

GENERAL CATALOG



SWISS MADE
SWISS TECHNOLOGY



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.

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 (to PC)
	Backlight graphic LCD		Human Interface Device (to PC)
	Backlight LCD		LAN Ethernet connection
	Vacuum fluorescent display		WiFi connection
	Self-linearization system, fully automated		Bluetooth connection
	Self-calibration system, fully automated		Communications modules
	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 (as part of EU-Verification)
	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 (PC / printer)		Ambient observation system
	USB host (barcode, memory stick, ...)		

APPLICATIONS

	Units g, mg, ozt, lb, tael, etc.		Statistics
	Percent weighing		Recorder
	Piece counting		Density determination (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

RANGE OF PRECISA BALANCES AND SCALES

Models with * are Dual Ranges Types
Models with ** are Floating Ranges Types

	Precisa Balances
	Precisa Scales (Industrial)

Precisa range by 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 PT LT LX PB LS				
125 g	H, H**, EP, ES					
160 g			LT LS			
220 g		H, EP, ES PT LT LX PB LS				
225 g	H, H**, EP*, ES*					
320 g		H, EP, ES LT LX PB LS	EP, ES PT LT LX PB LS	LT LS Px		
410 g				BJ		
420 g		EP, ES EP**, ES**				
520 g		H, EP, ES				
610 g				BJ		
620 g			EP, ES EP**, ES** PT LT LX PB LS	PT LT LX PB LS		
920 g			EP, ES LT LX LS			
1 200 g				EP, ES LT LX LS Px BJ		
1 220 g			EP, ES EP**, ES** LT LX LS			
2 100 g					BJ	
2 200 g				EP, ES PT LT LX PB LS BJ		
2 220 g			EP, ES			
3 200 g				LT LS Px	EP, ES PT LT LX PB LS	
4 100 g					BJ	
4 200 g				EP ES PT LT LX PB LS		
6 100 g					BJ	BJ
6 200 g				EP, ES EP**, ES** LT LX LS	PT LT LX PB LS	
8 100 g					BJ	
8 200 g				EP, ES EP**, ES**		
10 200 g					PT LT LX PB LS	PT LT LX PB LS
12 100 g					I_K	BJ
12 200 g					EP, ES	EP, ES
18 100 g					I_K	
20 100 g						I_K
24 100 g					I_K	
30 100 g						I_K
34 100 g					I_K	I_K*/I_K**
40 100 g						I_K
60 100 g						I_K

Capacity (Functionality from top to down)



-  **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



Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	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



Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	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	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

SERIES 390 HE



Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	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	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

SERIES 390 HM



Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	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	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

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

ANALYTICAL BALANCES 0.1 mg

SERIES 390 HF



























Optional/on demand:    

Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	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	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	I / 1 mg	4 s	390-9260-009

SERIES 390 HA

























Optional/on demand:      

Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	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	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

SERIES 390 HE























Optional/on demand:       

Optional/on demand:  

Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	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	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

SERIES 390 HM























Optional/on demand:    

Optional/on demand:  

Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	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	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

SEMI-MICRO & ANALYTICAL BALANCES 0.01 - 0.1 mg

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	350-8930
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
BEST Buoyancy error suppression technology	✓	✓	350-8738-001	350-8738-001
Density determination	✓	✓	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/cm ³	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 for one function: tare, print, ...	350-8747-001	350-8747-001	350-8747-001	350-8747-001
Double foot switch USB for two functions: tare and print, tare and ...	350-8747-002	350-8747-002	350-8747-002	350-8747-002
WiFi connection	350-8935	350-8935	350-8935	350-8935

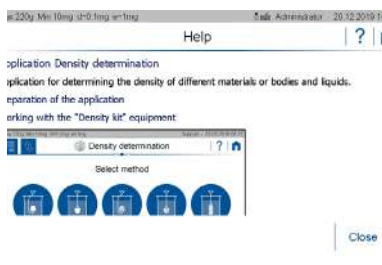
Additional Accessories

Further accessories, see Special Products / Accessories

SEMI-MICRO & ANALYTICAL BALANCES 0.01 - 0.1 mg



Touch screen for maximum user-friendliness and flexibility



Context help means no more wasting time searching the lost manual



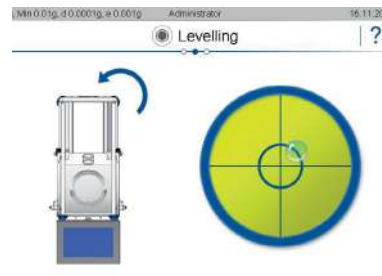
MDS - Motorized draft shield ensures a gentle, smooth and precise opening and closing - and for most models even automatically



SLS - Self linearization system to ensure correct weighing results - at any time



Real-time stability Indicator with visual stability prediction



Electronic levelling ensures a correct levelled balance for perfect weighing results



Versatile interfaces offer your communication for any needs, whether you already have a paperless laboratory with LIMS or not



Even most applications are built-in Precisa supports your future needs by adding new applications available from Precisa



An extensive user management system customizes your balance for various users



TLS - Touch less sensors are very helpful for your daily routines like opening the draft shield door, tare or just printout your results



ECS - Electrostatic cancellation system neutralizes your sample automatically when the draft shield is closed



AOS - Ambient observation system records various ambient air conditions what can affect your weighing result. Or shall the balance correct the weighing results with the app BEST?

SERIES 360 EP



glo2
ctAb

%

●●●

☂

DDW

●●●●●

⋈

+/-

Σ

■

●▶

ART

MSW

BEST

MBW

●



g/oz
ct/lb

9

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



321 LG: Well-trying all-round basic draft shield

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	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 EP automatic	standard	350-8657
Draft shield 360 ES manual	350-8659	standard
Platform for draft shield 360 EP or 360 ES	350-8678	350-8678
Draft shield 321 LG	on demand	on demand
Hook for weighing below the balance	350-8527	350-8527
VasoFrame for 0.01mg and 0.1mg balances with draft shield EP/ES	350-8727	350-8727
Density kit for 0.01mg and 0.1mg balances, Container size Ø 75mm, h= 100mm	350-8636	350-8636
Density kit solids only (w/o Glass body and Hook) for 0.01mg and 0.1mg balances, Container size Ø 75mm, h= 100mm	350-8637	350-8637
Glass body 10ccm for density determination of liquids	350-7054	350-7054
Downholder for samples with density < 1g/cm ³	350-7194	350-7194
Evaporation trap for pipette calibration complete, for 0.01mg and 0.1mg balances	350-8633	350-8633
Adapter to assemble Eppendorf Humidity Trap, for 0.01mg and 0.1mg balances	350-8634	350-8634
Single foot switch for one function: tare, print, ...	350-8814	350-8814
Protective cover 360 for the whole balance (0.01mg, 0.1mg), set of 5 pieces	350-8676	350-8676
Desk power adapter IP 65 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 Accessories
PrecisaBUS accessories, see Special Products / Accessories
SmartBox® applications, see Special Products / Accessories
Further accessories, see Special Products / Accessories

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 LG: Well-tried all-round basic draft shield



321 LX: Ergonomically designed draft shield

Options	360 EP	360 ES	321 LX	321 LT/LS
EU-Verification according to 2014/31/EU by Precisa (initial verification), available only for balances with EU/OIML Type approval	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

Accessories	360 EP	360 ES	321 LX	321 LT/LS
Draft shield 360 EP automatic	standard	350-8657	—	—
Draft shield 360 ES manual	350-8659	standard	—	—
Platform for draft shield 360 EP or 360 ES	350-8678	350-8678	—	—
Draft shield 321 LG	350-8723	350-8723	350-8723	350-8723
Hook for weighing below the balance	350-8527	350-8527	350-8527	350-8527
VasoFrame for 0.01mg and 0.1mg balances with draft shield EP/ES	350-8727	350-8727	350-8727	350-8722
Density kit for 0.01mg and 0.1mg balances, Container size Ø 75mm, h= 100mm	350-8636	350-8636	350-8636	350-8636
Density kit solids only (w/o Glass body and Hook) for 0.01mg and 0.1mg balances, Container size Ø 75mm, h= 100mm	350-8637	350-8637	350-8637	350-8637
Glass body 10ccm for density determination of liquids	350-7054	350-7054	350-7054	350-7054
Downholder for samples with density < 1g/cm ³	350-7194	350-7194	350-7194	350-7194
Evaporation trap for pipette calibration complete, for 0.01mg and 0.1mg balances	350-8633	350-8633	350-8633	350-8633
Adapter to assemble Eppendorf Humidity Trap, for 0.01mg and 0.1mg balances	350-8634	350-8634	350-8634	350-8634
Single foot switch for one function: tare, print, ...	350-8814	350-8814	350-8814	350-8814
Protective cover for the whole balance (0.01mg, 0.1mg), set of 5 pieces	350-8676	350-8676	350-8686	350-8686
Desk power adapter IP 65 with EU plug, 80V - 240V	350-8372	350-8372	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 Accessories
PrecisaBUS accessories, see Special Products / Accessories
SmartBox® applications, see Special Products / Accessories
Further accessories, see Special Products / Accessories

PRECISION BALANCES 0.001 g

SERIES 360 EP



Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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 2220M	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

SERIES 360 ES



Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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 2220M	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

SERIES 321 LT



Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
LT 160M	160 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg	1.5 s	321-9373-001
LT 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg	1.5 s	321-9374-001
LT 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg	1.5 s	321-9375-001
LT 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 10 mg	2 s	321-9376-001
LT 1220M	1 220 g	1 ma	1 ma	2 ma	135 x 135	I / 10 ma	2 s	321-9377-001

SERIES 321 LX



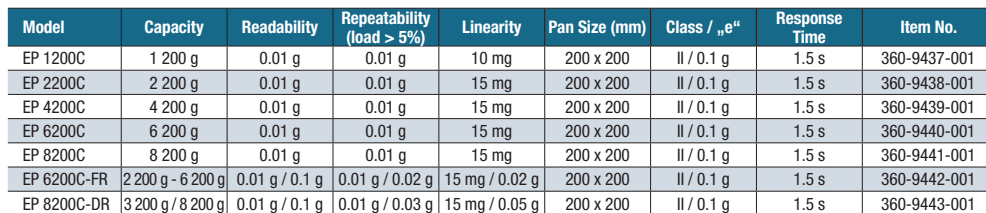
Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / σ_a	Response Time	Item No.
LX 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg*	1.5 s	321-9361-002
LX 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg*	1.5 s	321-9362-002
LX 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 10 mg*	2 s	321-9363-002
LX 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	I / 10 mg*	2 s	321-9364-002

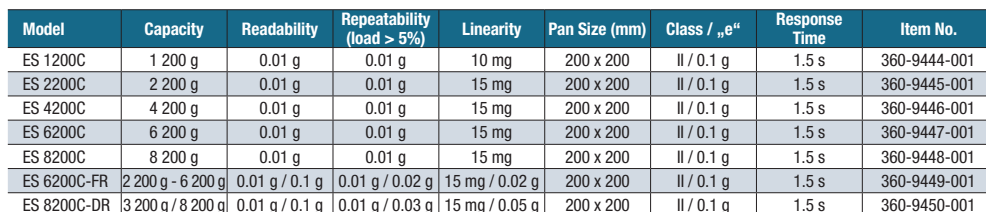
SERIES 321 LS

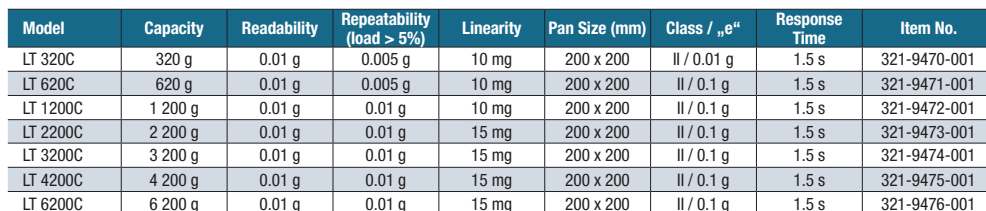


Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
LS 160M	160 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg*	1.5 s	321-9365-002
LS 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg*	1.5 s	321-9366-002
LS 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 10 mg*	1.5 s	321-9367-002
LS 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 10 mg*	2 s	321-9368-002
LS 1220M	1 220 g	1 ma	1 ma	2 ma	135 x 135	I / 10 ma*	2 s	321-9369-002

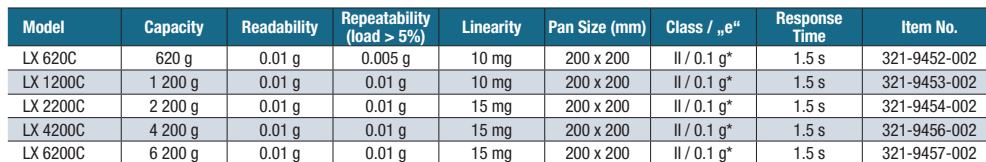
* Initially verified only available with SCS (-001)



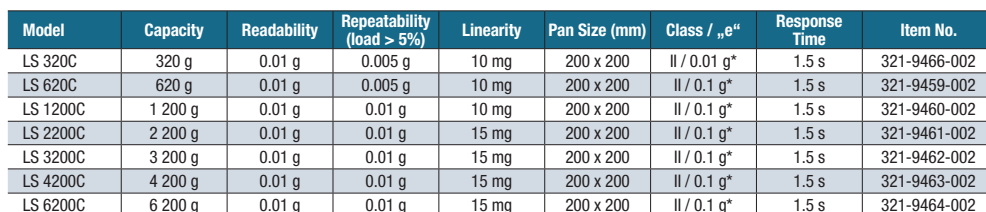




 SCS Optional for free



 SCS Optional for free



14

PRECISION BALANCES 0.1 – 1 g



	<table> <tr> <th>Model</th><th>Capacity</th><th>Readability</th><th>Repeatability (load > 5%)</th><th>Linearity</th><th>Pan Size (mm)</th><th>Class / „e“</th><th>Response Time</th><th>Item No.</th></tr> <tr> <td>EP 6200D</td><td>6 200 g</td><td>0.1 g</td><td>0.05 g</td><td>0.1 g</td><td>200 x 200</td><td>II / 1 g</td><td>1 s</td><td>360-9534-001</td></tr> <tr> <td>EP 8200D</td><td>8 200 g</td><td>0.1 g</td><td>0.1 g</td><td>0.15 g</td><td>200 x 200</td><td>II / 1 g</td><td>1 s</td><td>360-9535-001</td></tr> <tr> <td>EP 12200D</td><td>12 200 g</td><td>0.1 g</td><td>0.1 g</td><td>0.15 g</td><td>200 x 200</td><td>II / 1 g</td><td>2 s</td><td>360-9536-001</td></tr> <tr> <td>EP 12200G</td><td>12 200 g</td><td>1 g</td><td>0.5 g</td><td>0.5 g</td><td>200 x 200</td><td>II / 1 g</td><td>1.5 s</td><td>360-9613-001</td></tr> </table>	Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.	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
Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.																																						
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																																						



	Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / μe^{a}	Response Time	Item No.
	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



	Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / μe^{a}	Response Time	Item No.
	LT 3200D	3 200 g	0.1 g	0.05 g	0.1 g	200 x 200	II / 0.1 g	1 s	321-9555-001
	LT 6200D	6 200 g	0.1 g	0.05 g	0.1 g	200 x 200	II / 1 g	1 s	321-9556-001
	LT 10200D	10 200 g	0.1 g	0.1 g	0.15 g	200 x 200	II / 1 g	2 s	321-9557-001
	LT 10200G	10 200 g	1 g	0.5 g	0.5 g	200 x 200	II / 1 g	1.5 s	321-9617-001



	Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / μ e ^u	Response Time	Item No.
	LX 3200D	3 200 g	0.1 g	0.05 g	0.1 g	200 x 200	II / 0.1 g*	1 s	321-9547-002
	LX 6200D	6 200 g	0.1 g	0.05 g	0.1 g	200 x 200	II / 1 g*	1 s	321-9548-002
	LX 10200D	10 200 g	0.1 g	0.1 g	0.15 g	200 x 200	II / 1 g*	2 s	321-9549-002
	LX 10200G	10 200 g	1 g	0.5 g	0.5 g	200 x 200	II / 1 g*	1.5 s	321-9615-002



	Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / μ e"	Response Time	Item No.
	LS 3200D	3 200 g	0.1 g	0.05 g	0.1 g	200 x 200	II / 0.1 g*	1 s	321-9550-002
	LS 6200D	6 200 g	0.1 g	0.05 g	0.1 g	200 x 200	II / 1 g*	1 s	321-9551-002
	LS 10200D	10 200 g	0.1 g	0.1 g	0.15 g	200 x 200	II / 1 g*	2 s	321-9552-002
	LS 10200G	10 200 g	1 g	0.5 g	0.5 g	200 x 200	II / 1 g*	1.5 s	321-9616-002

* Initially verified only available with SCS (-001)

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



Draft shield 321 LG-M: Glass draft shield high, for balances readability ≥ 1 mg



Draft shield mg: Glass draft shield with cover, for 1mg balances



Bubble level located at the front; provides easier adjustment



Slide-in Modules with various interfaces

Options	360 EP	360 ES	321 LX	321 LT/LS
EU-Verification according to 2014/31/EU by Precisa (initial verification), available only for balances with EU/OIML Type approval	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
Protection IP65: protection against ingress of dust and low pressure water jets, fitted at factory, auf Anfragenot all types available	350-8694	350-8694	350-8695	350-8695

Accessories	360 EP	360 ES	321 LX	321 LT/LS
Draft shield 321 LG-M and Draft shield 321 LG-M short	on demand	on demand	on demand	on demand
Draft shield mg, glass with cover	320-8504	320-8504	320-8504	320-8504
Hook for weighing below the balance	350-8527	350-8527	350-8527	350-8527
Animal weighing bowl complete for 0.01g, 0.1g and 1g balances	350-8551	350-8551	350-8551	350-8551
Glass body 10ccm for density determination of liquids	350-7054	350-7054	350-7054	350-7054
Single foot switch for one function: tare, print, ...	350-8814	350-8814	350-8814	350-8814
Protective cover for the whole balance (0.01g, 0.1g, 1g), set of 5 pieces	350-8663	350-8663	350-8686	350-8686
Desk power adapter IP 65 with EU plug, 80V - 240V	350-8372	350-8372	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 Accessories
PrecisaBUS accessories, see Special Products / Accessories
SmartBox® applications, see Special Products / Accessories
Further accessories, see Special Products / Accessories

SERIES 520 PT



Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
PT 120A	120 g	0.1 mg	0.1 mg	20.0 mg**	0.2 mg	Ø 90	1 / 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	1 / 1 mg**	2 s	520-9222-002*

SERIES 520 PT



Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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 ma	1 ma	200 ma***	1.5 ma	Ø 120	II / 10 ma**	1.5 s	520-9322-002*

SERIES 520 PT



Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
PT 320C	320 g	0.01 g	0.005 g	1 g***	10 mg	186 x 186	II / 0.01 g**	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*

SERIES 520 PT



Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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 q	1 q	0.5 q	100 q***	0.5 q	186 x 186	II / 1.0 q**	1.5 s	520-9621-002*

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

ANALYTICAL BALANCES 0.1 mg PRECISION BALANCES 0.001 – 1 g



SERIES 520 PB

Optional: On demand:

Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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*



SERIES 520 PB

Optional: On demand:

Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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*



SERIES 520 PB

Optional: On demand:

Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
PB 320C	320 g	0.01 g	0.005 g	1 g***	10 mg	186 x 186	II / 0.01 g**	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*



SERIES 520 PB

Optional: On demand:

Model	Capacity	Readability	Repeatability (load > 5%)	Min. weight (1%, k = 2, load > 5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.
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*

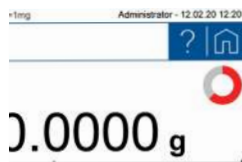
* -001 for balance with SCS / -002 for balance without SCS

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

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

ANALYTICAL BALANCES 0.1 mg PRECISION BALANCES 0.001 – 1 g

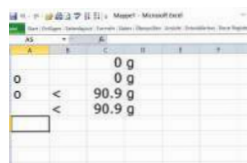
SERIES 520 PT / PB



PT: Real-time stability Indicator with visual stability prediction



PB: Real-time stability Indicator with visual stability prediction



Direct communication from balance to PC to prevent any data transfer type errors

Options	PT	PB
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	on demand	on demand
SCS PT: Self calibration System with clock, automatic on temperature change and real-time programmable	520-xxxx-001	-
SCS PB: Self calibration system with clock, automatic on temperature change and real-time programmable	-	520-xxxx-001

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

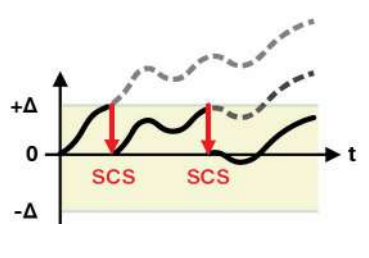
Accessories	PT	PB
Draft shield PB, short	350-8742	350-8742
2nd Display	-	on demand
Hook for weighing below the balance	350-8744	350-8744
Animal weighing bowl complete for 0.01g, 0.1g and 1g balances	350-8743	350-8743
Density kit for 0.1mg balances, Container size Ø= 75mm, h= 100mm	350-8740	350-8740
Density kit solids only (w/o Glass body and Hook) for 0.1mg balances, Container size Ø= 75mm, h= 100mm	350-8741	350-8741
Glass body 100cm for density determination of liquids	350-7054	350-7054
Downholder for samples with density < 1 g/cm3	350-7194	350-7194
Single foot switch USB for one function: tare, print, ...	350-8747-001	350-8747-001
Double foot switch USB for two functions: tare and print, tare and ...	350-8747-002	350-8747-002
LAN Ethernet connection	350-8939	350-8940-001
WiFi connection	350-8935	350-8940-002
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
Carrying case 520	350-8746	350-8746

Additional Accessories

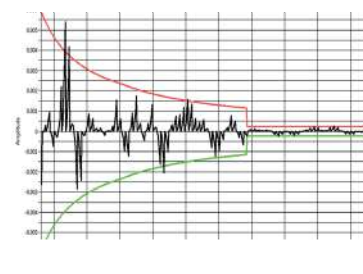
Further accessories, see Special Products / Accessories



PHASTbloc™
Precisa Hybrid Advanced Sensor Technology for best performance and long life



SCS – Self calibration system to ensure correct weighing results - at any time



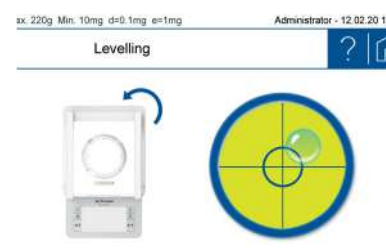
Any noise in the weighing signal is cancelled by ultra-fast signal processing before the weight is displayed



The 520 PT with its touch screen is the right choice for maximum user-friendliness and flexibility



Versatile interfaces offer your communication for any needs, whether you already have a paperless laboratory with LIMS or not



The 520 PB electronic levelling ensures a correct levelled balance for perfect weighing results

STANDARD BALANCES 0.001 – 1 g

SERIES 165 BJ



Model	Capacity	Readability	Repeatability (load > 5%)	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	—	2 s	165-9423-050
BJ 610C „e“	610 g	0.01 g	0.01 g	0.02 g	135 x 135	II / 0.1 g	2 s	on demand
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	165-9503-050



Options	165 BJ
Density determination application	350-8632

Accessories	165 BJ
Hook for weighing below the balance	350-8561
Protective cover 165 for the whole balance, set of 5 pieces	350-8598

Additional Accessories
Further accessories, see Special Products / Accessories

MOISTURE ANALYZERS



SERIES 365 EM



ready for gypsum analysis

Model	Capacity	Readability	Repeatability (load > 5%)		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 330 XM^{BB}



XM66 has no statistics

Model	Capacity	Readability	Repeatability (load > 5%)		Linearity	Temperature Range	Pan Size (mm)	Response Time
XM ^{BB} 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 ^{BB} 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 ^{BB} 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 (load > 5%)		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 ^{BB} -HR	XM 60 ^{BB}	XM 66 ^{BB}	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 ^{BB} -HR	XM 60 ^{BB}	XM 66 ^{BB}	XM 50
Sample pans, aluminum, Ø 100mm, set of 80 pieces	350-2032	350-2032	350-2032	350-2032	350-2032
Sample pan reusable, stainless steel, Ø 100mm, 1 piece	330-2018	330-2018	330-2018	330-2018	330-2018
Glass fibre 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	350-8584	350-8584	350-8584	350-8584
Calibration weight, 50 g, E2	350-8241	350-8241	350-8241	350-8241	350-8241
Dust filter for moisture analyzers, complete	350-8687	350-8687	350-8687	350-8687	350-8687
Protective cover 320 for terminal, set of 5 pieces	—	350-8590	350-8590	350-8590	350-8590

Slide-in Modules, on demand only	EM 120-HR
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 Accessories

PrecisaBUS accessories, see Special Products / Accessories

Further accessories, see Special Products / Accessories

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 air and 2 additional gases (N ₂ , O ₂)	340-8502	340-8502	340-8502	yes	yes	essential
prepSTATION includes: - prepSTATION unit - EP 120A analytical balance - Data cable for the connection between prepSTATION and balance	340-9010	340-9010	340-9010	yes	yes	no
Scrubber, Condensation-neutralization-adsorption unit for e.g. determination of sulfated ash with sulfuric acid	340-9001	340-9001	340-9001	optional	essential	no
Scrubber 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



Scrubber K-415: Condensation-neutralization-adsorption unit

Additional Accessories

Further accessories, see Special Products / Accessories

AUTOMATIC MOISTURE & ASH ANALYZERS



Sample plate for 29 crucibles



Sample plate for 19 crucibles



Sample plate for 12 large crucibles

Accessories	prepASH 229	prepASH 219	prepASH 212	Recommendations		
				Standard Applications	Sulphuric Acid Applications	Volatiles Determination (Coal, Coke)
Sample plate for 29/19 crucibles, silicate ceramic SiC, for prepASH 229/219	standard (340-4065)	standard (340-4065)	—	standard 229/219	standard 229/219	standard 229/219
Crucible 35ml, porcelain glazed, set of 5 pieces. APPROVED for applications with acid	standard (340-8037)	standard (340-8037)	340-8037	standard 229/219	standard 229/219	no
Crucible 26ml, Al2O3, for use with lid Al2O3, set of 5 pieces. Use with 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 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 sample Adapters 340-8035	340-4072	340-4072	standard (340-4072)	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 (340-8035)	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 (340-8034)	standard 212	standard 212	no
Crucible 50ml, porcelain glazed, set of 5 pieces. Use only with sample plate 12 and adapter 340-8035. NOT recommended 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

SERIES 490 IBK/ITK/ISK



Terminal IBK as standard
Protection platform IP54 (IP65 optional)



IBK: User-friendly multi-application terminal

Options	490
EU-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



ITK: Terminal with additional alphanumeric input and manual tare entry

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
Power over RJ45 490	350-8395



ISK: Terminal with embedded SmartBox®; available with applications:

- Piece Counting
- FPVO (finished goods packing control)

Additional Accessories
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 IBK / -002 for ITK / -003 for ISK Count / -004 for ISK FPVO

INDUSTRIAL SCALES

SERIES 410 SRS STEEL PAINTED IP65



(depending on terminal SRD/SRM)



Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / μ e ⁴	Response Time	Item No.
SRS 75K	75 kg	5 g	5 g	5 g	500 x 400	-	2 s	410-9900-001
SRS 150K	150 kg	10 g	10 g	10 g	500 x 400	-	2 s	410-9901-001
SRS 300K	300 kg	20 g	20 g	40 g	500 x 400	-	2 s	410-9902-001

Protection IP65

SERIES 410 SRC STAINLESS STEEL IP67



(depending on terminal SRD/SRM)



Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Pan Size (mm)	Class / μ e ⁴	Response Time	Item No.
SRC 75K	75 kg	5 g	5 g	5 g	500 x 380	-	2 s	410-9910-001
SRC 150K	150 kg	10 g	10 g	10 g	500 x 380	-	2 s	410-9911-001

Protection IP67

TERMINAL SRD



SRD: Easy-to-read backlight LCD
ABS: Plastic terminal

Model	Type Approval	Dimensions WxLxH (mm)	Net Weight	Protection	Response Time	Item No.
SRD ABS	none	240 x 160 x 120	1.6 kg	IP42	2 s	410-9922-001
SRD SST	none	280 x 190 x 180	3 kg	IP67	2 s	410-9923-001

TERMINAL SRM



SRM: Display with keypad for numeric input
SST: Stainless steel terminal

Model	Type Approval	Dimensions WxLxH (mm)	Net Weight	Protection	Response Time	Item No.
SRM ABS	none	240 x 160 x 120	1.6 kg	IP42	2 s	410-9920-001
SRM SST	none	280 x 190 x 180	3 kg	IP67	2 s	410-9921-001

Accessories	SRD ABS	SRM ABS	SRD SST	SRM SST
Wall bracket for terminal	350-8626	350-8626	—	—
Post for rear mounted terminal to platform SRS	350-8627	350-8627	—	—
Post for rear mounted terminal to platform SRC	—	—	350-8629	350-8629

SPECIAL PRODUCTS



SERIES 321 LS CARAT

VFD 232 USB device IO DO PQ BUS SCS Optional

Model	Capacity	Readability	Repeatability (load > 5%)	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	321-9371-002*
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 321 LX/LS-STB STIRRER

VFD 232 USB device IO DO PQ BUS SCS Optional LX 4200C-STB only

Model	Capacity	Readability	Repeatability (load > 5%)	Linearity	Dimensions Stirring module B x T x H (mm)	Dimensions Stirrer balance B x T x H (mm)	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	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	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	1.5 s	321-9463-801

IONIZERS



Stat-FAN

Power supply	Neutralization	Power	Airflow	Temp. Range	Item No.
115V / 230V AC, 50–60Hz or 18 V AC with adapter 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.
115V / 230V AC, 50–60Hz (x: 1=EU, 2=UK, 3=AUS, 4=USA)	+/- 30 V	0.1 W	- 20 .. +40 °C	IP60	350-8683-00x

* Initially verified with SCS (-001) only, see table „Options“ of series 321 LS

SPECIAL PRODUCTS

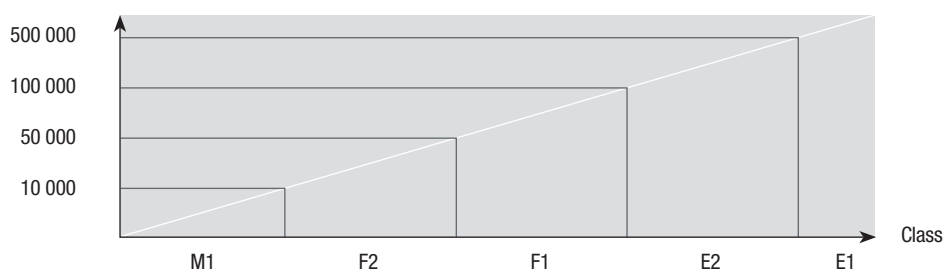


Calibration Weights

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 => $d = 3\,200\text{g} / 0.01\text{g} = 320\,000$)

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



SPECIAL PRODUCTS / ACCESSORIES



Printer



Signal lamp

Common Accessories	520 PT/PB	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
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)	350-8522	350-8522	350-8522	350-8522
Adapter RJ45-DB25m, (Printer CBM910)	350-8524	350-8524	350-8524	350-8524
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 also 390	see also 360	350-8940-002
HID cable, RS232, DB9m-USB-A, length 1.5m, (PC), (x: 0=e, 1=d, 2=f)	use PN 3950-125	350-8816-x00	350-8816-x00	350-8816-x00
External USV accu power pack for continuous operation	350-8662	350-8662	350-8662	350-8662
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



LAN Ethernet connection

PrecisaBUS Accessories, on demand only	520 PT/PB	390 H_	360 EP	360 ES
Remote / secondary display free-standing with cable 1.5m	—	—	—	350-8504*
Remote / secondary display mounted to the balance	—	—	—	—
Remote / secondary display mounted to the wall with cable 3m	—	—	—	350-8516*
RS232 interface box for data transmission, DB25f: - to PC, printer or bar code printer - from bar code reader (350-8856) or reference balance	—	—	—	350-8506*
Interface 20mA current loop passive	—	—	—	350-8526*
Interface box, LAN Ethernet connection	—	—	—	350-8573*
Interface box, 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-Bar code scanner BCS5040, DB25m, with push button to be connected to Interface RS232 350-8506	—	—	—	350-8856



SmartBox®

SmartBox® Applications	520 PT/PB	390 H_	360 EP	360 ES
SmartBox® Counting	—	—	—	350-8511-011*
SmartBox® FPVO (Finished Goods Packing Control)	—	—	—	350-8511-012*
CCE-Bar code scanner BCS5040, RJ45, with push button to be connected to SmartBox®	—	—	—	350-8531

* Needs PrecisaBUS converter slide-in module 350-8664



SPECIAL PRODUCTS / ACCESSORIES

321 LT/LX/LS	320 XBBB	165 BJ	EM 120	XM 60/66/50	490 IBK/ ITB/ ISK	Terminal SRD/SRM
350-8391	350-8391	350-8391	350-8391	350-8391	350-8391	on demand
350-8392	350-8392	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	PN 3953-013	PN 3953-013
350-8366	350-8366	350-8366	350-8366	350-8366	350-8366	350-8366
350-8367	350-8367	350-8367	350-8367	350-8367	350-8367	350-8367
350-8513	350-8513	350-8513	350-8513	350-8513	350-8513	—
—	350-8525	350-8525	—	350-8525	350-8525	—
—	350-8520	350-8520	—	350-8520	350-8520	—
—	350-8521	350-8521	—	350-8521	350-8521	—
350-8522	350-8522	350-8522	350-8522	350-8522	350-8522	350-8522
350-8524	350-8524	350-8524	350-8524	350-8524	350-8524	350-8524
350-8661	—	—	—	—	—	—
—	350-8534	350-8534	—	—	—	—
—	350-8557	350-8557	—	350-8557	350-8557	—
—	350-8559	350-8559	—	350-8559	350-8559	—
350-8672	—	—	350-8672	—	—	—
350-8673	—	—	350-8673	—	—	—
—	—	—	—	—	—	350-8674
—	—	—	—	—	—	350-8675
PN 3950-125	—	—	PN 3950-125	—	—	—
350-8940-000	350-8940-000	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	350-8940-001	350-8940-001
350-8940-002	350-8940-002	350-8940-002	350-8940-002	350-8940-002	350-8940-002	350-8940-002
350-8816-x00	—	—	—	—	on demand	—
350-8662	350-8662	350-8662	—	—	350-8662	350-8662
350-8555	350-8555	350-8555	350-8555	350-8555	350-8555	—
350-8322	350-8322	350-8322	—	—	350-8322	—

165 BJ	165 BJ	165 BJ	EM 120	XM 60/66/50	490 IBK/ ITB/ ISK	Terminal SRD/SRM
350-8504	350-8504	—	—	350-8504	350-8504	—
—	350-8505	—	—	—	—	—
350-8516	350-8516	—	—	350-8516	350-8516	—
350-8506	350-8506	—	—	350-8506	350-8506	—
350-8526	350-8526	—	—	350-8526	350-8526	—
350-8573	350-8573	—	—	350-8573	350-8573	—
350-8588	350-8588	—	—	350-8588	350-8588	—
350-8510	350-8510	—	—	350-8510	350-8510	—
350-8533	350-8588	—	—	350-8533	350-8533	—
350-8509	350-8510	—	—	350-8509	350-8509	—
350-8856	350-8856	—	—	350-8856	350-8856	—

165 BJ	165 BJ	165 BJ	EM 120	XM 60/66/50	490 IBK/ ITB/ ISK	Terminal SRD/SRM
350-8511-011	350-8511-011	—	—	—	350-8511-011	—
350-8511-012	350-8511-012	—	—	—	350-8511-012	—
350-8531	350-8531	—	—	—	350-8531	—



350-8130-900 g1

Technical modifications reserved

THE TECHCOMP GROUP

The following companies belong with Precisa to the internationally active Techcomp Group:



Precisa Gravimetries AG
Moosmattstrasse 32
8953 Dietikon, Switzerland
Tel. +41 44 744 28 28
Fax +41 44 744 28 38
Email: info@precisa.ch
www.precisa.com

