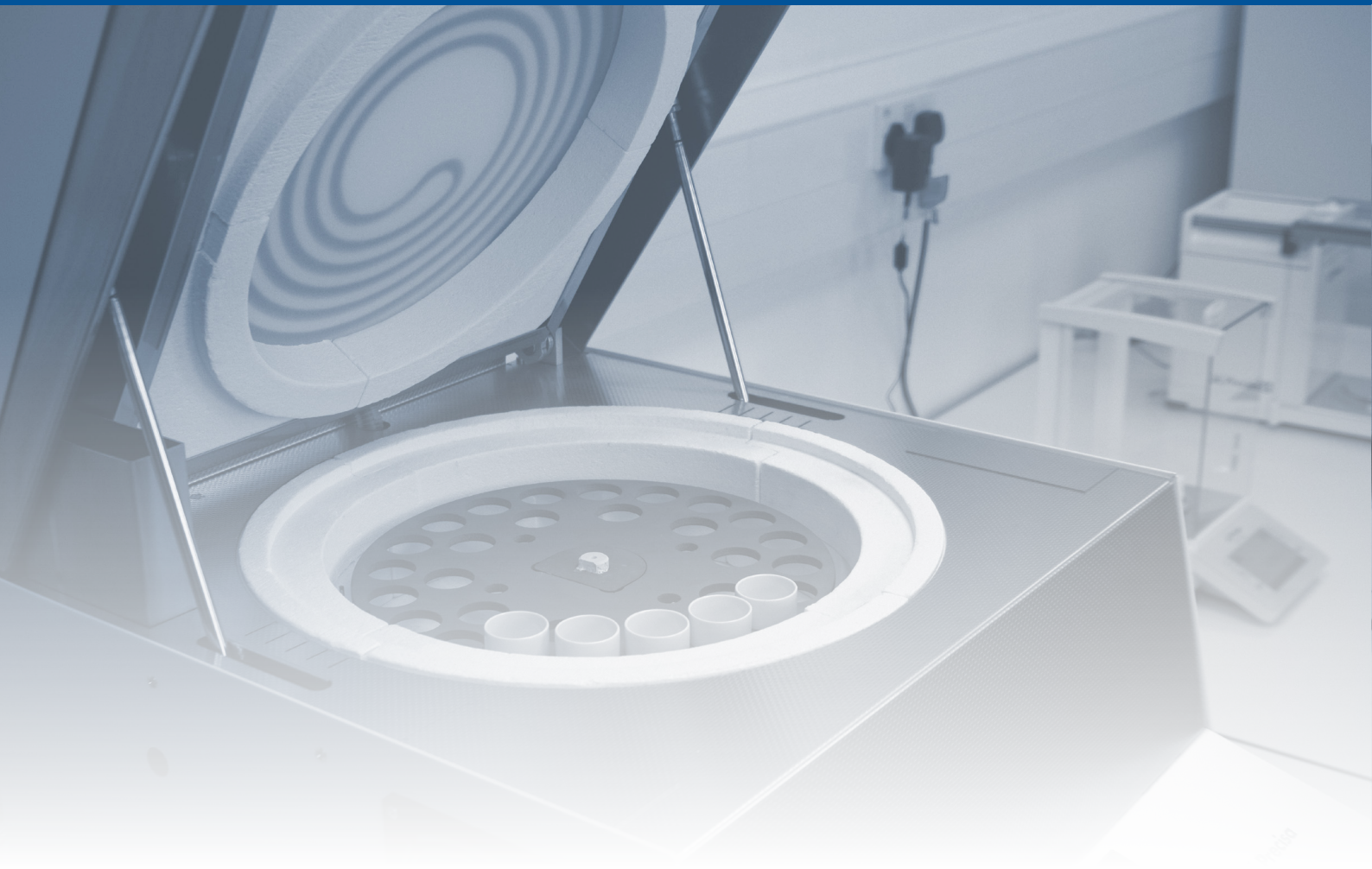


SWISS MADE
SWISS TECHNOLOGY



GENERAL CATALOGUE

BALANCES AND ANALYTICAL INSTRUMENTS



WE INVEST IN: TECHNOLOGY

Since 1935 Precisa has developed and manufactured the finest balances and equipment of its type in the world. With renowned Swiss quality and precision, Precisa is globally acknowledged as one of the leading balance manufacturing companies. A global distribution network in more than 100 countries ensures availability of Precisa products and services worldwide.

WE INVEST IN: THE FUTURE

Products manufactured by Precisa are 100% Swiss made to meet and exceed the highest and most exacting standards in the world. Diverse, flexible and multi-faceted in inception and development, our success is founded on these core values: in each phase of development, Precisa has been innovative, courageous, and stamped with the spirit of pioneers.



PRECISA DNA: ZERO COMPROMISE

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.



SERIES 390

With the Series 390 Precisa is setting new standards with a balance that provides touch screen technology, frameless automatic draft shield, self linearization and self calibration. With the easy to use menu, inspired by the best smartphones, you will be familiar with your unique balance within seconds.

SERIES 520

The Series 520 balances contain the innovative PHASTbloc™. This advanced weighing technology is the culmination of several decades of knowledge and experience and unites the benefits of a conventional weighing cell and monolithic design. This enables the efficient maintenance and repair of a weighing cell instead of replacing it - sustainability in practice. Advanced materials, engineering and unique manufacturing methods lift quality and performance to new heights.

SERIES 360

The Series 360 balances owe their extremely high reliability and durability to the well-known competence of Precisa's engineering and development. The weighing cell is of the highest mechanical quality and operates with extreme precision.

SERIES 321

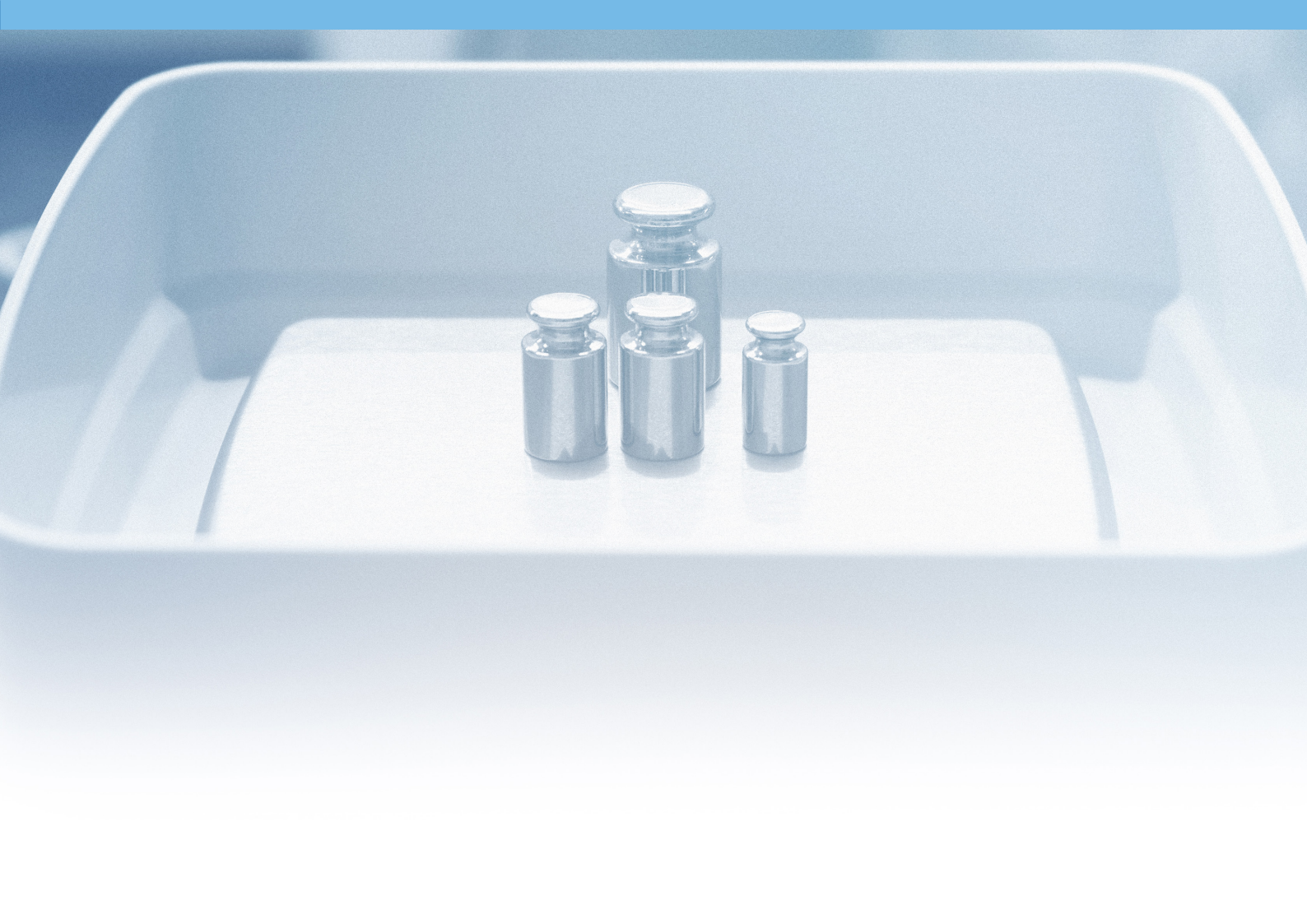
The Series 321 meets and exceeds user expectations regarding design, functionality and reliability of a modern weighing instrument. Swiss technology makes the Series 321 the first choice for both laboratories and industrial weighing applications where ease-of-use, efficient measurements and reliable results are required.

SERIES 167

The Series 167 is a versatile balance, delivering weighing results accurately, reliably and in the chosen format. The option of powering via battery makes the instrument the ideal choice either in the field or in the lab.

SERIES 490

The Series 490 provides a range of robust, reliable and accurate industrial scales for a wide array of applications. Exceptional performance features and a built-in automatic self-calibration system gives users full confidence in achieving accurate weighing results – approved and certified. User-friendly, multi-application terminals designed to meet every weighing requirement.



SERIES 365

The Series 365 model EM120-HR moisture analyzer meets the highest international quality standards. Precisa has developed an instrument which not only provides a high degree of precision, but also offers an outstanding array of additional options.

SERIES 530

The 530 PBM moisture analyzer Series has been developed by our in-house R&D team using the latest simulation technologies. The result is a high-performance device which further expands the abilities of analyses. It comes with numerous new features which make user's life easier, safer, and more efficient.

SERIES 340 prepASH®

The Series 340 EM thermogravimetric analyzer (TGA) automatically measures moisture, ash and loss of ignition at reduced workload and costs. The entire process is monitored and recorded from start to finish in a closed system. The prepASH® is designed as an autonomous device and does not require any additional PC, it is available in 3 models.

390

PREMIUM

HF MODEL

FULLY EQUIPPED WITH AUTOMATIC DRAFT SHIELD, TLS FOR TOUCHLESS OPERATION, PLUS SYSTEMS ECS AND AOS

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e”	Response Time	Item No.
Semi-Micro Balances									
HF 125SM	125 g	0.01 mg	0.010 mg	2.0 mg*	0.06 mg	ø 80	I / 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	I / 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	I / 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	I / 1 mg	8 / 2 s	390-9108-009
Analytical Balances									
HF 120A	120 g	0.1 mg	0.04 mg	8.2 mg*	0.1 mg	ø 90	I / 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	I / 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	I / 1 mg	3 s	390-9259-009
HF 520A	520 g	0.1 mg	0.06 mg	12 mg*	0.4 mg	ø 90	–	4 s	390-9260-009

HA MODEL

AUTOMATIC DRAFT SHIELD WITH TLS FOR TOUCHLESS OPERATION

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e”	Response Time	Item No.
Semi-Micro Balance									
HA 125SM	125 g	0.01 mg	0.010 mg	2.0 mg*	0.06 mg	ø 80	I / 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	I / 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	I / 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	I / 1 mg	8 / 2 s	390-9108-003
Analytical Balances									
HA 120A	120 g	0.1 mg	0.04 mg	8.2 mg*	0.1 mg	ø 90	I / 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	I / 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	I / 1 mg	3 s	390-9259-003
HA 520A	520 g	0.1 mg	0.06 mg	12 mg*	0.4 mg	ø 90	–	4 s	390-9260-003

* USP Min. weight (0.1%, k=2, Load >5%) = Min. weight x 10



- 7" Touch Screen
- Touchless Sensor Operation (HF/HA models)
- Ultra Low Weighing Pan

HE MODEL

ELECTRIC
DRAFT SHIELD

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e”	Response Time	Item No.
Semi-Micro Balances									
HE 125SM	125 g	0.01 mg	0.010 mg	2.0 mg*	0.06 mg	ø 80	I / 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	I / 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	I / 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	I / 1 mg	8 / 2 s	390-9108-002
Analytical Balances									
HE 120A	120 g	0.1 mg	0.04 mg	8.2 mg*	0.1 mg	ø 90	I / 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	I / 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	I / 1 mg	3 s	390-9259-002
HE 520A	520 g	0.1 mg	0.06 mg	12 mg*	0.4 mg	ø 90	—	4 s	390-9260-002

HM MODEL

MECHANICAL
DRAFT SHIELD

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e”	Response Time	Item No.
Semi-Micro Balances									
HM 125SM	125 g	0.01 mg	0.010 mg	2.0 mg*	0.06 mg	ø 80	I / 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	I / 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	I / 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	I / 1 mg	8 / 2 s	390-9108-001
Analytical Balances									
HM 120A	120 g	0.1 mg	0.04 mg	8.2 mg*	0.1 mg	ø 90	I / 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	I / 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	I / 1 mg	3 s	390-9259-001
HM 520A	520 g	0.1 mg	0.06 mg	12 mg*	0.4 mg	ø 90	—	4 s	390-9260-001

* USP Min. weight (0.1%, k=2, Load >5%) = Min. weight x 10

SERIES 390 OPTIONS & ACCESSORIES

Options	HF	HA	HE	HM
EU-Verification according to 2014/31/EU by Precisa (initial verification), available only for balances with EU/OIML type approval	350-8930	350-8930	350-8930	350-8390
TLS Touchless sensors to operate draft shield, tare, print, ...	standard	standard	350-8047	–
ECS Electrostatic Cancellation System & AOS Ambient Observation System all-round care package	standard	390-8500-000	390-8500-000	–
ECS Electrostatic Cancellation System	standard	390-8500-001	390-8500-001	–
AOS Ambient Observation System	standard	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 host (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
BEST Buoyancy error suppression technology	standard	standard	350-8738-001	350-8738-001
Density determination	standard	standard	350-8738-002	350-8738-002

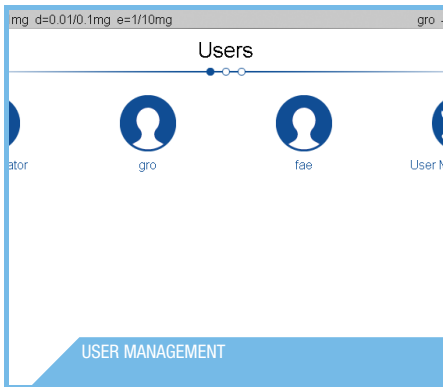
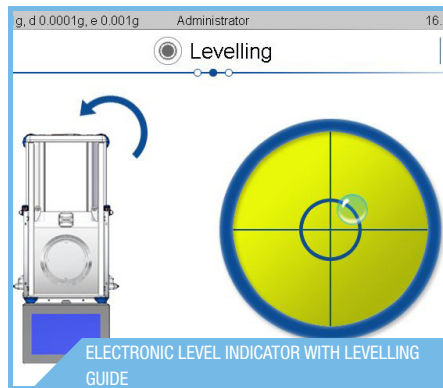
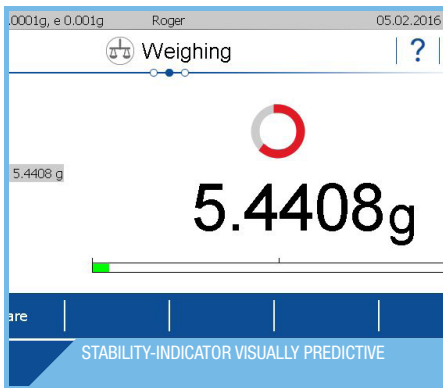
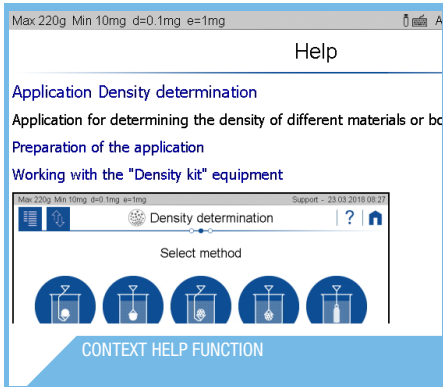
Accessories	HF	HA	HE	HM
Hook for weighing below the balance	350-8527	350-8527	350-8527	350-8527
VasoFrame 390	350-8721	350-8721	350-8721	350-8721
AeroPan 390 Ø 80mm for 0.01mg balances	350-8728	350-8728	350-8728	350-8728
AeroPan 390 Ø 90mm for 0.1mg balances	350-8729	350-8729	350-8729	350-8729
Density kit, Container size Ø 75mm, h= 100mm	350-8719	350-8719	350-8719	350-8719
Density kit solids only (w/o Glass body and Hook), Container size Ø 75mm, h= 100mm	350-8720	350-8720	350-8720	350-8720
Glass body 10ccm for density determination of liquids	350-7054	350-7054	350-7054	350-7054
Downholder for samples with density < 1g/cm3	350-7194	350-7194	350-7194	350-7194
Evaporation trap for pipette calibration complete for 0.01mg and 0.1mg balances	350-8717	350-8717	350-8717	350-8717
Adapter to assemble Eppendorf Humidity Trap for 0.01mg and 0.1mg balances	350-8718	350-8718	350-8718	350-8718
Single foot switch USB for one function: tare, print, ...	350-8747-011	350-8747-011	350-8747-011	350-8747-011
Double foot switch USB for two functions: tare and print, tare and ...	350-8747-012	350-8747-012	350-8747-012	350-8747-012
WiFi connection	350-8935	350-8935	350-8935	350-8935

Additional Accessories & Applications

- Further accessories, see Special Products / Accessories

Operating Temperature	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C (41°F .. 104°F)	115V / 230V, +15% / -20%	18 VA	50 - 60 Hz

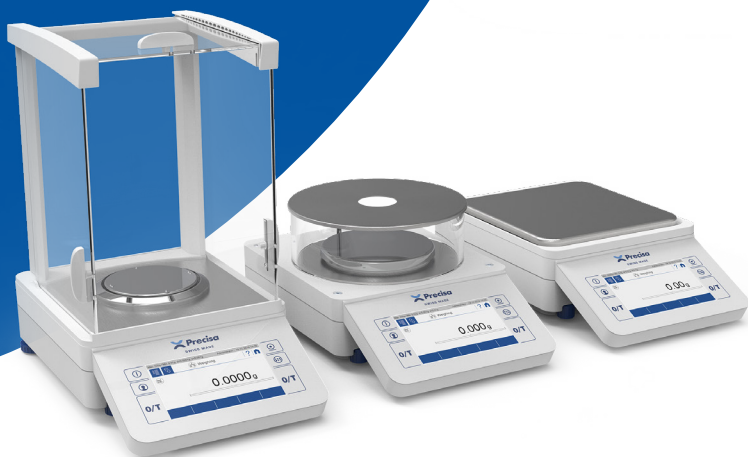
SERIES 390 FEATURES

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AC = accessory or optional built-in at factory
OD = on demand

520

ADVANCED/STANDARD



PT MODEL

TOUCH SCREEN
OPERATION

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e”	Response Time	Item No.
Analytical Balances									
PT 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	2 s	520-9221-002***
PT 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	2 s	520-9222-002***
Precision Balances									
PT 320M	320 g	1 mg	1 mg	200 mg*	1.5 mg	ø 120	II / 10 mg**	1.5 s	520-9321-002***
PT 620M	620 g	1 mg	1 mg	200 mg*	1.5 mg	ø 120	II / 10 mg**	1.5 s	520-9322-002***
PT 320C	320 g	0.01 g	0.005 g	1 g*	10 mg	186 x 186	—	1.5 s	520-9421-002***
PT 620C	620 g	0.01 g	0.005 g	1 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9422-002***
PT 1200C	1200 g	0.01 g	0.01 g	2 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9423-002***
PT 2200C	2200 g	0.01 g	0.01 g	2 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9424-002***
PT 3200C	3200 g	0.01 g	0.01 g	2 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9425-002***
PT 4200C	4200 g	0.01 g	0.01 g	2 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9426-002***
PT 6200C	6200g	0.01 g	0.01 g	2 g*	15 mg	186 x 186	—	1.5 s	520-9427-002***
PT 3200D	3200 g	0.1 g	0.05 g	10 g*	0.1 g	186 x 186	II / 0.1 g**	1 s	520-9521-002***
PT 6200D	6200 g	0.1 g	0.05 g	10 g*	0.1 g	186 x 186	II / 1.0 g**	1 s	520-9522-002***
PT 10200D	10200 g	0.1 g	0.1 g	20 g*	0.15 g	186 x 186	II / 1.0 g**	2 s	520-9523-002***
PT 10200G	10200 g	1 g	0.5 g	100 g*	0.5 g	186 x 186	II / 1.0 g**	1.5 s	520-9621-002***

* USP Min. weight (0.1%, k=2, Load >5%) = Min. weight x 10

** EU/OIML type approval on demand, Initially verified with SCS (-001) only

*** -001 for balance with SCS / -002 for balance without SCS



- PHASTbloc™ Weighing Cell
- Electronic Precision Levelling
- Multi User Management

PB MODEL

5 MEMBRANE KEYPAD
OPERATION

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
Analytical Balances									
PB 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	2 s	520-9211-002***
PB 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	2 s	520-9212-002***
Precision Balances									
PB 320M	320 g	1 mg	1 mg	200 mg*	1.5 mg	ø 120	II / 10 mg**	1.5 s	520-9311-002***
PB 620M	620 g	1 mg	1 mg	200 mg*	1.5 mg	ø 120	II / 10 mg**	1.5 s	520-9312-002***
PB 320C	320 g	0.01 g	0.005 g	1 g*	10 mg	186 x 186	–	1.5 s	520-9411-002***
PB 620C	620 g	0.01 g	0.005 g	1 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9412-002***
PB 1200C	1200 g	0.01 g	0.01 g	2 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9413-002***
PB 2200C	2200 g	0.01 g	0.01 g	2 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9414-002***
PB 3200C	3200 g	0.01 g	0.01 g	2 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9415-002***
PB 4200C	4200 g	0.01 g	0.01 g	2 g*	10 mg	186 x 186	II / 0.1 g**	1.5 s	520-9416-002***
PB 6200C	6200 g	0.01 g	0.01 g	2 g*	15 mg	186 x 186	–	1.5 s	520-9417-002***
PB 3200D	3200 g	0.1 g	0.05 g	10 g*	0.1 g	186 x 186	II / 0.1 g**	1 s	520-9511-002***
PB 6200D	6200 g	0.1 g	0.05 g	10 g*	0.1 g	186 x 186	II / 1.0 g**	1 s	520-9512-002***
PB 10200D	10200 g	0.1 g	0.1 g	20 g*	0.15 g	186 x 186	II / 1.0 g**	2 s	520-9513-002***
PB 10200G	10200 g	1 g	0.5 g	100 g*	0.5 g	186 x 186	II / 1.0 g**	1.5 s	520-9611-002***

* USP Min. weight (0.1%, k=2, Load >5%) = Min. weight x 10

** EU/OIML type approval on demand, Initially verified with SCS (-001) only

*** -001 for balance with SCS / -002 for balance without SCS

SERIES 520 OPTIONS & ACCESSORIES

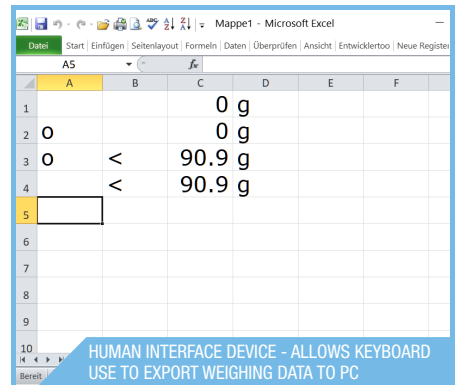
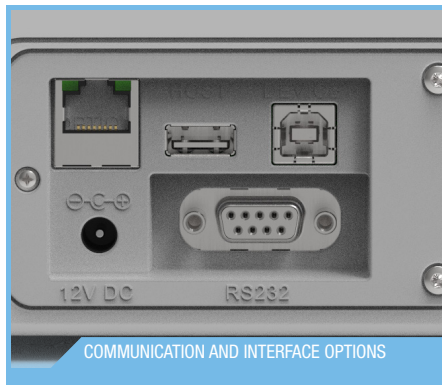
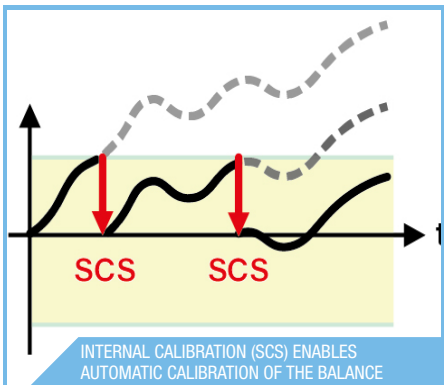
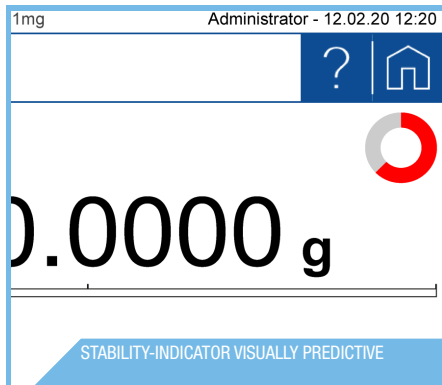
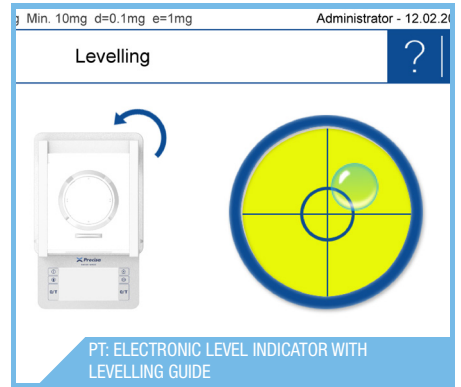
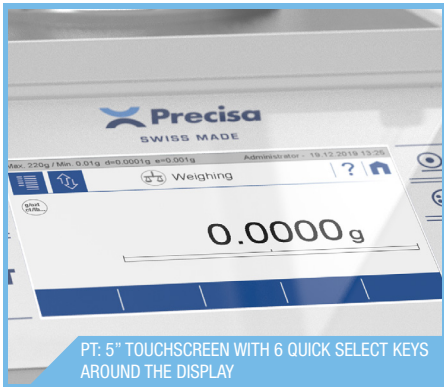
Options	PT	PB
EU-Verification according to 2014/31/EU by Precisa (initial verification) incl. alibi memory, available only for balances with EU/OIML type approval and SCS	350-8938	350-8938
Protection IP65, protection against ingress of dust and low pressure water jets, fitted at factory, not all types available	–	350-8754
Protection IP50, protection against ingress of dust, fitted at factory, not all types available	350-8748	–

Applications	PT	PB
BEST Buoyancy Error Suppression Technology	350-8739-001	–

Accessories	PT	PB
Draft shield PB	350-8735	350-8735
Draft shield PB + Weighing pan M* Includes all necessary parts: 350-8735, Weighing pan M*	350-8735-001	350-8735-001
Draft shield PB short	350-8742	350-8742
Draft shield PB short + Weighing pan M* Includes all necessary parts: 350-8742, Weighing pan M*	350-8742-001	350-8742-001
AeroPan 390 Ø 90mm for 0.1mg balances	350-8729	350-8729
AeroPan 520 186 x 186 for C, D, G balances	350-8758	350-8758
Remote display free-standing, incl. 1.5 m cable	–	350-8401-001
Remote display with wall bracket, incl. 1.5 m cable	–	350-8401-002
Hook for weighing below the balance	350-8744	350-8744
Animal weighing bowl complete for 0.01g, 0.1g and 1g balances	350-8743	350-8743
Density kit for 0.1mg balances Container size Ø 75mm, h= 100mm	350-8719	350-8719
Density kit solids only (w/o Glass body and Hook) for 0.1mg balances Container size Ø 75mm, h= 100mm	350-8720	350-8720
Glass body 10ccm for density determination of liquids	350-7054	350-7054
Downholder for samples with density < 1 g/cm ³	350-7194	350-7194
Single foot switch USB for one function: tare, print, ...	350-8747-011	350-8747-011
Double foot switch USB for two functions: tare and print, tare and ...	350-8747-012	350-8747-012
Protective cover 520 for the whole balance (0.1mg, 1mg), set of 5 pieces	350-8745-001	350-8745-001
Protective cover 520 for the whole balance (0.01g, 0.1g, 1g), set of 5 pieces	350-8745-002	350-8745-002
Protective cover for terminal, set of 5 pieces	350-8746	350-8746
Carry case 520	350-8490	350-8490
LAN Ethernet connection 520 PT	350-8939-000	–
WiFi connection 520 PT	350-8941	–
Interface box, LAN ethernet connection	–	350-8940-001
Interface box, WiFi connection	–	350-8940-002

Operating Temperature	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C (41°F .. 104°F)	115V / 230V, +15% / -20%	18 VA	50 - 60 Hz

SERIES 520 FEATURES



		LCD TS	LCD BL				I/O		e				RBC 123	USB host	232	HID	USB device			SCS	IDS		%			DOW						BEST	ART	MSW	MSP	
PT	✓	✓		AC	AC	OD	OD	✓	AC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	AC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PB	✓		✓	AC	AC	OD	OD	✓	AC	✓		✓	✓	✓		✓	✓	✓	✓	AC		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓			

AC = accessory or optional built-in at factory
OD = on demand

360

ADVANCED



EP MODEL

CUSTOMIZABLE GRAPHIC SCREEN
12 MEMBRANE KEY OPERATION

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
Semi-Micro Balances									
EP 125SM	125 g	0.01 mg	0.02 mg	4.0 mg*	0.03 mg	Ø 80	I / 1 mg**	8 s	360-9100-002
EP 225SM-DR	102 g / 225 g	0.01 mg / 0.1 mg	0.02 mg	4.0 mg*	0.03 mg / 0.1 mg	Ø 80	I / 1 mg**	8 s / 3 s	360-9101-002
Analytical Balances									
EP 120A	120 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	Ø 90	I / 1 mg**	2 s	360-9231-006
EP 220A	220 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	Ø 90	I / 1 mg**	2 s	360-9232-006
EP 320A	320 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	Ø 90	I / 1 mg**	3 s	360-9233-006
EP 420A	420 g	0.1 mg	0.15 mg	30 mg*	0.4 mg	Ø 90	I / 1 mg**	3 s	360-9234-006
EP 520A	520 g	0.1 mg	0.15 mg	30 mg*	0.4 mg	Ø 90	—	4 s	360-9236-006
EP 420A-FR	120 g - 420 g	0.1 mg / 1 mg	0.15 mg / 1 mg	30 mg*	0.3 / 1 mg	Ø 90	I / 1 mg**	3 s	360-9235-006

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
Precision Balances								
EP 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg**	1.5 s	360-9345-001
EP 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg**	1.5 s	360-9346-001
EP 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 10 mg**	2 s	360-9347-001
EP 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	I / 10 mg**	2 s	360-9348-001
EP 2200M	2 220 g	1 mg	1 mg	2 mg	135 x 135	I / 10 mg**	3 s	360-9351-001
EP 620M-FR	120 g - 620 g	1 mg / 10 mg	1 mg / 10 mg	1.5 mg / 10 mg	135 x 135	II / 10 mg**	1.5 s	360-9349-001
EP 1220M-FR	240 g - 1 220 g	1 mg / 10 mg	1 mg / 10 mg	1.5 mg / 10 mg	135 x 135	I / 10 mg**	2 s	360-9350-001
EP 1200C	1 200 g	0.01 g	0.01 g	10 mg	200 x 200	II / 0.1 g**	1.5 s	360-9437-001
EP 2200C	2 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	360-9438-001
EP 4200C	4 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	360-9439-001
EP 6200C	6 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	360-9440-001
EP 8200C	8 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	360-9441-001
EP 6200C-FR	2 200 g - 6 200 g	0.01 g / 0.1 g	0.01 g / 0.02 g	15 mg / 0.02 g	200 x 200	II / 0.1 g**	1.5 s	360-9442-001
EP 8200C-DR	3 200 g / 8 200 g	0.01 g / 0.1 g	0.01 g / 0.03 g	15 mg / 0.05 g	200 x 200	II / 0.1 g**	1.5 s	360-9443-001
EP 6200D	6 200 g	0.1 g	0.05 g	0.1 g	200 x 200	II / 1 g**	1 s	360-9534-001
EP 8200D	8 200 g	0.1 g	0.1 g	0.15 g	200 x 200	II / 1 g**	1 s	360-9535-001
EP 12200D	12 200 g	0.1 g	0.1 g	0.15 g	200 x 200	II / 1 g**	2 s	360-9536-001
EP 12200G	12 200 g	1 g	0.5 g	0.5 g	200 x 200	II / 1 g**	1.5 s	360-9613-001

* USP Min. weight (0.1%, k=2, Load >5%) = Min. weight x 10

** EU/OIML type approval on demand



- Graphic Display, Customisable
- Support for USP 41
- Multi User Management

ES MODEL

5 MEMBRANE KEYPAD
OPERATION

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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Semi-Micro Balances

ES 125SM	125 g	0.01 mg	0.02 mg	4.0 mg*	0.03 mg	Ø 80	I / 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 mg / 0.1 mg	Ø 80	I / 1 mg**	8 s / 3 s	360-9103-001

Analytical Balances

ES 120A	120 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	Ø 90	I / 1 mg**	2 s	360-9237-006
ES 220A	220 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	Ø 90	I / 1 mg**	2 s	360-9238-006
ES 320A	320 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	Ø 90	I / 1 mg**	3 s	360-9239-006
ES 420A	420 g	0.1 mg	0.15 mg	30 mg*	0.4 mg	Ø 90	I / 1 mg**	3 s	360-9240-006
ES 520A	520 g	0.1 mg	0.15 mg	30 mg*	0.4 mg	Ø 90	—	4 s	360-9242-006
ES 420A-FR	120 g - 420 g	0.1 mg / 1 mg	0.15 mg / 1 mg	30 mg*	0.3 / 1 mg	Ø 90	I / 1 mg**	3 s	360-9241-006

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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Precision Balances

ES 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg**	1.5 s	360-9352-001
ES 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg**	1.5 s	360-9353-001
ES 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 10 mg**	2 s	360-9354-001
ES 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	I / 10 mg**	2 s	360-9355-001
ES 2200M	2 220 g	1 mg	1 mg	2 mg	135 x 135	I / 10 mg**	3 s	360-9358-001
ES 620M-FR	120 g - 620 g	1 mg / 10 mg	1 mg / 10 mg	1.5 mg / 10 mg	135 x 135	II / 10 mg**	1.5 s	360-9356-001
ES 1220M-FR	240 g - 1 220 g	1 mg / 10 mg	1 mg / 10 mg	1.5 mg / 10 mg	135 x 135	I / 10 mg**	2 s	360-9357-001
ES 1200C	1 200 g	0.01 g	0.01 g	10 mg	200 x 200	II / 0.1 g**	1.5 s	360-9444-001
ES 2200C	2 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	360-9445-001
ES 4200C	4 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	360-9446-001
ES 6200C	6 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	360-9447-001
ES 8200C	8 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	360-9448-001
ES 6200C-FR	2 200 g - 6 200 g	0.01 g / 0.1 g	0.01 g / 0.02 g	15 mg / 0.02 g	200 x 200	II / 0.1 g**	1.5 s	360-9449-001
ES 8200C-DR	3 200 g / 8 200 g	0.01 g / 0.1 g	0.01 g / 0.03 g	15 mg / 0.05 g	200 x 200	II / 0.1 g**	1.5 s	360-9450-001
ES 6200D	6 200 g	0.1 g	0.05 g	0.1 g	200 x 200	II / 1 g**	1 s	360-9537-001
ES 8200D	8 200 g	0.1 g	0.1 g	0.15 g	200 x 200	II / 1 g**	1 s	360-9538-001
ES 12200D	12 200 g	0.1 g	0.1 g	0.15 g	200 x 200	II / 1 g**	2 s	360-9539-001
ES 12200G	12 200 g	1 g	0.5 g	0.5 g	200 x 200	II / 1 g**	1.5 s	360-9614-001

* USP Min. weight (0.1%, k=2, Load >5%) = Min. weight x 10

** EU/OIML type approval on demand

SERIES 360 OPTIONS & ACCESSORIES

Options	360 EP	360 ES
EU-Verification according to 2014/31/EU by Precisa (initial verification), available only for balances with EU/OIML type approval	on demand	on demand
Protection IP65: protection against ingress of dust and low pressure water jets, fitted at factory, not all types available	350-8694	350-8694

Accessories	360 EP	360 ES
Draft shield 360 ES manual, only for 0.01mg and 0.1mg balances	standard	standard
Draft shield 321 LG, only for 0.1mg balances	standard	standard
Draft shield 321 LG-M and Draft shield 321 LG-M short	on demand	on demand
Draft shield mg, glass with cover	320-8504	320-8504
Hook for weighing below the balance	350-8527	350-8527
Animal weighing bowl complete for 0.01g, 0.1g and 1g balances	350-8551	350-8551
VasoFrame for 0.01mg and 0.1mg balances with draft shield EP/ES	350-8727	350-8727
Density kit for 0.01 mg and 0.1 mg balances, container size: $\varnothing$ 75 mm, h = 100 mm	350-8636	350-8636
Density kit solids only (without glass body and hook) for 0.01 mg and 0.1 mg balances, container size $\varnothing$ = 75 mm, h = 100 mm	350-8637	350-8637
Glass body for density determination of liquids, V = 10cm 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 0.01 mg balances	350-8633	350-8633
Adapter for Eppendorf evaporation trap for 0.01 mg balances	350-8634	350-8634
Protective cover 360 for the whole balance (0.01mg, 0.1mg), set of 5 pieces	350-8676	350-8676
Protective cover 360 for the whole balance (0.01g, 0.1g, 1g), set of 5 pieces	350-8663	350-8663
Desk power adapter with EU plug, 80V - 240V	350-8372	350-8372

Slide-in Modules, on demand only	360 EP	360 ES
PrecisaBUS converter, enables connection to almost all PrecisaBUS accessories	–	350-8664
USB Host	350-8665	–
LAN Ethernet connection	350-8666	–
WiFi connection	350-8667	–
Bluetooth connection	350-8668	–
PS 2 female & RS232 DB9 female	350-8670	–

Additional Accesories & Applications
- PrecisaBUS accessories, see Special Products / Accessories
- SmartBox® applications, see Special Products / Accessories
- Further accessories, see Special Products / Accessories

Operating Temperature	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C (41°F .. 104°F)	115V / 230V, +15% / -20%	18 VA	50 - 60 Hz

SERIES 360 FEATURES

[illegible]

AC = accessory or optional built-in at factory
OD = on demand

321

STANDARD



LS MODEL

5 MEMBRANE KEYPAD
OPERATION

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
Analytical Balances									
LS 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg	2 s	321-9249-001
LS 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg	2 s	321-9250-001
LS 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	–	3 s	321-9251X-001

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Response Time	Item No.
Precision Balances							
LS 160M	160 g	1 mg	1 mg	1.5 mg	135 x 135	1.5 s	321-9365X-001
LS 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	1.5 s	321-9366X-001
LS 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	1.5 s	321-9367X-001
LS 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	2 s	321-9368X-001
LS 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	2 s	321-9369X-001
LS 620C	620 g	0.01 g	0.005 g	10 mg	200 x 200	1.5 s	321-9459X-001
LS 2200C	2 200 g	0.01 g	0.01 g	15 mg	200 x 200	1.5 s	321-9461X-001
LS 3200C	3 200 g	0.01 g	0.01 g	15 mg	200 x 200	1.5 s	321-9462X-001
LS 4200C	4 200 g	0.01 g	0.01 g	15 mg	200 x 200	1.5 s	321-9463X-001
LS 6200C	6 200 g	0.01 g	0.01 g	15 mg	200 x 200	1.5 s	321-9464X-001
LS 3200D	3 200 g	0.1 g	0.05 g	0.1 g	200 x 200	1 s	321-9550X-001
LS 6200D	6 200 g	0.1 g	0.05 g	0.1 g	200 x 200	1 s	321-9551X-001
LS 10200D	10 200 g	0.1 g	0.1 g	0.15 g	200 x 200	2 s	321-9552X-001
LS 10200G	10 200 g	1 g	0.5 g	0.5 g	200 x 200	1.5 s	321-9616X-001

* USP Min. weight (0.1%, k=2, Load >5%) = Min. weight x 10

SERIES 321 OPTIONS, ACCESSORIES & FEATURES



																																																																																																																	
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Options	LS
EU-Verification according to 2014/31/EU by Precisa (initial verification), available only for balances with EU/OIML type approval and SCS	on demand
Protection IP65: protection against ingress of dust and low pressure water jets, fitted at factory, not all types available	350-8695
SCS LS: Self Calibration System with clock, automatic on temperature change and real-time programmable	standard

Accessories	LS
Draft shield 321 LG, only for 0.1mg balances	standard
Draft shield 321 LG-M and Draft shield 321 LG-M short, for balances ≥ 1 mg and range ≤ 2.2 kg	on demand
Draft shield mg, glass with cover	320-8504
Hook for weighing below the balance	350-8527
AeroPan 321 200 x 200 for C, D, G balances	350-8757
Animal weighing bowl complete for 0.01g, 0.1g and 1g balances	350-8551
VasoFrame for 0.1mg balances with draft shield LG	350-8722
VasoFrame for 0.1mg balances with draft shield LX	350-8727
Density kit for 0.01 mg and 0.1 mg balances, container size: $\varnothing$ 75 mm, h = 100 mm	350-8636
Density kit solids only (without glass body and hook) for 0.01 mg and 0.1 mg balances, container size $\varnothing$ = 75 mm, h = 100 mm	350-8637
Glass body for density determination of liquids, V = 10cm ³	350-7054
Downholder for samples with $\rho < 1$ g/cm ³	350-7194
Evaporation trap for pipette calibration for 0.1 mg balances	350-8633
Adapter for Eppendorf evaporation trap for 0.1 mg balances	350-8634
Protective cover 321 for the whole balance, set of 5 pieces	350-8686
Desk power adapter with EU plug, 80V - 240V	350-8372

Additional Accesories & Applications

- PrecisaBUS accessories, see Special Products / Accessories
- SmartBox® applications, see Special Products / Accessories
- Further accessories, see Special Products / Accessories

Operating Temperature	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C (41°F .. 104°F)	115V / 230V, +15% / -20%	18 VA	50 - 60 Hz

AC = accessory or optional built-in at factory

OD = on demand

167

ENTRY



BJ MODEL

5 MEMBRANE KEYPAD
OPERATION

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Response Time	Item No.
Precision Balances							
BJ 110M SCS	110 g	1 mg	1 mg	2 mg	ø 100	4s	167-9327X-001
BJ 110M	110 g	1 mg	2 mg	3 mg	ø 100	4s	167-9327X-002
BJ 210M SCS	210 g	1 mg	2 mg	3 mg	ø 100	4s	167-9327X-001
BJ 210M	210 g	1 mg	2 mg	3 mg	ø 100	4s	167-9328X-002
BJ 410C	410 g	0.01 g	0.02 g	0.03 g	135 x 135	2 s	167-9422X-002
BJ 610C	610 g	0.01 g	0.02 g	0.03 g	135 x 135	2 s	167-9423X-002
BJ 1000C	1 000 g	0.01 g	0.02 g	0.03 g	135 x 135	4 s	165-9425X-002
BJ 1200C	1 200 g	0.01 g	0.02 g	0.03 g	135 x 135	4 s	165-9436X-002
BJ 2200C	2 200 g	0.01 g	0.02 g	0.03 g	135 x 135	4 s	165-9451X-002
BJ 2100D	2 100 g	0.1 g	0.2 g	0.3 g	170 x 140	2 s	165-9513X-002
BJ 4100D	4 100 g	0.1 g	0.2 g	0.3 g	170 x 140	2 s	165-9514X-002
BJ 6100D	6 100 g	0.1 g	0.2 g	0.3 g	170 x 140	2 s	165-9515X-002
BJ 8100D	8 100 g	0.1 g	0.2 g	0.3 g	170 x 140	4 s	165-9518-002
BJ 6100G	6 100 g	1 g	2 g	3 g	170 x 140	2 s	165-9603X-002
BJ 12100G	12 100 g	1 g	2 g	3 g	170 x 140	2 s	165-9604X-002

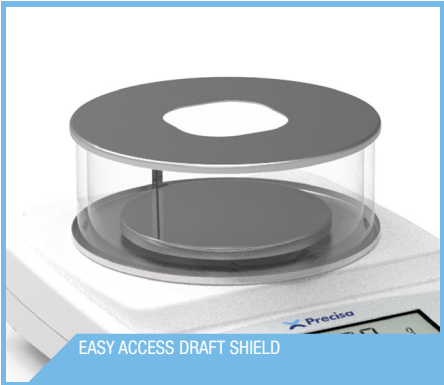
Options	167 BJ
Battery operation with 9V alkaline battery	standard (battery not included)

Accessories	167 BJ
Protective cover 167 for the whole balance, set of 5 pieces	350-8598

Additional Accessories & Applications
- Further accessories, see Special Products / Accessories

Operating Temperature	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C (41°F .. 104°F)	115V / 230V, +15% / -20%	3 VA	50 - 60 Hz

SERIES 167 OPTIONS & ACCESSORIES



BJ	✓	✓	✓	AC	✓	✓	✓	✓	AC	AC	OD	✓	✓	✓	✓	✓

AC = accessory or optional built-in at factory



490

INDUSTRIAL SCALES



IBK/ITK/ISK MODELS

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	1 2000 g / 3 4 100 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	1 2000 g - 3 4 100 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**

Terminal IBK as standard
Protection platform IP54 (IP65 optional)

Options	490
EC-Verification according to 2014/31/EU by Precisa (initial verification) available only for balances with EU/OIML type approval	350-8578
Protection IP65: protection against ingress of dust and low pressure water jets, fitted at factory	350-8646

Accessories	490
Wall bracket for terminal	350-8654
Post for rear mounted terminal	350-8655
Connection cable terminal to platform, length 3m	350-8586-030
Connection cable terminal to platform, length 5.5m	350-8586-055
Connection cable terminal to platform, length 10m	350-8586-100
Below the balance weighing feature, up to 40kg	350-8630
Below the balance weighing feature, up to 40kg, IP65 version	350-8635
Protective cover 490 for terminal, set of 5 pieces	350-8599

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

* Approved up to max. 30 100 g

** -001 for Terminal IBK, -002 for Terminal ITK, -003 for Terminal ISK Count, -004 for Terminal ISK FPVO

SERIES 490 FEATURES



IBK TERMINAL

User-friendly indicator.

Standard keyboard layout with 10 keys.
4 freely definable function keys.

Large digital display, 20 digit display information line.

Vacuum fluorescent display.

Weighing-in guide +/-



ITK TERMINAL

User-friendly, multi-application indicator.

Additional keyboard for alphanumerical inputs for manual tare and reference weight input.

Vacuum fluorescent display.



ISK TERMINAL

Multi-application indicator for special applications.

Additional keyboard with 30 keys for alphanumerical inputs for manual tare and reference weight input.

Vacuum fluorescent display.

Weighing-in guide +/-

All applications as per Indicator IT and additional SmartBox

[illegible]

Operating Temperature	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C (41°F .. 104°F)	115V / 230V, +15% / -20%	25 VA	50 - 60 Hz

AC = accessory or optional built-in at factory

OD = on demand

MOISTURE ANALYZERS



SERIES 365

CUSTOMIZABLE GRAPHIC SCREEN
12 MEMBRANE KEYPAD OPERATION

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	50 - 230 °C	ø 100	4 s

SERIES 530

10 MEMBRANE KEYPAD
OPERATION

Model	Capacity	Readability	Repeatability	Linearity	Temperature Range	Pan Size (mm)	Response Time
PBM 60-HR	124 g	0.1 mg / 0.001%	2 g / 0.05 % 10 g / 0.01 %	1.5 mg	50 - 230°C	ø 100	4 s
PBM 60	124 g	1 mg / 0.01%	2 g / 0.1 % 10 g / 0.02 %	1.5 mg	50 - 230°C	ø 100	3 s
PBM 66	220 g	1 mg / 0.01%	2 g / 0.1 % 10 g / 0.02 %	1.5 mg	50 - 230°C	ø 100	3 s
PBM 50	52 g	1 mg / 0.01%	1 g / 0.5 % 10 g / 0.05 %	3.0 mg	50 - 170°C	ø 100	4 s

ITEM NUMBERS*

Radiator	EM 120-HR	PBM 60-HR	PBM 60	PBM 66	PBM 50
Halogen radiator, 230 V	365-9245-001	530-9243-001	530-9324-001	530-9329-001	530-9360-001
Halogen radiator, 115 V	365-9245-002	530-9243-002	530-9324-002	530-9329-002	530-9360-002
Infrared radiator, 230 V	365-9245-003	530-9243-003	530-9324-003	530-9329-003	530-9360-003
Infrared radiator, 115 V	365-9245-004	530-9243-004	530-9324-004	530-9329-004	530-9360-004
Infrared dark radiator, 230 V	365-9245-007	530-9243-007	530-9324-007	530-9329-007	530-9360-007
Infrared dark radiator, 115 V	365-9245-008	530-9243-008	530-9324-008	530-9329-008	530-9360-008

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

MOISTURE ANALYZERS OPTIONS & ACCESSORIES



	+	LCD GR	LCD BL	SCS			USB Device	USB Host	RS 485		RS 232	232	HID				ANT		
EM 120-HR	✓	✓		✓	✓	✓	✓	AC	✓	✓	✓	✓		AC	AC	OD	✓	✓	✓
PBM 60-HR	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	AC	AC	OD		✓	✓
PBM 60	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	AC	AC	OD		✓	✓
PBM 66	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	AC	AC	OD		✓	✓
PBM 50	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓	AC	AC	OD		✓	✓

Accessories	EM 120-HR	PBM 60-HR	PBM 60	PBM 66	PBM 50
Sample pans, aluminum, with collar Ø 100 mm, set of 80 pieces	350-1015	350-1015	350-1015	350-1015	350-1015
Sample pans, aluminum, Ø 100mm, set of 80 pieces	350-2032	—	—	—	—
Sample pan reusable, stainless steel, Ø100mm, 1 piece	330-2018	330-2018	330-2018	330-2018	330-2018
Fiberglass filters, Ø 90mm, set of 100 pieces	350-4130	350-4130	350-4130	350-4130	350-4130
Temperature calibration disc, sensor - type K	350-8580	350-8580	350-8580	350-8580	350-8580
Temperature calibration set, with certificate	350-8585	350-8585	350-8585	350-8585	350-8585
Temperature calibration set, without certificate	350-8584	350-8485	350-8584	350-8584	350-8584
Calibration weight, 50 g, E2	350-8241	350-8241	350-8241	350-8241	350-8241
Dust filter set for moisture analyzers	350-8687	350-8687	350-8687	350-8687	350-8687
Protective cover 530 for terminal, set of 5 pieces	—	350-8490	350-8490	350-8490	350-8490

Slide-in Modules, Slide-in Modules, on demand only	EM 120-HR
Single foot switch USB for one function: tare, print, ...	350-8747-001
Double foot switch USB for two functions: tare and print, tare and ...	350-8747-002
USB Host	350-8665
LAN Ethernet connection	350-8666
WiFi connection	350-8667
Bluetooth connectionv	350-8668
PS 2 female & RS232 DB9 female	350-8670

Additional Accesories & Applications
- PrecisaBUS accessories, see Special Products / Accessories
- Further accessories, see Special Products / Accessories

Operating Temperature	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C (41°F .. 104°F)	115V / 230V, +15% / -20%	420 W	50 - 60 Hz

340

AUTOMATIC MOISTURE & ASH ANALYZERS

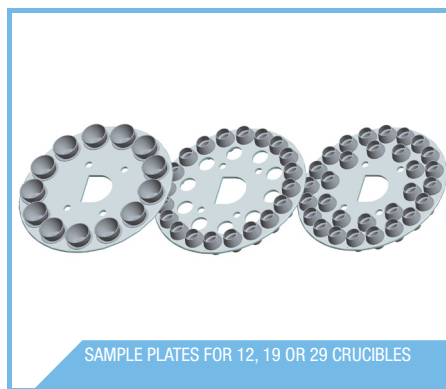


prepASH® MODEL

Model	Capacity	Readability	Repeatability	Temperature Range	Crucibles	Response Time	Item No.
prepASH 2.0 229	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	340-9220-003
prepASH 2.0 219	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	340-9221-003
prepASH 2.0 212	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	340-9222-003

Options				Recommendations		
	prepASH 229	prepASH 219	prepASH 212	Standard Applications	Sulfuric Acid Applications	Volatile (Coal, Coke)
3 inputs gas flow control unit for air and 2 additional gases (N ₂ , O ₂)	340-8502	340-8502	340-8502	yes	yes	essential
prepSTATION 2.0 includes : - prepSTATION 2.0 unit - Sample disc - PB 120A analytical balance - Data cable for the connection between prepSTATION 2.0 and balance	340-9011-001	340-9011-001	340-9011-002	yes	yes	no
Scrubber, Condensation-neutralization-absorption unit for e.g. determination of sulfated ash with sulfuric acid	340-9001	340-9001	340-9001	optional	essential	no
Scrubber, Condensation-Absorption-Connection-Set	340-9002	340-9002	340-9002	optional	essential	no
ECD Enhanced cooling device	340-8504	340-8504	340-8504	yes	yes	yes
ECD Enhanced cooling device, as retrofit kit	340-9004	340-9004	340-9004	yes	yes	yes

SERIES 340 ACCESSORIES



	+	LCD TS										
229	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
219	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
212	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Accessories	prepASH 229			prepASH 219			prepASH 212			Recommendations		
	standard			standard			standard			Standard Applications	Sulfuric Acid Applications	Volatile (Coal, Coke)
Sample plate for 29/19 crucibles, silicate ceramic SiC, for prepASH 229 and prepASH 219	standard (340-4065)			standard (340-4065)			—			standard 229/219	standard 229/219	standard 229/219
Crucible 25ml, porcelain glazed, set of 5 pieces APPROVED for applications with acid	standard			standard			340-8037			standard 229/219	standard 229/219	no
Crucible 26ml, Al2O3, for use with lid Al2O3, set of 5 pieces, use with sample plate 29/19 and crucible-lid 340-8033 NOT recommended for applications with acid	340-8032			340-8032			340-8032			yes	yes	standard 229/219
Crucible-lid, Al2O3, set of 5 pieces use with sample plate 29/19 and crucible 340-8032	340-8033			340-8033			340-8033			yes	yes	standard 229/219
Sample plate for 12 large crucibles, silicate ceramic SiC, for prepASH 229/219/212 use with adapter 340-8035	340-4072			340-4072			standard			standard 212	standard 212	no
Adapter for crucible, silicate ceramic SiC, set of 5 pieces use only with sample plate 12 and standard crucible 340-8034, 340-8038 or other crucible available from the market	340-8035			340-8035			standard			standard 212	standard 212	no
Crucible 40ml, porcelain glazed, SiC ASTM D 189-65, set of 5 pieces, use only with sample plate 12 and adapter 340-8035 APPROVED for applications with acid	340-8034			340-8034			standard			standard 212	standard 212	no
Crucible 50ml, porcelain glazed, set of 5 pieces use only with sample plate 12 and adapter 340-8035 APPROVED for applications with acid	340-8038			340-8038			340-8038			yes	yes	no
Sample plate holder	340-8012			340-8012			340-8012			yes	recommended	yes
Crucible tongs	PN 3950-099			PN 3950-099			PN 3950-099			standard	standard	—
Crucible tongs for crucible with lids	340-7090			340-7090			340-7090			—	—	standard
Protection for Thermocouple	340-8516			340-8516			340-8516			optional	optional	optional

Additional Accessories & Applications

- Further accessories, see Special Products / Accessories

Operating Temperature	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C (41°F .. 104°F)	115V / 230V, +15% / -20%	5.5 kW (230 W, 25 A)	50 - 60 Hz

SPECIAL PRODUCTS



LS CARAT MODEL

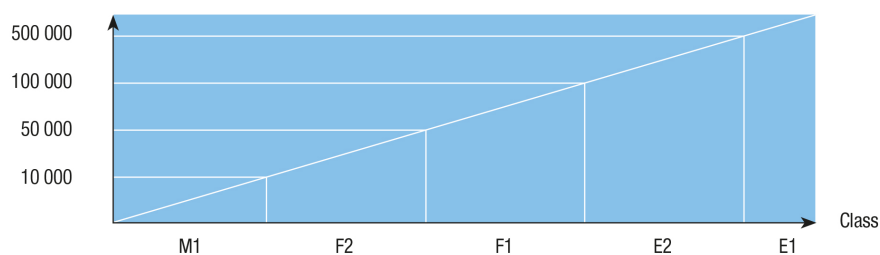
SERIES 321

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	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	321-9371-001
LS 1100M-C	1100 ct / 200 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	321-9372-001
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	321-9469-001



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	350-8277
1 mg - 1 000 g	F1		350-8256	350-8278
1 mg - 500 g	F2		350-8258	350-8279
1 mg - 1 000 g	F2		350-8259	350-8280



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

SPECIAL PRODUCTS ACCESSORIES

Common Accessories	520	390 H_	360 EP	360 ES
Printer LP4024, 230V / 115V	350-8391	350-8391	350-8391	350-8391
Paper roll for Printer LP4024, set of 4 pieces	350-8392	350-8392	350-8392	350-8392
Adhesive paper roll for Printer LP4024, set of 5 pieces	350-8396	350-8396	350-8396	350-8396
Ribbon for Printer LP4024	PN 3953-013	PN 3953-013	PN 3953-013	PN 3953-013
Paper roll for Printer CBM910	350-8366	350-8366	350-8366	350-8366
Ribbon for Printer CBM910	350-8367	350-8367	350-8367	350-8367
Multiplexor for up to 7 instruments for serial (RS232) data transmission to PC or Printer (at least one instrument must be a series 320, 321, 330, 335, 365 or 490)	-	-	350-8513	350-8513
Data cable RJ45, 0.75m	-	-	-	-
Data cable RJ45, 1.5m	-	-	-	-
Data cable RJ45, 3m	-	-	-	-
Adapter RJ45-DB9f, (PC/Printer LP4024)	-	-	-	-
Adapter RJ45-DB25m, (Printer CBM910)	-	-	-	-
Data cable DB9m-RJ45, 1.5m, for balance used as reference balance	350-8661	350-8661	350-8661	350-8661
Data cable RJ45, crossed, 1.5m, for balance used as reference balance	-	-	-	-
Data cable RJ45-DB9f, 1.5m, (PC/Printer LP4024)	-	-	-	-
Data cable RJ45-DB25m, 1.5m, (Printer CBM910)	-	-	-	-
Data cable DB9m-DB9f, 1.5m, (PC/Printer LP 4024, 1:1)	350-8672	350-8672	350-8672	350-8672
Data cable DB9m-DB25m, 1.5m, (Printer CBM910)	350-8673	350-8673	350-8673	350-8673
Data cable DB9f-DB9f, 1.5m, (PC/Printer LP4024, 1:1)	-	-	-	-
Data cable DB9f-DB25m, 1.5m, (Printer CBM910)	-	-	-	-
USB cable A-B, 1.5m, (PC)	PN 3950-125	PN 3950-125	PN 3950-125	PN 3950-125
Interface box, Interface and power splitter	350-8940-000	350-8940-000	350-8940-000	350-8940-000
Interface box, LAN Ethernet connection	see also 520	built-in	see also 360	350-8940-001
Interface box, WiFi connection	see also 520	see 390	see also 360	350-8940-002
Interface box, Bluetooth connection	see also 520	see also 390	see also 360	350-8940-003
HID cable, RS232, DB9m-USB-A, 1.5m, (PC), (x: 0=e, 1=d, 2=f)	use PN 3950-125	on demand	350-8816-x00	350-8816-x00
External USV accu power pack for continuous operation	350-8662	350-8662	350-8662	350-8662
Power splitter cable	350-8399	350-8399	350-8399	350-8399
Anti-theft device, mechanical	350-8555	350-8555	350-8555	350-8555
Carat bowl (for diamond weighing)	350-8322	350-8322	350-8322	350-8322
PrecisaBUS Accessories (available on demand only)	520	390 H_	360 EP	360 ES
Remote display free-standing, incl. 1.5 m cable	see 520	-	-	350-8504*
Remote display mounted to the balance	-	-	-	-
Remote display with wall bracket, incl. 1.5 m cable	see 520	-	-	350-8516*
RS232 interface box for data transmission, DB25f: - to PC, Printer or Barcode-Printer - from Barcode-Reader (350-8856) or reference balance	-	-	-	350-8506*
Interface 20mA current loop passive	-	-	-	350-8526*
LAN Ethernet connection	-	-	-	350-8573*
WiFi connection	-	-	-	350-8588*
Signal Lamp, indicator with 3 lamps, green / red / yellow	350-8734	350-8734	350-8734	350-8510*
Horn for signal lamp	350-8533	350-8533	350-8533	350-8533*
Input / Output module with 6 TTL inputs / 8 relay outputs	on demand	on demand	on demand	350-8509*
CCE-Barcode scanner BCS5040, DB25m, with push button, to be connected to Interface RS232 350-8506	-	-	-	350-8856
SmartBox® Applications	520	390 H_	360 EP	360 ES
SmartBox® Counting	-	-	-	350-8511-011*
SmartBox® FPV0 (Finished Goods Packing Control)	-	-	-	350-8511-012*
CCE-Barcode scanner BCS5040, RJ45, with push button to be connected to the SmartBox®	-	-	-	350-8531

* Needs PrecisaBUS converter slide-in module 350-8664

SPECIAL PRODUCTS ACCESSORIES

321 LT/LX/LS	167 BJ	490 IBK/ITK/ISK	530 PBM	EM 120-HR
350-8391	350-8391	350-8391	350-8391	350-8391
350-8392	350-8392	350-8392	350-8392	350-8392
PN 3953-013	PN 3953-013	PN 3953-013	PN 3953-013	PN 3953-013
350-8366	350-8366	350-8366	350-8366	350-8366
350-8367	350-8367	350-8367	350-8367	350-8367
350-8513	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	-
-	350-8524	350-8524	350-8524	-
350-8661	-	-	-	-
-	350-8534	-	-	-
-	350-8557	350-8557	350-8557	-
-	350-8559	350-8559	350-8559	-
350-8672	-	-	-	350-8672
350-8673	-	-	-	350-8673
-	-	-	-	-
-	-	-	-	-
PN 3950-125	-	-	-	PN 3950-125
350-8940-000	350-8940-000	350-8940-000	350-8940-000	350-8940-000
350-8940-001	350-8940-001	350-8940-001	350-8940-001	350-8940-001
350-8940-002	350-8940-002	350-8940-002	350-8940-002	350-8940-002
350-8940-003	350-8940-003	350-8940-003	350-8940-003	350-8940-003
350-8816-x00	-	350-8816-x00	-	-
350-8662	350-8662	350-8662	-	-
350-8399	350-8399	-	-	-
350-8555	350-8555	350-8555	350-8555	350-8555
350-8322	350-8322	350-8322	-	-
321 LT/LX/LS	167 BJ	490 IBK/ITK/ISK	530 PBM	EM 120-HR
350-8504	-	350-8504	350-8504	-
-	-	-	-	-
350-8516	-	350-8516	350-8516	-
350-8506	-	350-8506	350-8506	-
350-8526	-	350-8526	350-8526	-
350-8573	-	350-8573	350-8573	-
350-8588	-	350-8588	350-8588	-
350-8510	-	350-8510	350-8510	-
350-8533	-	350-8533	350-8533	-
350-8509	-	350-8509	350-8509	-
350-8856	-	350-8856	350-8856	-
321 LT/LX/LS	167 BJ	490 IBK/ITK/ISK	530 PBM	EM 120-HR
350-8511-011	-	350-8511-011**	-	-
350-8511-012	-	350-8511-012**	-	-
350-8531	-	350-8531	-	-

** In 490 ISK the corresponding SmartBox® application Counting or FPVO is built-in

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
	Colour touch screen		USB device (for PC)
	Backlit graphic LCD		Human Interface Device (for PC)
	Backlit LCD		LAN Ethernet connection
	Vacuum fluorescent display		WiFi connection
	Self-linearization system, fully automated		Bluetooth connection
	Self-calibration system, fully automated		Communications modules (LAN, WiFi, USB host, Bluetooth, ...)
	External Calibration, with calibration warning		Touchless-Sensor (draft shield, tare, print, ...)
	Motorized draft shield (works with TLS automatic)		External I/O (tare, print, ..., relay)
	Clock (GLP/GMP printout, auto-cal, etc.)		Precisa BUS
	Below balance weighing		EU/OIML type approval
	Anti-theft protection (mechanical and code)		Integrated alibi memory (with EU type approval)
	Easy alphanumeric input		Support IQ/OQ/PQ
	Direct tare and reference weight entry		Integrated audit trail
	Identifier and label handling		Electrostatic cancellation system
	RS232 interface (for PC/printer)		Ambient observation system
	USB host (barcode, flash drive, ...)		

APPLICATIONS

	Units, g, mg, oz, lb, tael, etc.		Statistics
	Percent weighing		Recorder
	Piece counting		Density Determination (of liquids, solids, ...)
	Animal weighing		Buoyancy error suppression technology
	Dynamic Difference Weighing (e.g weighing on a ship)		Multilevel back weighing
	Free conversion, Area conversion		Pipette calibration, optionally with evaporation trapweighing
	Check weighing		Automatic repeatability test
	Net total application (add up, summation, dosing)		Minimum sample weight (USP, Chapter 41)
	Mixtures, Recipes		Maintenance service package
	Peak hold		

	Series 390				Series 360		Series 520		Series 321	Series 167	Series 490		
	HF	HA	HE	HM	EP	ES	PT	PB	LS	BJ	ISK	ITK	IBK
FEATURES													
	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
									✓	✓			
	✓	✓	✓	✓			✓						
					✓								
						✓		✓		✓			
									✓		✓	✓	✓
	✓	✓	✓	✓					✓				
	✓	✓	✓	✓	✓	✓	AC	AC	✓	AC	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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	✓	✓	✓	✓	✓		✓				✓	✓	
	✓	✓	✓	✓	✓		✓				✓		
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	AC		✓	✓					
	✓	✓	✓	✓	✓	✓	✓	✓	✓				
	OD	OD	OD	OD	OD	AC	✓	✓	AC		AC	AC	AC
	✓	✓	✓	✓	AC	AC	AC	AC	AC	AC	AC	AC	AC
	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC	AC
	OD	OD	OD	OD	OD	OD	OD	OD	AC	OD	OD	OD	OD
	OD	OD	OD	OD	OD	OD	OD	OD	OD	OD	OD	OD	OD
	✓	✓	AC										
	OD	OD	OD	OD	OD	OD	OD	OD	OD		AC	AC	AC
	AC	AC	AC	AC	OD	OD	AC	AC	OD		AC	AC	AC
	OD	OD	OD	OD			✓	✓	✓				
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓			✓						
	✓	AC	AC										
	✓	AC	AC										
APPLICATIONS													
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
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TECHCOMP GROUP

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

Dynamica



Froilabo

Isotopx

SCION
INSTRUMENTS

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