard 212	yes

# INDUSTRIAL SCALES



## SERIES 490 IBK/ITK/ISK



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
IBK 12000D	12 100 g	0.1 g	0.1 g	0.2 g	400 x 300	II / 1 g	2 s	490-9528-00x**
IBK 18000D	18 100 g	0.1 g	0.1 g	0.2 g	400 x 300	II / 1 g	2 s	490-9529-00x**
IBK 24000D	24 100 g	0.1 g	0.1 g	0.2 g	400 x 300	II / 1 g	2 s	490-9530-00x**
IBK 34000D	34 100 g*	0.1 g	0.1 g	0.2 g	400 x 300	II / 1 g	2 s	490-9531-00x**
IBK 34000D-DR	12 100 / 34 100 g*	0.1 g / 1 g	0.1 g	0.2 g	400 x 300	II / 1 g	2 s	490-9805-00x**
IBK 34000D-FR	12 100 - 34 100 g*	0.1 g / 1 g	0.1 g	0.2 g	400 x 300	II / 1 g	2 s	490-9532-00x**
IBK 20000G	20 100 g	1 g	0.5 g	1 g	400 x 300	II / 1 g	2 s	490-9606-00x**
IBK 30000G	30 100 g	1 g	0.5 g	1 g	400 x 300	II / 1 g	2 s	490-9607-00x**
IBK 40000G	40 100 g	1 g	0.5 g	1 g	400 x 300	II / 2 g	2 s	490-9608-00x**
IBK 60000G	60 100 g	1 g	1 g	1.5 g	400 x 300	II / 10 g	2 s	490-9609-00x**

Protection platform IP54 (IP65 optional)



IBK: User-friendly multi-application terminal

### TERMINAL IBK



#### Options

Initially verified according to 2014/31/EU by Precisa, available for balances with EC/OIML type approval and SCS only

Protection IP65: protection against ingress of dust and low pressure water jets, fitted at factory

490

350-8578

350-8646



ITK: Terminal with alphanumeric input and manual tare entry

### TERMINAL ITK



#### Accessories

Wall bracket for terminal

Post for rear mounted terminal

Connection cable from terminal to platform, length 3m

Connection cable from terminal to platform, length 5.5m

Connection cable from terminal to platform, length 10m

Below the balance weighing feature, up to 40kg

Below the balance weighing feature, IP65 version, up to 40kg

Dust cover for terminal, set of 20 pieces

490

350-8654

350-8655

350-8586-030

350-8586-055

350-8586-100

350-8630

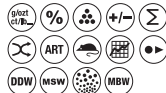
350-8635

350-8599



ISK: Terminal with embedded SmartBox®; available with applications Piece Counting or FPVO (finished goods packing control)

### TERMINAL ISK



#### Additional Accessories & Applications

- PrecisaBUS accessories, see Special Products on page 28/29

- SmartBox® applications, see Special Products on page 28/29

- Further accessories, see Special Products on page 28/29

\* Approved up to max. 30 100 g

\*\* -00x = IBK: -001 / ITK: -002 / ISK Count: -003 / ISK FPVO: -004



# SPECIAL PRODUCTS



## SERIES 321 LS CARAT

VFD ACW 232 SCS Optional

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“ <sup>4</sup>	Response Time	Item No.
LS 600M-C	600 ct / 120 g	0.001 ct / 0.001 g	0.001 ct / 0.001 g	0.001 ct / 0.001 g	Ø 90	I / 0.01 ct	2 s	321-9371-002*
LS 1100M-C	1100 ct / 220 g	0.001 ct / 0.001 g	0.001 ct / 0.001 g	0.001 ct / 0.001 g	Ø 90	I / 0.01 ct	2 s	321-9372-002*
LS 3100C-C	3100 ct / 620 g	0.01 ct / 0.01 g	0.01 ct / 0.005 g	0.01 ct / 0.01 g	135 x 135	II / 0.1 ct	1.5 s	321-9469-002*



## SERIES 260 BC CARAT

232

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“ <sup>4</sup>	Response Time	Item No.
BC 600M-C	600 ct / 120 g	0.001 ct / 0.001 g	0.001 ct / 0.001 g	0.003 ct / 0.001 g	Ø 80	I / 0.01 ct	4 s	260-9359-001
BC 1600C-C	1600 ct / 320 g	0.01 ct / 0.01 g	0.01 ct / 0.01 g	0.03 ct / 0.01 g	Ø 80	I / 0.1 ct	4 s	260-9468-001

## SERIES 321 LX/LS-STB STIRRER

LX 4200C-STB only

VFD ACW 232 SCS Optional

Model	Capacity	Readability	Repeatability	Linearity	Dimensions Stirring module B x T x H (mm)	Dimensions Stirrer balance B x T x H (mm)	Class / „e“ <sup>4</sup>	Response Time	Item No.
LS 2200C-STB	2 200 g	0.01 g	0.01 g	15 mg	190 x 190 x 30	228 x 381 x 99	II / 0.1 g	1.5 s	321-9461-801
LX 4200C-STB	4 200 g	0.01 g	0.01 g	15 mg	190 x 190 x 30	228 x 381 x 99	II / 0.1 g	1.5 s	321-9456-801
LS 4200C-STB	4 200 g	0.01 g	0.01 g	15 mg	190 x 190 x 30	228 x 381 x 99	II / 0.1 g	1.5 s	321-9463-801

## The First Balance that Weighs AND Stirs

This is a balance and a magnetic stirrer, which can be used together or independently. The stirrer speed and power settings are variable, so can be adjusted as required for each specific process e.g. stirring, mixing, dissolving, diluting, emulsifying etc.

The magnetic stirrer can be operated manually on the weighing pan, and can also be operated via a PC interface, allowing for integration into an automated system. The customer can also request for the stirrer to be programmed to run according to a bespoke pattern.



\* Initially verified with SCS (-001) only, see page 15 / table „Options“ / column 321 LS (protection IP65 not available)

# SPECIAL PRODUCTS

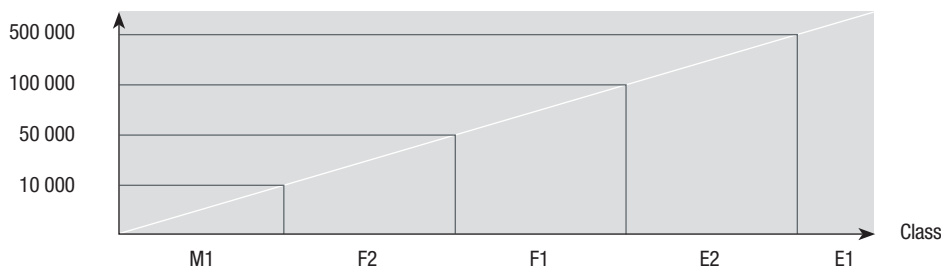


## Calibration Weights

Nominal Value	Class	Accuracy	Item No. without Certificate	Item No. with Certificate
50 g	E2	0.15 mg	350-8200	350-8260
100 g	E2	0.15 mg	350-8201	350-8261
200 g	E2	0.3 mg	350-8202	350-8262
500 g	E2	0.75 mg	350-8203	350-8263
100 g	F1	0.5 mg	350-8243	350-8264
200 g	F1	1.0 mg	350-8244	350-8265
500 g	F1	2.5 mg	350-8245	350-8266
1 000 g	F1	5.0 mg	350-8246	350-8267
100 g	F2	1.5 mg	350-8247	350-8268
200 g	F2	3 mg	350-8248	350-8269
500 g	F2	7.5 mg	350-8249	350-8270
1 000 g	F2	15 mg	350-8250	350-8271
2 000 g	F2	30 mg	350-8251	350-8272
5 000 g	F2	75 mg	350-8252	350-8273
2 000 g	M1	0.1 g	350-8253	350-8274
5 000 g	M1	0.25 g	350-8254	350-8275
10 000 g	M1	0.5 g	350-8255	350-8276
1 mg - 500 g	F1		350-8257	
1 mg - 1 000 g	F1		350-8256	
1 mg - 500 g	F2		350-8258	
1 mg - 1 000 g	F2		350-8259	

number of scale intervals = capacity / readability  
(e.g. 3 200C => d = 3 200g / 0.01g = 320 000)

scale interval on non-verified balances = d  
scale interval on verified balances = e



## DC IONIZERS



### Stat-FAN

Power supply	Neutralization	Power	Airflow	Temp. Range	Item No.
230 V AC, 115 V AC or 18 V AC by an adapter (x: 1=EU, 2=UK, 3=AUS, 4=USA)	< +/- 20 V	2 W	max. 225 l/min.	0-40° C	350-8682-00x

### Stat-PEN

Power supply	Neutralization	Power	Temp. Range	IP Class	Item No.
> 100 V AC 50-60 Hz (x: 1=EU, 2=UK, 3=AUS, 4=USA)	+/- 30 V	0.1 W	- 20+40° C	IP60	350-8683-00x

# SPECIAL PRODUCTS



Signal lamp



SmartBox®

Common Accessories	390 H <sub>-</sub>	360 EP	360 ES	321 LT/LX/LS	320 XB <sup>®</sup>
Printer CBM910 230V, incl. data cable and paper roll	350-8379	350-8379	350-8379	350-8379	350-8363
Printer CBM910 115V, incl. data cable and paper roll	350-8380	350-8380	350-8380	350-8380	350-8370
Paper roll for Printer CMB910	350-8366	350-8366	350-8366	350-8366	350-8366
Ribbon for Printer CBM910	350-8367	350-8367	350-8367	350-8367	350-8367
Multiplexor for up to 7 balances of the series 165/320/321/360/490 for serial (RS232) data transmission to PC or printer (at least one balance has to be of the series 320/321)	—	350-8513	350-8513	350-8513	350-8513
Data cable RJ45, length 0.75m	—	—	—	—	350-8525
Data cable RJ45, length 1.5m	—	—	—	—	350-8520
Data cable RJ45, length 3m	—	—	—	—	350-8521
Adapter RJ45 / DB9 f, (to PC)	350-8522	350-8522	350-8522	350-8522	350-8522
Adapter RJ45 / DB25 m, (to printer)	350-8524	350-8524	350-8524	350-8524	350-8524
Data cable DB9 m / RJ45, crossed, length 1.5m, (from reference to counting balance)	350-8661	350-8661	350-8661	350-8661	—
Data cable RJ45, crossed, length 1.5m, (from reference to counting balance)	—	—	—	—	350-8534
Data cable RJ45 / DB9 f, length 1.5m, (to PC)	—	—	—	—	350-8557
Data cable RJ45 / DB25 m, length 1.5m, (to printer)	—	—	—	—	350-8559
Data cable DB9 m / DB9 f, length 1.5m, (to PC)	350-8672	350-8672	350-8672	350-8672	—
Data cable DB9 m / DB25 m, length 1.5m, (to printer)	350-8673	350-8673	350-8673	350-8673	—
Data cable DB9 f / DB9 f, length 1.5m, (to PC)	—	—	—	—	—
Data cable DB9 f / DB25 m, length 1.5m, (to printer)	—	—	—	—	—
USB cable A-B, length 1.5m	PN 3950-125	PN 3950-125	PN 3950-125	PN 3950-125	—
HID cable, RS232 / USB (x: 0=e, 1=d, 2=f)	350-8816-x00	350-8816-x00	350-8816-x00	350-8816-x00	on demand
UPS (uninterruptible power supply), external	350-8662	350-8662	350-8662	350-8662	350-8662
Anti-theft device, mechanical	—	350-8555	350-8555	350-8555	350-8555
Bowl for diamonds (carat bowl)	350-8322	350-8322	350-8322	350-8322	350-8322

PrecisaBUS Accessories	390 H <sub>-</sub>	360 EP	360 ES	321 LT/LX/LS	320 XB <sup>®</sup>
Remote display, freestanding, with cable, length 1.5m	—	—	350-8504*	350-8504	350-8504
Remote display, mounted to the balance	—	—	—	—	350-8505
Remote display, mounted to the wall, with cable, length 3m	—	—	350-8516*	350-8516	350-8516
RS232 interface box for data transmission, DB25 f: - to PC, printer or bar code printer - from bar code reader (350-8856) or reference balance	—	—	350-8506*	350-8506	350-8506
Interface box, current loop, 20mA, passive	—	—	350-8526*	350-8526	350-8526
Analog output box, -10V .. +10V, resolution 10mV	—	—	350-8508*	350-8508	350-8508
Ethernet box, wired	—	—	350-8573*	350-8573	350-8573
Ethernet box, wireless	—	—	350-8588*	350-8588	350-8588
Signal lamp, indicator with 3 lamps; red, green and yellow	on demand	on demand	350-8510*	350-8510	350-8510
Horn for signal lamp	350-8533	350-8533	350-8533*	350-8533	350-8533
I/O box with 6 TTL inputs and 8 relay outputs	on demand	on demand	350-8509*	350-8509	350-8509
CCE bar code scanner BCS5040, DB25 m, to be connected by meanings of the RS232 interface 350-8506	—	—	350-8856	350-8856	350-8856



Printer



Ethernet

SmartBox® Applications	390 H <sub>-</sub>	360 EP	360 ES	321 LT/LX/LS	320 XB <sup>®</sup>
SmartBox® Counting	—	—	350-8511-011	350-8511-011	350-8511-011
SmartBox® FPVO (finished goods packing control)	—	—	350-8511-012	350-8511-012	350-8511-012
CCE bar code scanner BCS5040, RJ45, to be connected by meanings of channel 1 or 2 of the SmartBox®	—	—	350-8531	350-8531	350-8531

\* Needs PrecisaBUS converter slide-in module 350-8664



## SPECIAL PRODUCTS

165 BJ	260 BC	490 IBK/ITK/ISK	Terminal SRD/SRM	330 XM	EM 120-HR
350-8363	on demand	350-8363	350-8381	350-8363	350-8379
350-8370	on demand	350-8370	350-8382	350-8370	350-8380
350-8366	350-8366	350-8366	350-8366	350-8366	350-8366
350-8367	350-8367	350-8367	350-8367	350-8367	350-8367
350-8513	—	350-8513	—	350-8513	350-8513
350-8525	—	350-8525	—	350-8525	—
350-8520	—	350-8520	—	350-8520	—
350-8521	—	350-8521	—	350-8521	—
350-8522	—	350-8522	350-8522	350-8522	350-8522
350-8524	—	350-8524	350-8524	350-8524	350-8524
—	—	—	—	—	—
350-8534	—	—	—	—	—
350-8557	—	350-8557	—	350-8557	—
350-8559	—	350-8559	—	350-8559	—
—	—	—	—	—	350-8672
—	—	—	—	—	350-8673
—	—	—	350-8674	—	—
—	—	—	350-8675	—	—
—	—	—	—	—	PN 3950-125
—	—	on demand	—	—	—
350-8662	350-8662	on demand	350-8662	—	—
350-8555	—	350-8555	—	350-8555	350-8555
350-8322	—	350-8322	—	—	—

165 BJ	260 BC	490 IBK/ITK/ISK	Terminal SRD/SRM	330 XM	EM 120-HR
—	—	350-8504	—	350-8504	—
—	—	—	—	—	—
—	—	350-8516	—	350-8516	—
—	—	350-8506	—	350-8506	—
—	—	350-8526	—	350-8526	—
—	—	350-8508	—	350-8508	—
—	—	350-8573	—	350-8573	—
—	—	350-8588	—	350-8588	—
—	—	350-8510	—	350-8510	—
—	—	350-8533	—	350-8533	—
—	—	350-8509	—	350-8509	—
—	—	350-8856	—	350-8856	—

165 BJ	260 BC	490 IBK/ITK/ISK	Terminal SRD/SRM	330 XM	EM 120-HR
—	—	350-8511-011	—	—	—
—	—	350-8511-012	—	—	—
—	—	350-8531	—	—	—







## THE TECHCOMP GROUP

In addition to Precisa, Techcomp Europe comprises the following companies:

### **Froilabo**

Froilabo is a specialist manufacturer of Ultra Low and high temperature equipment. In addition to a wide range of minus 85C freezers, Froilabo manufactures various specialist systems for forced air flow, blast freezing, incubation and centrifugation. The company is based in Lyon in France and products are distributed globally. The brand has an excellent reputation for reliability and performance as products have been continuously developed over many years.

### **Dynamica**

Dynamica has a range of life science and analytical products incorporating spectrophotometers, GC, plate readers/washers and centrifuges. Laboratory instruments from Dynamica are used in the fields of life sciences, chemistry, pharmaceuticals and education. Products have application and technical support from the dedicated team in Milton Keynes in the UK.



EI is an analytical instrument specialist based designing and manufacturing Fluorescence Life Time Spectrophotometers for the research market. In addition, EI also produces a wide range of Gas Sensors using NIR technology for a multitude of industrial applications.



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