

# ELECTRONIC BALANCE GUIDE



#### SELLETON SCALES

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**SYMBOLS** 



8	EM-FR	Electromagnetic Force Restoration: coil in a permanent magnet for the the most accurate weighings		High Resolution Load Cell: strain gauge measure the deformation as change in electrical resistance
(		<b>Accumulator:</b> Balance has internal accumulator or can be used with optional external accumulator	RS 232	<b>RS-232 Data Interface:</b> to connect the balance to printer, PC, peripheral devices
(		Measuring Units: Select the measuring unit that balance will use to display weight	PCS	<b>Piece counting function:</b> to count identical items, reference quantities are selectable
(		<b>Checkweighing:</b> upper and lower limits can be set individually, for dosing and portioning	(%) % WEIGH	<b>Percentage Weighing function:</b> calculates the weight of a sample as a percentage from a reference weight (100%)
(	ADD	<b>Totalization Function:</b> measure cumulative weight of multiple items. Shows total and current weight		Animal Weighing: accurate readings under unstable conditions such moving laboratory animals
Ű	BATTERY	<b>Battery Operating:</b> Balance can work using AA batteries	NET	<b>Gross-Net-Tare function:</b> shows simultaneousily gross, net weight and tare
(	UNDER	<b>Suspended Weighing:</b> a support with hook can be loaded on the underside of the balance		Max Load (Peak hold) function: retains the peak value in a series of consecutive weights
۵	WATER RESISTANT WATER	Water Resistant: stainless steel housing design to protect it from water damage	DENSITY	<b>Density Determination function:</b> accurately determines density of a solid object or a liquid

# **OPD-A** Series - Resolution 1mg, 0.01g



OPD-A1002 --- OPD-A6002



OPD-A103 --- OPD-A603

Features

#### Benefits

Gold-plated ceramic capacitance sensor	High stability, minimizing the influence of temperature change
3-Door Anti-Static Draft Shield (1mg models)	Protect weighing samples from surrounding influences
Large stainless steel pan	Allows for easy weighing of large objects
Leveling feet with 2 points of adjustment	Makes it level even on uneven working surfaces
Below balance weighing	Determines density of large pieces
Configurable RS 232 interface	Allows for communication with peripheral data collection and printing
Multiple weighing units	Allows for flexibility of weighing

Model	0PD-A 103	OPD-A 203	OPD-A 303	OPD-A 403	0PD-A 503	0PD-A 603	0PD-A 1002	0PD-A 2002	0PD-A 3002	0PD-A 4002	0PD-A 5002	0PD-A 6002	
Draft Shield		With Draft Shield							No Draf	t Shield			
Capacity	120g	210g	310g	410g	510g	600g	1100g	2100g	3100g	4100g	5100g	6100g	
Resolution			0.001 g	(1 mg)					0.0	1 g			
Repeatability			± 0.001	g (1 mg)					± 0.0	01 g			
Linearity Error			± 0.002	g (2 mg)				± 0.02 g					
Response Time						≤ 2	≤ 2 sec						
Calibration					Calibra	tion with	External	Weight					
Weighing Units					g	, ct, lb, o	z, ozt, dv	vt					
Construction	Cas	st alumin	um, stati	c resista	nt ABS, s	static-res	istant do	ors (1mg	g models	), stainle	ss steel	pan	
Display	Large, easy to read LCD display with backlight and icons, 3/4" (19 mm) high												
Pan Size			Φ4.5" (*	115 mm)					Φ 6.3" (1	3" (160 mm)			
Body dim.	9" x 12" x 13" (230 x 310 x 330 mm) 9" x 12" x 3.5" (230 x 310 x 90 mm)									)			
Power	110v - 240v, 50HZ / 60HZ												
Operational Temp.	DU E 10 100			o 158 °F	°F / 10 °C to 70 °C								
Connectivity					Confi	gurable R	e RS 232 interface						

### **OPH-P** Series - Resolution 0.1mg, 1mg



0.1mg	1mg
Features	Benefits
Efficient filtering-out of vibrations	High stability and reliability
Legendary High Contrast LCD screen	Ensures clear readings in any areas
3-Door Anti-Static Draft Shield	Protect weighing samples from surrounding influences
Large stainless steel pan	Allows for easy weighing of large objects
Leveling feet with 2 points of adjustment	Makes it level even on uneven working surfaces
Optional density determination kit	Determines accurate density of both solid and liquid items
Below balance weighing	Determines density of large pieces
Configurable RS 232 interface	Allows for communication w/ peripheral data collection and printing
Multiple weighing units (17 total)	Allows for flexibility of weighing

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44 19.3%

Model	OPH-P104	OPH-P204	OPH-P103	OPH-P203	OPH-P303	OPH-P1003	OPH-P2003	
Capacity	100 g	200 g	100 g	200 g	300 g	1000 g	2000 g	
Resolution	0.0001 g	(0.1 mg)		0.00	01g (1mg)	·		
Repeatability	± 0.0001	g (0.1 mg)		± 0.0	001 g (1 mg)			
Linearity Error	± 0.0002	g (0.2 mg)		± 0.0	002 g (2 mg)			
<b>Response Time</b>				≤ 2 sec				
Calibration		Calibrati	on with Exter	nal Weight		Auto Internal Calibration		
Weighing Units		g, lb, kg, oz,	ct, ozt, pcs, t	ils, tIT, tIH, dv	vt, GN (grain),	dr, ms, bat, mo	om T/A/R	
Construction		Cast alumi	num, static resistant ABS, static-resistant doors (1mg models), stainless steel pan					
Display		Large, easy	to read LCD	display with b	acklight and i	cons, 3/4" (19 n	nm) high	
Pan Size			Φ 3.5" (90 m	m)	Φ 4.25" (108mm)			
Body dimension (W x D x H)	13.5" x 8.75" x 13" (345 x 223 x 330 mm)							
Power	110v - 240v, 50HZ / 60HZ							
Operational Temp.			50 °F to 86 °F / 10 °C to 30 °C					
Connectivity			Configurable RS 232 interface					

## **OPH-T** Series - Resolution 0.01g, 0.1g



Features	Benefits
Economical and reliable	Helps you save money with confidence
Large stainless steel pan	Allows for easy weighing of large objects
Leveling feet with level bubble	Makes it level even on uneven working surfaces
Below balance weighing	Determines density of large pieces
AC-DC available	Able to operate with rechargeable battery (not included)
LCD display with backlight	Allows for easy reading
Multiple weighing units	Allows for flexibility of weighing

Model	0PH-T 202	0PH-T 302	0PH-T 502	0PH-T 602	0PH-T 1002	0PH-T 2002	0PH-T 4002	0PH-T 2001	0PH-T 3001	0PH-T 5001	0PH-T 6001	
Pan Size		Round Pan, Φ 5" (130 mm)				mm)	nm)			Square Pan, 6.3" x 5.7" (165 x 145 mm)		
Capacity	200 g	300 g	500 g	600 g	1000 g	2000 g	4000 g	2000 g	3000 g	5000 g	6000 g	
Resolution				0.01 g					0.1	1 g		
Repeatability			± 0.01 g			± 0.	02 g		± 0	.1 g		
Linearity Error			± 0.02 g			± 0.	± 0.03 g			± 0.2 g		
Response Time	≤ 2 sec											
Calibration				С	alibration	with Exte	rnal Weig	ıht				
Weighing Units	g, lb, oz, ct, ozt, N, dwt, GN (grain), tLT											
Construction	Static resistant ABS, stainless steel pan											
Display		Large	e, easy to	read LC	D display	ay with backlight and icons, 3/4" (19 mm) high						
Body dims (W x D x H)	10.25" x 6.9" x 2						" x 2.4" (260 x 175 x 60 mm)					
Power	110v - 240v, 50HZ / 60HZ											
Operat.Temp.				5	50 °F to 86	6 °F / 10 °	°C to 30 °	С				

# **OPH-Z** Series - Resolution 0.01g, 0.1g





VATN High Contrast LCD Display



Features	Benefits
Large Capacity and High Resolution	Works for various applications
Rugged Construction	Assures fast, stable, and reproducible results
Large stainless steel pan	Allows for easy weighing of large objects
Date, Time and Temperature displays	Advanced, user-friendly features
Legendary VATN High Contrast LCD screen	Ensures clear readings in any conditions
Leveling feet with level bubble	Makes it level even on uneven working surfaces
Below balance weighing	Determines density of large pieces
Configurable RS 232 interface	Allows for communication w/ peripheral data collection and printing
Multiple weighing units	Allows for flexibility of weighing

Model	OPH-Z4002	OPH-Z10001	OPH-Z20001	OPH-Z30001			
Capacity	4 kg (8.8 lb)	10 kg (22 lb)	20 kg (44 lb)	30 kg (66 lb)			
Resolution	0.01 g		0.1 g				
Repeatability	± 0.02 g		± 0.2 g				
Linearity Error	± 0.02 g		± 0.2 g				
Response Time		≤ 2	sec				
Calibration	Calibration with External Weight						
Weighing Units	g, lb, kg, oz, ct, ozt, pcs, tls, tlT, tlH, dwt, GN (grain), dr, ms, bat, mom T/A/R						
Construction	Cast aluminum, static resistant ABS, stainless steel pan						
Display	Large, easy to re	ead LCD display with I	backlight and icons, 3	/4" (19 mm) high			
Pan Size	10" x 7" (255 x 180 mm)						
Body dimension (W x D x H)	13" x 13" x 5" (320 x 320 x 120 mm)						
Power	110v - 240v, 50HZ / 60HZ						
<b>Operational Temperature</b>	50 °F to 86 °F / 10 °C to 30 °C						
Connectivity	Configurable RS 232 interface						

### **OPF-N** Series - Resolution 0.1g, 1g







Features		
Economical and reliable		
Large Capacity and High Resolution		
Rugged Construction		
Large stainless steel pan		
Leveling feet with level bubble		
AC / Rechargeable battery (100 hours)		

Benefits Cost effective with high performance Works for various applications Assures fast, stable, and reproducible results Allows for easy weighing of large objects Makes it level even on uneven working surfaces Complete mobility

Model	OPF-N3	OPF-N7.5	OPF-N15	OPF-N30			
Capacity	3 kg (6.6 lb)	7.5 kg (16.5 lb)	15 kg (33 lb)	30 kg (66 lb)			
Resolution	0.1 g	0.2 g	0.5 g	1 g			
Repeatability	± 0.1 g	± 0.2 g	± 0.5 g	± 1 g			
Linearity Error	± 0.2 g	± 0.5 g	±1g	± 2 g			
Response Time		3 :	sec				
Calibration	Calibration with External Weight						
Weighing Units	g, lb, kg, oz						
Construction	Cast a	aluminum, static resist	ant ABS, stainless ste	el pan			
Display	Large, easy to read LCD display with backlight and icons, 3/4" (19 mm) high						
Pan Size	11"x 8.5" / 260 x 220 mm						
Body dimension (W x D x H)	10.5"x 12.5" x 5.5" / 260 x 320 x 140 mm						
Power	110v - 240v, 50HZ / 60HZ; 9V Rechargeable battery (Bat. time: 30-60 hrs)						
<b>Operational Temperature</b>	50 °F to 86 °F / 10 °C to 30 °C						

### **OPK** Series Compact Balances - Resolution 0.1g, 1g



Features	Benefits
Entry level model with lab precision	Cost effective and high performance
Ergonomically optimized key pad w/ large keys	Convenient and efficient performance
Precise tare button	Calculates the net weight of your ingredients
Secure and non-slip positioning with rubber feet	Precise leveling of the scale
Detachable pan	For easy and hygienic cleaning
Both AC and AA batteries (not included)	Complete mobility

Model	0PK-P 250	0PK-P 500	0PK-P 2500	0PK-P 5000	0PK-S 250	0PK-S 500	0PK-S 2500	0PK-S 5000
Pan Type	ABS Plastic Pan				Stainless Steel Pan			
Pan Size	7" x 7" (175 x 175 mm)			5.7" x 5.7" (145 x 145 mm)				
Capacity	250 g	500 g	2500 g	5000 g	250 g	500 g	2500 g	5000 g
Resolution	0.1 g	0.1 g	1 g	2 g	0.1 g	0.1 g	1 g	2 g
Repeatability	± 0.1 g	± 0.1 g	± 1 g	± 2 g	± 0.1 g	± 0.1 g	± 1 g	± 2 g
Linearity Error	± 0.2 g	± 0.2 g	± 2 g	± 2 g	± 0.2 g	± 0.2 g	± 2 g	± 2 g
Response Time		3 sec						
Calibration		Calibration with External Weight						
Weighing Units		oz, g, ct						
Construction		Static resistant ABS, stainless steel pan (OPK-S models)						
Display	Easy to read LCD display 5/8" (16 mm) high							
Body dims (W x D x H)	9" x 16" x 1.6" (230 x 400 x 40 mm)							
Power	110v - 240v, 50HZ / 60HZ (adapter not included); or (4) AA batteries (not included)							
Operat. Temp.	50 °F to 86 °F / 10 °C to 30 °C							

# **OPF-P** Series Counting Scales - Resolution 0.1g, 1g

#### ACCURATE PARTS COUNTING FOR AN EFFICIENT INVENTORY MANAGEMENT SOLUTION



- Weighing
- Checkcounting
- Counting
- Accumulating
- Checkweighing K
  - ı Kitting

#### ALL IN ONE SCALE

Features	Benefits
QUICKCOUNT™	Jump and count in no time
Three windows (total weight, unit weight, quantity)	Weight and piece count show simultaneously
21 PLU's (product LOOK-UP)	Fast retrieval of stored sample weights
Unit weight memory	Makes it possible to remember the important items counted
Overload alarm	Helps avoid overload
Portable and rugged design	Minimizes chances of damage due to frequent moves
Large stainless steel pan	Large enough to tare regular-sized bins or trays
AC / Rechargeable battery	Complete mobility
Large stainless steel pan	Allows for easy weighing of large objects
Leveling feet with level bubble	Makes it level even on uneven working surfaces
AC / Rechargeable battery (included)	Easy to use anywhere

Model	OPF-P3	OPF-P7.5	OPF-P15	OPF-P30			
Capacity	3 kg (6.6 lb)	7.5 kg (16.5 lb)	15 kg (33 lb)	30 kg (66 lb)			
Resolution	0.1 g	0.2 g	0.5 g	1 g			
Internal Resolution	ernal Resolution 600,000 graduations						
Count Capacity		999,999 pieces					
Unit Weight Memory		21	items				
Tare	Tare Full Capacity						
Display	Weight, Unit Weight, pcs						
Response Time	2 sec						
Calibration	Calibration with External Weight						
Weighing Units	g, lb, kg, oz, pcs						
Construction	Cast aluminum, static resistant ABS, stainless steel pan						
Display	Large, easy to read LCD display with backlight and icons, 5/8" (16 mm) high						
Pan Size	13.2"x 9" / 335 x 220 mm						
Body Dimension (W x D x H)	13.5"x13"x4" / 340 x 320 x 95 mm						
Power	110v - 240v, 50HZ / 60HZ; 9V Rechargeable battery (Bat. time: 100 hrs)						
Operational Temp.	50 °F to 86 °F / 10 °C to 30 °C						

### **OPF-C** Series Counting Scales - Resolution 0.1g, 1g

#### ACCURATE PARTS COUNTING FOR AN EFFICIENT INVENTORY MANAGEMENT SOLUTION



- Weighing •
- Counting
- Checkcounting
- Accumulating
- Checkweighing • Kitting
  - ALL IN ONE SCALE

Features	Benefits
QUICKCOUNT™	Jump and count in no time
Three windows (total weight, unit weight, quantity)	Weight and piece count show simultaneously
Blue Backlight for easy visibility	Fast response time
Multiple Units: g, lb, kg, oz, pcs	Full tare capacity
Overload alarm	Helps avoid overload
Portable and rugged design	Minimizes chances of damage due to frequent moves
Large stainless steel pan	Large enough to tare regular-sized bins or trays
AC / Rechargeable battery	Complete mobility
Large stainless steel pan	Allows for easy weighing of large objects
Leveling feet with level bubble	Makes it level even on uneven working surfaces
AC / Rechargeable battery (included)	Easy to use anywhere

Model	OPF-C3	OPF-C7.5	OPF-C15	OPF-C30	
Capacity	3 kg (6.6 lb)	7.5 kg (16.5 lb)	15 kg (33 lb)	30 kg (66 lb)	
Resolution	0.1 g	0.2 g	0.5 g	1 g	
Internal Resolution	600,000 graduations				
Count Capacity		999,99	9 pieces		
Unit Weight Memory		O ite	ems		
Tare		Tare Ful	I Capacity		
Display	Weight, Unit Weight, pcs				
Response Time	2 sec				
Calibration	Calibration with External Weight				
Weighing Units	g, lb, kg, oz, pcs				
Construction	Cast aluminum, static resistant ABS, stainless steel pan				
Display	Large, easy to read LCD display with backlight and icons, 5/8" (16 mm) high				
Pan Size	11"x 8.5" / 335 x 220 mm				
Body Dimension (W x D x H)	13.5"x11"x4" / 340 x 320 x 95 mm				
Power	110v - 240v, 50HZ / 60HZ; 9V Rechargeable battery (Bat. time: 100 hrs)				
Operational Temp.	50 °F to 86 °F / 10 °C to 30 °C				

# **OPX-SS** Series - Resolution 0.2g, 0.5g, 1g

#### Built Entirely in Stainless Steel Ideal for Food Industries





Rear LED display



Features	Benefits
All Stainless Steel	Hermetically sealed from water and dust
Large stainless steel pan	Allows for easy weighing of large objects
Dual LED Display (front and back)	Ideal for portion control
Ideal for wet environment	Automatic power off
DC / Rechargeable battery	Complete mobility
Multiple weighing units	Allows for flexibility of weighing

Model	OPX-SS6	OPX-SS15	OPX-SS30		
Capacity	6 kg (13 lb)	15 kg (33 lb)	30 kg (66 lb)		
Resolution	0.2 g	0.5 g	1 g		
Response Time	3 sec				
Calibration		Calibration with External V	Veight		
Weighing Units	lb, oz, kg, g				
Construction	All Stainless Steel				
Display	6 digit, 1 in height, LED dual front and back display				
Pan Size	8.4"L x 7"W				
Body dimension	9"L x 10.2"W x 4.5"H				
Power	100V - 240V, 50Hz / 60Hz; 3.7V 2200mA/h Rechargeable lithium battery				
Operational Temp.	50 °F to 86 °F / 10 °C to 30 °C				

#### **REFERENCES BY CAPACITY/RESOLUTION**

RES. CAP.	0.0001 G (0.1 MG)	0.001 G (1 MG)	0.01 G	0.1 G	0.2 G	0.5 G	1 G	2 G
100 G	OPH-P104	OPD-A103 OPH-P103						
200 G	OPH-P204	OPD-A203 OPH-P203	OPH-T202					
250 G				ОРК-250				
300 G		OPD-A303 OPH-P303	OPH-T302					
400 G		OPD-A403						
500 G		OPD-A503	OPH-T502	ОРК-Р500				
600 G		OPD-A603	OPH-T602					
1000 G		OPH-P1003	OPD-A1002 OPH-T1002					
2000 G		OPH-P2003	OPD-A2002 OPH-T2002	OPH-T2001				
2500 G							OPK-2500	
3000 G			OPD-A3002	OPH-T3001 OPF-N3 OPF-P3 OPF-P3				
4000 G			OPD-A4002 OPH-T4002 OPH-Z4002					
5000 G			OPD-A5002	OPH-T5001				ОРК-5000
6000 G			OPD-A6002	OPH-T6001	OPX-SS6			
7.5 KG					OPF-C7.5 OPF-P7.5 OPF-N7.5			
10 KG				OPH-Z10				
15 KG						OPF-N15 OPF-C15 OPF-P15 OPX-SS15		
20 KG				OPH-Z20				
30 KG				OPH-Z30			OPF-N30 OPF-P30 OPF-C30 OPX-SS30	

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