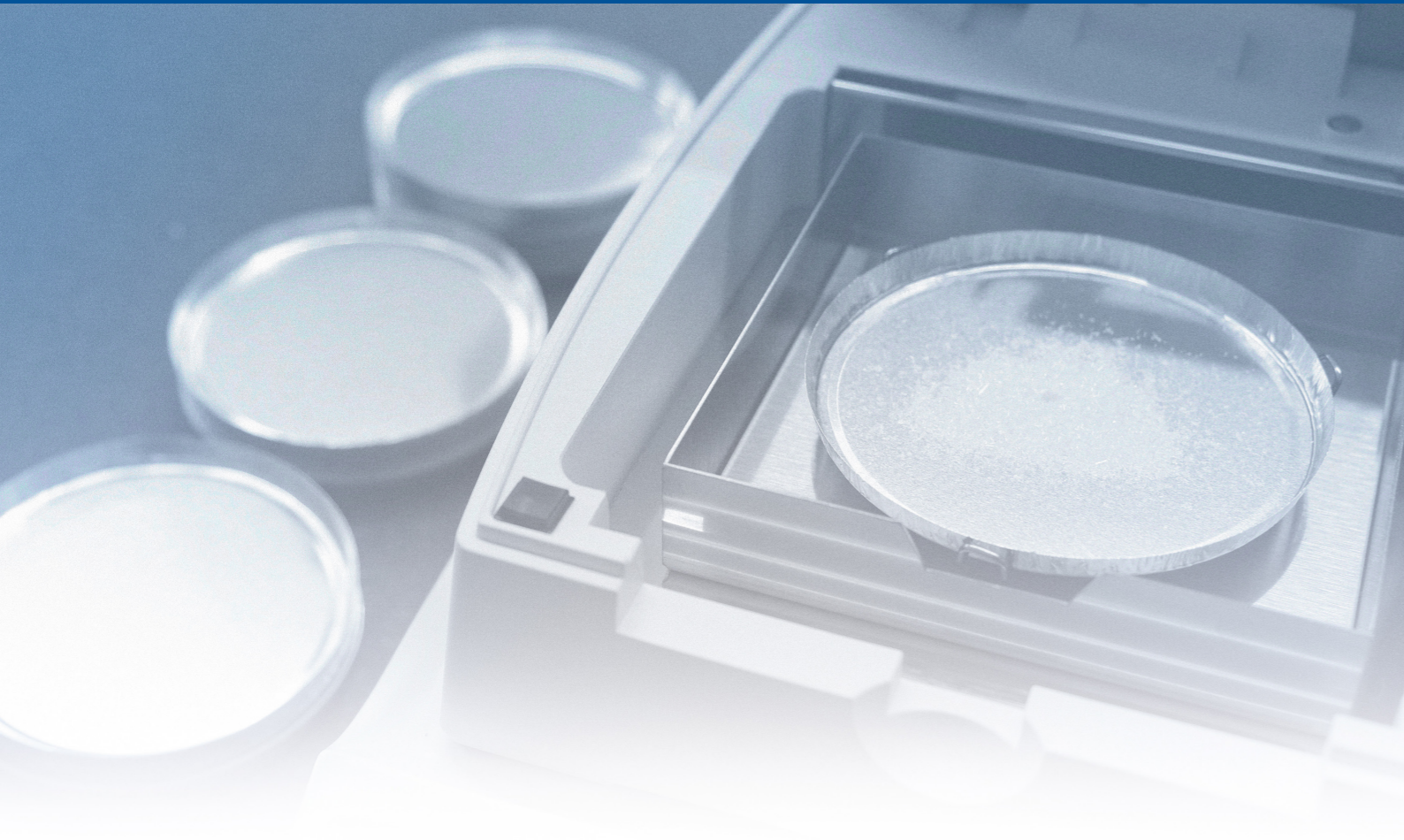




SWISS MADE  
SWISS TECHNOLOGY

# GENERAL CATALOGUE

BALANCES AND ANALYTICAL INSTRUMENTS

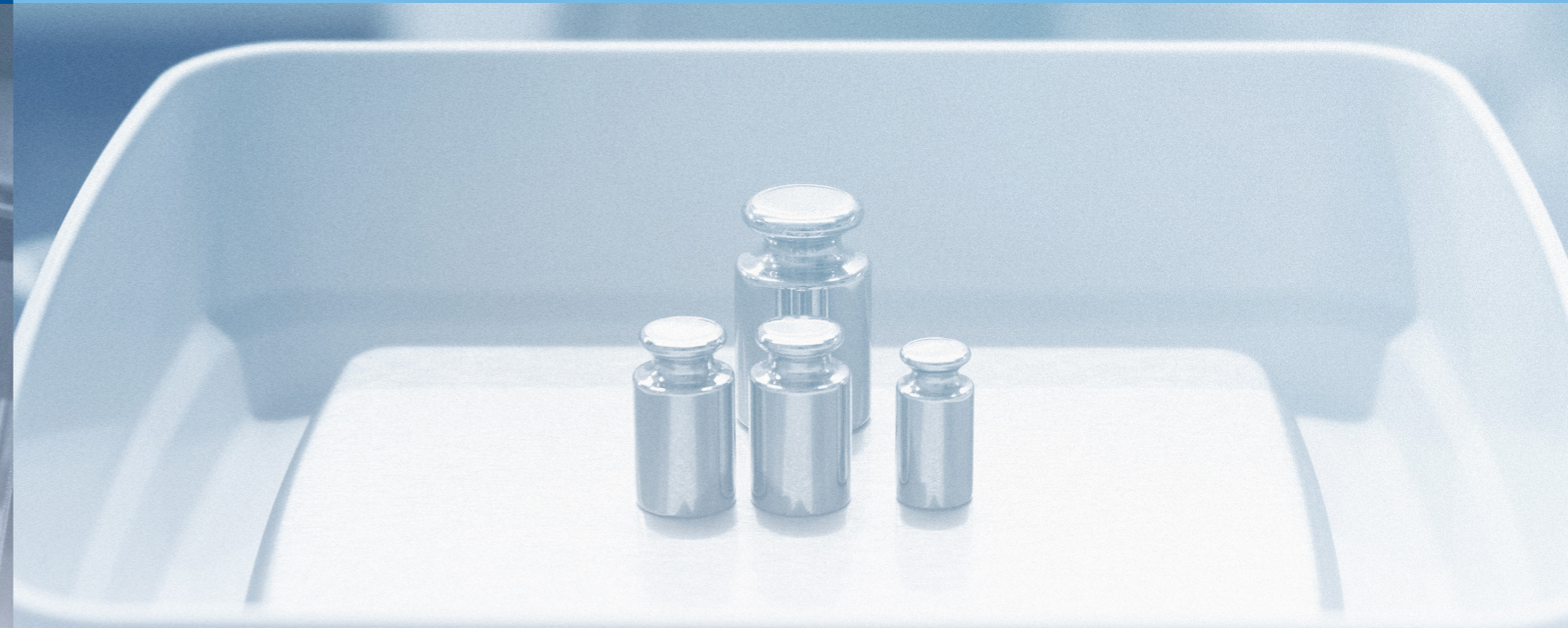


## PRECISA DNA: ZERO TOLERANCE

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.



## 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 over 40 years 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 quality combined with the latest technology make 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 165

The Series 165 is a versatile weighing machine, delivering weighing results accurately, reliably and in the chosen format, ideal either in the lab or in the field.

## 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 410

The Series 410 has simple uncomplicated operation and offers a range of affordable platform scales with capacities up to 300Kg with readabilities from 5g to 20g depending on capacity.

## 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 330/335

The Series 330 and 335 moisture analyzers are more suited to users who require only a limited number of methods. The series features 4 different models to cover a wide range of applications.

## SERIES 340

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



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

## HF MODEL

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

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

## 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.	Price (XXX)
<b>Semi-Micro Balances</b>										
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	-
<b>Analytical Balances</b>										
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.	Price (XXX)
<b>Semi-Micro Balances</b>										
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	-
<b>Analytical Balances</b>										
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



# 520

## ADVANCED/STANDARD



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

### 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.	Price (XXX)
<b>Analytical Balances</b>										
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***	-
<b>Precision Balances</b>										
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	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***	-
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

### 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.	Price (XXX)
<b>Analytical Balances</b>										
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***	-
<b>Precision Balances</b>										
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	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***	-
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



# 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.	Price (XXX)
<b>Semi-Micro Balances</b>										
EP 125SM	125 g	0.01 mg	0.02 mg	4.0 mg*	0.06 mg	ø 80	I / 1 mg	8 s	360-9100-001	-
EP 225SM-DR	102 g / 225 g	0.01 mg / 0.1 mg	0.02 mg	4.0 mg*	0.06 mg / 0.2 mg	ø 80	I / 1 mg	8 s / 3 s	360-9101-001	-
<b>Analytical Balances</b>										
EP 120A	120 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	ø 90	I / 1 mg	2 s	360-9231-001	-
EP 220A	220 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	ø 90	I / 1 mg	2 s	360-9232-001	-
EP 320A	320 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	ø 90	I / 1 mg	3 s	360-9233-001	-
EP 420A	420 g	0.1 mg	0.15 mg	30 mg*	0.4 mg	ø 90	I / 1 mg	3 s	360-9234-001	-
EP 520	520 g	0.1 mg	0.15 mg	30 mg*	0.4 mg	ø 90	-	4 s	360-9236-001	-
EP 420A-FR	120 g - 420 g	0.1 mg / 1 mg	0.15 mg / 1 mg	30 mg*	0.3 / 1 mg	ø 90	I / 1 mg	3 s	360-9235-001	-

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e”	Response Time	Item No.	Price (XXX)
<b>Precision Balances</b>									
EP 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg	1.5 s	360-9345-001	-
EP 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg	1.5 s	360-9346-001	-
EP 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 1 mg	2 s	360-9347-001	-
EP 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	I / 1 mg	2 s	360-9348-001	-
EP 2200M	2 220 g	1 mg	1 mg	2 mg	135 x 135	I / 1 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 / 1 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 / 1 mg	2 s	360-9350-001	-
EP 1200C	1 200 g	0.01 g	0.01 g	10 mg	200 x 200	II / 1 mg	1.5 s	360-9437-001	-
EP 2200C	2 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 1 mg	1.5 s	360-9438-001	-
EP 4200C	4 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 1 mg	1.5 s	360-9439-001	-
EP 6200C	6 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 1 mg	1.5 s	360-9440-001	-
EP 8200C	8 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 1 mg	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 / 1 mg	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 / 1 mg	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



- 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.	Price (XXX)
<b>Semi-Micro Balances</b>										
ES 125SM	125 g	0.01 mg	0.02 mg	4.0 mg*	0.06 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*	0.06 mg / 0.2 mg	ø 80	I / 1 mg	8 s / 3 s	360-9103-001	-
<b>Analytical Balances</b>										
ES 120A	120 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	ø 90	I / 1 mg	2 s	360-9237-001	-
ES 220A	220 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	ø 90	I / 1 mg	2 s	360-9238-001	-
ES 320A	320 g	0.1 mg	0.1 mg	20 mg*	0.2 mg	ø 90	I / 1 mg	3 s	360-9239-001	-
ES 420A	420 g	0.1 mg	0.15 mg	30 mg*	0.4 mg	ø 90	I / 1 mg	3 s	360-9240-001	-
ES 520A	520 g	0.1 mg	0.15 mg	30 mg*	0.4 mg	ø 90	-	4 s	360-9242-001	-
ES 420A-FR	120 g - 420 g	0.1 mg / 1 mg	0.15 mg / 1 mg	30 mg*	0.3 / 1 mg	ø 90	I / 1 mg	3 s	360-9241-001	-

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e”	Response Time	Item No.	Price (XXX)
<b>Precision Balances</b>									
ES 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg	1.5 s	360-9352-001	-
ES 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg	1.5 s	360-9353-001	-
ES 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 1 mg	2 s	360-9354-001	-
ES 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	I / 1 mg	2 s	360-9355-001	-
ES 2200M	2 220 g	1 mg	1 mg	2 mg	135 x 135	I / 1 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 / 1 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 / 1 mg	2 s	360-9357-001	-
ES 1200C	1 200 g	0.01 g	0.01 g	10 mg	200 x 200	II / 1 mg	1.5 s	360-9444-001	-
ES 2200C	2 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 1 mg	1.5 s	360-9445-001	-
ES 4200C	4 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 1 mg	1.5 s	360-9446-001	-
ES 6200C	6 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 1 mg	1.5 s	360-9447-001	-
ES 8200C	8 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 1 mg	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 / 1 mg	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 / 1 mg	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	-

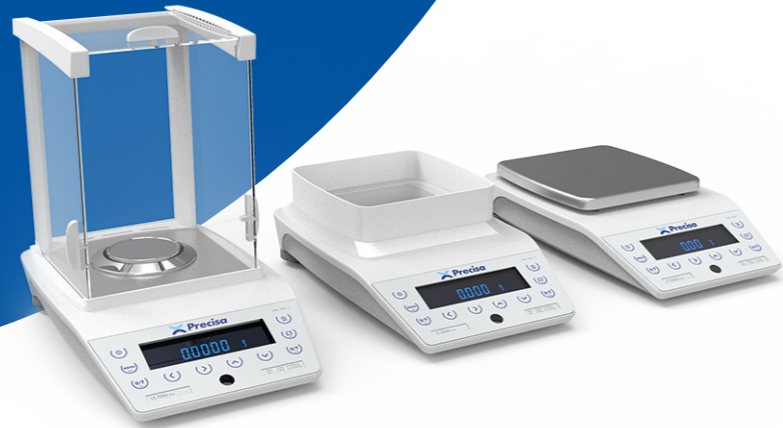
\* USP Min. weight (0.1%, k=2, Load >5%) = Min. weight x 10





# 321

## ADVANCED/STANDARD



- Simple and Intuitive Operation
- Reliable and Durable, Suitable for Universal use
- IP65 Rated on Demand

### LT MODEL

10 MEMBRANE KEY OPERATION  
PROGRAMMABLE

Model	Capacity	Readability	Repeatability (Load >5%)	Min. Weight (1%, k=2, Load >5%)	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.	Price (XXX)
<b>Analytical Balances</b>										
LT 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg	2 s	321-9252-001	-
LT 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg	2 s	321-9253-001	-
LT 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg	3 s	321-9254-001	-

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.	Price (XXX)
<b>Precision Balances</b>									
LT 160M	160 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg	1.5 s	321-9373-001	-
LT 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg	1.5 s	321-9374-001	-
LT 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	I / 1 mg	1.5 s	321-9375-001	-
LT 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 1 mg	2 s	321-9376-001	-
LT 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	I / 1 mg	2 s	321-9377-001	-
LT 320C	320 g	0.01 g	0.005 g	10 mg	200 x 200	II / 0.01 g	1.5 s	321-9470-001	-
LT 620C	620 g	0.01 g	0.005 g	10 mg	200 x 200	II / 0.1 g	1.5 s	321-9471-001	-
LT 1200C	1 200 g	0.01 g	0.01 g	10 mg	200 x 200	II / 0.1 g	1.5 s	321-9472-001	-
LT 2200C	2 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g	1.5 s	321-9473-001	-
LT 3200C	3 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g	1.5 s	321-9474-001	-
LT 4200C	4 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g	1.5 s	321-9475-001	-
LT 6200C	6 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g	1.5 s	321-9476-001	-
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	-

### LX MODEL

5 TOUCH SENSITIVE  
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.	Price (XXX)
<b>Analytical Balances</b>										
LX 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	2 s	321-9246-002***	-
LX 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	2 s	321-9247-002***	-
LX 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	3 s	321-9248-002***	-

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.	Price (XXX)
<b>Precision Balances</b>									
LX 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg**	1.5 s	321-9361-002***	-
LX 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg**	1.5 s	321-9362-002***	-
LX 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 1 mg**	2 s	321-9363-002***	-
LX 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	I / 1 mg**	2 s	321-9364-002***	-
LX 620C	620 g	0.01 g	0.005 g	10 mg	200 x 200	II / 0.1 g**	1.5 s	321-9452-002***	-
LX 1200C	1 200 g	0.01 g	0.01 g	10 mg	200 x 200	II / 0.1 g**	1.5 s	321-9453-002***	-
LX 2200C	2 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	321-9454-002***	-
LX 4200C	4 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	321-9456-002***	-
LX 6200C	6 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	321-9457-002***	-
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***	-

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

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

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

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

# 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.	Price (XXX)
<b>Analytical Balances</b>										
LS 120A	120 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	2 s	321-9249-002***	-
LS 220A	220 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	2 s	321-9250-002***	-
LS 320A	320 g	0.1 mg	0.1 mg	20.0 mg*	0.2 mg	ø 90	I / 1 mg**	3 s	321-9251-002***	-

Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm)	Class / „e“	Response Time	Item No.	Price (XXX)
<b>Precision Balances</b>									
LS 160M	160 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg**	1.5 s	321-9365-002***	-
LS 320M	320 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg**	1.5 s	321-9366-002***	-
LS 620M	620 g	1 mg	1 mg	1.5 mg	135 x 135	II / 1 mg**	1.5 s	321-9367-002***	-
LS 920M	920 g	1 mg	1 mg	1.5 mg	135 x 135	I / 1 mg**	2 s	321-9368-002***	-
LS 1220M	1 220 g	1 mg	1 mg	2 mg	135 x 135	I / 1 mg**	2 s	321-9369-002***	-
LS 320C	320 g	0.01 g	0.005 g	10 mg	200 x 200	II / 0.01 g**	1.5 s	321-9466-002***	-
LS 620C	620 g	0.01 g	0.005 g	10 mg	200 x 200	II / 0.1 g**	1.5 s	321-9459-002***	-
LS 1200C	1 200 g	0.01 g	0.01 g	10 mg	200 x 200	II / 0.1 g**	1.5 s	321-9460-002***	-
LS 2200C	2 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	321-9461-002***	-
LS 3200C	3 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	321-9462-002***	-
LS 4200C	4 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	321-9463-002***	-
LS 6200C	6 200 g	0.01 g	0.01 g	15 mg	200 x 200	II / 0.1 g**	1.5 s	321-9464-002***	-
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***	-

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

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

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

## SERIES 321 OPTIONS, ACCESSORIES & FEATURES



	+	VFD	SCS	IP65	232	USB	BUS	USB (mini)	Print	%	g	g	g	g	g	g	g	g	g	g
LT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LX	✓	✓	AC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LS	✓	✓	AC	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Options	LT	LX	LS	Price (XXX)
EU-Verification according to 2014/31/EU by Precisa (initial verification), available only for balances with EU/OIML type approval and SCS	350-8685	350-8685	350-8685	-
Protection IP65: protection against ingress of dust and low pressure water jets, fitted at factory, not all types available	350-8695	350-8695	350-8695	-
SCS LX: Self Calibration System with clock, automatic on temperature change and real-time programmable	standard	321-xxxx-001	-	-
SCS LS: Self Calibration System with clock, automatic on temperature change and real-time programmable	standard	-	321-xxx-001	-

Accessories	LT	LX	LS	Price (XXX)
Draft shield 321 LG, only for 0.1mg balances	standard	350-8723	standard	-
Draft shield 321 LG-M and Draft shield 321 LG-M short, for balances >= 1mg and range <= 2.2kg	on demand	on demand	on demand	-
Draft shield mg, glass with cover	320-8504	320-8504	320-8504	-
Hook for weighing below the balance	350-8527	350-8527	350-8527	-
Animal weighing bowl complete for 0.01g, 0.1g and 1g balances	350-8551	350-8551	350-8551	-
VasoFrame for 0.1mg balances with draft shield LG	350-8722	350-8722	350-8722	-
VasoFrame for 0.1mg balances with draft shield LX	350-8727	350-8727	350-8727	-
Density kit for 0.01 mg and 0.1 mg balances, container size: ø 75 mm, h = 100 mm	350-8636	350-8636	350-8636	-
Density kit solids only (without glass body and hook) for 0.01 mg and 0.1 mg balances, container size ø = 75 mm, h = 100 mm	350-8637	350-8637	350-8637	-
Glass body for density determination of liquids, V = 10cm <sup>3</sup>	350-7054	350-7054	350-7054	-
Downholder for samples with ρ < 1g/cm <sup>3</sup>	350-7194	350-7194	350-7194	-
Evaporation trap for pipette calibration for 0.1 mg balances	350-8633	350-8633	350-8633	-
Adapter for Eppendorf evaporation trap for 0.1 mg balances	350-8634	350-8634	350-8634	-
Single foot switch for one function: tare, print, ...	350-8814	350-8814	350-8814	-
Protective cover 321 for the whole balance, set of 5 pieces	350-8686	350-8686	350-8686	-
Desk power adapter with EU plug, 80V - 240V	350-8372	350-8372	350-8372	-

**Additional Accessories & Applications**

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

Temperature Range	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C	115V / 230V, +15% / -20%	18 VA	50 - 60 Hz

AC = accessory or optional built-in at factory

# 165 ENTRY



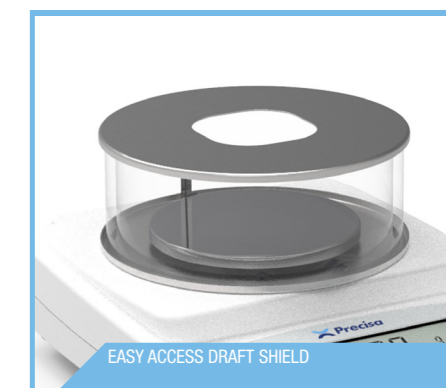
## SERIES 165 OPTIONS & ACCESSORIES



PIECE COUNTING APPLICATION



ANTI-THEFT SECURITY DEVICE



EASY ACCESS DRAFT SHIELD

### BJ MODEL

5 MEMBRANE KEYPAD  
OPERATION

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

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

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

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

Temperature Range	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C	115V / 230V, +15% / -20%	3 VA	50 - 60 Hz

BJ	TTC	LCD BLU	Battery	Hook	USB	RFID	Lock	232	WiFi	%	Printer	Umbrella	Σ	Print	AC
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

AC = accessory or optional built-in at factory





# 410

## HIGH LOAD SCALES



### SRS STEEL PAINTED IP65

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

### SRC STAINLESS STEEL IP67

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

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

### TERMINAL SRM

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

Accessories	SRD ABS	SRM ABS	SRD SST	SRM SST	Price (XXX)
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	-

#### Additional Accessories & Applications

- Further accessories, see Special Products / Accessories

## SERIES 410 FEATURES



TERMINAL SRD/ABS

- (ABS or stainless steel).
- Large backlit LCD.
- Battery Operation.
- Units kg and lb.
- Check weighing program.



TERMINAL SRM/SST

- (ABS or stainless steel).
- Large backlit LCD.
- Battery Operation.
- Counting, Units kg and lb.
- Direct: ID and date settings, tare entry and reference weight entry for counting.

	LED	232				
SRS	✓	✓	✓	✓	SRD	SRM
SRC	✓	✓	✓	✓	SRD	SRM

Temperature Range	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C	115V / 230V, +15% / -20%	5 VA	50 - 60 Hz

# MOISTURE ANALYZERS



## SERIES 365

CUSTOMIZABLE GRAPHIC SCREEN  
12 MEMBRANE KEYPAD OPERATION

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

## SERIES 330

10 MEMBRANE KEYPAD  
OPERATION

Model	Capacity	Readability	Repeatability	Linearity	Temperature Range	Pan Size (mm)	Response Time	Price (XXX)
XM 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 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 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 335

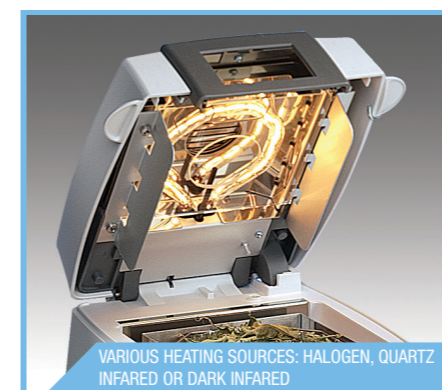
10 MEMBRANE KEYPAD  
OPERATION

Model	Capacity	Readability	Repeatability	Linearity	Temperature Range	Pan Size (mm)	Response Time	Price (XXX)
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	-

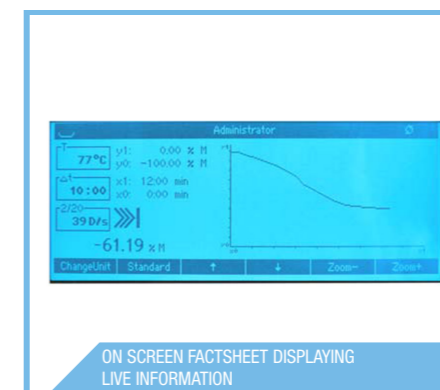
## ITEM NUMBERS\*

Radiator	EM 120-HR	XM 60-HR	XM 60	XM 66	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

## MOISTURE ANALYZERS OPTIONS & ACCESSORIES



VARIOUS HEATING SOURCES: HALOGEN, QUARTZ  
INFARED OR DARK INFARED



ON SCREEN FACTSHEET DISPLAYING  
LIVE INFORMATION



GRAPHIC DISPLAY FOR EASY GUIDANCE AND  
REAL TIME RESULTS

	+	LCD GR	VFD	SCS			USB							
EM 120-HR	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
XM 60-HR	✓		✓		✓	✓			✓	✓		✓	✓	✓
XM 60	✓		✓		✓	✓			✓	✓		✓	✓	✓
XM 66	✓		✓		✓	✓			✓	✓		✓	✓	✓
XM 50	✓		✓		✓	✓			✓	✓		✓	✓	✓

Accessories	EM 120-HR	XM 60-HR	XM 60	XM 66	XM 50	Price (XXX)
Sample pans, aluminum, Ø 100mm, set of 80 pieces	350-2032	350-2032	350-2032	350-2032	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	350-8584	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 320 for terminal, set of 5 pieces	-	350-8590	350-8590	350-8590	350-8590	-

Slide-in Modules, Slide-in Modules, on demand only	EM 120-HR	Price (XXX)
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 & Applications

- PrecisaBUS accessories, see Special Products / Accessories
- Further accessories, see Special Products / Accessories

Temperature Range	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C	115V / 230V, +15% / -20%	420 W	50 - 60 Hz

# 340

## AUTOMATIC MOISTURE & ASH ANALYZERS

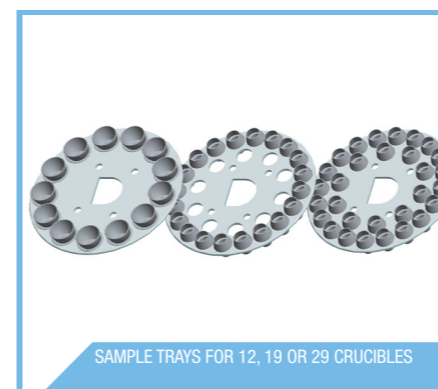


### prepASH MODEL

Model	Capacity	Readability	Repeatability	Temperature Range	Crucibles	Response Time	Item No.	Price (XXX)
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	340-9220-001	-
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	340-9221-001	-
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	340-9222-001	-

Options	prepASH 229			prepASH 219			prepASH 212			Price (XXX)
	Standard Applications	Sulphuric Acid Applications	Volatile (Coal, Coke)	Standard Applications	Sulphuric Acid Applications	Volatile (Coal, Coke)	Standard Applications	Sulphuric Acid Applications	Volatile (Coal, Coke)	
3 inputs gas flow control unit for air and 2 additional gases (N <sub>2</sub> , O <sub>2</sub> )				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-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



SAMPLE TRAYS FOR 12, 19 OR 29 CRUCIBLES



PREPSTATION (SAMPLE TRAY AND CRUCIBLES NOT INCLUDED)



SCRUBBER B-414 CONDENSATION-ABSORPTION UNIT

	+	LCD TS	📄	🔄	📊	📱	🔒	🔒	📊	📱	📱	📱
229	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
219	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
212	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Accessories	prepASH 229	prepASH 219	prepASH 212	Standard Applications	Recommendations		Price (XXX)
					Sulphuric 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 35ml, porcelain glazed, set of 5 pieces APPROVED for applications with acid	standard	standard	340-8037	standard 229/219	standard 229/219	no	-
Crucible 26ml, Al <sub>2</sub> O <sub>3</sub> , for use with lid Al <sub>2</sub> O <sub>3</sub> , 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, Al <sub>2</sub> O <sub>3</sub> , 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 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	-

### Additional Accessories & Applications

- Further accessories, see Special Products / Accessories

Temperature Range	Line Voltage, Tolerance	Power Consumption	Frequency
5 .. 40 °C	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.	Price (XXX)
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 / 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	321-9372-002**	-
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**	-

## LX/LS-STB STIRRER MODEL

## SERIES 321

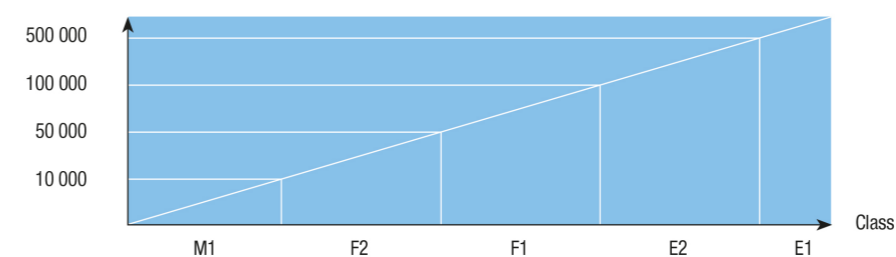
Model	Capacity	Readability	Repeatability	Linearity	Pan Size / Stirring module B x T x H (mm)	Dimensions Stirrer balance B x T x H (mm)	Class / „e“	Response Time	Item No.	Price (XXX)
LS 2200C-STB	2 200 g	0.01 g	0.01 g	15 mg	190 x 190 x 30	228 x 381 x 99	II / 0.1 g	1.5 s	321-9461-801	-
LS 4200C-STB	4 200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

## DC IONIZERS

Power supply	Neutralization	Power	Airflow	Temp. Range	Item No.	Price (XXX)
<b>Stat-FAN</b>						
230 V AC, 115 V AC or 18 V AC by an adapter (-00x: -001=EU, -002=UK, -003=AUS, -004=USA)	< +/- 20 V	2 W	max. 225 l/min	0-40 °C	350-8682-00x	-
<b>Stat-PEN</b>						
> 100 V AC 50-60 Hz (-00x: -001=EU, -002=UK, -003=AUS, -004=USA)	< +/- 30 V	0.1 W	- 20 + 40 °C	IP60	350-8683-00x	-

## CALIBRATION WEIGHTS

Nominal Value	Class	Accuracy	Item No. without Certificate	Item No. with Certificate	Price (XXX)
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

\* Initially verified with SCS (-001) only

\*\* -001 for balance with SCS / -002 for balance without SCS, see „Options“ of Series 321 LS



## 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
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-Bar code 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-Bar code scanner BCS5040, RJ45, with push button to be connected to the SmartBox®	-	-	-	350-8531

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

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## SPECIAL PRODUCTS ACCESSORIES

321 LT/LX/LS	165 BJ	490 IBK/ITK/ISK	Terminal SRD/SRM	330 XM	EM 120-HR	Price (XXX)
350-8391	350-8391	350-8391	350-8391	350-8391	350-8391	-
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	-
350-8366	350-8366	350-8366	350-8366	350-8366	350-8366	-
350-8367	350-8367	350-8367	350-8367	350-8367	350-8367	-
350-8513	350-8513	350-8513	-	350-8513	350-8513	-
-	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	-
-	-	-	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	-
350-8940-001	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	-
350-8940-003	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	350-8662	-	-	-
350-8399	350-8399	-	-	-	-	-
350-8555	350-8555	350-8555	-	350-8555	350-8555	-
350-8322	350-8322	350-8322	-	-	-	-

321 LT/LX/LS	165 BJ	490 IBK/ITK/ISK	Terminal SRD/SRM	330 XM	EM 120-HR	Price (XXX)
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	165 BJ	490 IBK/ITK/ISK	Terminal SRD/SRM	330 XM	EM 120-HR	Price (XXX)
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 FPV0 is built-in

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# 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, ozt, 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

	Series 390				Series 360		Series 321			Series 520		Series 165	Series 490			Series 410	
	HF	HA	HE	HM	EP	ES	LT	LX	LS	PT	PB	BJ	ISK	ITK	IBK	SRS	SRC
<b>FEATURES</b>																	
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<b>APPLICATIONS</b>																	
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AC = accessory or optional built-in at factory  
 OD = on demand  
 SRM = apps on SRM terminal  
 SRD = apps on SRD terminal

# TECHCOMP GROUP

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

 **Froilabo**

 **Dynamica**

 **SCION**  
INSTRUMENTS

 **EDINBURGH**  
**SENSORS**

 **EDINBURGH**  
**INSTRUMENTS**

 **Isotop**

350-8130-900 h1

Technical modifications reserved

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Stg13 / 10.2021