Reasons to choose the MASTER

 $\alpha \cdot H$

Water Resistant

1 Water Resistant

The concept of a washable handheld analog unit is exceptional. After measuring, the instrument can be cleaned with running water under a faucet. The new structuraldesign of these units allows them to be

washed whenever necessary. Rated IP65 (dust tight and water resistant).

2 Hygienic Design



The MASTER series was also designed with a smooth and easy-to-clean grip, eliminating the possibility of food and samples being trapped which can result in contamination and bacterial

3 Visibility



Efficiently using an analog unit depends on how easily the measured value can be read. Extensive research and the use of quality optics result in a measurement scale that is very bright, creating a high contrast to see clearly where the boundary intersects the memory lines of the scale.

4 Automatic Temperature Compensation (ATC) $\alpha \cdot T \cdot H$



The newly designed ATC system allows the MASTER series to read more accurately than any comparable unit. ATAGO has applied for a patent on the design of the improved ATC system. The MASTER series reads more accurately than any comparable unit in the market.

5 Durability



The MASTER series has passed all water resistance, dust resistance, and drop tests. instruments were subjected to water jets form four directions, dropped from a height of one meter onto an oak platfoam, and withstood the pressure changes of air travel.

6 Calibration



The α and H types can now be calibrated with the new waterproof calibration screw. All MASTER models can be calibrated by end-

7 Automatic Sample Distribution (ASD)



ASD ATAGO has developed a spoon-shaped tip that automatically spreads the sample across the prism. This makes the instrument even more user-friendly. saving valuable time.

8 Repair and Service



ATAGO has established a close network of customers by providing excellent customer service and support . When an ATAGO instrument needs servicing, not only is each customer treated with respect, but they are also provided with detailed methods and userspecific suggestions on sampling and taking measurements, based on individual needs.

9 Reputation for Quality



ATAGO has built a firm reputation for reliability and quality during its over 70 years history. We are a strong company that exports to over 154 countries with continued growth expectations. ISO 9001 certified, along with our integrated system for producing and marketing our products, based on the "Plan-Do-Check-Act" cycle, is essential to the continued quality and to the promoting of the ATAGO name.

Simple Operation



1 Apply 1-2 drops onto the prism.



2 Close the daylight plate. View the scale through the eyepiece.



line intersects the scale.

Applications

-Measuring sugar concentration, concentration, Brix and Refractive Index-

Honey





Jam, syrup, confectioneries

Soymilk

Condiments





Condiment, seasonings, ketchup, various sauces, soy sauce

Wine



Grapes, wine must



Fruit juice, soft drink, carbonated beverage

▶ Cooking



Chinese noodle soup, various soup, various sauces

Agriculture



Fruit and vegetable juice, leaf juice, stem juice, root juice

Salinity



sea water, pickles

Machine Tools



Firefighting foam, soluble cutting oil

Chemicals and medicine



Brine, deicing solution, medicine, chemical, cosmetics, cleaning solution

Clinical



Urine, serum

Optional Accessories



Small Volume Daylight Plate With Hinge Pin Parts.No. RE-2311-58M For plastic body model Parts.No. RE-2391-50M

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Sucrose solution (for Brix confirmation)

Parts.No. RE-110010 10% Sucrose Parts.No. RE-110020 20% Sucrose Parts.No. RE-110030 30% Sucrose Parts.No. RE-110040 40% Sucrose Parts.No. RE-110050 50% Sucrose arts.No. RE-110060 60% Sucrose

All ATAGO refractometers are designed and manufactured in Japan.



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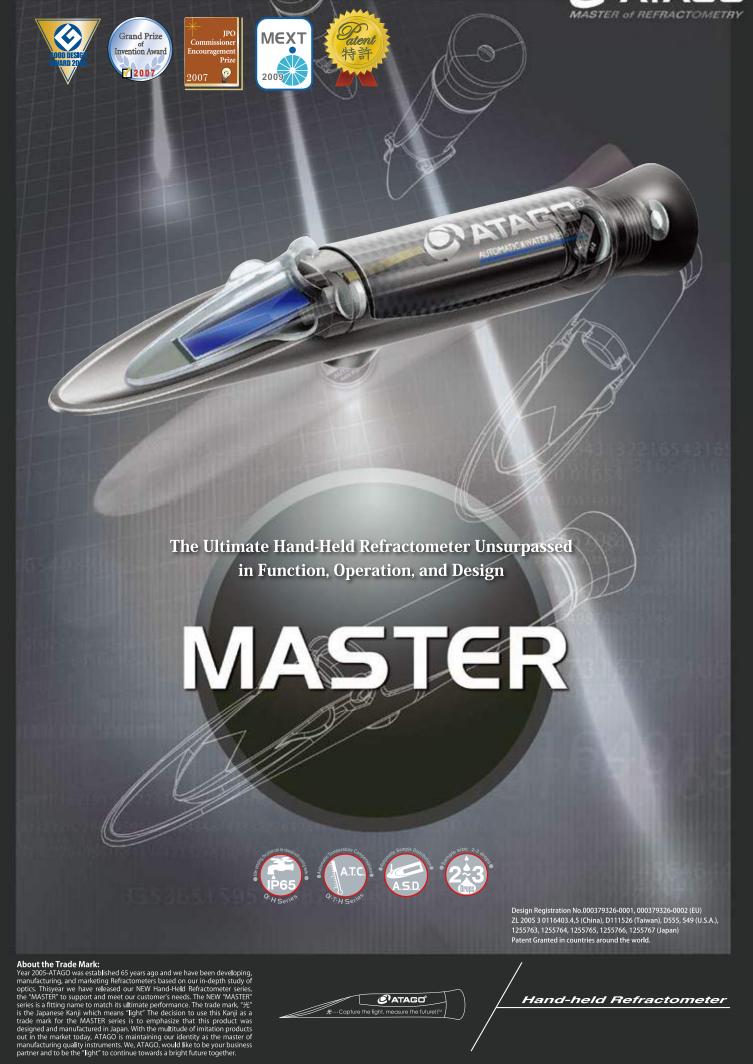




EXAMPLE 18: 662-982-8718-9

ATAGO CHINA Guangzhou Co., Ltd. TEL: 86 20-38106065





^{*} Specifications and appearance are subject to change without notice.

MASTER series

Choose the right model for your sample, based on the features and materials of the instrument.



Features 6 types

Both the α and T types are equipped with the Automatic Temperature Compensation feature. Choose the α type for the added feature of IP 65 water-resistance. The H type is the heat-resistant version of the α type.

					NEW	NEW
Series / Model	a	Т	M	Н	53 S	500
Water resistant		_			•	
Automatic temperature compensation		•	_	•	•	_
Heat resistant	_	_	_		_	•
Milky sample	_	<u> </u>	_	<u> </u>		_

MASTER-53S

for Milky sample

Opaque, inhomogeneous liquids can be difficult to get a clear boundary line with a conventional refractometer. This model is recommended for cream-based sauces, yogurt, mayonnaise, and various emulsions used in industrial processing.









■ Understanding model names

A model name consists of the scale (sample name), material, and feature type.



Material 2 types Choose either metal or plastic.



Die-cast aluminum

Ideal for the agriculture industry, metal working fluids, and various high-temperature samples. Resistant to organic solvents.



Plastic

PBT (polybutylene terephthalate)

Resistant to salty and acidic samples.

■ Brix of Various Samples Refractive index and Brix of various types of samples

Brix	(%)		Foo	od industry	Chemical industry	Medical Science industry			-	(Brix ory No.	
(Ri)	_	Drinks				Methanol					
1.333	0	Green tea Beer	Fruits / Vegetables	Seasonings Miso soup	Cutting oil (emulsion)	Saline Aloe extract Sea water	(1) 0 5	10 0 5	20 0 5 20 %	53 0 5	500 0 5
1.34 —	5	Coffee	Tomato Strawberry Lemon		Nickel plate liquid	Chlorella extract	33 %	10 %	20 %	53 %	90 %
1.35 —	10	Soy milk Cola Milk	Orange Apple Prince melon	Beef curry	Gelatin liquid Freon113	Serum					
	15			Demiglace (sauce) Orange jelly							
1.36 —	20	Lactic acid- bacteria be		Canned syrup	Silicone solution (emulsion)	Acetone Ethanol					
1.37 —	30			Oaimed syrup	Electrolyte Freon 11	Acetic acid Saturated saline					
1.39 -	30			Ketchup Soy sauce Jam	Acrylonitrile			2 28 5			н
1.40 -	40			Sauce Low-sugar jam				62			
1.40	50			Egg yolk	Silicone oil	Octane		%	. 4		
	60	Fats Butter			Ethylene glycol Propylene glycol		3		45 \$ 82		
	70	Olive oil		Honey Jam	Diesel oil		58 \$		%		
	80 -			Honey Starch Syrup	Ricinus	Glycerin	90				
1.50	90				Polyvinyl chloride (PCV) Styrene Asphalt						

■ Specifications

Brix Scale

Range	Series		z c	1	Γ	N	Л
(Minimum)	Material	Metal	Plastic	Metal	Plastic	Metal	Plastic
(4)	Model	MASTER-α	MASTER-Pα	MASTER-T	MASTER-PT	MASTER-M	MASTER-PM
(1)	Cat.No.	2311	2391	2312	2392	2313	2393
0~33%	Accuracy	±0.2% *±0.4	1% (10∼30℃)	±0.2% *±0.1	1% (10~30℃)	_	-
(0.2%)	Size & Weight	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g

2	Model	MASTER-2α	MASTER-2Pα	MASTER-2T	MASTER-2PT	MASTER-2M	MASTER-2PM
2 000/	Cat.No.	2321	2941	2322	2942	2323	2943
28~62%	Accuracy	±0.2% *±0.1	% (10~40℃)	±0.2% *±0.1	% (10∼40℃)	-	-
(0.2%)	Size & Weight	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g

2	Model	MASTER-3α	MASTER-3Pα	MASTER-3T	MASTER-3PT	MASTER-3M	MASTER-3PM
50 000/	Cat.No.	2331	2951	2332	2952	2333	2953
58~90%	Accuracy	±0.2% *±0.1	% (10~40℃)	±0.2% *±0.1	% (10~40℃)	_	-
(0.2%)	Size & Weight	3.2×3.4×16.8cm/130g	3.2×3.4×16.8cm/90g	3.2×3.4×16.8cm/130g	3.2×3.4×16.8cm/90g	3.2×3.4×16.8cm/130g	3.2x3.4x16.8cm/90g

4	Model	MASTER-4α	MASTER-4Pα	MASTER-4T	MASTER-4PT	MASTER-4M	MASTER-4PM
45	Cat.No.	2341	2961	2342	2962	2343	2963
45~82%	Accuracy	±0.2% *±0.1	% (10~40°C)	±0.2% *±0.1	% (10∼40℃)	_	-
(0.2%)	Size & Weight	3.2×3.4×16.8cm/130g	3.2×3.4×16.8cm/90g	3.2×3.4×16.8cm/130g	3.2×3.4×16.8cm/90g	3.2×3.4×16.8cm/130g	3.2x3.4x16.8cm/90g

 10	Model	MASTER-10 a	MASTER-10P α	MASTER-10T	MASTER-10PT	MASTER-10M	MASTER-10PM
	Cat.No.	2371	2981	2372	2982	2373	2983
0~10%	Accuracy	±0.2% *±0.1	% (10~30℃)	±0.2% *±0.1	% (10~30℃)	_	-
(0.1%)	Size & Weight	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g	3.2×3.4×20.3cm/155g	3.2×3.4×20.3cm/105g

20	Model	MASTER-20 α	MASTER-20P α	MASTER-20T	MASTER-20PT	MASTER-20M	MASTER-20PM
20	Cat.No.	2381	2991	2382	2992	2383	2993
0~20%	Accuracy	±0.2% *±0.1	% (10∼30℃)	±0.2% *±0.1	% (10∼30℃)	_	-
(0.1%)	Size & Weight	3.2×3.4×20.7cm/165g	3.2×3.4×20.7cm/110g	3.2×3.4×20.7cm/165g	3.2×3.4×20.7cm/110g	3.2×3.4×20.7cm/165g	3.2×3.4×20.7cm/110g

52	Model	MASTER-53 a	MASTER-53P α	MASTER-53T	MASTER-53PT	MASTER-53M	MASTER-53PM
53	Cat.No.	2351	2971	2352	2972	2353	2973
0~53%	Accuracy	±0.5% *±0.25	5% (10∼30℃)	±0.5% *±0.25	5% (10~30℃)	_	-
(0.5%)	Size & Weight	3.2×3.4×16.8cm/130g	3.2×3.4×16.8cm/90g	3.2x3.4x16.8cm/130g	3.2x3.4x16.8cm/90g	3.2x3.4x16.8cm/130g	3.2x3.4x16.8cm/90g

► Heat resistant

Series			Н					
Material			Metal					
Model	MASTER-50H	MASTER-80H	MASTER-93H	MASTER-100H				
Cat.No.	2354 2364		2374	2384				
Range	Brix 0.0~50.0%	Brix 30.0~80.0%	Brix 45.0~93.0%	Brix 60.0~100.0%				
Minimum			0.5%					
Accuracy		±0.5% *±0.25%						
Size & Weight		3.2×3.4	× 16.8cm/130g					

► Milky sample ► Wide Brix

Series	53S (NEW)	500 (NEW)
Material	Me	etal
Model	MASTER-53S	MASTER-500
Cat.No.	2355	2363
Range	Brix 0.0~53.0%	Brix 0.0~90.0%
Minimum	0.5%	1.0%
Accuracy	±0.5% *±0.25%	_
Size & Weight	3.2×3.4× 16	6.8cm/130g

Special Scale

Sample	Coolant	Battery Coolant	Battery Coolant	Refractive index	Honey NEW
Series	M	M	M	M	а
Material	Plastic	Plastic	Plastic	Metal	Plastic
Model	MASTER-BR	MASTER-BC	MASTER-BCF	MASTER-RI	MASTER-HONEY
Cat.No.	2930	2931	2932	2612	2524
Scale	propylene glycol ethylene glycol	ethylene glycol freezing temp propylene glycol freezing temp stery fluid d20/20	ethylene glycol freezing temp propylene glycol freezing temp stery fluid d20/20	Refractive index	Honey moisture
Range	① 0 to 70% 0 to −50°C ② 0 to 70% 0 to −50°C	① 0 to −50°C ② 0 to −50°C ③ 1.150 to 1.300	① 32 to -60°F ② 32 to -50°F ③ 1.150 to 1.300	1.435 to 1.520	12.0 to 30.0%
Minimum Scale	5% 5℃	① 5℃ ② 5℃ ③ 0.01	① 10°F ② 10°F ③ 0.01	0.001	0.2%
Size & Weight	3.2×3.4×16.8cm, 90g	3.2×3.4×20	.3cm , 105g	3.2×3.4×16.8cm, 130g	3.2×3.4×16.8cm, 90g

Sample	Seawater	Seawater	Salinity	Salinity	Salinity (Wide range)	Salinity (Wide range)	
Series	α	M	α	M	α	M	
Material	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	
Model	MASTER-S/Mill α	MASTER-S/Mill M	MASTER-S10 α	MASTER-S10 M	MASTER-S28α	MASTER-S28 M	
Cat.No.	2491	2493	2471	2473	2481	2483	
Scale	Salinity ② Specific gravity		Sodium chloride		Sodium chloride		
Range	① 1‰ ② 0.001		0.0 to 10.0g/100g		0.0 to 28.0g/100g		
inimum Scale	① 0 to 100‰ ② 1.000 to 1.070		0.1g/100g		0.2 g/100g		
Measurement Accuracy	① ±2‰ *±1‰ ② ±0.001 *±0.0005 (10 to 30%)		±0.2g/100g *±0.1g/100g (10 to 30°C)	1	±0.2g/100g *±0.1g/100g (10 to 30°C)	-	
nternational otection Class	IP65		IP65	1	IP65	-	
ize & Weight	3.2×3.4×20.7cm, 110g		3.2×3.4×20.3cm, 105g		3.2×3.4×20.3cm, 105g		