



Alcohol Analyzing Bundle: **EasyDens and SmartRef Combo**

The EasyDens & SmartRef Combo combines density and refractive index to determine the alcohol content in fermenting and finished beer, wine, kombucha, and liqueur. Via a mobile app, you can access a range of features: automatic temperature compensation, application-specific corrections, and the ability to control measuring conditions.

EasyDens and SmartRef Combo Beer

- Alcohol content determination of finished beer ($\pm 0.5\% \text{v/v}$)
- Results for real extract ($\pm 0.2\% \text{w/w}$), original gravity ($\pm 0.8\% \text{w/w}$)
- Extract content and fermentation tracking
- Smart data management via the Brew Meister app

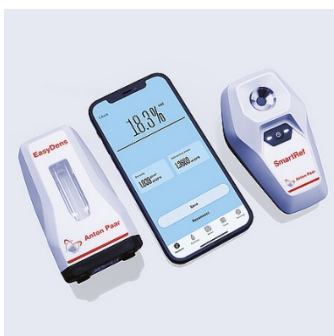
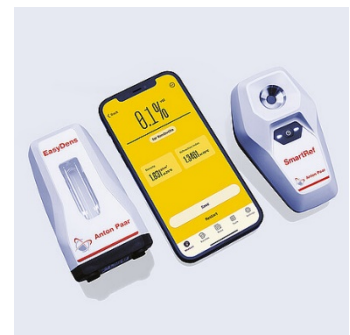


EasyDens and SmartRef Combo Wine

- Alcohol content determination of finished wine ($\pm 0.5\% \text{v/v}$)
- Additional results for total extract ($\pm 2.0 \text{ g/L}$)
- Sugar content and fermentation tracking
- Smart data management via the Wine Meister app

EasyDens and SmartRef Combo Kombucha

- Alcohol content determination of finished kombucha ($\pm 0.5\% \text{v/v}$)
- Fermentation tracking and visualization
- Smart data management via the Brew Meister app



EasyDens and SmartRef Combo Liqueur

- Alcohol content determination ($\pm 0.6\% \text{ v/v}$)
- Smart data management via the Proof Meister app

Key features

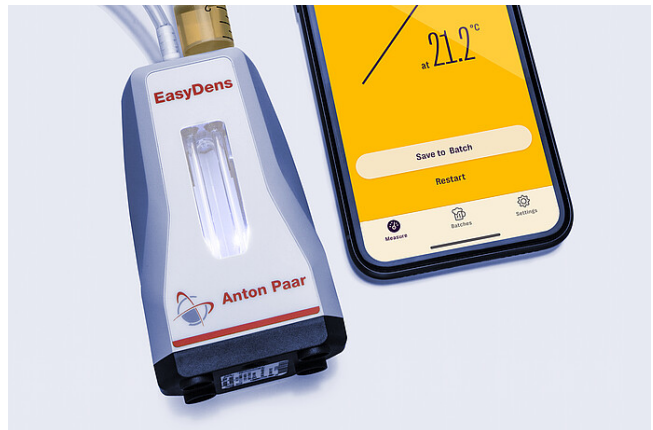
A smart combination for alcohol content measurement

- Determine alcohol content in your fermenting and finished beer, wine, kombucha, and liqueur
- Determine the original gravity and the real extract for beer and the total extract for wine
- With the mobile app, you can save, manage, access, and export measurement data



The EasyDens digital density meter

- EasyDens measures the density of fluids based on the oscillating U-tube principle, which provides highly accurate results
- Conduct measurements wirelessly via app for your beer, wine, spirits, hard seltzer, and kombucha
- Enjoy reliable measurement results throughout your entire manufacturing process – even when alcohol is present
- Get measurement results in various units: °Plato, specific gravity, °Brix, °Baumé, °Oechsle, °KMW, %v/v, %w/w, and many others
- It's water-resistant with an IP65 rating



The SmartRef digital refractometer

- Compact portable refractometer that measures the refractive index of fluids
- Use it wirelessly with an app for a wide variety of applications
- Get quick results for the sugar content of grapes
- Measure extract content during your beer brewing process and track fermentation throughout the entire process – due to automatic wort and alcohol correction
- Determine the salinity in saltwater aquariums or the moisture in honey
- Access over 40 measurement units for different applications
- Use it in rough environments: It has a stainless-steel sample well and is waterproof with an IP66 rating



Technical specifications

EasyDens measurement units	Accuracy	Resolution	Range	ATC (in °C)
Alcohol (%v/v)	0.5	0.1	0 to 100	-
Alcohol at 15 °C (%v/v)	0.5	0.1	0 to 100	✓
Alcohol at 20 °C (%v/v)	0.5	0.1	0 to 100	✓
Alcohol (%w/w)	0.5	0.1	0 to 100	✓
Babo (°Babo)	0.3	0.1	0 to 30	✓
Baumé (°Bé)	0.3	0.1	0 to 45	✓
Brix (°Bx)	0.3	0.1	-10 to 80	✓
Density (g/cm³)*	0.001	0.001	0.7 to 1.2	-
KMW (°KMW)	0.3	0.1	0 to 30	✓
Nihonshu-do (SMV)	2	1	-10 to 15	-
Oechsle (°Oe)	2	1	-50 to 400	✓
Plato (°P)	0.3	0.1	-10 to 40	✓
Proof UK (°Proof UK)	1	1	0 to 175	✓
Proof US (°Proof US)	1	1	0 to 200	✓
Salinity specific gravity 20/20 (SG 20/20)	0.001	0.001	0.7 to 1.2	✓
Specific gravity (SG)	0.001	0.001	0.7 to 1.2	-
Specific gravity 15/15 (SG 15/15)	0.001	0.001	0.7 to 1.2	✓
Specific gravity 20/20 (SG 20/20)	0.001	0.001	0.7 to 1.2	✓
Specific gravity 20/4 (SG 20/4)	0.001	0.001	0.7 to 1.2	✓
Sugar concentration (g/L)	3	1	0 to 500	✓
Temperature (°C)	0.2	0.1	5 to 30	-

Temperature (°F)	0.4	0.1	41 to 86	-
------------------	-----	-----	----------	---

*Accuracy for aqueous solutions (such as beer, wine, distilled spirits) 0.001 g/cm³. For all others 0.005 g/cm³.

EasyDens further specifications	Data
Dimensions (L x W x H)	101 x 58 x 44 mm (4 in x 2.3 in 1.7 in)
Weight (incl. batteries)	~190 g (0.42 lbs.)
Power supply	2x 1.5 V LR6 AA alkaline batteries or AA NiMH rechargeable batteries
Battery operation lifetime	> 40 hours
Interface	Bluetooth Low Energy
Enclosure rating	IP65 according to IEC 60529
Sample volume	2 mL
Humidity	5 % to 90 %, non-condensing
Ambient temperature	5 °C to 35 °C / 41 °F to 95 °F
Storage temperature	5 °C to 35 °C / 41 °F to 95 °F
Mobile operating system	iOS & Android

SmartRef measurement units	Accuracy	Resolution	Range	ATC (in °C)
Babo (°Babo)	0.2	0.1	0 to 30	✓
Baumé (°Bé)	0.2	0.1	0 to 40	✓
Brix (°Bx)	0.2	0.1	0 to 85	✓
Corn syrup AC DE (28, 42) (%w/w)*	0.3	0.1	0 to 70	✓
Corn syrup AC DE (55) (%w/w)*	0.3	0.1	0 to 84	✓
Corn syrup DC DE (32, 63, 70) (%w/w)*	0.3	0.1	0 to 84	✓
Corn syrup DC DE (95) (%w/w)*	0.3	0.1	0 to 74	✓
Cutting oil (%Oil)	0.2	0.1	0 to 100	✓

Ethylene glycol (% v/v, %w/w)	0.4	0.1	0 to 60	✓
Ethylene glycol (°C EG)	0.5	0.1	-40 to 0	✓
Ethylene glycol (°F EG)	1	0.1	-40 to 32	✓
Freezing point ethylene glycol (°C)	0.5	0.1	0 to -40	✓
Freezing point ethylene glycol (°F)	1	0.1	32 to -40	✓
Freezing point propylene glycol (°C)	0.5	0.1	0 to -40	✓
Freezing point propylene glycol (°F)	1	0.1	32 to -40	✓
Fructose (%w/w Fru)*	0.2	0.1	0 to 85	✓
Glucose (%w/w Glc)*	0.2	0.1	0 to 85	✓
HFCS (42) (%w/w)*	0.5	0.1	0 to 84	✓
HFCS (55, 90) (%w/w)*	0.3	0.1	0 to 84	✓
HMCS (42, 50) (%w/w)*	0.3	0.1	0 to 84	✓
Honey moisture (%Water)	0.2	0.1	13 to 25	✓
Invert sugar (%w/w IS)*	0.2	0.1	0 to 85	✓
Klosterneuburger Mostwaage (°KMW)	0.2	0.1	0 to 30	✓
Oechsle CH (°Oe CH)	1	1	0 to 205	✓
Oechsle GER (°Oe GER)	1	1	20 to 205	✓
Plato (°P)	0.2	0.1	0 to 40	✓
Potential Alcohol Brix (%v/v)	0.2	0.1	0 to 25	✓
Potential Alcohol Oe (%v/v)	0.2	0.1	0 to 25	✓
Practical salinity units (PSU)	2	1	0 to 50	✓
Propylene glycol (%v/v)	0.4	0.1	0 to 50	✓
Propylene glycol (%w/w)	0.4	0.1	0 to 60	✓
Propylene glycol (°C PG)	0.5	0.1	-40 to 0	✓

Propylene glycol (°F PG)	1	0.1	-40 to 32	✓
Refractive index (nD)	0.0003	0.0001	1.3330 to 1.5040	✓
Refractive index at 20 °C (nD)	0.0003	0.0001	1.3330 to 1.5040	-
Salinity (ppt)	2	1	0 to 150	✓
Salinity specific gravity at 20 °C (SG)	0.002	0.001	1.000 to 1.114	✓
Specific gravity at 20 °C (SG)	0.002	0.001	1.000 to 1.114	✓
Temperature (°C)	0.2	0.1	5 to 30	-
Temperature (°F)	0.4	0.1	41 to 86	-
Total dissolved solids (%TDS)	0.2	0.1	0 to 25	✓
Total dissolved solids custom (%TDS)**	0.2	0.1	0 to 25	✓

*Additional measurement units with Lab Meister Pro mobile app

** For the calculation of the custom %TDS unit, a factor between 0.80 and 0.90 can be selected and set via the app.

SmartRef further specifications	Data
Dimensions (L x W x H)	108 x 64 x 35 mm (4.3 in x 2.5 in 1.4 in)
Weight (incl. batteries)	~135 g (0.31 lbs.)
Power supply	2x AAA 1.5V LR03 alkaline batteries or AAA NiMH rechargeable batteries
Enclosure rating	IP66 according to IEC 60529
Sample volume	0.4 mL
Measurement time	< 2 s
ATC 20 °C %Brix	10 °C – 100 °C (50 °F – 212 °F)
ATC 20 °C PSU, ppt, S.G. (20/20)	10 °C – 40 °C (50 °F – 104 °F)
Mobile operating system	iOS & Android